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# Identifying Learning Acquired During Debriefing

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IDENTIFYING LEARNING ACQUIRED DURING DEBRIEFING

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## Abstract

Debriefing, the reflective activity following an experiential learning exercise, has been identified as the most important part of simulation learning and is also important for learning in other activities utilized in nursing education. There is general agreement that debriefing provides learning and improves performance. However, there is little specific evidence about the phenomenon of learning acquired during debriefing, including how it occurs, how it is defined and identified, and how it is evaluated by debriefing facilitators. In addition, there are no instruments or tools specifically measuring learning acquired during debriefing. Without practical and theoretically grounded tools, simulation activities will continue to lack the element of objective assessment necessary to move evidence-based teaching practices forward. A measure of learning acquired during debriefing, independent of a specific debriefing method and across debriefing types, will aid in the design of future simulation debriefing research that is both rigorous and feasible.

To inform future tool development, I conducted a qualitative descriptive study to provide initial evidence regarding the learning acquired during debriefing. Following Institutional Review Board approval, I conducted 17 semi-structured interviews of nurse educators who facilitate debriefing in pre-licensure nursing programs. The interviews were transcribed and data analysis was completed to provide answers to the research questions using simple descriptive statistics, inductive reasoning processes and content analysis to interpret and structure meaning from the interviews.

Study results included the nurse educators' verbatim definitions of learning as well as simple descriptions of how they measured the learning acquired during debriefing. Qualitative themes emerging from the interviews describe how nurse educators recognize when students are

learning during debriefing; these themes also describe activities that the nurse educators used to promote student learning during debriefing.

Nurse educators identified that nursing students are learning during debriefing when they express what they have learned directly, connect past and present learning, plan for future practice experiences, share with peers, experience the “Ah-ha” moment, critically review their actions, display excitement and engagement during debriefing, apply their simulation learning in subsequent clinical and simulation experiences, and display learning in formal and informal assessments.

Nurse educators described many activities they used to promote learning when they facilitated debriefings. These activities included utilizing simulation preparation activities, aligning their debriefing practices with a specific debriefing method or learning theory, utilizing intentional debriefing, establishing safety, maintaining a supportive demeanor, encouraging student-led debriefing, engaging the student learner, using debriefing aids, promoting recognition of learning, facilitating to the level of the learner, attending to the debriefing environment, and providing post-debriefing activities.

I will use the results of this study to inform future development of an instrument intended to measure learning acquired during debriefing. This study also provides many insights into how nurse educators can facilitate learning during debriefing for pre-licensure nursing students.

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# CHAPTER I

## INTRODUCTION

### **Background of the study**

Simulation use has been widely adopted and incorporated into nursing education over the past decade and is an established part of pre-licensure nursing education. The increased use comes as a result of varied benefits and uses for simulation including team building, problem solving, replacement for traditional clinical experiences, competency evaluation, concern for patient safety, and the need to prepare students for nursing practice in increasingly complex work environments (Beattie, Koroll, & Price, 2010; Cantrell, 2008; Fey, 2014; Kardong-Edgren, Willhaus, Bennett, & Hayden, 2012).

Debriefing, a component of simulation learning, is the reflective activity that follows a simulated clinical experience allowing the students and instructors to reflect upon and learn from the simulation (Dreifuerst & Decker, 2012). Debriefing should be facilitated to help participants meet the objectives and needs of the learners (Franklin et al., 2013). Debriefing is considered the most essential component of a simulation, where learning is solidified (Shinnick, Horwich, & Steadman, 2011). Debriefing is also important in other areas of nursing education and should be used throughout a nursing curriculum to help develop reflective practitioners, as this may have a significant effect on learning outcomes (NLN, 2015).

Even with a consensus that debriefing is an important part of simulation learning, the topic of how debriefing facilitators identify learning as it is acquired during debriefing is largely unstudied. To generate rich and useful knowledge, debriefing studies should be conducted using both quantitative and qualitative methods, with knowledge generated and then translated to evidence-based debriefing practices (Raemer et al., 2011). For this dissertation, a qualitative

approach is utilized to explore how debriefing facilitators determine students are learning during debriefing.

### **Problem Statement**

The question of how debriefing facilitators know a student has learned has not been answered. Simulation learning is a costly and time intensive educational process, and educators need to ensure that it is used effectively to achieve desired outcomes (Zigmont, Kappus, & Sudikoff, 2011). As a vital part of simulation learning, every method of debriefing should be evaluated to determine if the debriefing effectively contributes to the learning process (Patterson & Klein, 2012). Nurse educators and researchers need to work for consistency with the theory, design, use, and evaluation of any debriefing method (Fey, 2014; Wazonis, 2014). While the assessment of debriefing is a critical issue, there are few comprehensive studies focusing on debriefing; the effect of debriefing on learning also has not been adequately studied (Dufrene, 2013; Raemer et al., 2011). There is a wide variety of methods and techniques used in simulation debriefing, and they are often dependent on the expert opinion of the instructor performing the debriefing (Beard, 2013). In fact, 22 different methods have been identified. However, actual simulation debriefing practices in nursing education and their effect on learning have not been documented. Moreover, the measurement of learning that occurs during debriefing is inadequate, as the majority of debriefing methods do not have associated instruments or means for evaluation (Wazonis, 2014).

### **Significance of Study**

There is a need for reliable evaluation tools to measure student learning and the effectiveness of simulation as a teaching strategy (Beattie, Koroll, & Price, 2010; Kardong-Edgren, Adamson, & Fitzgerald, 2010). Six instruments are currently available to evaluate

simulation debriefing, but four of these are associated with a specific debriefing method. Of the two unassociated instruments, one measures debriefing facilitator performance and the second addresses the student experience during debriefing, with some items related to learning (Wazonis, 2014). An instrument is needed to measure learning by non-student debriefing participants instead of instruments currently available that are student-completed, as “students don’t know what they don’t know” (K. T. Dreifuerst, personal communication, December 19, 2014). Nurse educators need evidence about the positive aspects of debriefing, such as learning, to guide their choice of a debriefing technique (Royle, 2014), and evidence cannot be obtained without reliable measures.

### **Purpose of Study**

The purpose of this qualitative descriptive study is to describe how debriefing facilitators define learning and how they determine that learning has been accomplished during debriefing. This study is an initial step in the development of an instrument intended to measure learning acquired during debriefing.

### **Conceptual Framework**

In qualitative inquiry, theory can provide a framework within which researchers collect, analyze, and integrate data (Creswell, 2014). For this study, the interpretivist paradigm is used to guide the research process, including analyzing and collecting data. This paradigm assumes that the investigator and object of investigation are linked, and therefore the researcher’s values are inherent in all phases of the research process. In interpretivism, truth is negotiated through dialogue, as meanings and understandings are developed socially and experientially (Cohen & Crabtree, 2006). In the interpretivist paradigm, the world is portrayed as being socially constructed, complex, and ever changing; therefore, it is important to know how people make

meaning of an object, event, action, perception, among others. Accessing the perspectives of several members of the same social group about some phenomena can begin to identify patterns of thought and action for that group. The methods used for this are qualitative; they include interacting with people in their social contexts and talking with them about their perceptions. The analysis of these interactions will identify patterns. The final write-up will be descriptive and interpreted within the context of the phenomenon of study (Glesne, 2011).

Kolb's Experiential Learning Theory is used as a framework to situate and interpret the knowledge generated through the research process. This theory places the learner, rather than the teacher, in the center of the learning cycle. Experiential learning guides students through the stages of "concrete experience," "reflective observation," "abstract conceptualization," and "active experimentation," with the learner either entering the cycle where they are placed by outside processes (such as a teacher), or where the learner is comfortable entering (Kolb & Kolb, 2005; Kolb & Kolb, 2011).

Experiential learning has been used as a framework in many educational areas to guide and define the learning experience. In nursing and vocational training, experiential learning has been identified a useful guide in areas where theory and practice merge (Brackenreg, 2004). Learning that is grounded in experience involves reconciling the way a person conceptualizes the world with what a person actually experiences in the world (Wang, 2011). Researchers have used experiential learning theory to explain learning as a continuous process, where reflection on concrete experiences creates learning and changes how a person thinks and behaves (DeCoux, 1990; Sewchuk, 2005). The continuous process and adaptation as defined by Kolb's theory is consistent with the interpretivist theory of knowledge generation, as interpretations that are

generated are based in a particular moment, context, situation, and time. Thus, they are open to reinterpretation and negotiation through conversation (Cohen & Crabtree, 2006).

### **Study Aim and Research Questions**

The aim of this study used qualitative research methods to answer the following questions:

1. How do debriefing facilitators define learning within the context of simulation debriefing?
2. How do debriefing facilitators promote student learning during debriefing?
3. What do debriefing facilitators feel the student attitudes, behaviors and verbalizations are that indicate that learning has taken place during debriefing?
4. How do debriefing instructors determine what has been learned during debriefing?

### **Definition of Terms**

The International Nursing Association for Clinical Simulation and Learning (INACSL) developed the INACSL Standards of Best Practice: Simulation<sup>SM</sup> to “advance the science of simulation, share best practices, and provide evidence based guidelines for implementation and training.” One of the standards, *Standard 1-Terminology*, is provided for consistency during the development and implementation of rigorous evidence-based practices in healthcare education (INACSL, n.d.). INACSL terminology will be used in this study to maintain consistency with established international nursing simulation standards.



**Table 1. Terms and Definitions Related to Debriefing**

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|  |   |
|--|---|
| <b>Debriefing</b>                          | An activity that follows a simulation experience and is led by a facilitator. Participants' reflective thinking is encouraged, and feedback is provided regarding the participants' performance while various aspects of the completed simulation are discussed. Participants are encouraged to explore emotions and question, reflect, and provide feedback to one another. The purpose of debriefing is to move toward assimilation and accommodation to transfer learning to future situations.                                    |
| <b>Evaluation</b>                          | A broad term for appraising data or placing a value on data gathered through one or more measurements. It involves rendering a judgment including strengths and weaknesses. Evaluation measures quality and productivity against a standard of performance.   |
| <b>Facilitation</b>                        | A method and strategy that occurs throughout (before, during, and after) simulation-based learning experiences in which a person helps to bring about an outcome(s) by providing unobtrusive guidance   |
| <b>Facilitator</b>                         | An individual who provides guidance, support, and structure during simulation-based learning experiences.   |
| <b>Measurement</b>                         | The process of quantifying a participant's abilities related to knowledge, skills, or attitudes in the achievement of objectives.   |
| <b>Objectives</b>                          | Statement(s) of specific measurable results that participants are expected to achieve during a simulation-based learning experience.  |
| <b>Reflective thinking</b>                 | The engagement of self-monitoring that occurs during or after a simulation experience. Considered an essential component of experiential learning, it promotes the discovery of new knowledge with the intent of applying this knowledge to future situations. Reflective thinking is necessary for metacognitive skill acquisition and clinical judgment and has the potential to decrease the gap between theory and practice. Reflection requires creativity and conscious self-evaluation to deal with unique patient situations. |
| <b>Simulated-based learning experience</b> | An array of structured activities that represent actual or potential situations in education and practice and allow participants to develop or enhance knowledge, skills, and attitudes or analyze and respond to realistic situations in a simulated environment or through an unfolding case study.   |
| <b>Simulation</b>                          | A pedagogy using one or more typologies to promote, improve, or validate a participant's progression from novice to expert.   |

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(Meakim et al., 2013)

## Chapter Summary

The use of simulation as a teaching method in nursing education has dramatically increased over the past decade, with evidence-based best practices regarding the use of this method lagging behind. Debriefing, the reflective activity following an experiential learning exercise, has been identified as the most important part of simulation learning; it is also important to learning in other activities utilized in nursing education. While there is general agreement that learning takes place during debriefing, there is little evidence on how that learning is defined, how debriefing facilitators promote it, recognize it, and how it is evaluated. In addition, there are no instruments or tools specifically measuring learning acquired during debriefing, contributing to the inability to establish best debriefing practices as debriefing methods and other aspects of debriefing are compared. This study provides initial evidence regarding this knowledge gap by describing how debriefing facilitators identify learning acquired during debriefing.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### **Simulation Learning**

Bland, Topping, and Wood (2011) analyzed the concept of simulation as a learning strategy in undergraduate nursing education. Five critical attributes were identified, which included creating a hypothetical opportunity, authentic representation, active participation, integration, repetition, evaluation, and reflection. Simulation was described as an active learning strategy that offers a dynamic approach for theory to be integrated with practice. In addition, simulation learning offers a review of actions, evaluation of self and others, feedback, and a place to develop a plan for future actions (Bland, Topping, & Wood, 2011).

Kaakinen and Arwood (2009) performed a review of nursing simulation literature from the years 2000 to 2007. There were two purposes for this review. The first was to determine if nurse educators view simulation as a teaching modality or as an opportunity to design learning experiences for nursing students. The second was to determine how learning is used to design simulation. Teaching was defined in this review as “what the educator provides the student in terms of goals, methods, objectives, and outcomes” (p. 1). Learning was defined as “the processes by which the student changes skills, knowledge, and dispositions through a planned experience” (p.1). Of the 120 nursing simulation articles identified, 104 articles did not reference or mention a learning theory in the simulation design or assessment of student learning, while 94 discussed using simulation as a teaching method or strategy. In addition, of the 16 articles that used a learning-based foundation, only two considered learning a cognitive accomplishment. These two studies examined learning from a social/affective and cognitive perspective. None of the 104 studies focused on how learning is acquired. Therefore, the review concluded that

simulation is primarily being used as a teaching modality. Even when student thinking was considered, only components of self-efficacy, not conceptual learning, were measured (Kaakinen & Arwood, 2009).

More recently, an article by Zigmont, Kappus, and Sudikoff (2011) discussed the learning that occurs through simulation by focusing on andragogy, or the teaching of adults, stating that “changing practice requires focus upon 3 issues: the individual, her/his experiences and the overall learning environment” (p. 48). The individual is described as the adult learner who is self-directed and self-regulated, intrinsically motivated to learn, who comes with previous knowledge and experiences that guide individual behavior, and who uses analogies and reasoning in learning and practice. Learning does not come through the experiences that these adults have, but rather during the debriefing that follows as debriefing provides the opportunity to reflect and refine “mental models.” Finally, the environment is important for adult learning to be effective, as it “must include skilled mentors to provide effective feedback and support change for life-long learning” (p. 50).

Adult learning theory was the focus of another article discussing Knowles’ theory of adult learning. Aspects of this theory that are pertinent to simulation learning include that adults are motivated and self-directed, have past experiences that are a resource for learning, are ready to learn socially and developmentally, are able to apply knowledge to specific problems, and need to know why they should learn. Recommendations for applying Knowles’ theory to simulation included creating a safe, active, and collaborative learning environment, engaging prior experiences early and employing ongoing reflection, and focusing on assessment to improve practice rather than on evaluation. The author concluded that adult learners are a

valuable resource, and that it is necessary to understand the conditions that will encourage and maximize their learning (Clapper, 2010).

Rutherford-Hemming (2012) also discussed the use of adult learning theory when addressing simulation learning. Simulation is described as an educational environment where students are able to practice a variety of tasks and skills on simulated patients in a lifelike environment in order to implement knowledge and decision making. Rutherford and Hemming (2012) argue that simulation learning primarily draws upon a variety of adult learning theories including cognitive learning theory, social learning theory, and constructivist learning theory.

**Cognitive Learning Theory.** Cognitive learning theory involves perception, thought, memory, and ways of processing and structuring information through use of internal mental processes that are under the learner's control. Learning occurs within the individual's internal environment as the learner uses cognition to organize and store new learned information with prior knowledge. Four perspectives outline cognitive orientation: perception, information processing, cognitive development, and social cognition. Perception affects how information is processed and is influenced by the learner's goals, expectations and experiences. Information processing occurs in the stages of attention, processing, memory storage, and action. As a part of information processing, sensory processing follows and may be temporary or can proceed to the next stage—memory storage. In the memory storage of information processing, information is encoded for short-term memory. If information is not disregarded or forgotten at this point, it is organized and stored into long-term memory. Action is the final stage of information processing, involving individual response to the information based on how it was processed and stored. Cognitive development is the third perspective of cognitive learning theory and refers to the qualitative changes in cognitive function that occur as an individual grows and matures. Social

cognition perspective is the final perspective and ties the influence of social context to cognition (Rutherford-Hemming, 2012).

Cognitive learning theory explains that learning created by simulation is linked to tailoring difficulty levels to the participants. This provides motivation for students to set higher personal standards for goal attainment. Through simulation and debriefing, the principles of intentionality, forethought, self-reactiveness, and self-reflectiveness are supported (Burke & Mancuso, 2012). The learner controls the cognitive knowledge that is generated during simulated activities by using prior knowledge and assimilating new knowledge in the simulation learning environment. During debriefing, students recall the encounter, reflect on what happened, review what was learned from the experience, and contemplate what could have been done in other ways. Finally, the simulation educator facilitates a learning environment by allowing the learner to process the skills or knowledge learned as well as recognizing the skills or knowledge that need additional practice, instruction, and comprehension (Rutherford-Hemming, 2012).

**Social Learning Theory.** In social learning theory, learning is accomplished through the observation of others. The theory itself is described as a combination of ideas from the behaviorist and cognitivist orientations (Merriam et al., 2007; Rutherford-Hemming, 2012). Learning can happen by either observation alone or by rehearsal and imitation of the behavior of others. Knowledge obtained is then stored at an individual cognitive level through the storage of the modeled behavior image; this image can be retrieved for later use (Rutherford-Hemming, 2012).

Bandura is a prominent social learning theorist, theorizing that through the observation of others ideas new behaviors are formed with these observations serving as a guide for future actions. Components underlying this observational learning are attention (to modeled events),

retention, motor reproduction, and motivation (Instructional Design, n.d.). Recognizing the boundaries of social learning, Bandura relabeled his theoretical approach from social learning to social cognitive theory, acknowledging while social behavior originates much of human thought and action; the cognitive portion influences thought processes in regards to motivation, action and affect (Rutherford-Hemming, 2012).

In simulation, social learning theory explains why the provision of a safe and controlled environment results in learning. This then allows students to practice and develop skills in a manner that reduces anxiety. The realistic simulated environment allows students to experience activities they might not normally encounter in traditional clinical settings. Participation in simulation helps students gain confidence and apply skills and knowledge (Doolen, Giddings, Johnson, deNathan, & Badia, 2014). The learning process implemented through simulation can be termed as integrative learning. Integrative learning refers to the ability to make connections across settings and over time, involving the ability to put theory into practice (Walker et al., 2008). Learning occurs for students as they participate in scenarios and reflect upon them, assimilating lessons learned with the intent to incorporate them into future practice (Wang, 2011).

**Constructivist Learning Theory (Constructivism).** Constructivism refers to the idea that knowledge is constructed by the learner, individually and socially, with the learning occurring as meaning is attached to an experience. Consequences of the constructivist viewpoint include a focus on the learning rather than the lesson to be taught and an understanding that there is no knowledge independent of the meaning constructed by the learner or community of learners. Learning that occurs through constructivism is active as the learner engages with the world and constructs meaning from this sensory input. Learning occurs in relationship to what is

already known, believed, and even feared. While hands-on learning may be necessary, it is not sufficient as learning is constructed in the mind. Thus, activities need to be provided to engage the mind as well (Hein, 1991). Reflection on the performance of a simulation scenario (debriefing) is an example of a mind-engaging activity, where what was learned during a simulation can be discussed in relationship to what is already known (Rutherford-Hemming, 2012).

Learning through constructivism involves both constructing meaning and constructing systems of meaning. An example in simulation would be learning to perform chest compressions in a mock code, simultaneously learning the physiologic effect of the compressions and the relationship of chest compressions to other resuscitative efforts of the team. Each meaning constructed allows the learner to assign meaning to other experiences that fit a similar pattern (Hein, 1991).

Learning as described by constructivism involves language; both language and learning are intertwined. An example of this in simulation would be expressing the thoughts of the participants and debriefing facilitator verbally during the debriefing process, learning through one's own voice as well as the voices of others. This leads to another tenet of constructivist learning theory—that learning is social and is connected with our association with other human beings. Traditional education is directed towards isolating the learning from social interaction. Constructivism, however, looks at education as a relationship between the learner and the objective material to be learned. The social aspect, uses of conversation, interaction with others, and application of knowledge in a social situation are all very important parts of learning (Hein, 1991; Rutherford-Hemming, 2012).



Finally, constructivist learning explains that time and motivation are needed for learning. To learn, ideas need to be revisited, reflected upon and utilized. The learner needs to be motivated, as motivation is essential for learning. Unless the learner knows the “reasons why,” knowledge learned will not be retained (Hein, 1991). Constructivist principles such as reflection, time, and motivation are found in simulation and have been shown to provide deep and deliberate learning (Rutherford-Hemming, 2012).

To make the most of simulation learning, educators need to ensure that simulation is used effectively to achieve desired outcomes (Zigmont, Rappus, & Sudikoff, 2011). Re (2011) conducted a quantitative study focusing on the attainment of learning outcomes through simulation. Learning in this study was defined as “knowledge acquisition through cognitive, psychomotor, and affective processing of information acquired from being part of a classroom activity that encourages individual thought processes leading to learning” (p. 16). The sample in the study was 109 associate degree nursing students, practical nursing students, and respiratory therapy students. The researcher created a student-completed tool to measure learning based on Kolb’s Experiential Learning Theory, two NLN scales examining self-confidence and student satisfaction, and a self-constructed debriefing scale. The tool contained 27 items, based on the constructs of student learning (five items), student confidence (four items), experiential learning (12 items), and debriefing (six items). In addition, there was a section to measure eight discipline-specific learning outcomes. Content validation of the scale was provided through a review of the scale by 15 nursing faculty and five respiratory therapy faculty. Reliability statistics described were a Cronbach’s alpha of 0.76 or higher on each of the four subscales. The author concluded from the data collected with these measures that simulation in conjunction with

debriefing leads to attainment of learning outcomes and that further research is needed to see how learning outcomes are obtained (Re, 2011).

### **Simulation Debriefing and Learning**

The most important learning component in simulation is the debriefing that follows scenario completion (Dreifuerst, 2009; Mayville, 2011; Neill & Wotton, 2011; Shinnick, Woo, Horwich, & Steadman, 2011). During debriefing, participants reflect critically on the simulation, reexamining the scenario. Facilitators provide constructive and directed feedback on students' performance as they guide students through a discussion of the experience. Students analyze their own assumptions, assimilate new experiences with prior ones, find meaning in their experiences, and increase critical thinking and clinical reasoning (Dreifuerst, 2009; Dufrene & Young, 2014; Wang, 2011). Debriefing also promotes transferability, which is the application of lessons learned from the simulation and debriefing into the future clinical practice of the debriefing participant (Freeth et al., 2009).

Dreifuerst (2009) analyzed the concept of simulation debriefing. She found that debriefing was associated with critical thinking, clinical reasoning and clinical judgment. Debriefing discussions generally focus on learning outcomes and the intended objectives of the experience, but the practice of debriefing varies by facilitator. Defining attributes of debriefing were identified as reflection, emotion, reception, integration, and assimilation. Assimilation and accommodation were identified as the ultimate goals of debriefing and were described as the "essence of reflection," necessary in a practice profession such as nursing to set the stage for transferring knowledge into future practice. However, Dreifuerst (2009) states, "questions remain on how to debrief, when to debrief, what to debrief, and whom to include in debriefing for the best student learning" (p. 110).

**Debriefing practices.** The concept of debriefing a simulation is not new. Steinwachs (1992) shared an article describing how debriefing should be facilitated following a simulation game, stating “a debriefing is a time to reflect on and discover together what happened . . . and what it all means” (p. 187). Debriefing is described as moving through three phases: description, analogy/analysis, and application. The description phase follows the simulation, as participants emerge from the simulated world. The purpose of this phase is to describe and express experiences and impressions, also to listen to other participants in order to “be filled in on the whole picture.” The analogy/analysis phase follows, where participants examine the simulation systematically to identify and explore parallels with real-world situations. Finally, during the application phase, participants consider what they understand from the simulation and decide what is relevant to them and perhaps plan a course of action they would like to carry out as a result of these understandings. Tips for facilitators include affirming those who contribute to the debriefing conversation, avoiding telling participants what they should have learned, respecting silence, and allowing adequate time for debriefing (Steinwachs, 1992)

More currently, Cant and Cooper (2011) supply a picture of what a debriefing should look like by describing core principles and stages. The first stage is to prepare for the debriefing. This includes appropriate training and development of the debriefing facilitator, providing appropriate facilities for the debrief (environment), and preparing the learner by having them first participate in the simulation and by presenting the objectives of the debriefing to them. The second stage is the actual debrief. Dialogue in this stage should include a description of the simulation performance and an analysis of the simulation. This is followed by an application of how learning obtained from the simulation can be applied to the learner’s future experiences. The final stage consists of a summary, closure, and take-home message. In this stage the

facilitator answers any final questions and summarizes key learning points, including areas for improvement and a summary of positive performance issues (Cant & Cooper, 2011).

INACSL recommends that all simulation-based learning experiences should include a planned debriefing session that promotes reflective thinking (Decker et al., 2013) (Table 4). The debriefing process should be constructive (Boese et al., 2013). Constructive debriefing is defined as “reinforcing positive behaviors, correcting misunderstandings, and clarifying cognitive frames that led to incorrect decisions” (Decker et al., 2013. p. S28). Facilitators during a debriefing should use objectives and expected outcomes to guide their feedback to participants, with this feedback intended to help participants improve their future practice. Participants should also be encouraged to self-evaluate and reflect. They are also encouraged to evaluate each other during the debriefing. While a specific debriefing scenario is not described in this document, standards for debriefing are supplied. Debriefing standards first state that the debriefing should be facilitated by a person competent in the process of debriefing, with formal debriefing training. Second, the debriefing should be conducted in a safe environment by a person or persons who have observed the simulated experience. Third, the debriefing should be based on a structured debriefing framework allowing for post debriefing activities promoting self-reflection and critique. Finally, debriefing should be focused on participant objectives and outcomes (Decker et al., 2013). INACSL Standards are listed in Table 4.

The NLN and INACSL have recommended that debriefing be a critical conversation “reframing” a situation to clarify perspectives, assumptions, and should not be limited only to simulated environments. The use of debriefing in nursing education is needed to foster critical reflection during all learning experiences, including classroom and clinical experiences such as post-conference and patient care settings. The critical reflection allows an examination of

knowledge, assumptions, values, beliefs, and feelings behind an action, bridging past learning to the new situation (NLN, 2015).

Actual practice does not support these established debriefing standards, with the exception of observing a simulation before conducting a debriefing. Most debriefing facilitators are trained informally and do not participate in refresher debriefing orientation. Practices for creating a safe environment are not consistent, with just over half of nursing faculty who debrief using a written policy for confidentiality. Structured debriefing has been recommended by INACSL, with 22 debriefing methods or structures identified in the literature. Of the 22 methods, seven methods were designed to debrief simulations in nursing education and two were designed to debrief medical simulations. Yet only 18% of respondents in this particular study reported consistently using a specific debriefing method (Wazonis, 2015).

While all of the debriefing methods identified are for use in the educational setting, different design features exist among the methods. One example of a medical simulation method is Debriefing with Good Judgment (DGJ) that has a five-phase debriefing framework. In DGJ debriefing facilitators reflect on their own “cognitive frames,” which are purported to be what individuals use to make sense of their external reality and use to determine their actions. During DGJ debriefing, facilitators and participants together identify old frames and create new ones that will influence future practice. Another example of a debriefing is Debriefing for Meaningful Learning<sup>®</sup> (DML) a method designed to debrief simulations in nursing simulation. DML uses a self-directed approach to foster meaningful learning in the participants and also includes a student self-evaluation of performance related to clinical reasoning outcomes (Wazonis, 2014).

In another research study on debriefing, Brown (2011) conducted a multiple case study of simulation debriefing, using a demographic survey, direct observation, and subsequent

interviews for the nine cases in the study. In this study, debriefing facilitators expressed a desire to make simulation and debriefing a positive experience. Debriefings were found to be a combination of critique and reflection, but varied in the weighting of these two attributes. The author described “limited use of Socratic questioning” during debriefing. As in Wazonis’ (2014) study, formal methods for evaluating any aspect of the debriefing and/or the debriefing facilitator were not utilized. The debriefing facilitators in this study evaluated the success of the debriefings by what the students (participants) said and did during debriefing, by comments on post-debriefing evaluations, and by performance in subsequent clinical experiences and evaluations (Brown, 2011).

Inconsistencies in how debriefing is facilitated may likely be due to the lack of conclusive evidence regarding best debriefing practices. Little is known about which type of debriefing process best suits the simulation activity or learner needs (Beard, 2013). Dufrene and Young (2014) performed a review of debriefing methods in the literature and found that although teacher-facilitated debriefing is widely practiced, there was no evidence that it is the only effective method, a concern as nursing faculty are in short supply. They called for research examining traditional debriefing methods with alternate forms of debriefing, stating that “the need for additional research comparing different methods of debriefing is clearly evident” (p. 376).

**Debriefing and learning.** Another review found no clear evidence that one debriefing method is better than another regarding learning or other aspects of debriefing. Levett-Jones and Lapkin (2014) performed a systematic review regarding the effectiveness of simulation debriefing in healthcare research. Using a standardized critical appraisal instrument developed by the Joanna Briggs Institute, they analyzed ten randomized controlled trials. They found

improvement from pre- to post-tests with all debriefing types and found no differences in clinical or practical outcomes with the addition of video playback (Levett-Jones & Lapkin, 2014).

However, the measures used in the comparison studies in the Levett-Jones and Lapkin (2014) review varied widely. For example, the Anesthesia Non-Technical Skills checklist (ANTS) (Industrial Psychology Research Centre, n.d.) was used to measure learning in two studies. One study looked at learning of non-technical skills in a randomized, controlled study with 50 anesthesia residents comparing self-debriefing and instructor debriefing. The researchers concluded that ANTS scores improved regardless of debriefing type, with no significant difference between the two types (Boet et al., 2011). Another study also used the ANTs to evaluate non-technical skills with 42 anesthesia residents who had been randomly assigned to no debriefing, oral feedback, or video-assisted oral feedback. Both groups who received feedback through debriefing had significantly improved ANTS scores over the group that received no feedback. The authors concluded that the addition of video review did not offer any advantage over oral feedback alone (Salvodelli et al., 2006).

One study included in the review looked at timing of debriefing using a sample of 161 medical students participating in a critical care simulation. Post-simulation debriefing was compared with in-simulation debriefing accomplished during the simulation through “suspension of the simulation to instruct and allow reflection throughout the simulation experience” (p. 91). Both debriefing types included a total of 20 minutes for both the simulation and debriefing exercises. A 12-item pre-post survey was used to measure self-confidence, teaching effectiveness of the facilitator, effectiveness of the debriefing strategy, and realism of the simulation. The origin of the survey was not identified and reliability was reported at 0.91. Both simulation groups rated their posttest confidence levels significantly higher, with no significant difference

between simulation types. Post-simulation debriefing was rated significantly higher on three of the effectiveness items (Van Heukelom, Begaz, & Treat, 2010).

Debriefing studies utilizing nursing students included in the Levett-Jones and Lapkin (2014) review also used differing measures for the debriefing comparisons. Chronister and Brown (2011) compared effectiveness of debriefing between verbal feedback and video-assisted verbal debriefing, looking at quality of student skills and knowledge. Skills quality was measured using a 19 item skills checklist and knowledge with a 10 item multiple choice exam. The knowledge exam was created for the study and did not include reliability or validity measures. For the 37 nursing students in the study, higher knowledge retention was seen in the verbal debriefing group, and quality of skill improvement was higher with faster response times for the video plus verbal debriefing group (Chronister & Brown, 2011). Grant, Moss, Epps, and Watts (2010) also compared verbal debriefing with video-assisted verbal debriefing in a quasi-experimental study with 40 nursing students, using a behaviorally-based skills checklist. No measure of internal reliability was conducted on this checklist, as the authors stated it was used strictly to record behaviors and is not a psychometric measure. No differences were found between the groups on total performance scores. Shinnick, Woo, Horwich, and Steadman (2011) compared hands-on simulation practice with hands-on practice followed by debriefing in an experimental study with 162 nursing students from three schools of nursing. The measure for knowledge in this study was a 12-item heart failure multiple-choice questionnaire administered pre- and post-test. It was developed by the investigator with content validity established by “a panel of judges.” The authors concluded that knowledge gains in high fidelity simulations come after debriefing (Shinnick, Woo, Horwich, & Steadman, 2011). Other measures were utilized in Shinnick’s (2010) dissertation discussing the same research study, including the Kolb Learning



Style Inventory (Experienced-Based Learning Systems, Inc., n.d.), the California Critical Thinking Disposition Inventory (Insight Assessment, n.d.), the Health Sciences Reasoning Test (Insight Assessment, n.d.), the Self-Efficacy for Nursing Skills Evaluation, a simulator skills checklist, and a satisfaction questionnaire. Shinnick (2010) concluded with these measures that there was no relationship between self-efficacy and knowledge gains.

There are other studies outside of those included in the Levett-Jones and Lapkin (2014) review that provide insight into debriefing. One is a qualitative research study exploring the lived experiences of participants in simulation learning activities. Data was obtained through interviews of participants, facilitators, and simulation debriefing experts, researcher observation, and use of a validated reflection rubric identifying participant levels of reflection from transcribed debriefing sessions. Participant experiences during simulation and debriefing were described; however the concept of learning during these experiences was not specifically addressed. The author concluded that there was the lack of consistency in the design, facilitation, and evaluation of simulations, leading to confusion for both the learner and facilitator. No specific learning recommendations were given (Beard, 2013). Another qualitative study explored simulation and debriefing as an educational strategy for nine post-graduate perioperative nurse learners. The researcher used video capture of multiple simulations and debriefings, learner journaling, and semi-structured interviews to collect data. Debriefing themes identified were “activities, learning, and reflection.” The researcher concluded that simulation and debriefing are powerful learning tools (Clendinneng, 2012).

Cantrell (2008) conducted an oft-quoted qualitative study of the benefit of structured debriefing on nursing student learning, using content analysis of 11 students’ comments while watching their performance on videotape. These students participated in a 10-minute only

debriefing after their simulation. The researcher concluded that debriefing immediately after completion of a simulation enhances learning and that students preferred oral debriefing rather than discussion of a videotape (Cantrell, 2008).

In a comprehensive study on debriefing practices, a descriptive cross-sectional design was used to survey 502 pre-licensure simulation programs. The survey included questions about the characteristics of the nursing program, the designated simulation administrator, and debriefing practices. The results revealed many important findings about current simulation and debriefing practices in the United States. Most pre-licensure nursing programs designate a faculty member to be responsible for simulation. This person has been teaching in nursing fewer than ten years and teaching using simulation fewer than six years. The majority of these simulation administrators (73%) have a master's degree, versus the 16.2% who have a doctorate. Not all of these faculty responsible for simulation have had a designated simulation training, with only 80.2% reporting such a training. The most frequently mentioned training method was training provided by simulation equipment manufacturers, following by attendance at a simulation conference, and then through attendance at a comprehensive curriculum-based simulation program (51%). Less than half of all nursing faculty actually facilitating debriefing (including the designated simulation directors) have had formal training and less than 20% of these debriefers have their competency assessed. When competency is assessed, a formal tool or evaluation is not usually used. Debriefing is not usually guided by a model or theory, although 82% of respondents reported debriefing practices that incorporate Kolb's Experiential Learning Theory. The researcher concluded that debriefing "by untrained personnel whose competency is not assessed is of grave concern. The likelihood of learners improving their clinical decision making skills in this environment is minimal" (p. 149). Recommendations included that

debriefers should be trained, evaluated, and that simulation centers should have an administrator that is more theory-driven (Fey, 2014).

Like those studies included in the Levett-Jones and Lapkin (2014) review, other quantitative studies comparing debriefing techniques used a variety of measures. One quantitative study compared post-conference feedback and reflective debriefing by measuring heart failure knowledge in 71 first semester nursing students. The quasi-experimental study used an instrument created from Assessment Technology Incorporated (ATI) questions combined with researcher generated questions for a total of 10 questions to measure learning and found no significant difference in knowledge between the two groups. The researcher concluded that there was a need for more research on debriefing in high fidelity simulation to help determine how to best promote learning (Benhuri, 2014). Hallmark (2010) used a mixed-methods design to determine the effect of faculty debriefing training on knowledge and reflective thinking in 166 pre-licensure nursing students. Measures used included the Reflective Thinking Continuum and Health Education Systems Incorporated (HESI) exams for the quantitative portion and thematic coding for the qualitative portion. The researcher found no difference in cognitive outcomes in students debriefed by trained or untrained debriefers, although qualitatively students indicated they were more satisfied with trained debriefers. Qualitative results indicated that pre-licensure nursing students desired communication, critical thinking, confidence, awareness, and reflection as outcomes of debriefing (Hallmark, 2010).

Scripted and unscripted debriefing for novice instructors were compared in a multi-center quasi experimental study in a sample of 387 Pediatric Advanced Life Support (PALS) participants. Measures included the a 20-item multiple choice knowledge test, the Behavioral Assessment Tool (BAT) to measure crisis resource management behaviors, and the Clinical

Performance Tool (CPT) to measure team performance. Reliability and validity of the BAT and CPT have been established. The knowledge test was based on “predetermined learning objectives for the scenario” and did not have reliability reported. Results showed scripted debriefing groups had significant increases in knowledge and higher ratings of the debriefing facilitator performance. There was no difference in team performance between scripted and unscripted groups. The researchers recommended use of script for debriefing, especially for novice debriefing instructors (Cheng et al., 2013).

Two research studies looked at a specific debriefing method, DML. The first study was quasi-experimental, comparing DML with “traditional” debriefing in a sample of 249 nursing students. Measures in the study included the Health Sciences Reasoning Test (HSRT) and two measures assessing the quality of the debriefing: the Debriefing Assessment for Simulation in Healthcare (DASH) Student Version (SV)<sup>©</sup> and the Debriefing for Meaningful Learning Student Questionnaire<sup>©</sup> (DMLSQ). The HSRT measures clinical reasoning and clinical decision-making using a multiple choice format; however it is not specific to the domain of nursing. Construct and content validity and reliability have been established for this instrument. The author concluded from study results that DML had a significant effect on reasoning scores, and that use of DML improved the quality of the debriefing (Dreifuerst, 2012). The second study compared structured debriefing using DML with unstructured debriefing in a sample of 86 nursing students, assessing clinical judgment abilities in simulation, and found differing results. This study used the Lasater Clinical Judgment Rubric (LCJR), administered pre- and post-intervention for the quantitative portion of the study. The LCJR is an observational measure using a checklist to guide raters in its use, has established internal consistency (0.97), and inter-rater reliability (0.87). The qualitative portion included two focus groups containing a total of seven student participants. The

researchers found no significant difference in rubric scores between the two types, either pre- or post-intervention. Qualitative results showed that debriefing of any type assisted students to become more proficient; however, structured debriefing fostered reflection and meaningful learning among students. The authors felt the differing results for this study, as compared to the first study using DML, may have been because the study was underpowered or because the two studies did not use the same measures (Mariani, Cantrell, Meakim, Prieto, & Dreifuerst, 2012).

Two studies focused on another structured debriefing method, DGJ. The first study, a descriptive, experimental repeated measures design, compared debriefing structured with DGJ with unstructured debriefing with 22 nurse practitioner students' reflective abilities and perspective transformation. The measures for the quantitative portion were the Gronigen Reflective Ability Scale (GRAS) and the Learning Activities Scale (LAS). Reliability and validity of the GRAS has been established. The LAS is a two-part instrument measuring perspective transformation related to an educational experience. The first part is a survey, and the second part consists of a semi-structured interview. Validity of the LAS has been established, including validity established through triangulation of both quantitative and qualitative data generated by the instrument. Through these measures, Morse, (2013) found no significant difference in reflective ability between unstructured and structured debriefing; however, there was an increased incidence of perspective transformation over time that may have been a result of the deeper reflection that occurs with structured debriefing (Morse, 2013). A second study compared structured debriefing using DGJ to unstructured debriefing in a sample of 117 undergraduate nursing students. Measures in the study included a 20 question knowledge test (origin, reliability and validity not specified), and the DASH-SV<sup>®</sup> to measure student satisfaction with debriefing provided by their facilitator. There were no differences found in knowledge

scores between debriefing methods and a “slight” knowledge gain for both groups from pre to post-test. DASH-SV<sup>®</sup> results indicated that students preferred structured debriefing with DGJ; however, the DASH-SV<sup>®</sup> was created specifically to measure satisfaction on DGJ principles, thus biasing the results to the structured debriefing using DGJ (Willard, 2014).

The DASH-SV<sup>®</sup> was used as one measure in a randomized controlled study comparing outcomes between debriefing using video review and “traditional” debriefing with a sample of 74 undergraduate nursing students. Other measures in this study included the Lasater Clinical Judgement Rubric (LCJR) and the NLN Student Satisfaction and Self Confidence in Learning Scale. The three measures in this study were all used in self-report format, thus limiting the results to student perception only. Learners in this study reported higher clinical judgment and satisfaction with the simulation and debriefing when video review was utilized (Dusaj, 2014).

Dusaj (2014) found that a student-completed measure gave conflicting results in regards to use of video review during debriefing. This quasi-experimental study compared oral debriefing and video-assisted debriefing in 64 undergraduate nursing students and showed minimal differences between the two groups. The measure was the Debriefing Experience Scale<sup>®</sup> (DES), consisting of 20 items, eight of which are related to student learning, and has established reliability and validity. The group using video rated their debriefing higher for having adequate time for debriefing and in making connections with real-life situations, while the verbal only group rated their debriefer significantly higher as an expert. As a student-completed instrument, the results are limited to student perception only (Reed, Andrews, & Ravert, 2013). Video-assisted debriefing was compared with oral debriefing in another study using the DES with a sample of 40 nursing student participants. No significant difference was found between the

groups on the overall scale. The researcher felt small participant numbers may have impacted the results (Royle, 2014).

Another study compared video-assisted with oral debriefing, looking at improving neonatal resuscitation performance. This experimental study involved a sample of 38 pediatric and family medicine residents, receiving structured DGJ debriefing with or without video. The measure in this study was the evaluation of videotaped performance by a blinded reviewer using the Neonatal Response Performance Evaluation (NRPE) tool that is specific to neonatal resuscitation performance and has established reliability and validity. Overall neonatal resuscitation performance scores improved in both debriefing groups. There were no significant differences in improvement between groups except the time required to achieve vascular access and administer the first IV medication, which was significantly higher in the oral debriefing group. The authors recommended additional research comparing debriefing methods and other aspects of debriefing, including research looking at “qualitative effects,” timing, and impact on technical versus nontechnical skills (Sawyer et al., 2012).

### **Chapter Summary**

This literature review provides an overview of learning theory as applied to simulation activities, how learning is defined as available in some simulation studies, a description of debriefing as it is used in simulation, and the evidence that is available about learning acquired through debriefing. This evidence is not adequate, especially when considering debriefing practices that best promote learning. While the definition of learning has been articulated in some simulation studies, these definitions are not consistent, and learning is also not even addressed in some debriefing studies. Adult learning theory has been identified by some scholars as the way learning is acquired through simulation, and examples of how it can be applied to

simulation have been given. It is questionable however, if adult learning theory or any other theories on learning are being utilized in studies concerning debriefing, as one review on learning theory and simulation found that no simulation studies utilized any research about how learning is acquired.

Other factors contribute to the lack of knowledge describing how learning is acquired during debriefing, as well as lack of knowledge about the debriefing practices that can best contribute to learning. First, there are a wide variety of measures used in the comparison studies on debriefing, making it difficult to establish evidence or compare one study with another, let alone determine how learning is acquired during debriefing. In addition, some of these measures, particularly those related to knowledge, do not have either established reliability or validity or both. Moreover, there is no consistency in what is being measured. Examples of variables measured in the simulation debriefing literature include reflective ability or thinking, perspective transformation, knowledge, behavior, clinical performance, skills, reasoning, judgment, or decision making, meaningful learning, team performance, debriefer behaviors and performance, and student satisfaction or perception about debriefing. In addition, there are many other aspects of available research that muddy the clarity of evidence, including inconsistent terminology between studies, for example, “learning and knowledge,” and “reflective ability” as compared to “reflective thinking.” A systematic review by Cheng et al. (2014) identified additional deficiencies concerning debriefing best practices, stating that “key characteristics of debriefing (e. g., duration, educator presence and characteristics, content, structure/method, timing, use of video) were usually incompletely reported” (p. 657). The review recommended that future debriefing research should describe all key debriefing characteristics along with their associated descriptors (Cheng et al., 2014).



More debriefing research is needed to see how learning outcomes are obtained and to determine how to best promote learning (Benhuri, 2014; Brown, 2011; Re, 2011). The use of valid and reliable instruments is necessary for the continued improvement of debriefing techniques and robust faculty development (NLN, 2015). Identifying learning achieved through simulation activities is challenging for an educator, as it is necessary to consider the process of knowledge discovery, enhancement of critical thinking skills, or other ways that learning can be achieved. As a result, multiple learning assessments or measures are often implemented, as it is difficult to measure learning with one assessment. A standardized instrument is needed for assessing learning related to post simulation reflection (Beard, 2013). Additionally, an instrument that measures student learning independent of a specific debriefing method and across simulation types will aid in the design of future simulation debriefing research that is both rigorous and feasible. This will help build the evidence for effective simulation debriefing practices (Wazonis, 2014). Without practical and theoretically grounded tools, simulation activities will continue to lack the element of objective assessment necessary to move evidence-based teaching practices forward.

## CHAPTER III

### METHODS

This chapter provides information about the methods utilized in this study including the researcher's reasons for the choice and discusses the following sections: (a) interpretive science as the epistemological paradigm of choice, (b) qualitative description as the method of choice, (c) the praxis perspective of the researcher, (d) conducting the interviews, (e) data collection, (f) data analysis, (g) establishing trustworthiness including credibility, transferability, dependability, confirmability, and (h) chapter summary.

#### **Interpretive Science as the Epistemological Paradigm of Choice**

In instrument development, the first step in the design of any measure it is to clarify the purpose for the measure (Waltz, Strickland, & Lenz, 2010). The purpose for the planned instrument is to provide an objective measure of learning acquired during debriefing; however, it is unknown how debriefing facilitators define and identify learning currently. Approaches to qualitative research seek to arrive at an understanding of a particular phenomenon from the perspective of those experiencing it (Vaismoradi, Turunen, & Bondas, 2013). Thus, a qualitative research design was used for this study to describe how debriefing facilitators define and identify learning acquired through simulation debriefing.

For this study, the interpretivist paradigm was used to guide the research process, including analyzing and collecting data. This paradigm assumes that the investigator and object of investigation are linked, and therefore the researcher's values are inherent in all phases of the research process. In interpretivism, truth is negotiated through dialogue as meanings and understandings are developed socially and experientially (Cohen & Crabtree, 2006). In the interpretivist paradigm, the world is portrayed as being socially constructed, complex, and ever

changing. Because of this it is important to know how people make meaning of some object, event, action, or perception. Accessing the perspectives of several members of the same social group about some phenomena can begin to identify patterns of thought and action for that group (Glesne, 2011).

The methods used for pattern identification in interpretivism are qualitative, as they include interacting with people in their social contexts and talking with them about their perceptions (Glesne, 2011). Qualitative methodologies are not a single research approach, but contain different epistemological perspectives. While there are differences in qualitative approaches, all have a similar goal in that they seek to arrive at an understanding of a particular phenomenon from those who are experiencing it (Vaismoradi, Turunen, & Bondas, 2013), with the end goal as “a rich contextualized understanding of some aspect of the human experience through an intensive study of particular cases” (Polit & Beck, 2010, p. 1451).

There is considerable overlap among available qualitative approaches in terms of methods, procedures, and techniques, leading to two points of view: a generic view considering an approach where similarities are more important than differences, and an opposing view focusing on concern with how such flexibility can lead to inconsistency and incoherence. Regardless of the viewpoint, research consumers assess the quality of an evidence, necessitating that the researcher make good conceptual and methodological decisions to produce the best possible evidence (Vaismoradi, Turunen, & Bondas, 2013).

### **Qualitative Description as a Method Choice**

The qualitative research method selected for this study is that of qualitative description. Sandelowski (2000) described the use of qualitative description, namely that it is the “method of choice when straight descriptions of the phenomena are desired” (p. 334). She later wrote an

article discussing the “naming” of qualitative description and other qualitative research methods, attempting to clear up misconceptions stemming from her year 2000 article, the most notable of which is the misconception that the method requires no interpretation of data. Benefits she describes from this “distributed residual category” of qualitative research methods are findings produced closer to the data given, specifically findings such as “thematic surveys” that are “still detailed and nuanced interpretive products.” Another value of qualitative descriptive research she acknowledged is the “knowledge its use can produce” (Sandelowski, 2010).

In actual research practice, even though the borders of the different qualitative research methods are blurred, their names have created reader expectations. Thus, wherever possible, more explicit definitions should be provided. For this purpose, the choice of “qualitative description as Sandelowski (2000) described it” is the qualitative research method explicated for this study (Sandelowski, 2010).

### **The Praxis Perspective of the Researcher**

Before starting a qualitative study, it is in the researcher’s best interest to explicate thoughts, ideas, suppositions, and biases about the topic. This explication of personal beliefs helps the investigator to be more aware of potential judgments that may occur during data collection and analysis that may be based on the researcher’s belief system, rather than actual data collected from the study participants. A good way to make one’s beliefs known is to write them down, thus giving the author a frame of reference before actually conducting the study (Streubert & Carpenter, 2011). Prior to the study, I explicated my personal beliefs regarding debriefing in written form and set them aside. I reviewed and reconsidered them during data collection and analysis.

There are other factors impacting my praxis perspective regarding the study of debriefing in this particular research study. Some of these are included in my explication of personal beliefs that I set aside at the study outset, but are worth repeating here in regards to my praxis perspective. One is the literature review performed on learning and debriefing for this particular study, which was extensive and informative to me regarding learning and current debriefing research. Another factor is my personal experience as a participant in simulation and debriefing as a practicing nursing professional, as well as my experiences as a neonatal resuscitation instructor trainer. The final factor significantly impacting my praxis perspective is my personal experience investigating debriefing through research processes since 2007. This includes development and publication of a tool evaluating the student experience during debriefing (Reed, 2012) and other research focusing on simulation debriefing (Reed, 2015; Reed, Andrews, & Ravert, 2013).

### **Conducting the Interviews**

The major goal of qualitative methods is to document and interpret the whole of what is being measured from the frame of the subjects involved. The interview is the primary method for data collection in qualitative research and is particularly useful for explaining topics in considerable depth and detail. Thus, one-on-one semi-structured interviews were conducted for this study, using open-ended questions to provide a framework for respondents, yet allowing them to use their own words or ideas. Open-ended questions are especially appropriate for examining complex issues or paradigms (Waltz et al., 2010).

### **Data Collection**

Seventeen interviews were conducted during the study. Data collection commenced on September 29, 2015, and the last of the interviews was conducted November 17, 2015. A semi-

structured interview guide was used for the interviews. This guide was developed from debriefing and learning literature and was reviewed by three nationally known simulation debriefing experts, with their feedback incorporated into the guide. The intent of these interviews was to explore what each individual instructor's understanding of what learning is, how they promote it, and how they know it has been acquired during simulation debriefing. To facilitate reflection in the subjects, the interview guide was emailed to the subject at least 24 hours prior to the interview along with an information sheet required by the IRB for the exempt study. The interviews were conducted by a single interviewer (the researcher). Interviews were anticipated to last 20-30 minutes, however in reality, most lasted closer to an hour. The participant chose the place for the interview. Every effort was made to conduct interviews in person. Thirteen of the 17 interviews were conducted in-person at a location of choice for the participant. Four were conducted by phone as distance did not permit in-person interviews. The phone interviews were conducted in a private location (for the researcher) where the speaker feature on the phone could be used. All interviews were audio recorded for later transcription, with the researcher taking supplemental notes in case of equipment failure. This did happen during one interview approximately two-thirds of the way through the interview; the researcher added notes taken during the interview to the transcript. Each participant was given a \$25.00 Visa gift card upon completion of the interview as a token of appreciation for their time. Interviews were de-identified by asking the participant to provide a pseudonym prior to the interview; the participant was referred to by the pseudonym throughout the interview, in the descriptions of the results, and will be in any future publications. Interviews were audio-recorded and were transcribed verbatim.

**Sample selection.** The sample for the study consisted of a convenience sample of nurse educators who were English speaking and who facilitate debriefings within a pre-licensure nursing education program. Study participants were drawn primarily from the western United States, with the exception of two participants from a Midwestern state. To obtain a list of possible participants, the researcher utilized the International Association of Clinical Simulation and Learning (INACSL) list serve to identify members in the states of Idaho, Utah, Arizona, and Nevada. In addition, the researcher identified nursing education programs in these areas and emailed invitations to the dean/director and/or simulation directors of the programs. In some instances the researcher reviewed the faculty listings for the nursing education school/program provided via the internet to identify simulation faculty who were listed as such. These procedures generated a list of 60+ potential participants for the study and email invitations were sent out to these participants. There was one invitation written for potential participants (Appendix A) and a separate written for deans/directors of a nursing education program (Appendix B). In addition, limited network sampling was implemented by obtaining knowledge of potential cases from those who knew others who met the participant guidelines (Glesne, 2011), resulting in two participants from a Midwestern state. Nurse educators from the nursing education program where the researcher is employed were not included in the sample in attempt to reduce both researcher and participant bias.

**Sample size.** In qualitative research, sample adequacy is obtained on an ongoing basis, building the sample until a comprehensive knowledge about the topic has been obtained. Researchers do not predetermine sample size, but rather the size of the sample is determined when data analysis reveals redundancy of the information being received by participants (Lincoln & Guba, 1985; Merriam, 2009; Sandelowski, 1995; Morse & Niehaus, 2009; Streubert

& Carpenter, 2011). Sample size also varies based on the homogeneity of the sample when collecting qualitative data (Sandelowski, 1995). For qualitative descriptive designs, data collection ends when the research questions are answered by the data collected (Merriam, 2009). Previous research using qualitative descriptive design to study clinical education and simulation used 5-20 participants (Duffy, 2009; Kalisch, Weaver, & Salas, 2009; Killam & Heerschap, 2013; Lillibridge, 2007; Sedgwick & Rougeau, 2010). In addition, a sample size of 10-15 is adequate when obtaining comprehensive information on the topic for the purpose of informing scale development (K. T. Dreifuerst, personal communication, December 19, 2014). Therefore, a reasonable estimation of 10-15 participants was targeted to reach data saturation in this study. All nurse educators who responded to the invitation to participate in this study were interviewed, resulting in a study sample of 17, exceeding the target sample size.

**Protection of the respondents.** Prior to starting the research, University of Nevada, Las Vegas Institutional Review Board approval was obtained, with the study classified as “exempt.” As a result, informed consent was not required. Subjects were instead required to be given an “information sheet” (Appendix C). As the participants were nurse educators, they had the potential to feel emotional discomfort or embarrassment if unsure how to answer questions, particularly about learning theory. Participants were not required to answer all questions and were informed of this at the outset of the interview. If the participant chose not to answer a question he or she were to indicate this to the researcher, who would then proceed to the next question in the interview. The participant was given the option to withdraw from the study at any time. No other risks were anticipated and no subsequent risks have been identified as a result of data collection.



**Data handling.** Provisions were made to maintain confidentiality of data. The digital recordings of interviews were kept on a password protected computer during transcription and were deleted after transcription was completed. The transcripts were kept on a password protected computer. Personal identifiers have been removed from the transcripts, and interviewee names were replaced with the participant's choice of a pseudonym. The data will be kept until data analysis has been completed and the results have been published or for three years, whichever comes first. At that time, data will be deleted/destroyed.

### **Data Analysis**

Demographic data from the interviews was analyzed using simple descriptive statistics. An inductive approach was used for the content analysis of the interview transcripts as described by Graneheim and Lundman (2004), following their suggestion to use the whole interview as the unit of analysis. Meaning units, consisting of groups of words or statements that relate to same central meaning, were utilized for the coding unit. These meaning units were described as "words, sentences or paragraphs containing aspects related to each other through their content and context." The text was further condensed and further shortened, while still preserving the central meanings. Themes were then created through abstraction, emphasizing descriptions and interpretations on a higher logical level (Graneheim & Lundman, 2004). Categories and subcategories were then formulated by focusing on the unifying aspects that describe learning acquired during debriefing, with emergent themes outlined as the data are reviewed. Key themes formulated from categories and subcategories are presented as results in the form of "thick descriptions," answering the question of "how?" (Denby, Alford, & Ayala, 2011; Glesne, 2011, Graneheim & Lundman, 2004). Themes are considered to be a "thread of underlying meaning

that are created by condensing meaning units, codes or categories on an interpretive level” (Graneheim & Lundman, 2004).

Content analysis was not used to answer two research questions: “How do debriefing facilitators define learning within the context of simulation debriefing?” and “How do debriefing facilitators determine what has been learned during debriefing?” as interview content utilized for these questions required little interpretation as they were taken from parts of the text that answered the questions directly (Graneheim & Lundman, 2004).

Further interpretation was provided through situating the findings within the context of what is already known about the phenomenon of learning acquired during debriefing. This includes knowledge obtained through a review of the literature (Streubert & Carpenter, 2011) and the framework of Kolb’s Experiential Learning Theory, describing learning as cyclical and reflective in nature. The detailed descriptions generated by the research process help to describe learning acquired during debriefing and provide additional insight as to how the reflection phase of the Kolb’s Learning Cycle closes the learning loop (Brackenreg, 2004).

### **Establishing Trustworthiness**

Various aspects of trustworthiness have been described in qualitative research and should be viewed as intertwined and interrelated (Graneheim & Lundman, 2004). To contribute to trustworthiness and credibility of the data, several procedures were performed and are described further.

**Credibility.** A critical issue for achieving credibility is to select the most suitable meaning unit (also referred to as a code) for the study, avoiding units that are too broad, such as several paragraphs, or too narrow, such as a single word, risking loss of meaning during the condensation and abstraction process (Graneheim & Lundman, 2004). Coding utilized during

data analysis utilized meaning units consisting of sentences or groups of sentences that were related to the same central meaning and were consistent with this credibility issue.

**Member checks.** A criterion for credibility is to establish that the results of the qualitative research are credible or believable from the perspective of the study participants; thus the participants are the only ones who can legitimately judge the credibility of the results (Cohen & Crabtree, 2006). Member checking was performed by sharing analytical thoughts with research participants to assure they and their ideas are being correctly represented (Glesne, 2011). For member checking, each participant was provided through e-mail attachment a copy of their interview transcript with the researcher's qualitative interpretations identified. Participants were given the opportunity to clarify or comment on the transcript/interpretations by their choice of phone interview or email. Eight of the 17 participants returned their interviews, some with comments, and others stating the interviews were correct as transcribed and analyzed. Comments given by participants on the transcripts were incorporated before the final analysis.

**Prolonged engagement.** As prolonged engagement helps to establish credibility of the research findings (Streubert & Carpenter, 2011), the participants were provided the interview guide by email at least 24 hours in advance of the interviews. Thirteen of the 17 interviews were conducted face-to-face with participants. Engagement was further prolonged through the member checking communications and process with study participants.

**Peer debriefing.** The dialogue among peers is helpful in determining if those researchers would agree with the way data are being labelled and sorted (Graneheim & Lundman, 2004). Peer debriefing by faculty research peers was utilized in this study. Research peers were supplied transcripts with coding, providing an opportunity to uncover biases, perspectives, and assumptions on the researcher's part. This provided an opportunity to test and defend emerging

hypotheses and see if they seem reasonable and plausible to a disinterested debriefer (Denby et al., 2011; Lincoln & Guba, 1985).

### **Transferability**

Transferability can be enhanced by the researcher doing a thorough job of describing the research context and central research assumptions. Providing thick, rich descriptions of the qualitative interpretations to allow the reader to enter into the research context can contribute to trustworthiness. The potential for transferability in this study is enhanced by the presentation of rich descriptions of the findings, allowing the reader to look for alternative interpretations, and to decide how sensible the results are in a different context (Cohen & Crabtree, 2006; Glesne, 2011; Graneheim & Lundman, 2004).

### **Dependability**

Dependability for this study was provided by the use of a semi-structured interview guide to question the same areas for all participants, as well as interviews conducted by the same researcher to promote consistency between the interviews. In addition, all interviews were conducted over a relatively short period of time, minimizing the degree to which data can change over time and alterations that may be made if the researcher's decisions change during the analysis process. These processes contribute to dependability of the findings (Graneheim & Lundman, 2004).

### **Confirmability**

Each researcher brings their individual perspective to a qualitative research study. Confirmability refers to the degree to which the results can be corroborated by others. This was done in part through the peer review process employed in this study. In addition, procedures to check and recheck the data were used throughout the study. This included reading through

transcripts in their entirety and reading/rereading to identify main points, and from there, narrowing down the data to identify concepts (themes). In addition, integration with Kolb's Experiential Learning Theory helps to identify evidence that supports conceptualization (Polit & Beck, 2010).

### **Chapter Summary**

There is little known about learning as it occurs during simulation debriefing. Qualitative methods are suited for describing a phenomenon about which little is known; thus a qualitative descriptive study was utilized to describe the phenomenon of learning as acquired during debriefing from the viewpoint of the debriefing facilitator. The results from the qualitative methods provide insight into the phenomenon of learning acquired during debriefing. The results will be used to inform later development of an instrument intended to measure learning acquired during debriefing.

## CHAPTER IV

### FINDINGS

In this chapter, demographic findings are presented first, followed by qualitative findings answering the research questions, which are:

1. How do debriefing facilitators define learning within the context of simulation debriefing?
2. How do debriefing facilitators promote student learning during debriefing?
3. What do debriefing facilitators feel the student attitudes, behaviors, and verbalizations are that indicate that learning has taken place during debriefing?
4. How do debriefing instructors determine what has been learned during debriefing?

#### **Demographic Findings**

Seventeen nurse educators who debrief simulations in pre-licensure nursing programs were interviewed for the study. The average age was 54.4 years, ranging from age 30 to age 69. Fifteen of those interviewed identified themselves as female, two as male. Years the educators had taught in nursing education ranged from 3 to 35 years, with an average of 16.3 years. Years the educators had debriefed simulations ranged from 2.5 to 12 years, with a 5.8-year average. Nine of the educators debriefed students in bachelor's degree nursing programs (53%), four debriefed simulations associate degree to bachelor's programs (24%), one debriefed students in both associate degree and bachelor's degree nursing educational programs (5%), and three debriefed students in associate degree pre-licensure programs (18%) (Table 2). The nurse educators interviewed varied in how often they debriefed. Six debriefed two to ten times a week (35%), four debriefed from one to six times a month (24%), four debriefed two to three times a semester (24%), and two did not specify.

**Table 2. Participant demographic information. N=17**

|                                     |                |                         |
|-------------------------------------|----------------|-------------------------|
| Gender                              | Two males      | 15 females              |
|                                     | <u>Average</u> | <u>Range</u>            |
| Age                                 | 54.4 years     | 30-69 years             |
| Years teaching in nursing education | 16.3 years     | 3-35 years              |
| Years debriefing                    | 5.8 years      | 2.5-12 years            |
| Type of pre-licensure program       | <u>Number</u>  | <u>Percent of total</u> |
| Bachelor of Science degree (BS)     | 9              | 53%                     |
| Associate degree (AD) to BS         | 4              | 24%                     |
| Combined BS & AD                    | 1              | 5%                      |
| AD                                  | 3              | 18%                     |

Nurse educators described many ways that they had learned to debrief simulations, including trial and error, peer observation, training provided by simulation equipment company personnel, training provided by a colleague, training provided by their other educators at their place of employment, attendance at workshops, conferences, debriefing training programs, internet training programs, and through reading simulation research studies and literature. All described a combination of these methods for their training, and most described utilizing these same resources as they continued to improve their debriefing techniques. In addition, a few nurse educators described ways they used formal or informal critiques to evaluate the debriefings they conducted and improved their debriefing practices.

## QUALITATIVE FINDINGS

### **Defining Learning**

The sample in this study consisted of seventeen nurse educators who facilitated debriefing in pre-licensure nursing programs. The INACSL definition supplied in Table 1 defines a facilitator as “an individual who provides guidance, support, and structure during simulation-based learning experiences.” For clarity in the descriptions, the nurse educators interviewed are referred to in the qualitative findings as “facilitators.”

Facilitators were asked their definition of learning during the semi-structured interviews. Seventeen different definitions were supplied. Aspects most common to the definitions were the acquisition of knowledge, the application of learning, and a change in behavior, views, or thoughts as a result of the learning. There were a few references to one learning theory, Kolb’s Experiential Learning Theory, but only loosely as seen through use of terminology similar to that used in describing Kolb’s theory. The definitions are listed in Table 5.

### **Promoting Learning**

Facilitators were asked during the interviews what they do to promote learning during debriefing. Several themes were identified from the interviews, including utilizing simulation preparation activities, identifying with a specific debriefing method or learning theory, intentional debriefing, establishing safety, interpreting facilitator demeanor, encouraging student-led debriefing, engaging the student learner, using debriefing aids, promoting recognition of learning, facilitating to the level of the learner, understanding the debriefing environment, and engaging in post-debriefing activities.



## **Utilizing Simulation Preparation Activities**

Facilitators described several activities that promote deeper learning during debriefing when they were completed prior to simulation/learning activities. One facilitator described coordinating simulation/debriefing with the didactic instructor to make sure course content and simulation content correlate. Other facilitators described providing students with “pre-assignments” such as readings, videos, virtual simulations, and worksheets. One facilitator posted a small scenario each week so that students were able to review the skill prior to coming to the simulation, as she felt that repetitive practice with skills would help students to better learn. Ann, a facilitator, described using a “ticket-in worksheet,” a worksheet on the medical condition presented in the scenario. Students were required to complete it and present it to “get in” to the simulation. Ann said they would go over it before the simulation and refer to it during the debriefing.

Another activity described by facilitators was the pre-brief. Pre-briefs happened prior to the simulation scenario, and facilitators identified this activity as something that set the tone for not only the simulation, but also for the learning acquired during the later debrief. Facilitators included the pre-brief as part of their simulation activities when they described an “ideal” simulation. The primary purposes described for the pre-brief were to review the activities that students had completed in order to prepare them for the simulation and to give instruction for the simulation and debriefing activities. Some facilitators also discussed other aspects they included in the pre-brief that they felt promoted student learning. This included talking about simulation authenticity, identifying learning objectives for the simulation and debriefing, assigning roles, discussing rules, and establishing a safe learning environment. Shorty, a facilitator, described an example of instruction given during the pre-brief for a mid-simulation critical

thinking/prioritization exercise. The list generated by this exercise during the simulation was used later during debriefing as a focus for student discussion. The debriefing discussion included what the students did with their list during the simulation to help them prioritize their actions, and whether the prioritization they chose was appropriate.

Alberta described the use of preparatory activities and the pre-brief:

We have [on our learning management system] preparatory materials. In fact, often we will use first person monologue so they can hear the patient telling their story...we will also have some scholarly reading, and maybe some readings from the textbook. We also use a variety of YouTube videos that might demonstrate how to do some kind of assessment or something like that. And so the students come to the sim prepared. Then we do a pre-briefing where we talk about “How did that prep go for you this week? Does anybody have any questions?”

We review the objectives and I ask them “Well tell me, what are your concerns?”

Cooper described the pre-brief given before the students’ first simulation in their nursing program:

As a part of the pre-brief we give them a little tour within the sim lab . . . to see where things are located so that they feel more comfortable. . . . We show them little interesting clips about a simulation and so I try to get them to realize that simulation in this aspect is for learning and not evaluative and that mistakes can happen. . . . I try to put them at ease right away.

### **Identifying with a Specific Debriefing Method or Learning Theory**

Identification with a learning theory was another way that some facilitators felt student learning could be promoted during debriefing. Two facilitators identified with Kolb’s Experiential Learning Theory. One of these two facilitators felt that simulation and debriefing

should be based on a learning theory, and as the director for simulation, had identified Kolb's Theory as the theoretical basis for her school's simulation program. Another facilitator described a combination of theories, stating that she "has a philosophy of constructivism and experiential learning and also believes students are adult learners and they come with a lot of experience."

One facilitator who is also a simulation director, described using Pam Jeffries' simulation framework and INACSL standards as the focus for simulation activities and learning. Another facilitator identified with Bloom's Taxonomy, applying it to simulation activities, and another facilitator described her simulation style as based on Benner's Novice to Expert theory.

Facilitators from two different nursing programs identified that a theoretical focus guided their nursing curriculums: the "Concierge" theory and "a focus on the family and society," with the curricular focus of each program extending into the program simulation activities.

Facilitators also described using specific debriefing methods, either all or in part, during debriefing. Three facilitators described utilizing aspects of Debriefing with Good Judgment (DGJ) in their debriefings, using an attitude of genuine curiosity in an effort to discover the reasons behind students' actions, and keeping the debriefing non-judgmental. Three facilitators described using Debriefing for Meaningful Learning<sup>®</sup> (DML) at least some of the time.

Most facilitators however, did not identify with a specific debriefing type, but rather used a combination of debriefing types that they had learned from observing others. They learned about debriefing from simulation equipment, company personnel, formal training programs, workshops, conferences, readings, personal experience, and other places. Several facilitators identified that they tailored their debriefing to the developmental level of the learner, the size of the debriefing group, or the type of simulation being debriefed, using the debriefing method they thought was most appropriate for the situation.

## **Intentional Debriefing**

The theme of “intentional debriefing” is an extension of the idea of tailoring debriefing as discussed in the last section. Several facilitators described that they were “intentional” in their debriefings, usually in the context of their careful preparation for debriefing. One facilitator described that she was intentional in taking time to practice and prepare for debriefing ahead of the simulation. She felt that planning was necessary to give a structure and pattern to the debriefing in order to help students not worry about what was going to happen during debriefing, thus reducing their stress. For preparation, she described taking time to ensure that everything was organized and ready, as well as making a plan for what exactly needed to be covered and learned during the debriefing experience. Elsa, a facilitator, discussed intentionality in how she identified three things to focus on for each of the scenarios being debriefed. Planning ahead of time allowed Elsa to be “more natural,” as she prepared for things that might come up during debriefing. Topics she described choosing when planning were usually from either the scenarios or things students may have had difficulty with in the past. She described, “I am very intentional, in that they have time, and I am validating them and taking a look at their ways and confidence in that experience.” Preparing for debriefing helped another facilitator feel ready to debrief students emotionally, as she planned for time to address the emotions that students may have experienced during their simulation activities.

Facilitators described intentionality during debriefing by using statements of curiosity; one facilitator stated that students were more engaged when facilitators were curious. Another facilitator described being intentional in teaching terminology and therapeutic communication by asking students how they portray themselves in the debriefing scenario. Yet another facilitator

described intentionality as she helped students plan for the application of their learning in their future clinical experiences.

Cooper described intentionality as “deliberate debriefing” when she discussed the use of video playback during debriefing:

I usually choose about three areas within the simulation that I’d like to make as the top priorities. So I kind of call it deliberate debriefing I guess, and [I] choose the three areas and then those are the three I will pull up the video on, and then have the students reflect on that piece of the video. . . . When I say we have deliberate debriefing . . . I mean we have the same questions and things that we are searching for within the each of the simulations.

### **Establishing Safety**

The idea of establishing safety to help students learn was a consistent theme across the interviews. Safety was described by one facilitator as “keeping the environment psychologically safe,” with some variation in other facilitators’ descriptions. Several facilitators mentioned ways they kept a safe environment, including “keeping simulation a safe place to practice, make mistakes,” and to “laugh and learn.” Many facilitators described setting ground rules for safety for both the simulation and the debriefing. Facilitators’ examples of ground rules for debriefing included treating other participants with respect, banning cell phones, keeping information confidential, and contributing to the debriefing discussion. One simulation center had the ground rules posted in the open where students could easily see them. Some facilitators stated their simulation programs had students sign agreements including the ground rules, either at the beginning of the program or the beginning of the semester. Some facilitators verbally reviewed ground rules in the pre-brief, or just referred to them if a situation during simulation and debriefing warranted that a student or students be reminded of them. One facilitator described

establishing safety only verbally, through positive affirmation to students, and through reminders about confidentiality.

There are other ways facilitators described keeping the environment safe during debriefing. One facilitator did this by not evaluating or grading the students during simulation or debriefing, giving points only for “attendance and participation.” Another facilitator felt that keeping the environment safe was important so “students can be wrong, stressed out, upset, and make mistakes.” Another way described to keep debriefing safe was “by asking students who are reluctant to participate ‘easier’ questions.”

One facilitator discussed setting the stage for safety during the pre-brief by giving students “permission to remove themselves from the situation.” Another facilitator described letting students know that simulation was a “safe learning mode” and emphasizing that “what happens in simulation stays in simulation,” reminding students that information from both the simulation and debriefing would be kept confidential. One facilitator described providing safety by “allowing the students to re-do the simulation if the patient dies” during the original simulation. Another facilitator described keeping the group together in their learning, thus reducing their fear as they were moved forward as a class. This required the facilitator to be aware of where the individual students were in their learning in comparison to the other students in their group.

Facilitators also described keeping students feeling safe through the release of emotions during debriefing. One example given by a facilitator was calming down anxious students (from the simulation) in the debriefing. This facilitator felt that emotions get in the way of learning and therefore addressed emotions at the beginning of the debriefing, while another facilitator described stepping in if emotions and comments got out of hand during debriefing. Limiting debriefing participants to just the faculty facilitator and students was the way one facilitator

described how she promoted a safe environment, thus allowing the session to remain confidential. The facilitator felt that this left students with an environment where they were comfortable to speak and discuss problems.

### **Facilitator Demeanor**

Several facilitators felt their demeanor and attitude were very important to student learning.

Katya described:

To enhance student learning it's really important that you set clear ground rules and be approachable, really setting up the whole experience so it's not me lecturing you or telling you stuff, it's me being your partner and we are going through this together. I think that it's really important because there is such a, you know by nature, it's a huge power differential.

One facilitator verbalized that she really cared about students and wanted them to learn and tried to recognize the strength of their life experiences when she facilitated debriefing. Another facilitator talked of making notes so that when she worked with students in future experiences she could ask questions to see if they had moved along in their learning. One facilitator stated that concerning her students, her "personal ground rule" was to be approachable. Kerri said that she tried to "provide an infusion of caring into the simulation lab, specifically into debriefing," stating that "debriefing comes from a whole program of what you need to know, what you need to be, and what you need to do."

Several facilitators described that their efforts were a positive influence on what was learned during debriefing. This included maintaining a positive affect and providing students with positive affirmation. Tony emphasized the importance of asking appropriate questions, specifically not being degrading when asking, and staying on the positive side, even when discussing serious events. He described his approach as "positive and direct." Another facilitator

described that feedback should be given to students “always starting with focusing on the positive.” This facilitator noted that students were very hard on themselves and as a consequence, he tried to get students to self-reflect in a more positive manner to think what they could do better, rather than thinking poorly of themselves. The facilitator did this by keeping the group conversation positive, not focusing on what went wrong but how things could be improved. Another facilitator described keeping the debriefing positive by focusing on student strengths to help increase their confidence.

### **Encouraging Student-Led Debriefing**

Facilitators felt students learned best from each other when they lead the debriefing discussion. Thus, most of the facilitators described their effort to discuss rather than lecture during debriefing. This included purposefully guiding the discussion to allow students to take the lead. Facilitators described working to elicit group feedback by giving hints and providing cues to promote students’ understanding, as well as making efforts to have the students do most of the talking. One facilitator talked of accomplishing this by facilitating so that the students were the ones making the connections and making sense of what they saw and observed, with the facilitator only “filling in the blanks.” She described encouraging this by posing questions to get students to think about what things mean and to come up with the answers. Another facilitator described encouraging students to lead by noticing when students began using terms like “I get that” and then tried to deepen their learning by discussing more complex concepts.

Facilitators felt that student-led debriefing meant more student participation, which in turn increased learning as facilitators described feeling that students who were participatory seemed to be learning more. One way facilitators described encouraging participation in debriefing was by having students be observers during the simulation. They described ways they involved



observers, including assigning roles and providing the observers with worksheets they needed to complete during their observation, or assigning observers specific things they needed to look for while observing the simulation. Facilitators described that during debriefing, students participating in the simulation were able to discuss their actions, while observers were able to provide unique outside viewpoints about those actions. Their contribution as observers not only encouraged their participation in the debriefing discussion, but also helped to provide many ideas that all debriefing participants could consider.

Facilitators felt that it was important for students to work together as a group during debriefing in order to identify the pieces of information and to put them together coherently. While working together, facilitators felt that students were able to teach each other by coming up with solutions and by offering information to help their peers, rather than relying on the facilitator to come up with the answers. They stated that this led to deeper and more meaningful learning.

Two facilitators, Sally and Margaret, both described problems that came when students questioned the authenticity of the simulation. They felt that if students led the debriefing, this problem would solve itself, as Sally described:

Oftentimes the students handle it. Like I said, I think a lot of times they do a good job at debriefing themselves, and a good debriefer just kind of gets out of the way. Sometimes we'll have scenarios and students go "That would never happen in real life. That would never happen." And other students will say, "Oh yeah, I've seen it, we have some multiple patient lines, and of course a bunch of things happen at the same time. . . and other students who have been CNA's or whatever go "Oh yeah, it does." It happens all of the time.

**Facilitator as a Guide.** While most facilitators emphasized the importance of acting as a guide in debriefing, the amount of guidance was dependent on where the students were in their nursing program. One facilitator described that with first semester students, she needed to talk more and provide more guidance. A way another facilitator described encouraging students to talk/discuss was by providing participation points during debriefing. Regardless of the educational level of the student, facilitators described asking open-ended questions and not giving answers, forcing students to consider what they would do in the situation. Questions were asked in a tone of discovery in order to facilitate the students in “putting the blanks together.” Facilitators described trying to get the students to come up with the answers and to think about what questions they should ask in a clinical situation. Ann described the way she guided the debriefing conversation:

When they start to get off track and the rationale is not focused on the priority or not focused on the core concept, that would be me noticing that and they are moving in the wrong direction and I need to redirect them. I need to say “Whoa, this is not where we are going with this.”

The emphasis of the facilitator acting as a guide during debriefing was a common theme across the interviews in encouraging the students to lead their own debrief, as facilitators consistently expressed the desire to not lecture, but rather just be a part of the debriefing conversation.

**Use of Silence.** The use of silence was an important tool that was identified by the debriefing facilitators as helpful to encourage the student-led debrief and to promote learning. Silence was used to encourage students to come up with knowledge and share on their own, as silence

allowed students a chance to think and discover their own answers. “Silence,” as described by one facilitator, “allows students to be uncomfortable to really think about how they would act differently.” Ann described:

I will let the silence happen. I don’t talk a lot anymore. Initially I was very talkative and felt like I had so much great knowledge to share; it is more important that they come up with it on their own. So if it’s silent, I let it be silent, and I let them have to come up with something they would do differently. I let them have to really think and contribute.

Other facilitators described providing prompts, cues, or questions, and then waiting for students to respond. Katya described asking a question, and “then I wait, and I’ll count to eleven in my head. So they will talk.” One facilitator stated that “students will become uncomfortable with prolonged silence and provide answers to questions.” If she stayed silent, mirroring the description by another facilitator who described waiting for students to talk in debriefing, that silence would “get students to talk.”

### **Engaging the Student Learner**

Engaging the student learner is an important tool that facilitators identified as helpful to increase student participation and thus promote their learning. While the use of silence has just been described as a helpful tool to get students to talk, silence was also a way facilitators recognized that students did not want to talk or participate. In addition to providing time for students to speak up, facilitators described many other ways to engage students. With silence, if a student “looks like they care and are engaged but just struggling,” one facilitator described “bringing the conversation back to simple concepts, then moving toward more complex concepts” as the students become more engaged in the debriefing conversation.

Ann described engaging learners when she started the simulation by capturing the students' post-simulation energy. She used this as a springboard for the debriefing discussion.

She described:

We usually start out the debrief by capturing that post-simulation energy that they have, where they are either overwhelmed or upset or frustrated, or sometimes they are just laughing about how crazy what just happened is. I try and capture that energy and emotional aspect of it rather than giving them a break. We sit down and I give them a very open-ended question like "how did that go?" I think it is really important to get the debrief started because it allows them to really process what they are thinking and kind of bounce things off of each other.

Other facilitators also described the need to address emotions at the beginning of the debriefing. Rachel, a facilitator who structures her debriefing with DML, talked of how she gave the students the DML worksheet at the beginning of the debriefing. She felt that students were able to address their feelings and emotions when they took a few minutes to complete the worksheet.

All facilitators described their preference for students to be involved in the debriefing conversation, as they felt that the best way for students to learn was by being engaged and expressing their thoughts. During the interviews, facilitators described a variety of ways they cued or prompted students to engage them in the conversation. The primary way facilitators did this was to ask students a question or ask for their opinion "with understanding." Jo described asking by "using open-ended questions and trying to get them to bring up things versus me bringing them up . . . asking them what they observed, if there was a situation where they saw something unsafe that they felt uncomfortable about."

Many other facilitators also described asking open-ended questions to identify specifically what students learned, questions such as “What went well? What do you need to work on? What was the most important thing you learned today? What could be done better? Why? or What else?” One facilitator explained how open-ended questions facilitated learning because they stimulated the students to think and synthesize, especially when the facilitator did not provide the answer. Facilitators described asking students for their thoughts or assumptions, or perhaps for a good thing they learned from the simulation. Some facilitators engaged students by going around the group and asking each student for their opinion, or to share their ideas about a particular topic.

Facilitators also described engaging students by the use of Socratic questioning. One facilitator gave examples of Socratic questions used, such as “How did you decide what the priorities should be? What happens if this happens? How does that change the way you make decisions? What would you expect in this situation? And did it turn out that way or what was different? How might it be different in a different situation?”

Some facilitators told how they used student names when asking them questions to help engage them. Katya said, “Oh, I always have their names memorized for that section. Always. I think it is a sign of respect to know people’s names. I don’t remember them after, but I remember for that day.” Other facilitators had students wear name tags during debriefing (as well as simulation) so that they could use students’ names. Facilitators described promoting engagement by “looking right at students when questioning them” and helping them to feel comfortable by asking their opinion or telling them it did not matter if they came up with the right answer. If students seemed like they did not have the correct answer or were uncomfortable responding, a

facilitator described encouraging students to help out a fellow student out by asking them a question such as “What do you think?”

Facilitators described engaging students through role assignment for both the students involved in the scenario and those who were observing. Annie described:

. . . giving them real active roles too. If I know this person doesn't like to talk I will give them the medical role, so they really have to focus on that, and there will be stuff to talk about [in debriefing]. . . with the medical they have to talk about “Why did you think they had to give that medication? Is that the right medication?” That kind of stuff . . . when you give them an active role in assessing those areas as the viewer, they are also more interactive . . . So giving them active roles. I like the [role] assignment thing because then you don't come back, and they are like “it was just fine.” It's like “no, what did you see related to this?” So they feel more engaged.

Tony described starting out the debriefing with open-ended questions such as “How did you feel about the simulation? What are your thoughts? What did you think you did wrong?” and then focusing on the correct behaviors that were performed. From there he told how he led into questions that focused on what happened specifically in the simulation, using either mental notes he had made during the simulation, or using what he had noted on a video recording.

Two other situations required special techniques to engage students. Tony talked of recognizing students who did not want to be in the debriefing early on. He addressed this directly by emphasizing the reason for the debriefing, simulation authenticity, and the benefits of simulation before moving on with the debriefing. He also said that other students would jump in and help out with this by volunteering actual situations they had experienced that were similar the situation that was just simulated. Another situation described as requiring special techniques

from the facilitator was if one or a few of the students were dominating the debriefing conversation, not allowing time for the others to express themselves or their opinions. Katie described: “I’ll just say ‘I need to hear from Susie because your input is really good, but I need to move on and find out what Susie and Sally have to share with the group.’” This method of working with students dominating the debriefing conversation was also echoed by other facilitators.

### **Using Debriefing Aids**

The use of debriefing aids was another theme identified from the interviews that promotes student learning. The use of video playback was one of the aids, as well as utilizing a whiteboard during debriefing, observation sheets, debriefing worksheets, and guides that facilitators had created to help facilitate the discussion during debriefing.

**Use of video playback.** Eight of the 17 facilitators interviewed identified that they used video playback at least some of the time during their debriefings. Two facilitators described consistently using video in every debriefing. One of these facilitators used video playback during debriefing as a learning tool for students to see their body language, communication style, and how they engaged the patient. The facilitator marked important and positive nursing actions while observing the simulation. During debriefing, the video segments were used to confirm actions that were or were not performed and to allow students to observe themselves and their non-verbal communication. This facilitator describes a preference for the use of video during debriefing because “a picture says a thousand words,” meaning observation of a video recording communicates a lot in a short amount of time.

Cooper described consistently using video playback in every debriefing, using video playback as intentional, a “deliberate debriefing.” The use of video playback has been previously

described in this paper under the theme of intentional debriefing. She felt video playback was a tool to help students to learn by sparking their interest and allowing students to have a realistic view of what they look like from the patient's perspective.

Other facilitators who said they used video playback during debriefing used it only in some situations. Some facilitators used video playback dependent upon the educational level of the student in their nursing program. Tony described using video playback with first semester students to allow them to see how they were doing during the simulation, discussing during debriefing segments of the video recording he had marked during the simulation. He felt that students were able to recognize their mistakes when watching their performance. He used video segments as a springboard for discussion, relating what students had learned to their future nursing encounters.

Other facilitators described using video playback for more advanced students. Lisa discussed how she used video playback with advanced students by marking the video segments related to the simulation objectives. She marked behaviors she wanted to bring up in debriefing, both good behaviors and behaviors that needed improvement. She color-coded the behaviors, with the video capture system showing a graph after the simulation so that students could see visually how many times they had done a task or behavior, or had met the simulation objectives. Lisa showed students their graph during debriefing and compared the markings with the results that the students achieved in prior simulations. If students were able to identify their incorrect behaviors and how they could fix them before Lisa played the video recording, then she did not play that part of the recording during debriefing. Lisa felt that students enjoyed the visual representations of how they were doing in meeting the objectives and could see how they were improving as the semester progressed.



Elsa described using video playback during debriefing for students “further along in their nursing program.” She said that she would play a video segment during debriefing and then asked students what they were thinking, or what the family was thinking during that segment. Elsa believed the use of video promoted a deeper level of thinking. She used a system that annotates the video, marked what segments she wanted to watch, and used those segments to show to the group during debriefing.

Other situations where facilitators described using video playback included showing students how they communicate and showing them their incorrect actions. A facilitator described using video playback “to make a point.” In this situation, the purpose of the video review was “to teach the students in real-time simulation.” Jo stated that she used video review to “show where students were using therapeutic communications or different skills that I want them to acquire...teaching patient safety...and to observe [their interactions] in mental health nursing.” She described using the video recording to identify errors, discuss consequences of errors, and point out student mistakes. This provided a platform to discuss how to remedy errors and find alternative ways to do things.

Other facilitators described using video playback in limited situations for other reasons. One facilitator described having students view the video recording to review their performance and to respond to questions she had already formulated to determine how the simulation went. The students’ views and responses to the questions were then used to spur the discussion during debriefing, with the facilitator adding her own thoughts on the simulation. One facilitator described only using video to show when students did well at something, thus giving them positive feedback about their behavior. Cindy said she used video playback only when debriefing

summative evaluations, as these are high-stakes, and she felt students needed to see their actual behaviors when they were given feedback.

Some facilitators who stated they did not use video review during debriefing identified why. One facilitator felt that using video was an alternative method and did not see a reason for its use. Another said she did not use video because the simulation center she is associated with did not have video recording capabilities. She felt faculty members may not be familiar with the use of video and also expressed the concern that students may not want to see themselves on video. Another facilitator who did not use video playback stated that she preferred to spend time debriefing versus watching a video. Another facilitator stated she did not use video because the available evidence is “mixed on it.”

**Other debriefing aids.** Some facilitators described using a whiteboard during debriefing. For example, one facilitator had students who were observing the simulation write down things that they noticed while observing. The conversation in debriefing then continued around these “noticed” items, with additional things that were noticed by the group being added to the whiteboard. Things noticed were then grouped into “themes,” with the group at times giving a nursing diagnosis to the themes as they debriefed. Themes were then connected, creating a concept map on the whiteboard as the end result.

Worksheets were also used by facilitators as an aid to enlarge the debriefing discussion. Katya described a “standardized simulation scenario worksheet” used by all simulation facilitators in her nursing program, “part of that is writing our debriefing questions . . . we write out all of the debriefing questions so it’s a pretty formal process, anyone could pick up your scenario if they need to and run that scenario.” Rachel said she used the DML worksheet as reference during debriefing as it helped all students, including the quiet ones, to participate. She

described using the whiteboard as well, by writing what students said went well and what could be done differently. Colors were used, with green for what students did well, blue for actions the students would change in future practice, red for things to never do again, and facts written in black. Rachel felt that the use of color on the whiteboard helped “the 90% of nursing students who are visual learners to better understand their actions during the simulation.” The debriefing discussion centered around exploring actions, concepts, and links written on the whiteboard, reinforcing actions that needed to continue or to change in future clinical situations.

Facilitators described other worksheets they used to aid debriefing conversations. The most mentioned worksheet was an “observation sheet” provided to students who were observing the simulation and not participating in it. Facilitators felt that observation sheets engaged the students observing by requiring them to look for certain things to complete the form. Completed observation sheets were described as a way to provide prompts for students about things they should bring up in the debriefing conversation. Cindy described the observation sheets used in their simulations:

I have provided an observation worksheet. It just has four areas that basically ask the student, and they fill it out during their observation time. One is on teamwork, one is on communication, areas of strength or areas, you know, if there was any conflict. So as they are observing, they use those sheets during debriefing.

Elsa described using a combination of observation tools. One tool was based on Tanner’s “thinking like a nurse” and included interpreting, responding, and reflection categories. Another tool described was based on “patterns of knowing,” such as science, ethics, and personal knowing, and a third tool was described as a “peer evaluation tool.” She said students learned to use the tools during their simulation and debriefing experience, and that they were used to “drive

a lot of the group discussion.” She stated only two tools were used at a time, with the choice of tools used depending on the educational level of the students, for example, beginning versus advanced students. In addition, half of the students observing the debriefing would complete one tool, and half would complete the other as they changed place from observer to participant in the different scenarios of the staged simulation. Elsa described leaving professional articles, interesting facts, or similar cases around for students to look at while they were waiting the 10–15 minutes it took to get the next scenario going. Brent described using a simulation debriefing questionnaire to help structure debriefing. It had developed and changed over time from “What went well/what didn’t go so well” to “What you would change?”

### **Promoting Recognition of Learning**

**Encouraging reflection in the debriefing.** Facilitators promoted recognition of learning during debriefing by encouraging students to reflect. Facilitators described that time should be allowed for reflection during debriefing and conversely, that debriefing should be a time to reflect. Brent described how reflection impacts learning:

By getting the student to reflect back on the actions they took during the simulation and to just talk with the group what led to those actions. What feelings they were having when they were doing that. So when the student is reflecting back I think that’s where they are doing some learning.

Facilitators described encouraging reflection by talking about the whole picture in debriefing, including ethical issues. The use of Socratic questioning was identified by one facilitator as helpful to encourage students to reflect on their experiences. Reflection on specific experiences was identified by another facilitator, who described specifically encouraging reflecting on things

that were missed in the nursing assessment, as she felt that this type of reflection also helped to improve nursing practice.

**Focusing on the learning objectives.** Facilitators described many ways they promoted student recognition of learning. One way was to focus on the learning objectives. A facilitator described helping students focus on learning by redirecting them back to the learning objectives if the students got off on a tangent. She felt learning was facilitated when the information was important to the students rather than just students “regurgitating it back” to the facilitator. Another facilitator described helping students to focus on the objectives by allowing students to “all have their say” in the beginning of the debriefing. The facilitator then linked the debriefing to the objectives of the simulation and continued on with the debriefing.

**Probing deeper.** Facilitators described other ways they helped students recognize their learning during debriefing. One facilitator said it was her goal to take prior learning into debriefing and readdress/reinforce that learning. Some facilitators described beginning a debriefing by going around the room, asking the students what they thought the best part of the simulation was and what they learned. One facilitator stated that she took this a step further and probed deeper to find what students had learned specifically. Ann described “constantly saying ‘what else?’ or ‘why?’” and said “I just keep poking and prodding and making them come up with the information.” If a student focused on the skill or performance of a teammate, another facilitator said she “brings it right back to them,” to help the students identify what they had individually learned.

**Examining actions.** Another theme identified in the interviews as helpful in promoting student learning was examining actions during debriefing. Facilitators described having students examine the actions they performed in the simulation during debriefing, with students sharing

what led to those actions and the feelings they were having when performing the actions. Facilitators described having students suggest something that could be done better or what was done well; one facilitator also described bringing out details about their actions that students may not have noticed. Review of the rationale for the students' actions, what they were thinking, doing, and why, was described by facilitators as helpful in promoting critical thinking. This also helped facilitators to identify where the students were coming from when they performed correct or incorrect actions.

Facilitators explained that examining actions provided immediate feedback about what was occurring in the simulation, helping the students to recognize and correct mistakes. Facilitators described several ways they prompted students when examining actions during debriefing. They described identifying performance gaps and getting students to synthesize by identifying what their thinking was leading up to these performance gaps. One facilitator described stepping in and addressing the right action or right solution if the students were not identifying it. Another facilitator described giving examples and different solutions for the problems that were being presented, reminding students that there were different ways of coming up with a solution. She then prompted them to be creative and encouraged them to think outside the box. When looking at incorrect actions, a facilitator described providing coaching on how to fix errors. Another facilitator promoted learning by encouraging students to bring up their mistakes and vulnerabilities, connecting problems in the simulation to problems that they thought could actually happen in practice.

Two facilitators looked at actions with different viewpoints during debriefing. One provided a different view on actions by prompting the students to focus on the overall situation, rather than on themselves and the actions they had individually performed. The other facilitator

described focusing on patient safety, helping students to view actions as “safe” or “unsafe.” In this situation, if the facilitator deemed a student had a “critical fail” regarding patient safety, he had the student repeat the simulation. He identified patient safety as the “biggest gap presently,” and felt it was necessary for students to know correct actions related to safety.

**Moving beyond actions.** For correct answers given by students in response to questions, a facilitator described moving on to “the next thing, which was asking what their thoughts and actions were and if they were done correctly.” If actions were incorrect, the facilitator pointed out the incorrect action. One facilitator described promoting learning by reinforcing correct behaviors. Another facilitator went a step beyond that by using student behaviors in general as a basis for discussion. The facilitator noted that the behaviors that were discussed were usually behaviors needing improvement and through this helped facilitate discussion so that students were able to focus on learning gaps. Another facilitator described promoting learning in the same manner; getting students to “self-think, self-reflect (now critique) about their actions” because she believed that when students self-reflect, they talked about what they had learned. One facilitator described helping students to narrow down their learning, “moving from skills to other things they have learned, such as prioritizing, critical thinking, teamwork, and time management.”

**Encouraging Transfer of Learning to Future Nursing Actions.** Another way facilitators described helping students to acquire learning during debriefing was by encouraging the transfer of learning to future nursing actions. Facilitators described the use of several methods to assist in this. One facilitator said she used questions to help students plan for future actions, such as “How might you respond more effectively if you were given this situation again?” She felt these questions helped students to transfer their knowledge to the future, or to a different or more

complex situation by asking what should be done about a situation and what their next steps would be. Another facilitator described encouraging the transfer of learning by identifying take-home lessons from what the students said during the debriefing sessions. She then helped the students reflect back on the actions at the end of the debriefing.

Other facilitators described ways they helped students to transfer their learning to future nursing situations. One facilitator tied what students had learned about the simulated situation to other similar clinical situations. An example given for this was linking students' learning about postpartum hemorrhage to other clinical situations where hemorrhage may occur. Another facilitator described "walking backward through the simulation," focusing on the things that did not go well. Through this method of facilitation, the facilitator felt that students were able to link aspects of the simulation to figure out how they came together. Students were then encouraged to take their learning and anticipate how it could be used when caring for similar patients in the future. Through this method, the facilitator felt that she was able to get the students to move from "novice to beginner." Another facilitator described promoting the transfer of learning to other situations by using the "extend" part of the DML debriefing model.

**Simulation program support of learning.** Some facilitators identified that learning could also be promoted by supporting the simulation program. Kerri emphasized how it was important to provide a consistent and well-thought debriefing program, providing safe learning. If simulation was used for evaluation, she felt this should be clearly communicated and "totally different." She stated she was part of a joint simulation center that has provided "very specific training for faculty about debriefing, trying to make debriefing a time for students to discover knowledge." Her program has gone on to develop a specific model of simulation that guides their simulations and infuses "caring" into every part of the simulation program, including debriefing.



One facilitator described that learning could be promoted by setting policy and maintaining consistency; she promoted this by providing training for new faculty. Another facilitator described her university's efforts:

We've just gotten a simulation committee together now at our university, before it was just a task force, and now it is actually a committee. So I am hoping that we can get some movement forward and maybe have us be on a standardized plan.

### **Facilitating to the Level of the Learner**

Many facilitators described how learning could be acquired by facilitating to the level of the learner. One way this was facilitated was through the use of video review for advanced students as previously described in this paper. Another facilitator stated "the learning takes place by being a facilitator with the students, and it depends on the leveling of the students." She described specifically how to conduct debriefing based on the educational level of the students:

With entry level [students] a little bit more prompting a little bit more helping them to recognize what they have learned or asking questions along this lines versus senior level students. You can ask... 'How did it go?' and they will talk for 20 minutes...I use plus delta, and then with my other students I go more into the DML method...because to me, entry level students, just learning how to sim, aren't ready for DML debrief. That is more advanced debriefing. So I want to break them in so they just get it...If I start in with nursing diagnoses, I'm going to make this look different with six other types of patients in fifteen minutes, it would never happen for DML...my entry level students in sim aren't going to get DML, but my senior level students will get DML...more complex sim...and more debrief, more details.

Elsa described how she was “intentional” in tailoring the debriefing to the educational level of students that were in the group, trying to be in tune with individual student needs based on where they were in the program. For new students she described using a “soft and open debriefing style, open and reflective, student-driven to allow them to build their self-confidence.” For second semester students, she described turning the discussion over to the students, who then mocked the questions used by the facilitator in the first semester, using the ideas of “thinking like a nurse” and “patterns of knowing.”

Other facilitators described how they tailored debriefing to the learning level of the student. One facilitator described purposefully not lecturing, instead allowing the students to talk and discuss with each other. The amount this facilitator described talking was dependent on where the students were in the program. For example, she said she talked more with first semester students as they needed more guidance. Another facilitator also described needing to help beginning students more. She felt that students at the end of their program, however, should be able to come up with the answers. A third facilitator described tailoring debriefing to beginning students by talking about things the students had noticed, with not much interpretation, and “skips” to how students respond to the situation by reflecting on their actions.

Another way debriefing was tailored to the level of the learner was according to the type of simulation being debriefed. One example Cindy described was when debriefing the high-stakes evaluation. If the student did not pass, she then debriefed for at least an hour. She used a rubric during the debriefing to review things that happened in the simulation. The focus during this type of debriefing was specific to performance and helping the student improve. Cindy described that she also debriefed those who passed, although she stated that their debriefing was not as long as debriefing for students who did not pass.

One facilitator described how group size affected the way debriefing was conducted, with individual debriefing, small group debriefing, and larger group debriefing all requiring different techniques. When debriefing large groups, a more generalized assessment was required of the entire group's learning. In comparison, with one-on-one debriefing, it was easy to go back and forth for a quick dialogue, find out where students were at in their thinking, and what was in their mind. Their responses helped the facilitator to know where to go next. Shorty described it was important to "go with the flow of the group," thus meeting their needs.

### **Debriefing Environment**

**Physical environment.** Facilitators described that the debriefing environment affected student learning, however the environments they described varied. Two facilitators described debriefing right "at the bedside" where the simulation took place, keeping the equipment, mannequin, or actor right there so it all could be used as part of the debriefing discussion. If a student actor was used during the simulation, they were invited to give feedback. The equipment was used to allow students to look for errors and correct their mistakes immediately. "Real-time" feedback was given, based on what actually happened in the scenario, using the equipment used in the simulation to assist in this. Another facilitator also described group debriefings as "more informal and done at the bedside."

Formal debriefing arrangements were described as seating around a table or arranging chairs into a "horseshoe" so everyone could see each other. Items in front of the students were minimized, so that participants were not distracted. Lisa described her preferred debriefing environment; "The rooms that I prefer have sofas, I like the students to be common and relaxed, as opposed to my colleague . . . she likes the table and the chairs around the table."

One facilitator described providing a comfortable, non-disruptive environment, a private place, safe from others overhearing. She described allowing the students to have the freedom to express themselves without being punished, so they could criticize legitimate aspects of the simulation that went wrong. She said that she took care to convey an open atmosphere and environment to express their feelings professionally without being punished.

Margaret described the environment she used for more formal debriefings, such as summative debriefing. She stated the debriefings were “one to one” and were held away from the bedside, in a private area where disruptions were minimized. Margaret described being careful to provide an atmosphere where the focus was on the student, thus allowing the students to say what was needed about their skills. She tried to give them her undivided attention.

**Debriefing participants.** While some facilitators described limiting participants in debriefing to just the students and facilitator to help students feel safe, others stated they invited additional people into the debriefing to help enhance student learning. Standardized patients (SP’s) were identified as one of these types of “extra” debriefing participants. Facilitators felt that if SP’s were involved in the simulation, they should be invited into the debriefing to give feedback to the students. Cooper described specifically how SP’s were helpful when they participated in debriefing. In this case, the SP’s were from the LGBT community and were open to answer any question the students had. SP’s were invited to come in at the end of the debriefing and give feedback about what helped them to feel comfortable, also giving feedback about the student’s body language. Jo gave another example of inviting an SP into debriefing:

At the end she comes into the debriefing and talks to the students about what really went well, where she felt safe, where she thought, you know, they could have intervened

differently or things like that. She gives her feelings as a psychotic patient to them and what helped calm her down.

In addition to inviting SP's, another facilitator said students (RN to BSN) that were helping to facilitate the simulation were invited to participate in the debriefing. She felt the perspective of these extra participants added to the debriefing.

One facilitator who did not consider herself to be an expert in some of the topic areas of the simulations she facilitated said she would invite clinical faculty to sit in on the simulation as the content expert. She said the purpose of the clinical faculty was to evaluate how the students were doing in both the simulation scenario and the debriefing. During the simulation, the clinical faculty were put in the control room to observe and would participate in debriefing by giving feedback. Another facilitator who included the clinical faculty in the debriefing felt it was important for the clinical faculty to hear what students were saying and doing, to figure out if they [the students] were learning, and where the students' strengths and challenges lay.

### **Post-debriefing Activities**

Several facilitators described using post-debriefing assignments to enhance or extend student learning. One facilitator said she used a Situation Background Assessment Recommendation (SBAR) assignment during her debriefings, and said that she could see how students were learning from how they completed the assignment. In addition, the facilitator stated she also assessed learning by comparing SBAR assignments from one simulation/debriefing to the next, looking for patterns of progression. Another facilitator said she had students write in reflective journals, using the journals to help her know and understand where students were on an individual basis. She felt that this helped her to identify gaps in students' knowledge. A third facilitator described using a (debriefing) reflection assignment answering the questions "What

did I do well?” “What did my peers think that I do well?” and “What did I need to improve on?” Through the reflection assignment, students were able to tell her (the facilitator) how the simulation day went and what they learned. She provided comments on the written post-debriefing assignment to give the students feedback.

Other post-debriefing learning activities described included a simulation reflective experience paper with the five outcomes of simulation, knowledge, skills performance, satisfaction, confidence and critical thinking, rated on a Likert scale. Another was an electronic health record assignment, first using a laptop in the simulation room for students to chart on. Students were expected to fill out a packet of papers after the simulation that were similar to an electronic health record they completed on the laptop in the simulation. One facilitator, also the director of a simulation program, worked with the other facilitators to create a student self-assessment, emphasizing the “ponder and prove part” of the learning theory her institution ascribes to. She said the self-assessment “identifies new understanding of the concept.” Another post-debriefing activity described was an extension of learning provided through written feedback from the facilitator, allowing the students to absorb and think about things a little longer.

Two facilitators described sometimes allowing students to repeat their scenario, allowing them to fix the mistakes identified in debriefing. The repeat simulation was dependent on available time, but when used, helped to end the experience positively.

### **Recognizing Learning**

Several themes emerged from the interviews describing how facilitators recognize students are learning during debriefing. These themes included direct expressions of learning, connecting learning, planning for future practice experiences, sharing with peers, the “Ah-ha”

moment, critically reviewing actions, excitement and engagement during debriefing, application of learning in clinical and simulation experiences, and formal assessments of learning.

### **Direct Expressions of Learning**

Debriefing facilitators recognized learning when students verbalized directly what they had learned. As Shorty described, “I don’t know what they are learning unless they tell me.” Facilitators described recognizing learning when students answered the question of what they learned from the simulation. A description of what was learned was the most common direct expression of learning. Students would at times provide other learning expressions such as “Okay, I get it,” “I am going to do something,” “Oh, that makes sense now,” and “This is the way I think I would pull it off better.” Learning was shown by a combination of expressions such as “Oh, that’s why” with students then verbalizing the correct behaviors that should have been done. Comments such as “That makes sense,” “Ooh,” and “Aaah” helped one facilitator to know “the wheels are turning and the students are connecting the classroom and the lab.” Elsa described verbal responses that indicated students were learning:

Well they are kind of talking back, they are teaching back. . . it’s hard to measure learning right in the debriefing, but you will measure learning just by their response and if they are able to build upon what was just talked about.

Facilitators described other expressions showing that learning was taking place. Learning was identified when students would think things through and come up with an answer. Verbal responses showing understanding and linking knowledge also helped the facilitators to know students were learning, as well as responses correctly related to the learning objectives for the simulation. Tony felt that students who “talk like a nurse” and were “able to gather information, understand it, and use it” showed that they were learning.

Expressions of learning also occurred nonverbally. Educators described facial expressions, the nodding of a head, and chattiness with teammates as expressions of learning, especially when combined with verbal learning expressions. Students' behaviors also helped educators recognize learning, such as when students took over the debriefing conversation and said things like "that's why we are doing this!" Correcting mistakes or performing correct behaviors in return demonstrations or in subsequent simulations were also expressions that were described as helping facilitators to recognize learning.

Facilitators described being able to see learning expressed in writing activities. For example, one of the facilitators described using an SBAR form completed as a post-debriefing assignment. The facilitator felt students were learning when they wrote notes on this form, using it to give report during subsequent simulations. In addition, some students created their own SBAR form outside of the provided template, signaling to the facilitator that learning was happening as they applied it in their own context. Other post-debriefing reflection writing assignments also contained expressions of learning for facilitators. These included written comments such as "learn," "taught," "increased knowledge," "awareness," or responses that showed learning as interpreted by the facilitator. Another facilitator was able to recognize student learning from what students said in their written self-evaluation, through statements showing they understood the rationale for their nursing actions.

### **Connecting Learning**

All facilitators talked of the concept of "connecting" when they described how they knew students were learning during debriefing. Other words facilitators used describing connection included "linking" and "synthesizing." Cooper described:



Connections are the things they have been taught—the content as well as their previous experiences. They are kind of putting them together to have that critical thinking pattern...as they reflect, what kinds of things are going to move them to the next level of making the correct decision, the advanced decision, the problem solving.

Facilitators were able to recognize students were learning when they were able to connect past and present learning, meaning they were able to connect what they just learned from the scenario to what they had learned in other past experiences. These past experiences included prior simulation or clinical experiences, the classroom setting, learning activities designed to prepare the students for this particular simulation, or learning from the pre-brief occurring prior to the simulation scenario. Comments that showed students were able to draw connections and synthesize information were comments such as “Oh, I get it now,” “That’s why we have practiced that,” “That’s why we had to do it that way,” “Oh, now I get what I was reading in the textbook,” “Oh, that makes sense after having our discussion,” or “Oh, I should have done that and now I understand why.” Comments were made in such a way the facilitator knew the student was “putting the whole picture together.” Brent described student comments showing learning through connections:

Oftentimes during debriefing something will come up like “Well we learned in class such and such, and so that’s what I was thinking should be done in this simulation, and so I tried to do that with the mannequin...or they mentioned some of the things we may have gone over in the pre-brief, because usually we will have some sort of guided pre-brief where we go over some of the things to expect.

Rachel gave another example of when she could see that students were “linking” and finding connections:

. . . when they are contributing, you can tell that they're engaged by linking on to something, or "I saw this in clinical and we did that," they are just linking and they are contributing to the discussion and being able to, from their theory, come in and say, "I know what this lab is and I see the low urine, I wonder what the BUN and creatinine are." They start to really put things together. If I can see that they're doing that then I know they are learning.

Other ways facilitators described the connection of learning were comments connecting points about why something was being done, showing students were able to put everything together and synthesize information. One example given by a facilitator was the use of a concept map during debriefing. When using a concept map, learning was seen when students were able identify concepts; things that went well, things they would change, and things they would never do again. They then connected these concepts to the rationale for what they were doing and connected their actions from the simulation to what they had learned in lecture or from other experiences. Students then "linked" their assessments or interventions to other information in the concept map.

### **Planning for Future Practice Experiences**

Closely related to the theme of making connections is the theme of planning for future experiences. These themes are separated in that one connects past and present learning while the second connects the compilation of present learning to what students anticipate will happen in their future clinical experiences. Facilitators identified that students were learning when students made comments planning for future clinical actions, applying what they had learned from the simulation scenario. Elsa described this:

. . . when they are able to kind of build those concepts together, and they're trying to transfer that knowledge and even start to think ahead into their future nursing, that's when I know

learning has occurred . . . yes, so they're already pre-thinking out what they learned in the simulation and how that could apply and be integrated into their nursing care.

In the event a mistake or error had been made in the simulation, facilitators could see students' learning through their descriptions of what they would change or how they would correct this when they performed the action in the future. Facilitators also described learning when students connected concepts and verbalized what they had learned, and how it could be applied and integrated into their future nursing practice. Students did this either by making comments expressing this, or by asking questions that showed they were thinking beyond the actions that occurred in the simulation scenario and were planning for the future. Brent described these types of comments:

Where they can make changes from what they did in this particular simulation, make changes that they will carry into future learning...they have a sense of where they are going to take this and how they're going to use this in their practice.

Planning for future actions included comments showing that students had extending their thinking and are providing a more in-depth analysis of their actions. An example of this was students' ability to recognize what to do if the situation changed, such as handling a similar clinical situation in the future by themselves, or with different team members. Rachel gave another example, "Even when they can anticipate beyond, and what they would do next or what they can expect next, then I feel like they're really engaged in learning."

### **Sharing with Peers**

Sharing with peers was another theme showing how debriefing facilitators recognized when students were learning. While directly expressing, connecting learning, and planning for future actions are primarily verbal in nature, sharing with peers is behavioral. Students who share

were described as more engaged and excited, sharing questions, comments, and ideas with their peers. Facilitators stated that these students would discuss among themselves, give each other feedback, and answer each other's questions. Students would comment on individual and group performance, talk through and work out situations, and come up with their own solutions independent of the facilitator. Facilitators said that these students shared what they had learned individually, and what they had learned from other members of the group, sometimes teaching their peers as they shared. If not talking or discussing, students were described as attentive to the person talking, as well as answering and commenting when appropriate. When sharing with their peers, one facilitator described that students made statements about their fellow students' correct behaviors, using "colloquialisms such as a 'high five' that are appropriate for their millennial generation."

When learning was exhibited during peer sharing, students were described as encouraging of each other, complimenting and respecting each other's abilities, providing constructive feedback, and peer supportive criticism and comments. Learning was seen when peers shared with each other, bringing up knowledge, and teaching each other what they could apply and remember from the simulation. Learning during peer sharing was seen when students self-reflected in response to prompts and provided solutions to problems. Sharing was seen when students provided appropriate feedback, solutions, and fixes in their discussion with each other. Teaching each other was also described as a sign that students were learning, because they were talking about how what they did could be done differently, bouncing ideas off of each other, and discussing the best way things could be. A facilitator described how more experienced nursing students were able to accomplish deeper dialogue when engaged with their peers in comparison to less experienced nursing students, as they were really questioning and answering each other.

Facilitators felt that quiet students who were not sharing still may have been learning.

Alberta described:

You can't always tell when each individual student is learning in the debriefing. Because some are very quiet. But what is interesting to me is if you try to engage the quiet student, they will already sort of have put all of the pieces together and will be able to succinctly say in one statement what you were hoping everybody would get.

### **The “Ah-ha” Moment**

Another theme that emerged from the data and was reflected in the interviews of many of the participants was an “Ah-ha” moment. Participants described an instantaneous moment of learning, where they were able to recognize that students had “gotten” a concept. While facilitators described this as a “leap,” “light bulb moment,” or “click”, it was most frequently described as the “Ah-ha” moment. Cooper described this moment:

I think they are learning. It's like a light bulb goes off in their brain, and they start to make connections between their experiences that they have had in the past with the things they've learned, and what just occurred in the debrief. So it's the 'ah-ha' moment when they are actually starting to begin to put together things and start that critical thought process...I think you can see it in their excitement that they have when they just realized...they hit the jackpot, they've got it, they understand now what the simulation was all about.

The “Ah-ha” moment involved understanding and synthesis. It was described as a moment where facilitators could see that a student had a change of expressions or emotions and were considering in their mind why they did something. Behaviorally, during this moment, students were described as “more excited, attentive, and engaged, formulating more sentences,” with the student's face “lighting up,” having “a look” of realization and understanding, and a change in

their tone of voice. Katie described, “their face just kinds of lights up or they get a face of ‘Oh, I really understand what is going on.’” During this moment, facilitators felt students had better eye contact, their eyes got bigger, and they looked happier, with one facilitator describing a visible energy or aura, a “light bulb,” showing that the student had figured things out. During the “Ah-ha” moment, students were felt to have increased participation, making comments such as “now I see,” “Oh, that’s why we did that,” “Oh!” “I get it now,” “I never thought of that,” and “I get why.” Facilitators felt students had a visible energy or aura, a “light bulb.” This was described as a moment where a student was able to come up with a solution or corrective action suddenly. This moment usually happened during the debriefing discussion.

Facilitators described an opposite look from the “light bulb” look associated with the “Ah-ha” moment where they knew students were not understanding. Katie described this, and what she did to engage students when this happened:

A look of concern because they are confused. Or . . . they will stare at the floor because they don’t want to interact, or don’t know the answer . . . if they don’t get it they then they try to avoid you, and so I will literally scan and land on every individual and say “You know what you think about this,” or “You can share your ideas on what went well or what needs to be done differently next time.”

### **Critically Reviewing Actions**

Another theme that developed from the interviews was the students’ ability to critically review their actions. On a simpler level, when students were able to critically review their actions, they were able to identify what went well, and identify mistakes or errors that occurred during the simulation scenario. They took ownership for their actions. Students were not only able to evaluate themselves, but were also able to evaluate their peers. Lisa described:

They're pretty good about saying "oh they did good, they were doing their hand hygiene, they identified the patient correctly, they let the patient know what kind of side effects were going to happen with this medication." Just whatever the scene required usually they pretty much catch the learning objectives . . . the right actions. I have seen where they point out the mistakes they've made. I didn't bring it up, they did.

In addition to identifying what went right and what went wrong, facilitators described that students who showed learning were able to identify what could have been done better, and how to improve or correct actions. If watching a video recording during the debriefing, students were able to recognize errors and appropriate behaviors as well.

Components showing students were able to critically review at a deeper level included identifying performance gaps, problem solving, and advanced decision-making. When critically reviewing, facilitators described that students were able to examine their actions, share what led to those actions, and provide rationale for their action based on priority care or a core concept. Students who showed learning through critical review may have offered ideas about correct actions and what might be done differently. They were able identify where their thinking or action was wrong, eventually getting to the point where they could tell how to perform an action correctly. They were able to think of other options, were able to see things more than one way, and were able to come up with more than one solution to a problem. Learning was also shown through students' ability to teach each other during the debriefing.

Margaret gave an example opposite of critical review, and that was when students were not taking ownership of their actions. She described a situation where she as able to recognize when students were not learning:

. . . an individual who maybe is not owning [to the fact] that it is them that did not do so well, but always having an excuse and projecting it on to, well. . . . A standard comment is always “If it had been a real situation I would have done that. . . . If it was really real, if I had been out in clinical.” So always blaming somebody else and not having ownership. In these cases, Margaret discussed authenticity by assuring that the simulated situations really did happen, and then required the student to repeat the simulation.

**Finding Meaning.** Facilitators described that students who were learning were able to apply their experiences and find meaning in them. This was yet a deeper component of critical review and involved interpreting experiences and internalizing concepts. Students who found meaning made sense of the experience, synthesized knowledge, and “figure[d] things out for themselves.” Their answers to questions from facilitators and peers were related to the simulation, but they were more concerned about the patient, how their actions would affect the patient, and were less concerned about themselves. They were able to give a “why” for their behavior and were able to identify how things could have been done differently. Ann described an example of finding meaning and how it showed learning:

Real learning is coming up with the rationale . . . I think the real learning goes on with “why?” When they are able to answer the “why” question and they can give me rationale, I think that’s when they are really learning. I don’t have to prompt them, and they are just able to explain everything on their own to me, that’s when I think they are really learning.

Margaret described recognizing students who were finding meaning through “extending” what they had learned:

[The students were] . . . continuing the conversation . . . and also asking more questions beyond what we did, “But what about this, what if they had done this, and what would have



I done?” So they are continuing to extend their thinking about it more in depth . . . they are respecting each other’s abilities and kind of going “I never would have thought to do it like that. I can’t believe they did that” about their classmate, so giving each other encouragement.

### **Excitement and Engagement during Debriefing**

Most facilitators found increased excitement and engagement as an indication that students were learning at a deeper level, “moving from a knowledge level to an emotional level.” Relating how engagement was a sign of learning, one facilitator stated “I can’t know if they are learning unless they tell me.” Excitement was identified as a component of engagement, and could be seen in the student’s voice, as well as excitement about the concepts that they were discussing or had learned. Excitement and engagement were seen when students were interactive, more communicative, and were more involved in the debriefing conversation, which in and of itself “leads to more learning” as identified by a facilitator. Brent described how both excitement and engagement showed student learning:

I like it best when I’m out of it, out of the picture a little bit, and they’re discussing a lit bit among themselves, because we usually do a group of three and having those three talking about how they could’ve performed it better as a team by giving each other suggestions . . . they are not necessarily excluding me, but not coming back to me every time as though I’m the only thing that matters. I like it better when they can tell me amongst themselves, when they’re sort of excited about the concept as you can see that it matters to them personally rather than telling me something they think I want to hear.

Students who were engaged and learning during the debriefing conversation were described as having attentive nonverbal behaviors, such as good eye contact. These students were

described as engaged, excited, and more confident and “chatty” with peers. They verbalized their learning, and were more willing to carry the conversation and discussion. They had positive energy and emotions and were not embarrassed to say “Now I get it.” Cindy described:

You can see it on their face, you know. And they get excited . . . they start talking more.

And you know, sometimes it’s those students that are wallflowers, and when you kind of start pulling at them to talk, and they are realizing “Oh yeah, I am getting this. I totally understand.” And then those are the students that start talking more, and you see them getting more involved in simulation.

Facilitators described that the students who were learning had a positive attitude about the simulation and were able to initiate and talk about it more on their own. One facilitator further identified positive behaviors as those that were gracious and appreciative, as this behavior indicates that students “have learned something; perhaps this is just a sense of accomplishment.” She described positivity as an indication that learning was happening, as it is related to the student realizing they are “getting it.”

One facilitator felt that lack of engagement did not necessarily mean students were not learning as much or more than those students who seemed more engaged. She felt when these students were drawn into the debriefing conversation, they often showed deep learning and insight.

### **Application of Learning in Clinical and Simulation Experiences**

Facilitators felt students were learning when they applied what they had learned in simulation and clinical practice experiences. Learning was seen when students were able to apply their preparation activities for the simulation to the actual simulation scenario. Application of learning was seen when students performed correct nursing interventions or improved their skills

in subsequent simulations; for example, showing improvement in skills, especially communication, as the semester progresses. Development of their own SBAR form as previously described was an example of applied learning in patient communication. Application of learning was seen as students displayed patterns of safety in their simulation practice, for example, hand washing, or patient identification procedures. Lisa described learning she saw in subsequent simulations:

Now this last week it's like "yeah, crossing the threshold I'm going to wash my hands." Or "before I introduce myself I find out I have the right patients." And then they do their task, and then they say "Oh yeah, I'm gonna leave and then I'll make sure the bed's down, side rails up, call light's on...I just keep saying that to them over and over again, and then I don't even have to tell them anymore. They're doing it.

Application of learning was seen when students were able to transfer their knowledge to different or more complex situations, adapting their behavior to a new scenario, or taking something they had learned from one situation and extending it to another situation.

A few facilitators described being able to work with students from one semester to the next and could see what students had learned through these observations. For example, if students were still struggling with the simulation and were still frustrated, facilitators could tell that the student was "not getting it." One facilitator felt that simulation groups that achieved their learning objectives more quickly and independently were learning more quickly than other simulation groups. Individual students who seemed to know what they were doing and were able to more quickly complete scenarios were described as showing more learning from previous simulation experiences. Brent described, "I like those comments [that students make] when they

say that ‘first time’ or ‘this time I feel like I really grew a little bit from the time before’ and ‘[this is] the first time I can see how that fits together.’”

Finally, a few of the facilitators described situations where students had returned to tell them how what happened in the simulation lab had actually happened in their student clinical or actual work situations. The students shared that they actually knew what to do because of their previous simulation experiences. In addition, feedback was given to one nursing program from a facility where many students were employed post-graduation, indicating where students could improve their learning, signaling to the facilitator that simulations in this area are needed improvement.

### **Formal and Informal Learning Assessments**

A few of the facilitators used more formal assessments of learning following the debriefing experience. These included a post-assessment test created to measure knowledge acquisition, written reflection assignments and an SBAR assignment.

Another facilitator utilized answers in students’ self-assessment documents related to the outcomes of the simulation as a more formal measure of learning, as it contains outcomes of knowledge, skill performance, satisfaction, confidence, and critical thinking. In this activity, students wrote how knowledge was important and referenced their statements to back up their learning. The facilitator in this situation felt students were learning when they wrote about errors they had made in the simulation, and when they provided deep and reflective answers. In addition, the self-assessment was associated with a grading rubric, and the facilitator was able to determine if the student had learned by how well they met the qualifications of the rubric.

### **Measuring Learning**

Facilitators were asked if they measured the learning that occurred during debriefing and if so, what they used to measure it. Some facilitators stated they did not measure learning, and

others described the use of both formal and informal learning assessments. An example of an informal learning assessment one facilitator described was when students were answering questions correctly, and when students did not have misconceptions. Another facilitator felt students had learned if they were able apply their learning in the clinical setting; this was confirmed either by student disclosure or by clinical faculty that worked with the same student in both simulation and in the clinical setting.

A variety of other measures were identified by facilitators as helpful in assessing whether the students had learned. One facilitator felt she could determine if students were learning from the work on the SBAR assignments they turned in following debriefing. Another facilitator described giving students a diary form to complete after debriefing, writing about how the experience went and what they learned. The facilitator stated she could tell from reading through the comments what the students had learned. Another facilitator described an SBAR form provided by the college, nicknamed by the students as “The Brain.” The students also completed a post experience reflection, submitting it to the facilitator through the university’s learning management system. Student submissions (the reflection paper and the “Brain”) were ways the facilitator assessed learning, and were ways the university could document whether learning had taken place through the grading of these assignments. The same facilitator also used an informal measure of what the students were learning by quantitatively measuring the video “snippets” she collected when observing the students during simulation, marking the video using the times students had achieved their learning objectives. She compared the results with what the students had achieved in prior simulations to assess how they were doing.

One facilitator described using a rubric that her simulation program developed following QSEN standards. This rubric was designed to evaluate the high stakes assessment simulation that

students were required to pass to progress through the program. As the rubric had been leveled with established inter-rater reliability, the facilitator felt it was a good measure of student learning.

One facilitator used two tools to assess learning. One is the Van Gelderen Family nursing rubric which measures family nursing knowledge. However, this tool determines what has been learned from all simulation activities and is not specific to debriefing. The Debriefing Experience Scale<sup>®</sup> is another tool she used to evaluate student satisfaction and learning and is specific to debriefing.

One facilitator describes using an evaluation tool to informally measure learning. Questions in the evaluation at the end were divided into twelve areas, asking students what they had learned during the simulation, what went well in the scenario, and what could be improved. Ratings of “agree” or “strongly agree” on the evaluation signaled to her that students were learning. Comments written on the evaluation also showed her that students were learning. Only one of the written prompts related directly to debriefing. The instrument was used for all simulations conducted in her nursing education program.

Another facilitator described evaluating simulation/debriefing with a reflective paper. The paper included the five outcomes of the simulation: knowledge, skills, performance, satisfaction, confidence, and critical thinking. Students rated themselves from 0–4 and then explained how they had accomplished these ratings in each area. Students rated themselves whether they were in the actual simulation or were observing. The reflection and self-assessment were completed at the end of the students’ lab day when their two simulations and debriefings were finished.

One facilitator developed a communication measurement tool for the standardized patients to complete to give an assessment about how the students were doing in simulation. Another tool used was a facilitator-created tool allowing students to self-evaluate their performance in the scenario. The tool was formulated on the simulation objectives that were based on the program outcomes. It was tied to goals the college had for associate degree programs and looked at simulation learning overall but broke it down into parts, thus covering debriefing.

### **Chapter Summary**

This chapter summarizes the results of the study, using the participant's descriptions to describe their definitions of what learning is, as well as simple descriptions of informal and formal measures used to evaluate the learning that has been acquired during debriefing. Themes resulting from content analysis describe conceptual answers to the questions "How do debriefing facilitators promote student learning during debriefing?" and "How do debriefing facilitators determine what has been learned during debriefing?"

## CHAPTER V

### CONCLUSIONS AND IMPLICATIONS

#### **Restatement of Research Questions**

1. How do debriefing facilitators define learning within the context of simulation debriefing?
2. How do debriefing facilitators promote student learning during debriefing?
3. What do debriefing facilitators feel the student attitudes, behaviors, and verbalizations are that indicate that learning has taken place during debriefing?
4. How do debriefing facilitators determine what has been learned during debriefing?

#### **Summary of Qualitative Descriptive Research and Kolb's Experiential Learning Theory**

“Qualitative descriptive studies offer a comprehensive summary of an event in the everyday terms of those events” (Sandelowski, 2000, p. 336). Qualitative descriptive studies provide an accurate accounting of the meanings participants attribute to events. They are especially useful for researchers wanting to know the who, what, and where of events (Sandelowski, 2000). This study examines the phenomenon of learning acquired during debriefing from the viewpoint of nurse educators who facilitate debriefings in pre-licensure nursing programs. The focus of this research is to generate information for future construction of a tool to measure the learning acquired during debriefing. As there is little known concerning how nurse educators define, promote, and recognize learning acquired during debriefing, a qualitative descriptive study was chosen to explore this phenomenon, as this is method of choice when straight descriptions of phenomena are desired (Sandelowski, 2000).

The convenience sample for this study consisted of 17 nurse educators, exceeding the target sample of 10–15 planned for the study. Semi-structured interviews were conducted, and



interviews were transcribed. The type of data analysis utilized was specific to the research questions. For research question 1, only simple descriptions are given containing the definitions of learning as supplied by the nurse educators. Data analysis for research questions 2 and 3, however, consist of content analysis and development of themes, providing a conceptual description to answer the research questions. Research question 4 is answered once again by simple descriptions provided by the nurse educators.

In qualitative inquiry, theory can provide a framework within which researchers collect, analyze, and integrate data (Creswell, 2014). In this chapter, the research conclusions are integrated and situated within the framework of Kolb's Experiential Learning theory. The theory is based on the fact that all knowledge begins with an experience, and the experience guides what is learned through a dynamic and continuous "cycle" of learning. The "learning cycle" includes the stages of "concrete experience, reflective observation, abstract conceptualization, and active experimentation." At the center of Kolb's theory is the learner, rather than the teacher. The learner can enter the learning cycle in any one of the stages, and where the learner enters depends on the experiences presented as well as their learning type (Kolb & Kolb, 2005; Kolb & Kolb, 2011).

Debriefing has been defined in the simulation literature as falling within the "reflective observation" stage of Kolb's theory. In this stage, the learner makes sense of the experience; this stage is a fundamental and crucial part of experiential learning (Brackenreg, 2004; Fanning & Gaba, 2007).

## **Discussion of Results**

The expected outcome of qualitative descriptive studies is a descriptive summary of the contents organized in a way that best fits the data. They are presented here as answers to the

research questions and are also situated within the context of Kolb's Experiential Learning Theory.

**Question 1: How do debriefing facilitators define learning within the context of simulation debriefing?**

The facilitators each define learning differently in this study. Ideas common to most of the definitions include the acquisition of knowledge, application of learning, and a change in behavior, views, or thoughts as a result of the learning. There are a few references to one learning theory, Kolb's Experiential Learning Theory, but only loosely as seen through use of terminology similar to that used in Kolb's theory. In nursing education, the definition of learning is dependent upon the associated learning theory, providing many different definitions and descriptions of simulation learning. The different definitions provided by the facilitators reflect this.

There is no definition of learning provided by INACSL, the primary organization that many nurse simulation facilitators are associated with. INACSL does provide a standard of best practice including terminology, but learning is not one of these terms. The closest related term included in INACSL terminology is "Domains of Learning" identified as three separate and interdependent components of learning outcomes. These outcomes are then related to Bloom's Taxonomies (Meakim et al., 2013).

The objective of one systematic review was to determine the effectiveness of simulation debriefing as it related to learning for healthcare professionals. Learning was not defined in this study, and the authors also acknowledge that there was variance in the outcomes for studies included in the review, with many of these outcomes not based on learning (Levett-Jones & Lapkin, 2014). A selective critical review of "relevant literature" also looked at debriefing as part

of the learning process. The authors referred to the “cycle of experiential learning,” although no further definition of learning was supplied (Raemer, Anderson, Cheng et al., 2011). The authors of another review looking at learning outcomes concluded that research was needed examining debriefing methods to contribute to knowledge regarding the “effectiveness” of simulation and debriefing. The authors did not define how effectiveness is related to learning (Dufrene & Young, 2014).

This study also does not provide a clear definition of what learning is in relation to simulation debriefing. However, the seventeen different definitions supplied by the nurse educators (Table 5) can provide considerations for what learning is in relation to learning theories utilized currently in simulation education and in future studies exploring learning acquired during debriefing.

## **Question 2. How do debriefing facilitators promote student learning during debriefing?**

The nurse educators in this study identify many ways that they facilitate debriefing to promote student learning. Content analysis reveals several themes. These themes are described and integrated with current debriefing research findings as well as with Kolb’s theory.

**Utilizing simulation preparation activities.** When discussing learning acquired during debriefing, facilitators in this study identify many activities that they use to prepare students for the simulation. These include readings such as articles or case scenarios, assignments, worksheets, etc. Several of these activities continue into debriefing, such as SBAR assignments started in preparation activities, which are added upon in simulation and discussed in debriefing. Available debriefing research and descriptions make no mention of simulation preparation activities and their effect on debriefing.

Utilizing activities to prepare for the simulation fall within the “abstract conceptualization” stage of Kolb’s Experiential Learning Cycle, allowing these learners to enter the cycle at a different point than those learners who begin with a simulation. Completing simulation preparation activities then shifts the focus of the simulation from a concrete experience to one of “active experimentation,” allowing the students to try out what they have learned from their simulation preparation. Without simulation preparation activities, the students enter the cycle with the “concrete experience” of the simulation.

While the literature does not mention that preparation activities are a part of debriefing, this does not mean that they are absent from simulation debriefing practices. The lack of mention of simulation preparation activities in regards to debriefing may be because of the time proximity of preparation activities in relation to debriefing. However, considering the cyclical nature of experiential learning, it is not surprising that in this study facilitators describe pre-simulation activities as aiding the learning that is acquired during debriefing.

The pre-brief is another simulation preparation activity that most facilitators describe as promoting debriefing. It is a segment of time prior to the simulation scenario where the facilitator discusses information they feel is important for the student to know prior to the simulation and debriefing. This is consistent with the incorporation of a pre-brief as part of debriefing structure as found in 84% of respondents surveyed on debriefing practices (Wazonis, 2015).

The topics discussed in the pre-brief in this research study are described in the results section and are consistent with those mentioned in current simulation literature. Activities in the pre-brief mentioned in the literature include facilitating the introduction of simulation processes, orientating to the simulation environment (including simulation equipment), giving permission to make mistakes in the simulation, describing the learning objectives for the simulation/debriefing,

establishing authenticity, reviewing of scenario preparation activities, establishing rules for a safe environment (including discussion of confidentiality), setting ground rules for open communication, and assigning learner roles (Arafeh, Hansen, & Nichols, 2010; Fanning & Gaba, 2007; Franklin et al., 2013; Gardner, 2013; Wickers, 2010). Facilitators in this study describe all of these pre-briefing activities with the exception of setting ground rules for open communication.

**Identifying with a specific debriefing method or learning theory.** Two facilitators in this study identify with Kolb's Experiential Learning Theory, one using it as a basis for the simulation program she directs and the second as part of her learning philosophy. Facilitators also identify with other learning theories, such as Bloom's Taxonomy, "Caring" theory, NLN/Jeffries' Simulation Design Framework, and Benner's Novice to Expert theory. More facilitators interviewed do not identify with a theory as compared to those that do. In simulation literature, many studies on debriefing do not identify a theory. Of the few that do, Kolb's Experiential Learning Theory is one that is identified (Brackenreg, 2004; Fanning & Gaba, 2007; Gardner, 2013; Zigmont, Kappus, & Sukikoff, 2011).

INACSL Standard VI recommends that debriefing be "based on a structured framework for debriefing" but does not identify specific frameworks (Decker et al., 2013). The NLN Board of Governors recommends that debriefing be "evidence-based" and conducted on "principles that are foundational to debriefing." They recommend that briefing be conducted by a "theory-based" method, providing examples of four theory-based debriefing methods in the document (2015). Results in this study show that most facilitators do not identify with a specific debriefing type, instead using a combination of debriefing types. Facilitators who do identify using a specific debriefing type or methods use either all or part of the method during debriefing. Three

facilitators describe utilizing aspects of DGJ in their debriefings. Two facilitators describe using DML at least some of the time; this is consistent with a survey of debriefing practices that found only 40% of the respondents who reported using structured debriefing identified using a specific method (Wazonis, 2105). The variety and combinations of debriefing approaches that facilitators describe using in this study is similar to the 22 different debriefing methods found in a literature review on simulation debriefing, where debriefing methods were found to have considerable variation in their use and design features (Wazonis, 2014).

Several facilitators identify in this study that they tailor debriefing to the educational level of the learner, the size of the debriefing group, or the type of simulation being debriefed using the debriefing method they think is most appropriate for the situation. This is not something that is well-defined in current simulation debriefing literature.

**Intentional debriefing.** Several facilitators describe that they are “intentional” in their debriefings, usually in the context of their careful preparation for debriefing. One facilitator describes being intentional in taking time to practice and prepare for debriefing ahead of the simulation. Facilitators describe intentionality in using statements of curiosity, in emphasizing and teaching different topics (including use of video when teaching these topics), and in planning for future experiences. There is no specific debriefing literature describing intentionality, although one could argue it is a component of some debriefing methods currently in use. Some aspects of intentionality, such as careful planning and emphasizing or teaching different topics, would be covered under the development of participant and scenario-specific guidelines recommended by INACSL (Decker et al., 2013).

Intentionality is part of the learner-centered environment described by Kolb’s Experiential Learning Theory. All aspects of intentionality would be covered during the

reflective observation phase of the learning cycle, thus helping the learner to move forward in the cycle (Kolb & Kolb, 2005; Kolb & Kolb, 2011).

**Establishing safety.** The idea of establishing safety to help students learn is a consistent theme across the interviews. There are many ways facilitators describe they establish safety, including “keeping the environment psychologically safe,” with most specific ways described as this. Some specific measures facilitators take to establish safety include setting and/or posting ground rules (which usually include confidentiality), not grading students, not asking questions that would make students uncomfortable, and by keeping student groups together on the same learning level. Facilitators also describe keeping students feeling safe through the release of emotions during debriefing and by limiting participants in debriefing to the facilitator and those students who participate in or observe the scenario.

The idea of establishing safety is not addressed by Kolb’s Experiential Learning Theory. Establishing safety is a consistent theme that facilitators in this study identify as promoting learning and is also a consistent theme across simulation literature. However, there is only one research study that addresses student safety during simulation activities, defining safety as “academic safety.” The study describes differences between faculty and student definitions of academic safety, with the students defining safety with different words than faculty. Students in the study describe feeling unsafe when they were ridiculed, experienced debilitating anxiety, and feared failure or being judged or compared with classmates. Students felt safe when they felt challenged, were able to ask questions and felt faculty were understanding and supportive. “In short, they wanted a friendly, supportive academic climate where they could learn” (Ganley & Linnard-Palmer, 2012).

The dearth of evidence examining safety of the learning environment during simulation leads one to question whether the description of establishing safety is a cliché of sorts, espoused by simulation experts out of popular opinion, passed on from one to the next, thus landing in the descriptions of the participants in this study. While the Ganley and Linnard-Palmer (2012) article shows the differences that students and faculty use to describe an academically safe simulation learning environment, the impact of establishing safety during debriefing on learning is unstudied. This is not to say that current practices of establishing “psychological safety” should be abandoned. However, a closer examination of safety practices, the differences in views on safety between facilitators and students, and the effects of safety on learning might provide insight that could improve current debriefing practices, and thus improve student learning.

**Facilitator demeanor.** Facilitators describe the importance of their attitudes on student learning when they are facilitating debriefing. They describe caring about the students’ learning and recognizing the strengths of students’ life experiences. As discussed earlier, some facilitators use students’ names when addressing them and one facilitator describes taking notes to keep track of where students are in their learning. Another facilitator states that her “personal rule is to be approachable” and yet another facilitator focuses on bringing “caring” into debriefing. Several facilitators describe their efforts to be a positive influence on what is learned during debriefing. This includes maintaining a positive stance, asking appropriate questions, and staying positive when giving feedback. Facilitators describe concentrating on getting students to self-reflect positively, focusing on strengths rather than on what went wrong, and emphasizing how things can be improved in an effort to increase student confidence.

Debriefing literature also emphasizes faculty demeanor. A supportive faculty demeanor is a theme identified in a literature review by Neill and Wotton (2011). The word “facilitator” itself is



defined in the INACSL standards as “an individual who provides guidance, support, and structure during simulation-based learning experiences” (Meakim et al., 2013). INACSL debriefing standards also include that debriefers should “use verbal and nonverbal supportive demeanor to encourage discussion” (Decker et al., 2013). In regards to Kolb, the impact of the teacher in experiential learning is “huge.” Teachers need to be aware of their own learning style as well as the students’ learning styles to help each student pass through all aspects of the learning cycle (Kolb & Kolb, 2011).

**Encouraging student-led debriefing.** Facilitators in this study describe that students learn best from each other when the students lead the debriefing discussion. Efforts facilitators make to encourage students to lead include providing prompts and cues rather than answers, posing questions to get students to think about what things mean, and deepening learning by guiding the debriefing conversation toward more complex concepts. Facilitators feel that more participation in the debriefing conversation means more learning. They feel that providing activities such as assignments for simulation observers help these students have a contribution to the debriefing discussion.

In this study, most facilitators describe efforts to encourage students to lead by guiding the debriefing rather than lecturing, although they state that the amount of guidance is dependent on where the students are in their nursing program/learning. Techniques that facilitators use to guide include asking open-ended questions, using a tone of discovery and curiosity, and especially using silence to give students time to think and come up with their own answers.

Some of the ways that these facilitators encourage students to lead is found in current simulation literature. A review article by Neill and Wotton (2011) identified the “use of probing and cuing questions” as one of the themes, describing the questions as open-ended, focused on

skills, and geared toward finding rationales for actions, with these types of questions encouraging student discussion. Wazonis (2014) describes two methods of debriefing, DML and EIAG (Experience, Identify, Analyze, and Generalize) that “promote self-directed approaches to debriefing that foster meaningful learning in the participants.” Fanning and Gaba (2007) describe facilitating to the level of the debriefing participant in three levels; high, meaning that participants are largely debriefing themselves with low-level facilitator involvement; intermediate, where instructor involvement is increased to help an individual or team analyze the experience at a deep level; and low, where intensive level of instructor involvement may be necessary for teams that show little initiative or respond only superficially.

This theme provides a perfect fit for Kolb’s theory, however, where the learner (who in the case of this study is the pre-licensure nursing student) is at the center of the learning cycle. Learning, as described by Kolb, is all about the learner and is not about the teacher. The learner should be in control of their learning experience through all stages of the learning cycle, including reflective observation (where debriefing lies) as their experience therein determines what is learned. Thus, as defined by Kolb, if the student leads the debriefing as described by the nurse educators in this study, the student’s learning is enhanced as they have more control over their learning environment (Kolb & Kolb, 2011).

**Engaging the student learner.** This theme is similar to encouraging the student-led debriefing, in that engaging students in debriefing can encourage them to lead the debriefing. While student-led debriefing (like Kolb’s theory) is about the student, engaging the learner is about the facilitator. For example, facilitators in this study describe having to provide very little encouragement to get students who are further along in their nursing education to lead, as they are experienced in debriefing and excited about simulation learning, and thus are participatory in

leading the debrief. In comparison to the previous theme, engaging the student learner in this situation might be needed when the facilitator recognizes a quiet student who is not talking, a student who appears to not be interested in the discussion, or one who appears to be struggling with concepts, using techniques to engage those students in the debriefing conversation.

These techniques can include either simplifying the conversation conceptually, or “move the conversation toward more complex concepts.” To do this, facilitators describe providing prompts, cues, or asking students for their opinion “with understanding.” Facilitators ask open-ended questions, ask students for their thoughts or assumptions, or perhaps ask for a good thing the students learned from the simulation. Some facilitators describe engaging students by going around the group and asking each student for their opinion, or to share their ideas about a particular topic, or by using Socratic questioning, moving the conversation from simple questions to complex in order to deepen learning.

Outside of prompts, cues, and use of questions, facilitators engage students using their names when questioning and in discussion, or by looking right at students when questioning them. If a student seems uncomfortable or uncertain, the facilitator might deflect the question or attention from that student by asking another student a question. Facilitators describe using special techniques for engagement in two other situations: engaging a student who does not want to participate in the debriefing and facilitating so that all students are able to participate in debriefing when there are students dominating the conversation.

The debriefing literature is filled with ways to engage students, deepen the conversation, and move from simple to complex in questioning. There is much research on probing and cuing questions, and debriefing methods that have been formulated around ways that facilitators use to question, engage, and prompt students in their reflections. In fact, much of the available literature

on debriefing centers on facilitating techniques, specific debriefing methods, and their effects on student engagement and/or the student learning experience. Engagement itself is used in the INACSL Standard VI on debriefing when describing a person who is “competent” in facilitating debriefing, stating debriefers should “facilitate participants’ engagement in the reflective process” and “adjust the level of facilitation needed to engage every participant in discussion” (Decker et al., 2013).

The theme of engaging the student learner is less about the student and more about the facilitator, moving the application with Kolb’s theory from the learning cycle itself to the type of learners that the facilitator needs to attend to. Learners come with different “styles” as explained by Kolb; the prevalent styles are diverging, assimilating, converging, and accommodating (Fanning & Gaba, 2007). Thus, the facilitator needs to be aware that learners have different needs based on their learning style, and this requires facilitator skill in recognizing and responding to these needs to keep the learners engaged.

**Using debriefing aids.** The use of debriefing aids is another theme identified from the interviews that promotes learning. The use of video playback is one of these aids and is described by half of the facilitators in this study as tool they use at least some of the time. Facilitators illustrate with video such things as student body language, actions, communication, and how students engage the patient. Facilitators use other aids as well, including whiteboards, observation sheets, debriefing worksheets, and guides that facilitators have created to help increase and direct the debriefing conversation, although these types of aids are used by only a few facilitators who participated in the study. Facilitators provide a lot of description on how they use specific debriefing aids; much of this described in the study findings.

The use of video playback during debriefing is recommended in some debriefing literature (Arafeh, Hansen, & Nichols, 2010; Decker et al., 2013; Fanning & Gaba, 2007; Wickers, 2010). At this point in time, there have been several studies looking at the use of video playback during debriefing with, as one facilitator in this study described, “mixed” evidence. This is confirmed by three simulation literature reviews who found no clear benefit on study outcomes when video is used during debriefing (Dufrene & Young, 2014; Levett-Jones & Lapking, 2014; Raemer et al., 2011). One of the reviews recommends studying the use of video playback in further studies looking at team debriefing, use of scripts, and facilitator expertise (Raemer et al., 2011).

However, the effect of video playback on academic (or psychological safety) has raised red flags in studies involving undergraduate nursing students. Students in one study report stress and intimidation while watching their performance on videotape (Cantrell, 2008) and in another study students report that “they did not feel safe when videotaped for the purpose of review and debriefing” (Ganley & Linnard-Palmer, 2012). As establishing safety is an accepted practice across all simulation activities, these reports warrant future research especially within population of undergraduate nursing students the study samples were taken from.

Worksheets, use of a whiteboard, observation sheets, and other aids described in the findings were limited to one or a few facilitator’s descriptions. These debriefing aids have not been studied, unless associated with a debriefing method such as DML, in which case they have not been studied singly, but as part of the method.

Use of aids in debriefing does provide a fit with experiential learning, as they provide learning activities from another part of the learning cycle concurrently during reflective observation. For example, watching a video segment during debriefing would provide the concrete experience of the video observation during the reflective observation period provided

by debriefing. In addition, the use of different media, such as video playback and observation sheets will also engage a different type of learner in combination to those who are engaged by reflective observation (Kolb & Kolb, 2005; Kolb & Kolb, 2011).

**Promoting recognition of learning.** Facilitators describe promoting recognition of learning in students in several ways. One way is by encouraging students to reflect. This is facilitated by allowing students time for reflection, talking about the whole picture, reflecting on specific experiences, and using Socratic questions to promote reflection. Facilitators also promote student recognition of learning by focusing on the learning objectives. They describe allowing students to “all have their say” in the beginning of the debriefing then linking the debriefing to the objectives of the simulation before continuing on. They also redirect students back to the objectives if they get off on a tangent. Facilitators describe other ways they helped students recognize during debriefing what they have learned. This includes reinforcing prior learning, recognizing present learning, and then probing deeper to find out what students have learned specifically.

Examining actions performed during the simulation is another way facilitators promote recognition of learning during debriefing. Facilitators describe prompting, cuing, and questions that help student to examine their action. Facilitators feel learning is promoted when students identify what led to their actions, feelings and thoughts they had while performing the actions, what they did well, and what they could have done better. Alternative choices for the actions are investigated by facilitator prompts to “think outside the box.” Learning is “extended” by moving beyond actions to focusing on individual behaviors, determining what subsequent actions could be, and from there planning for correct actions in future simulation scenarios or actual clinical situations.

Two facilitators describe that learning can be promoted through simulation program support. Specifically, learning can be promoted by setting policy and maintaining consistency through simulation faculty training. The other way is by program planning to provide a consistent and well-thought debriefing program, providing safe learning, with “consistency among faculty, both concierges [facilitators] and clinical experts,” communicating the purpose of the program. The facilitator gives an example of this, stating that if using simulation for evaluation, this should be clearly communicated and “totally different” than simulation conducted for other reasons.

The impact that program policy and structure has on students recognizing their learning is not found in simulation literature, nor does it have any particular relation to experiential learning. However, the other aspects described by facilitators are found in debriefing literature. The value of reflection in nursing education has long been established and debriefing is well recognized as a time to reflect in simulation literature. Use of simulation in nursing education has increased markedly in the past decade, with almost 80% of BSN schools in one survey reporting use of patient simulators in their education courses (Katz, Peifer, & Armstrong, 2010). The increased use of simulation has been followed in the literature by a move in thought from simple to complex, from “should we reflect” to “how should we reflect” during debriefing. For example, a topic in a Fanning and Gaba (2007) article is “To Debrief or Not?” and describes elements of a good debriefing as “the use of open-ended questions, positive reinforcement, the use of cognitive aids, and good use of audiovisual capabilities,” and states “where possible, facilitation or self-debriefing should be encouraged.” Forward three years to recommendations from a “how to debrief” article where the authors describe “the goal of the debriefing is to focus and reflect on the learner’s actions to uncover the mental frameworks that shape their decisions” (Arafeh, Hansen, & Nichols, 2010). Debriefing research today not only includes recommendations, but

methods. For example, Dreifuerst (2012) describes a debriefing method, DML, that combines reflection and moves into a critical analysis of the events, including activities such as “reflecting-in-action,” “reflection-on-action,” and “reflecting-beyond-action.” Facilitators in this study discuss many debriefing activities that are consistent with current literature, focusing on actions and methods to improve debriefing and the learning that comes from it.

Reflecting on actions in the manner described by the facilitator depicts Kolb’s Experiential Learning Cycle, where the simulation is the concrete event, debriefing is the reflective observation, and discussing alternative actions and planning are part of the abstract conceptualization. The only missing stage from the cycle is active experimentation. Thus, the facilitators’ descriptions of how to best promote learning by focusing on actions are an illustration of how students should move through Kolb’s learning cycle (Kolb & Kolb, 2005).

**Facilitating to the level of the learner.** Facilitating to the level of the learner is another way facilitators describe learning is promoted. This is primarily directed to the educational level of the student, meaning where they are in their nursing education. Facilitators describe beginning students as needing more guidance during debriefing and describe keeping the debriefing conversation more on a surface level. The facilitation style for beginning students is softer and supportive. Students further along in their nursing program were described as needing less coaching from facilitators. With more advanced students, facilitators deepen the conversation, guiding the students to interpret, rather than describe. Facilitator style for more advanced students, while still supportive, is more critical as actions are reviewed and interpreted.

Debriefing is also tailored to the level of the simulation being debriefed, for example, a simulation evaluating a student requires much more attention and care from the facilitator than a simulation providing instruction only. Other types of levels include the size of the group being



debriefed, for example facilitators debrief one person in a different manner than a group of 20. One facilitator also described facilitating to the needs of the group, stating she feels it is important to “go with the flow of the group,” thus meeting their needs.

Fanning and Gaba (2007) describe “levels of facilitation that may be employed.” The levels of facilitation are labeled as “high,” “intermediate,” and “low” but these levels of facilitation are related to facilitator involvement rather than the needs of the participants or groups. References to the “level of facilitation” are echoed in simulation literature, for example, in the INACSL Debriefing Standard that talks of adjusting the level of facilitation to engage all participants. Debriefing for specific clinical and training events is discussed by in one “how to debrief” article, and while this considers the needs of the group, does not consider the learning level of the participant (Arafah, Hansen, & Nichols, 2010). More recent debriefing literature also does not consider the level of the participant, neither learning level, group size, nor type of simulation being debriefed. As stated in a recent review on methods and evaluations for simulation debriefing “the findings are primarily expert opinions, with only seven reports of research meeting the inclusion criteria for the review” (Wazonis, 2014, p. 461).

Facilitating to the level of the learner fits well with Kolb’s Experiential Learning Theory, which considers learning styles as an integral factor as the learner moves through the learning cycle (Kolb & Kolb, 2011).

**Debriefing environment.** Facilitators describe that the debriefing environment affects student learning; however, the environments they described varied. Two facilitators describe debriefing right “at the bedside” giving “real-time” feedback with equipment that was actually used in the simulation. More formal debriefing arrangements are described, such as seating around a table or arranging chairs into a “horseshoe” so everyone can see each other. Two

facilitators describe their preferred debriefing environments as comfortable, private, and safe from others overhearing. One facilitator describes the environment she uses for “one to one” debriefings are held away from the bedside in a private area where disruptions are minimized, so the facilitator can focus on the student.

Who to include in the debriefing is another aspect of environment that facilitators feel has an effect on student learning. Some facilitators describe limiting participants to just the students and facilitator to help students feel safe. Other facilitators invite additional people into the debriefing to provide feedback, such as standardized patients (SP’s), students helping with the simulation, or clinical instructors or experts.

There is a lot on environment in debriefing literature, particularly a “safe and trusting environment” (Neill & Wotton, 2011) which refers to patient safety rather than the physical environment. One article recommends a physical environment in a room separate from the simulation for “complex debriefings.” The room should be “comfortable, private, and a relatively intimate environment, with a seating arrangement that varies with the style of the debriefing and degree of facilitation” (Fanning & Gaba, 2007). Another article recommends a room size dependent on the number of participants, with a round table “conducive to small-group discussion, with the facilitator seated within the group at the table. Students should also be dressed in the expected professional attire worn in the clinical situation that was simulated (Wickers, 2010). A recent research article found that 70% of nurse faculty survey respondents describe the location of debriefing as different from where the simulation took place. This survey reports the types of people present in debriefing as nursing faculty (94%), students (91%), observers (20%), and equipment operators (14%) (Wazonis, 2015). These articles and the research study all show variations in the environment just as the facilitators in this study

described. However for participants in debriefing, the Wazonis (2015) study did not mention SP's or clinical experts, although the clinical experts could have been a part of the faculty members included in the study results. The effect of environment on student learning, however, is unstudied.

Kolb's theory does not directly address the physical environment or who should be in the debriefing.

**Post-debriefing activities.** Several facilitators describe using a variety of post-debriefing assignments to enhance or extend student learning, including communication and reflection assignments, reflective journals, a reflective experience paper, a charting assignment, student self-assessments, and written feedback from the debriefing facilitator. Two facilitators describe sometimes having students repeat their scenario, allowing them to fix the mistakes identified in debriefing. The repeat simulation is dependent on available time.

There is little in the literature to determine if post-simulation debriefing activities can extend learning. One study found no student-perceived learning benefits when journaling was added following debriefing (Reed, 2015). However, if considering Kolb's Experiential Learning Cycle, adding activities after debriefing, such as a repeat simulation, could close the learning loop. In this case, the concrete experience would be the simulation, reflective observation would occur during debriefing, abstract conceptualization would be the interpretation and analysis of the simulation that happens when learners make sense of the experience during debriefing, and active experimentation would be the repeat simulation to test new learning that has developed while progressing through the cycle (Zigmont, Kappus, & Sudikoff, 2011).

**Question 3. What do debriefing facilitators feel the student attitudes, behaviors, and verbalizations are that indicate that learning has taken place during debriefing?**

Several themes emerge from the interviews describing how facilitators recognize students are learning during debriefing. These themes include direct expressions of learning, connecting learning, planning for future practice experiences, sharing with peers, the “Ah-ha” moment, critically reviewing actions, excitement and engagement during debriefing, application of learning in clinical and simulation experiences, and identifying student learning through formal and informal learning assessments, such as a rubric or through evaluation of a post-clinical assignment.

Simulation literature does not define how facilitators know students are learning. This is in part because there is no consistent definition of what constitutes learning, and available research on various debriefing techniques and methods use a variety of outcomes that they are measuring when evaluating debriefing effectiveness. As many earlier simulation research studies have focused on the student experience during simulation activities, there are some ways that students identify they are learning that compare to the facilitator-identified results found in this study. For example, during development of the DES<sup>®</sup>, a tool to evaluate the student experience during debriefing, eight items factored together in the subscale area of “Learning and Making Connections.” These items include making connections in learning, processing the learning experience, identifying learning, finding meaning in the simulation, answering questions from the simulation, becoming more aware of self, clarifying problems, and making connections between theory and real-life situations (Reed, 2012). Some themes found in this study are similar to DES learning items. Table 3 display items from the tool that are similar to themes found in this study:

**Table 3. Comparison of Learning Items from the DES<sup>®</sup> with Study Themes**

| DES item(s)  | Learning theme from study   |
|--|---|
| Identifying learning                                       | Direct expressions of learning                                    |
| Made connections in learning                               | Connecting learning   |
| Provided me with a learning opportunity                    | The “Ah-ha” moment<br>Excitement and engagement during debriefing |
| Helped me to find meaning<br>Clarified problems            | Critically reviewing actions (finding meaning subtheme)           |
| Made connections between learning and real-life situations | Planning for future experiences                                   |

(Reed, 2012)

**Question 4. How do debriefing facilitators determine what has been learned during debriefing?**

Facilitators were asked if they measured the learning that occurred during debriefing and if so, what they used to measure it. Some facilitators do not measure learning, and others describe the use of both formal and informal learning assessments. Informal assessments include students answering questions correctly, the application of learning in the clinical or simulation setting, progressive improvement on post-clinical assignments, and assessing post-debriefing journaling. More formal measures of learning that facilitators use are graded post-debriefing assignments, quantitatively measuring video segments that were marked when students met learning objectives, using rubrics that follow performance standards, and facilitator-generated rubrics and learning measures. One facilitator uses the DES which has established reliability and validity, to measure the student learning experience (Reed, 2012).

The NLN Board of Governors (2015) recommends that debriefing be evaluated “to ensure that the overall learning experience contributes to meeting course and/or program

outcomes.” Identified evaluation instruments in this document are the Debriefing Assessment of Simulation in Healthcare (DASH)<sup>®</sup> which rates the facilitator skill in debriefing, the DES, which is tool rating the student debriefing experience, and the Objective Structured Assessment of Debriefing, which assesses surgery simulation debriefings (NLN, 2015). None of these tools formally measure learning acquired during debriefing, although the DES has an eight-item subscale called “learning and making connections” (Reed, 2012).

### **Study Limitations**

The results of this study are limited by the subjective views of the researcher. Inquiry of any type involves description, and all description requires interpretation. When acknowledging the “facts” about a phenomenon it is necessary to acknowledge that they do not exist outside of the context that gives them meaning. Descriptions depend on the perceptions, biases, and sensibilities of the interpreter and how they describe and begin to transform an event or experience (Sandelowski, 2000). Grandheim and Lundman (2003) describe limitations that can be applied to this research study as well as other qualitative studies, which is that “reality can be interpreted in various ways, and the understanding is dependent on subjective interpretation” They say that “a text always involves multiple meanings and there is always some degree of interpretation when approaching a text” (p. 106).

Thus, the descriptions, results, and implications presented about learning acquired during simulation debriefing are subject to the lens of researcher interpretation and are a limitation for the study. The use of qualitative descriptive methods for the study, with results presenting the facts in their everyday language, helps to mitigate the influence of my subjective interpretation as compared to other qualitative methods such as phenomenology or ethnography, which require much more interpretive input from the researcher. The influence of researcher perceptions and

biases on the interpretations using qualitative description is also less than with grounded theory or some types of phenomenological studies, where researchers are required to look farther into or beyond their data, by not just reading words, but into, between, and beyond them, providing more potential for subjective interpretation (Sandelowski, 2000). Therefore, the limitations of subjective interpretation are lessened by the choice of qualitative description as a method for this study. In addition, measures to establish trustworthiness have been utilized in this study, including member checking, peer review, and prolonged engagement with the nurse educators interviewed.

Another limitation is that some qualitative results may not be specific to the learning that is acquired during debriefing. For example, most of the situations describing applied learning happened in later clinical and simulation experiences and therefore the described learning cannot be attributed solely to debriefing, but instead to the overall simulation experience. Another limitation for this study is that it provides only initial information regarding identification of student learning acquired during debriefing. More research is needed to confirm and expand upon these findings.

### **Implications for practice**

Wazonis (2014) recommends that every debriefing method should be evaluated, as “the differences found among methods and evaluations for simulation debriefing have direct implications for practice” (p. 463). In addition, the methods used in debriefing are only one of the elements of debriefing, with phases, approaches and means for evaluation identified as other elements. In debriefing practice, facilitators should prioritize debriefing elements to help determine the most appropriate debriefing method for the particular situation they are debriefing (Wazonis, 2014).

The purpose of this qualitative descriptive study is to determine how nurse educators who facilitate debriefing know that students are learning and to use these results to inform the development of an instrument to measure the nursing student experience during debriefing. There have been many ways identified, and going forward with development of an instrument specific in measuring learning is still planned. With an objective measure of learning, evaluation of debriefing methods and approaches can help to identify best debriefing practices. This qualitative study also describes many elements of debriefing that nurse educators feel impact the student learning debriefing experience positively. These elements should be investigated to help determine best debriefing practices, as they have a potential positive impact on student learning and practice.

### **Implications for future research**

The descriptions in this research study provide a base of understanding concerning learning acquired during debriefing. Future research can build upon this base to determine if and how the individual thematic findings impact the nursing student learning experience during debriefing. As previously described, development and testing of an observer/facilitator completed scale is still planned. An instrument to measure learning during debriefing using the qualitative viewpoints from this study can be used in research comparing techniques and methods to determine how they influence student learning. Areas of study needing further investigation were identified during the integration of study findings. These areas include the impact of academic safety on learning and the debriefing experience, the impact of simulation program support on learning, and debriefing specific to the learning level of the student.



## **Chapter Summary**

The findings from this qualitative descriptive research study provide initial evidence regarding how to recognize and promote learning acquired during simulation debriefing. These findings provide a base that can assist in future research regarding debriefing and the debriefing practices that best promote learning.

**Table 4. INACSL Standard VI: The Debriefing Process**

| Criterion  | Guideline   | Practices   |
|--|---|---|
| 1: Facilitated by a person(s) competent in the process of debriefing   | Identify the process to achieve competency in debriefing                  | Understands best debriefing practices with regard to the format; facilitates reflective discussion<br>Acquires specific education provided by a formal course, continuing education offering, or targeted work with experienced mentor<br>Validates competence through use of an established instrument, and through input from both learners and experienced debriefers<br>Actively maintains debriefing skills through practice in simulation-based activities  |
| 2: Conducted in an environment that supports confidentiality, trust, open communication, self-analysis, and reflection | Create a safe environment for participant debriefing                      | Orient participants to overall objectives and purposes of the debriefing process<br>Establish expectations regarding confidentiality of the simulation scenario and debriefing<br>Develop rules of participant conduct concerning constructive, honest, yet respectful feedback<br>Demonstrate positive regard for participants<br>Use verbal and nonverbal supportive demeanor to encourage discussion<br>Allow sufficient time to elicit participants' emotional response and concerns prior to engaging in an analysis of actions<br>Explore participants' perspectives and understanding to close gaps between actual and desired performance<br>Engage both participant observer and active participants in debriefing to support collaborative learning |
| 3: Facilitated by person(s) who observes the simulated experience  | Identify the facilitator's responsibilities during the debriefing process | Establish a climate of professional respect, including confidentiality for content of debriefing<br>Outline the process for debriefing, including the expectation for a participant-driven discussion as they analyze their own performance<br>Facilitate participants' engagement in the reflective process<br>Adjust the level of facilitation needed to engage every participant in discussion<br>Provide constructive feedback or debriefing based on participants' decisions and actions, including reinforcing behaviors, correcting  |

|   |  |   |
|---|--|---|
|   |  | <p>misunderstanding, and clarifying thoughts that led to incorrect decisions</p> <p>Assist participants in understanding how what was learned during the simulation and debriefing can be applied to future clinical situations</p> <p>Summarize learning at the end of the debriefing</p>  |
| 4: Based on a structured framework for debriefing   | Identify the structural elements of debriefing to include the optimal time and duration required to achieve the objectives | <p>Create a safe and supportive environment</p> <p>Use the appropriate style of debriefing (including video playback) based on participant objectives</p> <p>Allow progression through the phases of debriefing (reaction, analysis, and summary)</p> <p>Allow unexpected topics to be addressed</p> <p>Facilitate appropriate clinical judgement, reasoning and reflection</p> <p>Allow facilitation to be modified based on assessed participant needs and the impact of the experience</p> <p>Allow for post debriefing activities that promote self-reflection and critique</p> |
| 5: Congruent with the participants' objectives and outcomes of the simulation-based learning experience | Focus debriefing on the participants objectives and outcomes   | <p>Consider participant objectives in the debriefing</p> <p>Facilitate participant's identification of strength in performance and clinical judgment or reasoning</p> <p>Identify performance gaps based on the outcomes of the simulation-based experience at the end of the debriefing</p> <p>Recommend activities to alleviate identified performance gaps at the end of the debriefing</p>  |

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(Decker et al., 2013).

**Table 5. Facilitator Definitions of Learning**

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Learning is how you make sense of your environment.

There are levels of learning. There is superficial learning, which is knowledge based and maybe memorization. True learning is transformation of perception or how somebody sees the world or a concept. It either changes it, transforms it, or advances it. True learning is not just memorization—it becomes part of that person, or how they see things. They are able to apply what they have learned, to tell a story about it. True learning is being able to manipulate concepts and ideas, and approach things differently.

Learning is a change in thought that can influence action and perceptions. It doesn't necessarily need to change actions; sometimes it is a change in one's view of something, such as how one perceives themselves, their role, or the patient's.

Learning is the acquisition of knowledge to reach a point of knowing, whether it is abstract or whether it is actually knowing how to do something. Thus, acquiring skills is also part of learning. There is muscle memory and abstract memory and in nursing it is important to have both.

Learning is activity and experience; reflection upon experience. It is making connections, finding patterns. Learning is a process by which one acquires and ingests and also store or accept information. In nursing simulation, learning is looking at patterns, such as patterns of safety.

Learning encompasses critical thinking and problem solving, not just memorization, or “stuff and flush.” Learning is more experiential; learning about something, then thinking about the action and what could have been done differently or better, what could have been changed.

Learning is if students can just learn one more piece of information, if they can learn how to apply information that they already hold, if they can learn to integrate pieces of knowledge together, all in relationship to trying to improve their nursing actions in their practice.

Learning is learning more knowledge and trying to apply it, knowing how to integrate it, and knowing how to translate it into their future practice and future knowing.

Learning is acquiring knowledge and skills, and learned behaviors that change the learner over time.

Learning is gaining knowledge and skills through experience or through being taught by an instructor.

Learning is taking new content and internalizing it so it can be applied later. Understanding why something works and how to use it.

Learning is a behavior change in knowledge, skills, and/or attitudes. It is drawing connections between previous information and new information. From a caring science perspective, would

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expect changes in the student's knowledge, actions, or behaviors, and a way of being with self and others.

Learning is a process of learning some new knowledge or new skill. It's a process that simulation has helped quite a bit.

Learning occurs when a person takes what they have learned from a previous situation and applies it in a safe and appropriate manner in a similar situation.

In learning all students bring something to the table. It is not what the teacher wants them to learn; it is what is important to the student to learn and what to know going forward.

Learning involves acquiring either knowledge or a skill, and being able to use it. It is not just about knowing. It is more about understanding and taking that knowledge and actually being able to apply it to something.

Learning is dynamic, and requires self-motivation to open up, see, and ask questions. To find answers, students need to see more and get in the faculty's face, saying "I don't get it."

Learning is a self-directed, self-actualization process. Each person has a different attitude for and attitude about learning. Nursing faculty need to make sure students understand that they learn something every day, and need to be open to learning opportunities.

When students know a skill, apply it at the right time, see the bigger picture, and know "that's why we are doing this." It is synthesis, applying the right thing. Learning is to take in information and have it help you to be better at something, to improve. There is a positive change in behavior. Learning is gathering information, understanding and using it.

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## Appendix A

### Recruitment Script for Potential Participants

My name is Shelly Reed, a PhD nursing student at the University of Nevada, Las Vegas School of Nursing. I am conducting a research study titled *Identifying Learning Acquired During Debriefing* and would like to interview debriefing facilitators to explore how they perceive learning is gained during debriefing.

Inclusion criteria: Nurses who speak English and work in a simulation center associated with a pre-licensure nursing program who have **experience debriefing pre-licensure nursing students**.

The interviews will be conducted either in-person (preferred), or by phone. The interviews will be held at a location that is convenient for you. In the case of in-person interviews, I will travel to your location.

**The interview is estimated to take a half an hour** and will be recorded. I will send you the interview guide at least 24 hours prior to your interview so that you will be familiar with the questions. After the interviews have been transcribed and analyzed qualitatively, I will send you a copy of the interview transcript with my interpretations to give you the opportunity to clarify or comment on the transcript/interpretations by your choice of phone interview or email. I will give you \$25 Visa gift card for your participation after your interview is completed.

I hope you will consider being a part of this research. You are also welcome to invite others to participate who qualify for inclusion in the study. If you would like to participate or have additional questions, please contact me at [shelly-reed@byu.edu](mailto:shelly-reed@byu.edu) or 111-111-1111 or Nancy Menzel, dissertation chair, 111-111-1111.

## Appendix B

### Recruitment Script for Deans, Directors of Nursing, and Peers

My name is Shelly Reed, a PhD nursing student at the University of Nevada, Las Vegas School of Nursing. I am conducting a research study titled *Identifying Learning Acquired During Debriefing* and would like to interview debriefing facilitators to explore how they perceive learning is gained during debriefing.

Do you have a simulation center associated with your nursing program? If you do, I would appreciate it if you would pass this email along to the nurse(s) who debrief students there, to see whether or not they might be interested in participating.

Inclusion criteria: Nurses who work within a simulation center within a pre-licensure nursing program who have **experience debriefing pre-licensure nursing students**.

The interviews will be conducted either in-person (preferred) or by phone. The interviews will be held at a location that is convenient for the participant. In the case of in-person interviews, the researcher will travel to a location convenient for the participant. The University of Nevada, Las Vegas Institutional Review Board has approved this study. Phone interviews will require the participant to be able to scan the signed informed consent and email it to me prior to the interview.

**The interview is estimated to take a half an hour** and will be audio recorded. I will send the participant the interview guide at least 24 hours prior to the interview to help him or her become familiar with the questions. I will give the participant a \$25 Visa gift card for his/her participation in the interview. After the interviews have been transcribed and analyzed qualitatively, I will send the participant a copy of the interview transcript with my interpretations to give the participant an opportunity to clarify or comment on the transcript/interpretations.

I hope you will send this invitation along to those you know who could participate in this study. If you would like to participate or have additional questions, please contact me at [shelly-reed@byu.edu](mailto:shelly-reed@byu.edu), or 111-111-1111, or Nancy Menzel, my dissertation chair at 111-111-1111. Thank you so much.

## Appendix C

### Reflexive Journal

#### September 29, 2015. Jo

I got my first interview done today. I was nervous, but I could also tell she was nervous. I pretty much followed the interview guide, but wish I would have asked questions to probe a little deeper with the answers that she gave me. Plus, I tried to act very professional, like an educated researcher performing a research study, but I think this did not help her to feel as comfortable with me, and she was thus less talkative. Next time, I will be myself. I like getting to know what people are about, I am interested in their thoughts on this subject, and I am going to get comfortable discussing it.

#### October 2, 2015. Kerri, Alberta, and Katya

Three interviews done today! When I was planning this study I had the NLN conference in mind, thinking that it is close enough to drive and that I could possibly find some research subjects to interview there. When I was approved by the IRB about three weeks before the study, I started emailing, using the INACSL list serve and then looking up simulation programs and emailing their directors and/or the dean of the nursing program. Two people responded that they would be at NLN and that they would participate in my study. Knowing that Dr. Doolen on my committee would know potential participants in Vegas, and that perhaps interviewing at NLN would be a good idea, I asked her a week before NLN if she knew anyone. A nurse educator from a program in Henderson emailed me that she could participate.

I had already given my students their clinical schedule, including Thursday, smack dab in the middle of the NLN conference. But my three participants said I could interview them on Friday so yesterday after clinical I drove with my son to Las Vegas, staying across the street from the NLN conference in the Flamingo. My first interview was at the nursing school in Henderson. We drove there, and I had no idea that Henderson was so far from the “strip.” My interviewee was very kind and knowledgeable. I used the digital recorder and checked it more than once during the interview, and found out after the interview that it stopped recording at some point, probably about 2/3 of the way through the interview. I was taking notes, so will add those, but was disappointed the recorder stopped for some unknown reason. Bummer. I double recorded the next two interviews, and will continue to do so just to make sure I get the interviews recorded.

My interviewee had many great thoughts and ideas on debriefing. I especially liked that the program that she was associated with had developed a theory to guide their program. They call it the “Caring Theory,” and thread it through their entire program, including simulation and debriefing. She gave me some cool “artifacts” concerning their theory, including a nursing magazine on their simulation program, a bibliography about simulation and caring science, and



an article they had published in a nursing journal on the theory. I am impressed. I also tried to get to know her by asking questions about her experience and the nursing program she teaches in, and I felt that this increased her comfort with me, and I got a lot of good information during the interview.

After the interview I sat outside of the university, which was up against the foothills. It is a new campus. As I waited (and waited) for my son to pick me up I got to listen to a guy who had lived in the foothills about a mile from the campus. He has lived in Vegas for 23 years, “called there to preach about the Lord Jesus.” He had some interesting thoughts, and was not my idea of a homeless man—clean clothes and in good repair. He tells me he has friends at the senior center, where he goes regularly to eat. I tried to just listen, be open and understanding, and asked a few questions here and there, the same things I had just tried to do during the interview.

Back at the conference hotel I had my next two interviews, in an empty conference room—not hard to find in such a big hotel! The first participant I interviewed had completed the NLN Simulation Scholar program. She knows so much! I was humbled to be talking to her, but at the same time she is so down to earth and approachable that I felt immediately very comfortable with her. She said she thinks my study is worthwhile, so that also made me feel good about what I am doing. After her interview I interviewed another faculty member. I noticed that both of these interviews went longer—close to an hour actually, and my “information sheet” tells the participants the interviews will take a half hour. However, I feel the participants wanted to talk and share, and I wanted to hear their thoughts, so I don’t feel they were unhappy with the interview taking more time. I am starting to hear some things come up again, for example, the “Ah-ha” moment where the debriefers can tell the students are “getting it”. Only four interviews, and I am starting to hearing common themes. I will have to see if these things come up in more interviews.

### **October 7, 2015. Ann**

I had a phone interview with Ann today. I had a ticket booked to Phoenix and hoped to fly out and talk to several people, but out of the 25 or so emails I sent, Ann was the only one who responded. So I cancelled the flight and interviewed Ann over the phone. Although she is the youngest nurse educator I have interviewed, she had a lot of good insight into acquiring learning during debriefing. Our interview went close to an hour. My favorite thing that she said was that she used to talk a lot during debriefing because she thought she had so much to impart to students. She then completed a Debriefing with Good Judgement (DGJ) training, and has taught this to other faculty. I am not a fan of DGJ, as I feel like it is a medically-based debriefing model. However, after her training, Ann realized that she needed to listen, rather than talk, and let the students come up with their learning. This is something I tell myself constantly with students, and is something that I think is very important. So if DGJ is a method that encourages this, maybe I should change up my negative mindset about it.

I am sending interviews to my student research assistants to transcribe as I finish them. One of my research assistants is really good, as I have been working with her for almost a year now, and with my last research study. I have sent the two new assistants examples of her work so they can follow. I asked them all to leave out useless words, like “Ums” when they are transcribing. C has already gotten my first interview back to me and is working on another.

**October 10, 2015 Sally**

I had another interview today. This interview was more within the time limit, going about 40 minutes. I felt the information I got was good, and I am learning to ask questions better. She, like most of the people I have interviewed thus far, got her debriefing training from a variety of places, like conference sessions on debriefing and the NLN SIRC site. She has also been trained in Debriefing for Meaningful Learning (DML) and primarily uses that when she debriefs.

She talked about the “light bulb” moment, which is something most participants have talked about thus far. She also talked about using silence to stimulate students to talk/participate during debriefing. This is something that Ann also talked about. Perhaps another developing theme....

**October 13, 2015. Cindy, Shorty**

I interviewed Cindy and Shorty today. Cindy teaches and is the director of a simulation program at a nursing program here in town. I had somewhat negative impressions of this program going into the interview, based on the comments of a colleague.

But so much for my previous impressions. And, I guess I am learning really quickly if I have negative impressions of something, perhaps I should just learn more about it.

I found out that the program that she currently works for has several campuses. And, they have an undergraduate RN program. I knew they had an RN to BSN option, but they also have a beginning nursing program, which I did not know. The simulation program is a well-run ship, and she is the captain, over all the campuses. Based on NLN recommendations, she has decided the simulation program needs to be theory-based, and has researched a lot of theories. She has decided on Kolb’s Experiential Learning Theory, and will be “rolling this out” to the simulation programs she directs in a couple of months. She has many resources for her simulation instructors and has these in a file they can access electronically. She has also videotaped her best instructor as an example for the other instructors to watch, and has included this as a resource in the simulation files. She is one busy woman, and I am glad she found the time to talk with me.

Something else different with the simulation program she directs. Clinical competency is evaluated with some of the simulations. This is very well organized, and debriefing for these simulations differs based on passing or failing, and is also different than for “learning” simulations. She uses a rubric for the evaluative simulations, and this is part of the debriefing. Safety during debriefing has been something that has been mentioned before this interview, and

it came up again today. However, safety has a whole different meaning when a high-stakes simulation is involved, and she keeps students psychologically safe by allowing them to repeat the simulation if they fail, and also through the debriefing process.

I am very impressed with their nursing program, especially because of the big part that simulation plays in it, and even more so because she has the simulation program running like a well-oiled machine.

I went from the interview with Cindy to the interview with Shorty, who teaches at a community college in an AD program. Like Cindy, Shorty is very busy. Cindy is busy because she is the simulation director over many campuses. Shorty is very busy because she is the backbone of the simulation program at this very busy campus. She must spend a lot of time in the simulation center. We bonded, so to speak, and talked for over an hour. At the end of the interview, I got a tour of the simulation lab. Sometime, if both of us can find the time, we are going to work on some research together.

Shorty brought up something else I am starting to hear in more of the interviews, and that is debriefing to the educational level of the learner. Nursing students come in to her program at many different levels—some with experience at the bedside, others with no experience. Part of keeping students safe to her is to get them at the same level so that they can move forward as a group. So the facilitator needs to be aware of the level of the student at the outset.

#### **October 14, 2015. Annie**

I met with Annie at a restaurant of her choice in a city about an hour and a half away. The environment was a bit distracting, but I felt like I got good information from her. Still hearing about the lightbulb moment.

#### **October 15, 2015. Katie, Sally**

I met with both Katie and Sally today, interviewing them in their offices at a university in another state. Katie talked about the “Ah-ha” moment (like most everyone else). She also talked a lot about debriefing to the educational level of the students, using different debriefing methods based on the level of the learner. Sally talked a lot about how she knows students are learning when they answer with thought, are less concerned about themselves, are more engaged (being quiet does not necessarily mean they are not learning, however), and who reach the objectives more quickly. When she is debriefing a simulation in a clinical area she is less experienced in, Sally will bring in a clinical faculty to answer questions, and to help figure out where students’ strengths and challenges lie.

#### **October 25, 2015. Cooper, Margaret, and Tony.**

I had a phone interview with Cooper this morning, since she was in a Midwestern state and I am here in Utah. Cooper consistently uses video recordings in her debriefings. I was very interested

in this, as I am not sure about the use of video recording. Cooper uses what she called “deliberate debriefing.” The program she teaches in has constructs that they emphasize throughout their nursing program, and Cooper will “deliberately” emphasize these constructs using short video segments from the video recorded simulation. It sounds like she has this system down, and the concerns about fumbling with equipment that I have heard from others are not a problem. Also interesting—since the students have video used consistently throughout their program, she says that they are comfortable seeing themselves on video. This is one of the concerns I have had with the use of video recordings during debriefing.

I interviewed Tony later in the morning. He teaches in a two year program, and he and one other persons pretty much run the show. I was amazed at how aware he is of the students, who they are, and where they are in their learning. This nursing program is the only one in the community, and many of the graduates work at the local hospital. He gets feedback from the hospital to help him know the graduates’ strong and weak points, and uses this feedback to help him decide what topics to have simulations on. His biggest emphasis in simulation is patient safety. He says that if students have what he calls a “critical fail,” in other words, an issue that compromises patient safety, he will have them repeat the simulation.

Another thing that Tony does is debrief most groups at the bedside. He feels that this is really important, because the equipment used in the simulation is right there, and during debriefing, if students have forgotten something or done something incorrectly (like leaving a catheter clamped) the group can go right to the equipment and look at it. He occasionally uses video recordings, but this is for the earlier groups, and mostly for skills. He marks the video recording, and this debriefing takes place not in the open lab, but in a separate area where video playback can be utilized.

In the afternoon I interviewed Margaret at a university about an hour away, at the simulation area where she teaches. She is definitely the most experienced person I have talked to thus far—she has been in the lab for 35 years, and has been doing simulation and debriefing before they ever called it that. It sounds like she has inherently known debriefing was important all along, so did workshops on reflection techniques before there was ever anything out there to train to debrief. Margaret was almost apologetic at times, maybe humble is a better word, about her experience. I am getting better at questioning, though, and I kept at it and got a lot out of her concerning her thoughts and ideas on debriefing. Two things struck me. They do simulations that are “pass offs” and she always makes sure that the debriefings for these are uninterrupted, so that she can give the student her full attention. And, she does these in private. For group simulations, she often does these at the bedside, like Tony does. I think both of their ideas of doing it at the bedside, with all of the equipment used in the simulation handy, is a very good idea.

### **October 30, 2015. Lisa**

I interviewed Lisa in a debriefing room at a local hospital-based simulation center, during the Utah Simulation Users Network meeting. Lisa has been a simulation instructor for several years. She also uses video recordings during her interviews, but has a different twist on use. She identifies the objectives she wants the students to learn throughout the semester, and these objectives are linked to the course objectives. Then, she “color codes” video segments, marking the video with a color when she observes a student doing something correctly. For debriefing, she will use a graph she has made, displaying the amount of times the students reached the target behaviors. (These have been color-coded, with a color related to an objective). Thus both the students and Lisa will have a visual representation of how the students have performed during the simulation, and when they are reaching the objectives. Lisa says that both she and the students can see how they are progressing from one simulation to the next, as they can compare the graphs from one time to the next. It sounds like a way to give students positive reinforcement for correct behaviors as well.

Another thing that Lisa does is to try and improve herself. She pays close attention to the student ratings, and takes them to heart. She performed lower in the student ratings several years ago, and had an evaluator from the University come in and give her suggestions. She implemented those suggestions, and her ratings improved. She now has a colleague come in once a semester to see how she is doing, and to give her feedback. I am impressed that she is continually open to suggestions on how she can do better, and does not sit back and coast.

Lisa talks of ways other ways she knows students are learning, things I have heard before, like the “Ah-ha” moment, and being excited and engaged in the discussion. Another way she knows students are learning is by how they do on a written post-simulation/debriefing assignment, which is on SBAR reporting. She also knows that students are learning when they formulate their own SBAR report form, apart from the university. I don’t think this learning can be linked to only debriefing, though, but all of the simulation activities.

### **November 12, 2015. Elsa**

Telephone interview with Elsa today. She also uses video playback, but reserves this for students that are further along in their nursing programs. She also uses other debriefing methods, such as DML, based on the educational level of the student, reserving DML for students who are further along in the program. Of note, she learned to debriefing from the Aerospace faculty at her university who were involved in simulation. No one else has been able to say that thus far! Of course, she has attended nursing conference sessions since that are on debriefing.

Students who are simulation observers are involved in the debriefing, which is something I have heard in other interviews. However, she has a different twist on this—she uses observation tools, three different types. Simulation observers will fill out two of the three types of tools, with some of the observers using one type and the rest using the other tool. One of the tools is based on the

constructs that the overall nursing program is based on. Students become familiar with the tools (and program constructs) because they are used from one to the next.

Ways she knows students are learning—excitement, building upon concepts, finding out what students are thinking, and in their reflective journaling.

### **November 13, 2015. Brent**

I interviewed Brent at a local bookstore (his choice). We found a quiet corner and had a good interview. Brent learned simulation in another state, and I learned of a new simulation group that I had not heard of before (SimGhosts). He knows students are learning when they are more excited and when they talk about how they are going to apply what they have learned in their future practice. He can also tell that students are learning when they make comments indicating this (which I have heard from other participants). He uses video playback for more advance students, so like other participants, chooses the debriefing method he uses based on where the students are in their program.

### **November 14, 2015**

I have been working on the initial data analysis of the transcribed interviews. I have several transcripts back from my research assistants, and have been working on data analysis. I had a suggestion from a co-worker (who will also be one of my peer reviewers), to set up the transcript on one side of the page and put my data analysis on the other side of the page in a column. So I am doing that. I have found a way in Word to set that up, and am going through each transcript and am highlighting what I find, and trying to color code it as well (for example, learning is highlighted in green). Next to the transcript, in a column on the right, I am writing my interpretations of what is being said.

I have this initial data analysis done on my first interview, and sent it out today to Jo for member checking, with the following instructions:

“I finally have the interview transcribed, along with my interpretation of the main points of the interview.

If you have time, could you please go through the transcript and comments to see if:

1. The transcript correctly describes what you wanted to say in the interview
2. My interpretations are correct.

The transcript has been set up using line numbers, with the transcript narrative on the left, and my interpretations on the right. If you have comments on the transcript or interpretation, you can either use the Word review tool, or use the line numbers in a typed narrative to identify where changes need to be made.

Thanks so much!!”

### **November 15, 2015**

I finished the initial data analysis on Kerri’s interview, and have sent it to her for member checking using the same instructions as I gave to Jo.

### **November 17, 2015. Rachel**

Phone interview with Rachel today, and I think this is my last interview, as no one else has indicated they would like to be interviewed. Rachel consistently uses one debriefing technique, DML, and uses worksheets that go along with it. She uses a theory to guide simulation and debriefing; the theory is based on the theory that her university uses. If standardized patients are in the simulation, she invites them into the debriefing to give feedback. She knows students are learning when they link things, talk about next steps, teach other students, and she also can tell they are learning from what they write in a reflective paper that they do. These are all things I have heard before in other interviews, so I am feeling okay about not having more interviews.

I also got back an email today from **Jo**, regarding the transcript for her interview that she “member checked.” She said she “looked it over and it looks accurate.” Great!

I am sending out these transcripts with the initial interpretations, to the participants, for member checking as I finish the initial data analysis. I hope to have this done by Thanksgiving, so I can spend time with my family.

### **November 26, 2015. Thanksgiving.**

Right. What was I thinking? I have been working on reading through the interviews and the initial data analysis in every spare minute. I haven’t even gotten all of them back!

But with family here for Thanksgiving, there have been a lot less spare minutes.

### **December 1, 2015**

I got my last interview transcript back from one of my research assistants. Still reading through interviews and working on the initial data analysis.

### **December 4, 2015**

Finished initial data analysis on Alberta, Kelley, and Rosemary, and sent each her transcript with the initial data analysis and the same instructions for member checking. Alberta must have read hers right away, because she send the transcript back today with a few notes. An example was correcting the name of a training, as well as the spelling of someone’s name.

**December 5, 2015**

Finished initial data analysis for Sally and Annie and sent the transcript and analysis to them for member checking (with the same instructions as used with Jo).

**December 7, 2015**

Initial data analysis complete on Cindy, Shorty, and Margaret; set each her own transcript (with initial analysis) for member checking, with the same instructions as for Jo.

**December 8, 2015**

Initial data analysis complete on Cooper; set her the transcript (with initial analysis) for member checking, with the same instructions as for Jo.

**December 12, 2015**

Initial data analysis complete on Brent; set him the transcript (with initial analysis) for member checking, with the same instructions.

**December 13, 2015**

Received Brent's interview transcript back with a very few comments (like "sometimes") italicized and inserted into the transcript.

**December 14, 2015**

Initial data analysis complete on Elsa; set her the transcript (with initial analysis) for member checking, with the same instructions as for Jo.

**December 15, 2015**

Last transcript! Initial data analysis complete on Lisa; set her the transcript (with initial analysis) for member checking, with the same instructions as for Jo.

Now I am reading through them again, and working to boil down the information into themes. Christmas is coming, and I am sure that will slow things down.

**January 4, 2016**

As I have been going through these interviews looking for themes, I have been thinking a lot about the peer review process, and looking through my texts and searching on the internet, trying to figure what exactly that it is and what I need to do. I have come to the conclusion that having the members of my committee read through my dissertation will be a peer review. So I sent an email to Drs Denby and Menzel for clarification. This is it:



Dr. Denby,

This is Shelly Reed; as a reminder you are on my dissertation committee as a graduate college representative, and also as the qualitative research expert.

I am in the process of compiling the results for my study. All interviews are transcribed, and I have performed a preliminary data analysis on each of the interviews. I am reexamining the peer review process. In my dissertation proposal, I defined this process as:

“In addition, peer debriefing by faculty research peers will be utilized. This will provide an opportunity to uncover biases, perspectives, and assumptions on the researcher’s part, and provide an opportunity to test and defend emergent hypotheses and see if they seem reasonable and plausible to a disinterested debriefer (Denby, Alford, & Ayala, 2011; Lincoln & Guba, 1985).”

My original plan was to have four peers, consisting of my committee (Dr. Menzel, Dr. Clark, and Dr. Doolen) and a faculty peer who focuses on qualitative research (Dr. McIntosh) read through the study transcripts and my findings, and provide peer review through this venue. I have gone through each of the transcripts and done at least an initial data analysis, and I am currently separating out the data provided by the interviews to answer my research questions. I have also sent all of the interviews out to the participants (17) and have received over half back, some with clarifying comments, others okaying the transcripts and initial data analysis as is.

There are 309 pages of transcripts with initial data analysis however, and this translates to 77 pages of transcript per faculty peer. That is a lot of reading for each faculty, and to be sure what I was asking of each of them, I went back to the literature to look at the peer review process. Morse (2015) states that “peer review or debriefing is intended to prevent bias and aid conceptual development of the study...it assists new researchers to synthesize and to see patterns in their data –sometimes by the questions asked by their peers, and sometimes even by listening to their own voice.” She continues by questioning that peer review is something that facilitates validity, and recommends “that the researcher listens to alternative points of view, but takes final responsibility for the results, and its implications and applications” (p.1215).

Creswell (2010) refers to Lincoln and Guba when explaining peer debriefing, stating that “a peer reviewer provides support, challenges the researcher’s assumptions, and asks the hard questions about methods and assumptions. It is best used over time, during the process of an entire study with peer debriefers providing written feedback to researchers or simply serving as a sounding board for ideas.”

In your 2011 study, you identify that “peer debriefing was utilized by methodological consultations provided by faculty research peers.”

Finally, I went on the NIH website and found a 2007 article titled “Evaluative Criteria for Research in Health care: Controversies and Recommendations” by Cohen and Crabtree that discusses reliability and validity. Peer debriefing is defined as The “process of exposing oneself to a disinterested peer in a manner paralleling an analytical session and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer’s mind.”

So these are my questions. I am trying to understand peer debriefing as best as possible, but it seems to me that having four busy faculty read through the transcripts could be a huge waste of their time, especially as I hope they will be reading through a full dissertation in just a few short weeks. According to the resources I cited above, it seems that the dissertation process itself, the comprehensive exam, the oral and written defense, and finally, the dissertation defense, are examples of the peer review process itself, as they are a critical examination of the methods used in the study including the analysis, interpretation, results, and implications. Is there a better way to provide peer review than to have each faculty read through 77 pages of transcript and data analysis? Or is the committee oversight provided during the dissertation process enough to provide adequate peer review?

Thank you in advance for your thoughts on this.”

I immediately got an “out of the office” response from Dr. Denby. I forgot that school doesn’t start until next week. So I am still looking at the data analysis I have done thus far and am starting to put it all together in the form of a dissertation.

### **January 6, 2016**

I did a literature search on qualitative data analysis, to help me to make sure I am on the right track for data analysis and writing up the results. I found more articles

### **January 10, 2016**

Found even more articles on qualitative research, and am reading through my books just to make sure I am doing things right. Also looking at what it means to have peer review. I sent Dr. Denby the email again.

### **January 15, 2016**

I heard back from Dr. Denby today regarding peer review:

“Hi Shelly:

This is a determination that you and Dr. Menzel will need to make. I am not comfortable indicating that the process of having committee members read the dissertation is the peer review. In my experience, the peer review process is a standalone activity where reviewers gets access to the original transcripts and compare the analyst's conclusions to the original data. I am not sure

that reading the dissertation will provide committee members with original transcripts where they can implement a constant comparative approach.

I appreciate that 77 pages is a lot of text to read through. Qualitative studies are indeed labor intensive. Sorry that I can't give you a definitive answer. Again, only you and Dr. Menzel can make that call. I would conclude by reminding that the benefit of a peer review (especially when it is done early in the data reduction process), is that it allows the researcher to catch biases before conclusions and implications are formed.

Thanks”

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So...I am going to try to go through the interview transcripts and reduce the information more, finding themes, and developing summaries so that it will be easier for the four people (my committee and one outside member) to do peer review. I am going to split up the pages to try and make it even between each. Working on this in every spare minute....

### **January 25, 2016**

I heard from Cooper today regarding her transcript (that I sent for member checking), with the response that she “agreed with everything.”

I finally have four interviews organized and ready to go for peer review. Since Dr. Menzel is my chair, I started with her. I sent four interviews to her with the following instructions:

Dr. Menzel,

Thank you for agreeing to be a peer reviewer. The purpose of the peer review, as defined by Dr. Denby is to “bring your peer reviewers in... by having them read the transcripts and compare the content to the summaries you have developed. The reviewers may suggest that you make some changes based on certain themes being either over- or under-emphasized.”

I talked to Dr. Denby about how to minimize the amounts that reviewers have to read. She confirmed that I do not need to have the peer reviewers read the demographic information. I have tried to organize the transcripts in several ways to assist in your review:

1. The transcripts are on the left, with my content summaries in the box on the right
2. Information related to these summaries is highlighted within the transcript
3. Demographic information does not need to be reviewed. I included the structure of the simulation/debriefing as part of the demographic information, as well as measures that used to determine if students have learned. This information is highlighted in yellow.
4. Ways debriefers know students are learning are highlighted in green.
5. Strategies that debriefers use to help students learn are highlighted in blue.
6. The debriefer’s definition of learning is highlighted in grey.

Summaries of the content are included at the end of the transcript. You will note that with the section pertaining to the way debriefers know students are **learning** is sectioned off with “main points” identified below the summary narrative. I am not sure if these points are too specific or if they will be helpful to you in knowing where I am going with theme development. If you think they are helpful, and that developing main points for the **strategies** is something I should also do, please let me know, as I can do that as well. If you think they are too specific as described by Dr. Denby above, please also let me know.

The transcript has been set up using line numbers, with the transcript narrative on the left, and my interpretations on the right. Summaries are at the end of the document. If you have comments on the transcript, interpretation or summaries, you can either use the Word review tool, or use the line numbers in a typed narrative to identify where changes need to be made.

For your convenience, I have included my research questions:

1. How do debriefing facilitators define learning within the context of simulation debriefing?
2. How do debriefing facilitators promote student learning during debriefing?
3. What do debriefing facilitators feel the student attitudes, behaviors, and verbalizations are that indicate that learning has taken place during debriefing?
4. How do debriefing instructors determine what has been learned during debriefing?

Finally, I have split up the interviews into groups to try to keep the pages equal between reviewers. All interviews have been sent out to the participants for member checking. Of your group, I have heard back from all the participants but Cindy. Any changes to the transcript or initial summaries on the right after the member checking process are in *italics*.

The transcripts I have sent to you are Alberta, Ann, Cindy, and Jo. You are the first person I have sent interviews to. If you have any suggestions, recommendations, or questions, please let me know. I will wait to send out transcripts to the other interviewers until I hear back from you,

Thank you in advance for the time spent on this,

**January 27, 2016**

I haven't heard back from Dr. Menzel since sending her the interviews, and have been feeling bad that she has to read through everything since it has taken me SO LONG to do this myself. So I did some more organizing to try and make the peer review easier. I re-sent the four analyzed transcripts for peer review to Dr. Menzel with the following instructions:

**“Renamed** the “main points” in the section called **“Student learning can be seen by”** as **“Themes”**

For the section called **“Strategies to help students learn during debriefing”** I also identified “themes” since I feel the summary paragraph does not provide enough direction for the peer reviewers to identify where I am trying to go with this

- For all “Themes” I have provided bullet points to make them clearer and easier to see

Everything else is the same as previously described:

Thank you for agreeing to be a peer reviewer. The purpose of the peer review, as defined by Dr. Denby is to “bring your peer reviewers in... by having them read the transcripts and compare the content to the summaries you have developed. The reviewers may suggest that you make some changes based on certain themes being either over- or under-emphasized.”

I talked to Dr. Denby about how to minimize the amounts that reviewers have to read. She confirmed that I do not need to have the peer reviewers read the demographic information. I have tried to organize the transcripts in several ways to assist in your review:

1. The transcripts are on the left, with my content summaries in the box on the right
2. Information related to these summaries is highlighted within the transcript
3. The summaries are further broken down into “themes”
4. Demographic information does not need to be reviewed. I included the structure of the simulation/debriefing as part of the demographic information, as well as measures that used to determine if students have learned. This information is highlighted in yellow.
5. Ways debriefers know students are learning are highlighted in green.
6. Strategies that debriefers use to help students learn are highlighted in blue.
7. The debriefer’s definition of learning is highlighted in grey.

The transcript has been set up using line numbers, with the transcript narrative on the left, and my interpretations on the right. Summaries and themes are at the end of the document. If you have comments on the transcript, interpretation, summaries, or themes you can either use the Word review tool, or use the line numbers in a typed narrative to identify where changes need to be made.

For your convenience, I have included my research questions:

1. How do debriefing facilitators define learning within the context of simulation debriefing?
2. How do debriefing facilitators promote student learning during debriefing?

3. What do debriefing facilitators feel the student attitudes, behaviors, and verbalizations are that indicate that learning has taken place during debriefing?
4. How do debriefing instructors determine what has been learned during debriefing?

Finally, I have split up the interviews into groups to try to keep the pages equal between reviewers. All interviews have been sent out to the participants for member checking. Of your group, I have heard back from all the participants but Cindy. Any changes to the transcript or initial summaries on the right after the member checking process are in *italics*.

The transcripts I have sent to you are Alberta, Ann, Cindy, and Jo

Please let me know if you have any feedback or suggestions for improvement.

Thank you!

### **January 29, 2016**

I have finished going through more interviews and have organized them further for peer review. I sent four (different) interviews to Dr. Clark for peer review, with the most recent instructions as given to Dr. Menzel.

### **February 3, 2016**

I sent four (different) interviews to Dr. Doolen for peer review, with the same instructions as I gave Dr. Menzel.

I heard back from Dr. Menzel regarding the peer review of the four interviews I sent her. She said “I have read through the four you sent me and agree with your conclusions and inferences.”

### **February 4, 2016**

I have the final data analysis done on the last five interviews and have sent them out (with the same instructions) to Dr. McIntosh for peer review. I am now putting all of these results together in the dissertation.

### **February 5, 2016**

I am not sure how to report the qualitative results—I have looked up dissertations in the UNLV library, and find differences in the reporting between the dissertations. (I am looking specifically at qualitative). I have sent an email to Drs Denby and Menzel for suggestions on how to write.

### **February 6, 2016**

Dr. Denby send me an outline for a qualitative research dissertation. I love outlines! Already working on reorganizing what I have already written in the outline that she sent.

**February 8, 2016**

Dr. Doolen responded regarding the peer review. She says that what I have written regarding the themes is good, but I did get the following feedback:

“When you write your dissertation I would remind the reader of the definition of simulation (according to INASCL) because most debriefers are like me and do this the majority of the time with high fidelity simulation. You want to be sure readers know you know that you are discussing simulation as defined by INASCL and that means other fidelity (low and medium) are involved in your research. That way the reader is more comfortable and will not have questions popping in their head. Those questions linger and are distracting. While some would say debriefing can be done even in lecture and across the curriculum it still needs to be explicated in your research.”

I have a table of definitions already in the dissertation, so hopefully that will do the trick.

**February 14, 2016**

I heard back from Dr. Clark. She brought up that the themes I found did not address debriefing to the (educational) level of the student. I have noticed this in other interviews, and will be sure to address this in the results.

I am working on putting together everything as results in the dissertation. I still haven't heard back from Dr. McIntosh yet, but she says she will be working on the peer review this week.

**February 22, 2016**

I still have not heard back from Dr. McIntosh, and I am almost done writing everything up. I talked to her in person in a hallway conversation. Her response was that it was not an in-depth analysis, but for an initial analysis it was “just fine.” So peer review is complete, and hopefully soon the dissertation will be too!

## Appendix D

**UNLV**  
**EXEMPT RESEARCH STUDY**  
**INFORMATION SHEET**  
**Department of School of Nursing**

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**TITLE OF STUDY:** Identifying Learning Acquired During Debriefing

**INVESTIGATOR(S) AND CONTACT PHONE NUMBER:** Nancy Menzel, PhD, RN, PHCNS-BC, CPH, CNE and Shelly Reed, DNP, APRN, CNE, student investigator

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The purpose of this study is to explore how debriefing facilitators perceive pre-licensure nursing students are learning during simulation debriefing. You are being asked to participate in the study because you meet the following criteria: a) You debrief simulations where pre-licensure nursing students are participants; (b) You debrief simulations in a simulation center located within a school of nursing.

If you volunteer to participate in this study, you will be asked to do the following: You will be interviewed to see what your perceptions are regarding pre-licensure nursing students and learning during debriefing. The interviews will either be conducted in-person (preferred), or by phone. The interviews will be held at a private location that is convenient for you. In the case of in-person interviews, the researcher will travel to your location.

The interview is estimated to take a half an hour, and will be audio recorded. You will be sent the interview guide at least 12 hours prior to your interview so that you will be familiar with the questions. After the interviews have been transcribed and analyzed qualitatively, you will be sent a copy of the interview transcript with researcher's interpretations, and will be given the opportunity to clarify or comment on the transcript/interpretations by your choice of phone interview or email.

This study includes only minimal risks. The study will take 1-2 hours of your time. You will be given a \$25 dollar Visa gift card for your participation at the end of your interview as compensation for your time.

For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the **UNLV Office of Research Integrity – Human Subjects at 702-895-2794, toll free at 877-895-2794, or via email at [IRB@unlv.edu](mailto:IRB@unlv.edu)**.

Your participation in this study is voluntary. You may withdraw at any time. You are encouraged to ask questions about this study at the beginning or any time during the research study.

**Participant Consent:**

I have read the above information and agree to participate in this study. I am at least 18 years of age. A copy of this form has been given to me.



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## Curriculum Vitae

**Shelly Jensen Reed, DNP, FNP, CPNP, CNE**  
**Associate Teaching Professor**

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Provo, UT 84604  
801-422-2348  
E-mail: shelly-reed@byu.edu

### **Education**

| <u>Year</u>  | <u>Degree/Institution</u>   | <u>Major</u>                  |
|--------------|---|-------------------------------|
| 2013-current | DNP to PhD student,<br>PhD Candidate<br>University of Nevada, Las Vegas | Nursing Education Focus       |
| 2009         | DNP, Case Western Reserve<br>University, Cleveland, OH                  | Doctorate of Nursing Practice |
| 1992         | MSN, University of Utah<br>Salt Lake City, UT                           | Pediatric Nurse Practitioner  |
| 1984         | BS, Brigham Young University<br>Provo, UT                               | Family Nurse Practitioner     |

### **Current Licenses and Certifications**

|              |  |
|--------------|--|
| 2010-Present | Neonatal Resuscitation Program Certified Instructor, American Academy of Pediatrics/American Heart Association |
| 1993-present | Certified Pediatric Nurse Practitioner through the Pediatric Nursing Certification Board (PNCB)                |
| 1993         | Lactation Educator, UCLA   |
| 1985-present | Advanced Practice Registered Nurse, Utah   |

## **Professional Experience**

### **Academic Positions**

|                |                              |                          |
|----------------|------------------------------|--------------------------|
| 2011-present   | Associate Teaching Professor | Brigham Young University |
| 2005-2011      | Assistant Teaching Professor | Brigham Young University |
| Jan-April 2005 | Clinical Nursing Instructor  | Brigham Young University |
| 1999- 2000     | Clinical Nursing Instructor  | University of Utah       |

### **Professional Positions**

|              |   |  |
|--------------|---|--|
| 2012-present | Neonatal Resuscitation<br>Course Instructor | University of Utah Medical<br>Center, Salt Lake City, UT                                     |
| 2002-present | Family Nurse Practitioner                   | OB Emergency Services,<br>University of Utah Medical Center,<br>Salt Lake City, UT           |
| 2011-2013    | Course Coordinator, N352                    | Brigham Young University   |
| 2005-2009    | Course Coordinator, N340                    | Brigham Young University   |
| 1995-2004    | Family Nurse Practitioner                   | Acute Pain Service<br>University of Utah Department of<br>Anesthesiology, Salt Lake City, UT |
| 1997-2000    | Pediatric Nurse Practitioner                | Nighttime Pediatrics,<br>Salt Lake City, UT  |
| 1994-1995    | Pediatric Nurse Practitioner                | Primary Children's Medical<br>Center, Residential Treatment<br>Salt Lake City, UT            |
| 1993-1995    | Pediatric Nurse Practitioner                | FHP Greenwood,<br>Salt Lake City, UT   |
| 1986-1992    | Family Nurse Practitioner                   | Primary Children's Medical Center,<br>Salt Lake City, UT                                     |
| 1990 –1995   | Registered Nurse,<br>Perinatal Educator     | Labor and Delivery,<br>University of Utah Medical Center,<br>Salt Lake City, UT              |

|           |   |   |
|-----------|---|---|
| 1983-1990 | Registered Nurse,<br>Assistant Head Nurse | Inpatient Psychiatry, Primary<br>Children's Medical Center,<br>Salt Lake City, UT |
| 1983-1984 | Registered Nurse                          | VA Medical Center,<br>Salt Lake City, UT  |
| 1982-1983 | Registered Nurse                          | Walter Knox Memorial<br>Hospital, Emmett, ID                                      |

### **International Experience and Service**

|           |  |
|-----------|--|
| 2013      | Health Care Volunteer, VivePeru,<br>6 weeks in Otuzco, Peru,<br>November and December.                                       |
| 2011      | International Board Meeting,<br>Amigos de las Américas,<br>Houston, TX, September  |
| 2011      | Neonatal Resuscitation Trainer Course Instructor,<br>LDS Humanitarian Services,<br>Quevedo and Santo Domingo Ecuador, August |
| 2008      | Volunteer, Orphanage Support Services Organization (OSSO),<br>6 weeks, Cuenca, Ecuador, June and July                        |
| 2005      | International Board trip, Amigos de las Américas<br>Panamá, July   |
| 2004-2005 | La Ceiba, Honduras<br>5 month cultural/humanitarian experience   |
| 2001-2002 | Mérida, Yucatán, México<br>6 month immersion and cultural experience   |
| 1982      | Congressional Intern, Senator James A. McClure<br>Washington D.C   |

### **Citizenship**

#### ***College Service***

|              |                                  |
|--------------|----------------------------------|
| 2011-2014    | Research and Scholarship Council |
| 2008-present | Global Health Council            |

|                            |   |
|----------------------------|---|
| 2008-2009                  | Faculty Affairs Council                                   |
| 2006-2007                  | Faculty Development Subcommittee, Faculty Affairs Council |
| 2005-2007                  | Undergraduate Academic Affairs Council                    |
| 2006, 2008                 | Evaluator for Capstone poster presentations               |
| 2006-2007,<br>2014-Present | Student Development Council                               |
| 2005-Present               | Undergraduate Admissions Committee Member                 |

### ***Professional Service***

|      |   |
|------|---|
| 2016 | Preceptor, DNP Teaching Certificate Teaching Practicum for Dixie Rasmussen                    |
| 2015 | Co-preceptor, Master's Degree Teaching Practicum for Megan Prause, Gonzaga University         |
| 2009 | Preceptor, Master's Degree Teaching Practicum for Nancy Squire, Western Governor's University |

### ***Organizations***

|              |   |
|--------------|---|
| 2006-Present | Association of Women's Health, Obstetric and Neonatal Nurses<br>Utah Section Chair, June 2015-present<br>Member, 2006-present<br>Program committee member, Utah section, 2008-2010  |
| 2010-Present | INACSL--International Nursing Association for Clinical Simulation and Nursing   |
| 2009-Present | Sigma Theta Tau, member   |
| 2002-2013    | Amigos de las Americas, Salt Lake City Chapter<br>Board member, 2002-2012<br>Fundraising and development; 2005-2012<br>President; 2005-2007<br>Health and Safety Trainer; 2004-2007, 2013, 2016<br>Paperwork Coordinator, Travel Coordinator; 2003-2004 |
| 1998-Present | Utah Nurse Practitioner Association, member   |

1993-2010 NAPNAP--National Association of Pediatric Nurse Practitioners  
(Member, 1993-2010)

1992 Initiated to Phi Kappa Phi

### ***Manuscript Reviewing***

2014 Manuscript reviewer, *Qualitative Health Research*

2012 Manuscript reviewer, *Nurse Education Today*

2010 Abstract reviewer, 2011 Western Institute of Nursing Conference

2010 Poster reviewer, Western Institute of Nursing Conference

2006 Manuscript reviewer, *LPN2006*

### ***Community Service***

2010-2015 Camp First Aid Coordinator and Instructor, Emigration Stake Young Women's  
Camp, one week each summer

2013 Camp First Aid Committee Member, Emigration Stake Youth Trek, Deseret Land  
and Livestock Ranch, Eastern Utah, July

2012-2014 Salt Lake County Republican Party Delegate

2014-2016 Salt Lake County Republican Party Precinct Vice-chair

2016-present Salt Lake County Republican Party Precinct Secretary

2011-2013 Treasurer, Reflections chairperson, Bryant Middle School PTA

2011, 2012 Junior Achievement City of Utah Day Volunteer.

2010 Cub Scout Den Leader

2009, 2011 PTA Reflections chairperson, Ensign Elementary PTA, Salt Lake City

2007, Sept "Women's Health" Presentation, Arlington Hills Ward Young Women, Salt Lake  
City, UT

2004, Dec. Health Care Provider Volunteer, Punta Gorda Clinic, From the Heart Foundation,  
Roatan, Honduras



1992-1993 Health Commissioner, Ensign Elementary PTA, Salt Lake City, UT

## **Teaching**

### ***Courses Taught***

|                            |   |                    |
|----------------------------|---|--------------------|
| 2010-present               | N351 Nursing Care of Women and Newborns   | BYU                |
| 2010-present               | N352 Nursing Care of Women and Newborns (Clinical)  | BYU                |
| 2010-2012<br>2014-2015     | N390R Tongan Culture  | BYU                |
| 2013 Spring<br>2016 Spring | N390R Ecuadorian Culture  | BYU                |
| 2013 Winter<br>2016 Winter | N390R Ecuadorian Culture  | BYU                |
| 2012, 2014                 | N492 Capstone   | BYU                |
| 2005-2010                  | N340 Nursing Care of the Childbearing Family  | BYU                |
| 2007-present               | N401, 402, 404 Global Health and Human Diversity<br>Courses in Tonga and Ecuador                | BYU                |
| 2006-2008<br>2005-2006     | N180 Intro to Nursing<br>N360 Nursing Care of the Childrearing Family<br>(Clinical Instruction) | BYU<br>BYU         |
| 1999-2000                  | Pediatric Clinical at Primary Children's  | University of Utah |

### ***Student Mentoring***

#### **Undergraduate**

|              |   |
|--------------|---|
| 2015-present | Cristian Orr (Research Assistant, Simulation debriefing research projects)                                  |
| 2015-present | Kimberly Scott (Research Assistant, Simulation debriefing research)   |
| 2014-2015    | Cassidy Shatzer (Research Assistant, various research projects)   |
| 2014-2015    | Taija Leonard (Research Assistant, Giving Birth: The Voices of Tongan Women in Tonga and the United States) |

- 2014-2015 Carly Ludlow (Research Assistant, Correlation of debriefing talking times with student scores on the Debriefing Experience Scale)
- 2014-2015 Stephanie Squire, (Research Assistant, various research projects)
- 2013 Elise Corbett, (Research Assistant, Giving Birth: The Voices of Tongan Women in Tonga and the United States)
- 2013 Jannette Perry, (Research Assistant, Giving Birth: The Voices of Tongan Women in Tonga and the United States)
- 2012-2103 Michelle Herring, ORCA: Correlation of Debriefing Evaluation Score and Instructor Teaching versus Talking Time, Office of Research and Creative Works Grant (Funded)
- 2012 Jared Schmidt, (Research Assistant, Giving Birth: The Voices of Tongan Women in Tonga and the United States)
- 2011-2103 Jordyn Whiting, ORCA: Planning for a Study Abroad Experience to Maximize Learning: A Student Perspective, Office of Research and Creative Works Grant (Funded)
- 2011 Denae Titensor (Research Assistant, faculty debriefing research)
- 2010 Michelle Aucoin (Research Assistant, faculty debriefing research)
- 2008-2009 Catchpole, Laura & Hatch, Teresa (Research Assistants, Third Stage Labor Management at a Large Maternity Hospital in Guayaquil, Ecuador)

### **Scholarship/Creative Works**

#### ***Scholarly Presentations***

#### **Peer-Reviewed Publications in Refereed Journals**

- 2015 **Reed, S. J.** Written debriefing: Evaluating the impact of the addition of a written component when debriefing simulations. *Nurse Education in Practice*, 15(6) 543-548. Doi: 10.1016/j.nepr.2015.07.011
- 2015 **Reed, S. J.** & Edmunds, D. Use of a blog in an undergraduate nursing leadership course. *Nurse Education in Practice*, 15(6) 537-542. Doi: 10.1016/j.nepr.2015.07.010
- 2013 **Reed, S. J.**, Andrews, C. A., & Ravert, P. R. Debriefing Simulations: Comparison of Debriefing with Video and Debriefing Alone. *Clinical Simulation in Nursing*, 9(12), e585–e591. <http://dx.doi.org/10.1016/j.ecns.2013.05.007>.

- 2012 **Reed, S. J.** Debriefing Experience Scale: Development of a Tool to Evaluate the Student Learning Experience in Debriefing. *Clinical Simulation in Nursing*, 8(6), e211-e217, doi:10.1016/j.ecns.2011.11.002.
- 2010 **Reed, S.** Designing a simulation for student evaluation using Scriven's Key Evaluation Checklist. *Clinical Simulation in Nursing*, 6, 41-44. doi: 10.1016/j.ecns.2009.03.121.
- 2010 Callister, L. C., Corbett, C., **Reed, S.**, Tomao, C., & Thornton, K. Giving birth: The voices of Ecuadorian Women. *Journal of Perinatal and Neonatal Nursing*, 24(2), 1-9. (Impact factor. 1.0)

### **Book Chapter**

- 2013 **Reed, S. J.** Key Concepts in Simulation: Debriefing and Reflective Practice. In *Mastering Simulation*, Ulrich B. & Mancini, B. eds. Indianapolis: Sigma Theta Tau.

### **Other publications-Published abstracts of presentations at regional/national conferences**

- 2014 **Reed, S.J.** & Edmunds, D. Giving birth: The voices of Tongan women. Podium presentation. *Western Institute of Communicating Nursing Research Conference*, (Conference CD).
- 2014 **Reed, S.** & Edmunds, D. Use of a blog in an undergraduate capstone course. Poster presentation. *Western Institute of Communicating Nursing Research Conference Proceedings*, (Conference CD).
- 2013 Corbett, C. A., & **Reed, S. J.**, Personal birth accounts as a teaching tool in maternal newborn nursing. *Sigma Theta Tau 24th International Research Congress Proceedings: Sigma Theta Tau 24<sup>th</sup> International Nursing Research Congress: Bridge the Gap Between Research and Practice Through Collaboration, available on line through the Virginia Henderson International Nursing Library.*
- 2013 Lundberg, K. A., Corbett, C. A., & **Reed, S. J.**, Educating nursing students in a global setting: Shared insights. *Sigma Theta Tau 24th International Research Congress Proceedings: Sigma Theta Tau 24<sup>th</sup> International Nursing Research Congress: Bridge the Gap Between Research and Practice Through Collaboration, available on line through the Virginia Henderson International Nursing Library.*
- 2012 **Reed, S. J.**, & Corbett, C. A. Maximizing learning occurring during debriefing after simulation. *Sigma Theta Tau 23rd International Research Congress Proceedings: Focusing on Evidence Based Practice, available on line through the Virginia Henderson International Nursing Library.*
- 2011 **Reed, S.** Comparison of debriefing methods after simulation: Discussion of a videotaped simulation session versus oral discussion alone. *Sigma Theta Tau/World Academy of Nursing Science International Nursing Research Congress Proceedings: Focusing on*

*Evidence Based Practice, available on line through the Virginia Henderson International Nursing Library.*

- 2010 Callister, L.C., **Reed, S.**, Corbett, C., Tomao, C., & Thornton, K. Listening to the voices of Ecuadorian women giving birth. Symposium presentation. *43<sup>rd</sup> Western Institute of Nursing Communicating Nursing Research Conference Proceedings* (Conference CD).
- 2010 **Reed, S.**, Andrews, C., Ravert, P., & Hudak, C. Comparison of debriefing methods following simulation: Pilot instrument development. Symposium presentation. *43<sup>rd</sup> Western Institute of Nursing Communicating Nursing Research Conference Proceedings* (Conference CD).

### **Peer Reviewed Expert Panel Presentations**

- 2011 Kardong-Edgren, Sweeney, L., **Reed, S.**, Hawkins, K., Roche, J., Calhoun, A. W., Update on developing tools for simulation evaluation. International Meeting on Simulation in Healthcare, New Orleans, LA, January.
- 2010 Kardong-Edgren, S., Anderson, M., **Reed, S.**, Manz, J., Sweeney, N., Arnold, J., Hogan, M., Roche, J., Ravert, P., Rizzolo, M.A. Developing tools for simulation evaluation. International Association of Clinical Simulation and Learning, 9<sup>th</sup> Conference, Las Vegas, NV, June.
- 2010 Kardong-Edgren, S., Anderson, M., Arnold, J., Henderson, D., Jeffries, P., LeFlore, J., Ravert, P., & **Reed, S.** Developing tools for simulation evaluation: Advice from the trenches. International Meeting on Simulation in Healthcare, Phoenix, AZ, January

### **Peer Reviewed Podium Presentations**

- 2016 **Reed, S.** Building Cultural Understanding in a Required Global Health Course. STTI Regional Conference, Asheville, North Carolina, April
- 2015 **Reed, S.**, Corbett, C. & Edmunds, D. Giving birth: The meaning of childbirth to Tongan women. International Family Nursing Conference, Odense Denmark, August.
- 2015 Edmunds, D., & **Reed, S.** Family First: Lessons Learned From A Global Health Nursing Course In Tonga. International Family Nursing Conference, Odense Denmark, August.
- 2015 **Reed, S.**, Corbett, C. Bridges to understanding: Lessons learned from conducting a global health course. 4th Global Congress for Qualitative Health Research, Merida Mexico, March.
- 2015 **Reed, S.**, Corbett, C. & Edmunds, D. Appreciating the meaning of childbirth: Dialogues with Tongan women. 4th Global Congress for Qualitative Health Research, Merida Mexico, March.

- 2014 **Reed, S. J.** & Herring, M. Evidence-based debriefing practices in nursing education. Nurse Education in Practice/Nurse Education Today (NETNEP) 2014, Amsterdam, Holland, June.
- 2014 **Reed, S. J.** & Edmunds, D. Blogging as a tool to increase professional development in an undergraduate capstone nursing course. Nurse Education in Practice/Nurse Education Today (NETNEP) 2014, Amsterdam, Holland, June.
- 2014 **Reed, S. J.** & Edmunds, D. Giving birth: The voices of Tongan women. Western Institute of Nursing, Seattle, April.
- 2013 Herring, M., Wing, D., & **Reed, S. J.** Does my teacher's talking get in the way of my learning during debriefing?" BYU College of Nursing Annual Research Conference, October.
- 2013 Lundberg, K., Corbett, C. & **Reed, S. J.** Educating Nursing Students in a Global Setting: Shared Insights. 24th International Nursing Research Conference, Sigma Theta Tau International Honor Society of Nursing, Prague, Czech Republic, July.
- 2013 Corbett, C. & **Reed, S. J.** Personal Birth Accounts as a Teaching Tool in Maternal Newborn Nursing. 24th International Nursing Research Conference, Sigma Theta Tau International Honor Society of Nursing, Prague, Czech Republic, July.
- 2013 Herring, M., Schmidt, J., Wing, D., & **Reed, S. J.** Teaching versus talking during debriefing. HSPN World 2013, San Francisco, CA, July.
- 2013 **Reed, S.** Can we hit the learning "Jackpot" by adding written debriefing? 12th Annual International Nursing Simulation/Learning Resource Centers Conference, Las Vegas, NV, June.
- 2013 **Reed, S.** & Corbett, C. Debriefing simulation in nursing education: Comparison of two debriefing types. Western Institute of Nursing, Anaheim, CA, April.
- 2013 Whiting, J. & **Reed, S.** Ways and MEANS to get the most out of a study abroad experience. Utah Conference of Undergraduate Research. Logan, UT, February.
- 2012 **Reed, S.** Transformational learning in a required undergraduate global health nursing course: A case study. American Academy of Colleges of Nursing (AACN) 2012 Baccalaureate Education Conference. San Antonio TX, November.
- 2012 Whiting, J. & **Reed, S.** Maximizing the Experience Abroad for Nursing Students (MEANS). Intermountain/BYU/UVU/MountainStar 10<sup>th</sup> Annual Nursing Research Conference. Orem, UT, October.
- 2012 Wing, D., Maughan, E., Palmer, S., Heaston, S, de la Cruz, K., & **Reed, S.** The World is Our Campus: Developing and Implementing a Multicultural Nursing Course. National

- League of Nursing (NLN) Education Summit: Opening Doors to Leadership, Anaheim, California, September.
- 2012 **Reed, S.** & Corbett, C. Maximizing learning occurring during debriefing after simulation. Sigma Theta Tau International's 23rd International Nursing Research Congress, Brisbane, Australia, July.
- 2012 Lundberg, K. A., Corbett, C., and **Reed, S. J.** Educating Nursing students in a global setting: Shared Insights. Sigma Theta Tau International's 23rd International Nursing Research Congress, Brisbane, Australia, July.
- 2011 **Reed, S.** Comparison of debriefing methods after simulation: Discussion of a videotaped simulation session versus oral discussion alone. Sigma Theta Tau/World Academy of Nursing Science International Nursing Research Congress, Cancun, Mexico.
- 2010 **Reed, S.** The Debriefing Experience Scale: Defining the Student Experience. BYU College of Nursing Research Conference, Provo, UT, October.
- 2010 **Reed, S.,** Andrews, C., Ravert, P., & Hudak, C. Comparison of debriefing methods following simulation: Pilot instrument development. Western Institute of Nursing 43<sup>rd</sup> Annual Communicating Research Conference, Glendale, AZ, April.
- 2010 Callister, L. C., Corbett, C., **Reed, S.,** Tomao, C., & Thornton, K. Listening to the voices of childbearing women. Western Institute of Nursing, Phoenix, AZ, April.
- 2010 Callister, L. C., Corbett, C., **Reed, S.,** Tomao, C., & Thornton, K. Giving birth: The voices of Ecuadorian women. BYU 2010 Global Maternal and Child Health Conference, Provo, UT, April.
- 2009 **Reed, S.,** & Ravert, P. Comparison of debriefing methods following simulation—Development of a pilot instrument. BYU College of Nursing Research Conference, Provo, UT, October.
- 2009 Callister, L. C., Corbett, C., **Reed, S.,** Tomao, C., & Thornton, K. The voices of Ecuadorian childbearing women. BYU College of Nursing Research Conference, Provo, UT, October.
- 2009 **Reed, S.** Roundtable Presenter: Designing an evaluation using Scriven's Key Evaluation Checklist. BYU Undergraduate Education Academy, Provo, UT, July.
- 2009 **Reed, S.,** & Corbett, C. Assessing Student Nurse Competency with Simulation: Applying Scriven's Key Evaluation Checklist. AACN Hot Issues Conference. Salt Lake City, UT, April.

- 2009 **Reed, S.**, Corbett, C., Catchpole, L., & Hatch, T. Third Stage Labor Management in a Large Maternity Hospital in Guayaquil, Ecuador. BYU 2009 Global Maternal and Child Health Conference, Provo, UT, March.
- 2009 Corbett, C., & **Reed, S.** Use of a Human Birth Simulator in Obstetric Skills Labs. Drexel's 33<sup>rd</sup> Annual Women's Health Conference, Atlantic City, NJ, February.
- 2009 **Reed, S.**, & Corbett, C. Using Human Patient Simulation for Student Evaluation in Women's Health Courses. Drexel's 33<sup>rd</sup> Annual Women's Health Conference, Atlantic City, NJ, February 2009.
- 2009 **Reed, S.**, Corbett, C., Catchpole, L., & Hatch, T. Third Stage Labor Management in a Large Maternity Hospital in Guayaquil, Ecuador. Drexel's 33<sup>rd</sup> Annual Women's Health Conference, Atlantic City, NJ, February.

### **Peer Reviewed Poster Presentations**

- 2016 Shatzer, C. & **Reed, S.** Honoring Motherhood: The Meaning of Childbirth for Tongan Women. Consortium of Universities for Global Health. San Francisco, CA, April.
- 2014 **Reed, S. J.** Identifying debriefing practices that contribute to student learning. Western Institute of Nursing, Seattle, WA, April
- 2013 **Reed, S. J.**, & Edmunds, D. Use of a blog in an undergraduate nursing capstone course. Western Institute of Nursing, Anaheim, CA, April.
- 2013 Corbett, C. & **Reed, S.** Comparison of birth experiences between Ecuadorian and Indian women. Western Institute of Nursing, Anaheim, CA, April.
- 2012 **Reed, S.** Written debriefing: Comparison study of debriefing with and without a written component. AACN 2012 Baccalaureate Education Conference. San Antonio TX, November.
- 2011 **Reed, S.** Impact of the Debriefing Experience on Undergraduate Nursing Students. International Meeting on Simulation in Healthcare, New Orleans, LA, January.
- 2009 Callister, L. C., Corbett, C., **Reed, S.**, Tomao, C., & Thornton, K. The voices of Ecuadorian childbearing women. Fourth Annual Intermountain Evidence Based Nursing Research Conference, Salt Lake City, UT, November.
- 2009 **Reed, S.**, & Ravert, P. Comparison of debriefing methods following simulation. Fourth Annual Intermountain Evidence Based Nursing Research Conference, Salt Lake City, UT, November.
- 2009 Callister, L. C., Corbett, C., **Reed, S.**, Tomao, C., & Thornton, K. The voices of Ecuadorian childbearing women. Utah Perinatal Conference, Midvale, UT, October.

2008 **Reed, S.**, & Corbett, C. Implementing Use of a Human Birth Simulator in the Nursing Curriculum. Contemporary Forums Emerging Technologies Conference, Seattle, WA, July.

### **Invited Article**

2000 **Reed, S.** Managing Phantom Pain with Drugs. *Nursing 2000*, 30(4), 33-36.

### **Invited Presentations**

2016 Blair, D., Reed, M., & **Reed, S.** Leap into Action: The Death and Life of Dell Blair  
BYU Professionalism Conference, February

2014 **Reed, S.** & Chamberlain, A. Go Forth and Serve: Humanitarian Service Experiences.  
BYU Professionalism Conference, March.

2013 **Reed, S.** Debriefing Healthcare Simulations. HealthStream Summit 2013, Nashville, TN, October.

2013 “International Health Considerations”. Presentation to Amigos volunteers and their families, Salt Lake City Chapter of the Amigos de las Americas. March 2013.

2013 “Nursing in the United States”. Presentation to visiting Japanese nursing students from Hakuho Women’s College, BYU, March.

2012 “Humanitarian Service Volunteer Opportunities”. BYU College of Nursing 60<sup>th</sup> Anniversary Celebration, April.

2011 “Nursing in the United States”. Presentation to visiting Japanese nursing students. Selnate International School, Provo, UT, March.

2010 Panel moderator, “Women in a Developing World”. Kennedy Center Inquiry Conference, BYU, Provo, UT, April.

2010 “Nursing in the United States”. Presentation to visiting Japanese nursing students. Selnate International School, Provo, UT, March.

2009 “Nursing in the United States”. Presentation to visiting Japanese nursing students. Selnate International School, Provo, UT, March.

2008 “Nursing in the United States”. Presentation to visiting Japanese Nursing Students. Selnate International School, Provo, UT, March.

2007 “DNP/Graduate Studies”. With Mary Williams, presented at the BYU College of Nursing Professionalism Conference, October.



## **Awards and Grants**

- 2015 **Reed, S.** Dean's PhD Dissertation Award from the University of Nevada Las Vegas School of Nursing. "Identifying Learning Acquired During Debriefing." **\$2,000.**
- 2015 **Reed, S.** Research Grant, Identifying Learning Acquired During Debriefing, **\$5000.**
- 2014 **Reed, S.** Elaine R. Dyer Research Grant, Debriefing facilitator talking times and their relationship to the nursing student debriefing experience, **\$5000.**
- 2012 **Reed, S.** Research Grant, Improving student learning acquired during debriefing. BYU College of Nursing, **\$1000.**
- 2011 **Reed, S.** Research Grant, The voices of Tongan women in Tonga and the US, BYU College of Nursing, **\$3050.**
- 2011 **Reed, S.** Research Grant, Reflective Practices in Global Nursing Education. BYU College of Nursing, **\$1100.**
- 2011 **Reed, S.** Utah Nurse Practitioners 2011 State Award "Excellence in Research"
- 2010 **Reed, S.** Research Grant, Refining the Debriefing Experience Scale. BYU College of Nursing, **\$2000.**
- 2009 **Reed, S.** Research Grant, Development of a Debriefing Experience Scale. BYU College of Nursing, **\$1000.**
- 2009 Corbett, C, & **Reed, S.** Research Grant, The Meaning of Childbirth for Ecuadorian Women, BYU College of Nursing, **\$1500.**
- 2009 **Reed, S.** Research Grant, Comparison of Debriefing Techniques Following Human Patient Simulation, BYU College of Nursing, **\$2000.**
- 2007 **Reed, S.** BYU Kennedy International Center Grant, Third Stage Labor Management at a Large Maternity Hospital in Guayaquil, Ecuador, **\$5000.**
- 2006 **Reed, S.** BYU Faculty Center Grant, Improving Course-related Student Feedback, **\$500.**
- 1981 Helen Radley Memorial Nursing Scholarship, **\$500.**
- 1979 Dean's Scholarship, BYU, **Half-tuition.**

## **Conferences/Continuing Education**

- 2016 STTI International Regional Conference, Asheville, NC, April

- 2016 Western Institute of Nursing Annual Conference, Anaheim CA, April
- 2015 OB Emergency Services Education Day, University of Utah, Salt Lake City, December
- 2015 AWHONN Quarterly Section/Chapter Headquarters Updates - December
- 2015 Utah Simulation Group Meeting, Intermountain Simulation Center. Salt Lake City, UT, October.
- 2015 International Family Nursing Conference, Odense Denmark, August.
- 2015 4th Global Congress for Qualitative Health Research, Merida Mexico, March.
- 2015 University of Utah Continuing Medical Education, 56<sup>th</sup> Annual OBGYN Update, Park City, UT, February.
- 2014 Pediatric Pharmacology Conference, Utah Chapter of National Association of Pediatric Nurse Practitioners (NAPNAP), Salt Lake City, September. (15 Contact hours; 5 of which are pharmacology hours)
- 2014 OB Emergency Services Education Day, University of Utah, Salt Lake City, September.
- 2014 Nurse Education in Practice/Nurse Education Today (NETNEP) 2014, Amsterdam, Holland, June.
- 2014 Western Institute of Nursing Annual Conference, Seattle WA, April
- 2013 Pediatric Pharmacology Conference, Utah Chapter of National Association of Pediatric Nurse Practitioners (NAPNAP), Salt Lake City, September.
- 2013 University of Utah Continuing Medical Education, 54<sup>th</sup> Annual OBGYN Update, Park City, UT, February.
- 2012 The International Nursing Association for Clinical Simulation and Learning AACN Webinar, "Simulation Evaluation", December.
- 2102 American Academy of Colleges of Nursing (AACN) 2012 Baccalaureate Education Conference, San Antonio TX, November.
- 2012 NLN Education Summit: Opening Doors to Leadership, Anaheim, California, September.
- 2012 Sigma Theta Tau International's 23rd International Nursing Research Congress, Brisbane, Australia, July.
- 2011 University of Utah Medical Center, OB Emergency Services Education Day, Salt Lake City, UT, November.

- 2011 Utah Department of Occupational and Professional Licensing. Utah Controlled Substance Database (CSD) Training, October.
- 2011 Sigma Theta Tau/World Academy of Nursing Science International Nursing Research Congress, Cancun, Mexico, July.
- 2011 International Meeting on Simulation in Healthcare, New Orleans, LA, January.
- 2010 OB Emergency Services Education Day, University of Utah Medical Center, Salt Lake City, UT, August.
- 2010 9<sup>th</sup> Annual International Nursing Simulation/Learning Resource Centers Conference, Las Vegas, NV, June.
- 2010 Western Institute of Nursing 43<sup>rd</sup> Annual Communicating Nursing Research Conference, Glendale, AZ, April.
- 2010 International Meeting on Simulation in Healthcare 2010, Phoenix, AZ, January.
- 2009 Association of Women's Health, Obstetric, and Neonatal Nurses (AWHONN) Education Meeting, Salt Lake City, UT, November.
- 2009 University of Utah Medical Center, OB Emergency Services Education Day, Salt Lake City, UT, November.
- 2009 Intermountain Evidence-Based Nursing Research Conference, Salt Lake City, November.
- 2009 Utah Perinatal Conference, Midvale, UT, October.
- 2009 Pediatric Pharmacology Conference, Utah Chapter of National Association of Pediatric Nurse Practitioners (NAPNAP), Salt Lake City, UT, September.
- 2009 National League of Nursing (NLN) Certified Nurse Educator Prep Course, via Webinar, August.
- 2009 Undergraduate Education Academy, BYU, Provo, UT, July.
- 2009 Global Maternal and Child Health Conference. BYU, Provo, UT, March.
- 2009 Skilled Birth Attendant Master Teacher Training, LDS Humanitarian Services, Salt Lake City, March.
- 2009 Drexel's 33<sup>rd</sup> Annual Women's Health Conference, Atlantic City, NJ, February.

- 2008 Neonatal Resuscitation Provider Instructor Training, MedEd Resources, Primary Children's Medical Center, Salt Lake City, UT, November.
- 2008 Medical Education Technologies, Inc. (METI) and Utah Valley University Interdisciplinary Simulation Forum, Orem, Utah, November.
- 2008 Emerging Technology Conference, Seattle WA, July.
- 2008 Bone Health: What Do We Know in 2008? Utah Nurse Practitioners, Salt Lake City, April.
- 2008 The NLN Simulation Workshop: Getting Started, Arlington, Texas, February.
- 2007 Snowbird Continuing Medical Education Conference, Snowbird, Utah, August.
- 2007 NLN Hot Topic Conference on Simulation, Denver, Colorado, April.
- 2007 Instruction on the use of the Noelle Birth Simulator, Miami, Florida, March.
- 2006 NLN Education Summit, New York, New York, September.
- 2006 Pediatric Pharmacology Conference, Utah Chapter NAPNAP, Primary Children's Medical Center, Salt Lake City, Utah, September.
- 2006 AWHONN Annual Convention, Baltimore, Maryland, June.
- 2006 47<sup>th</sup> Annual Obstetrics and Gynecology Update and Current Controversies, University of Utah Department of Obstetrics and Gynecology, Park City, Utah, February.
- 2005 Utah Nurse Practitioners (UNP) Annual Pharmacology Conference, Salt Lake City, Utah, May.
- 2001 20<sup>th</sup> Annual Meeting of the American Pain Society, Phoenix, AZ, April.
- 1996 NAPNAP Annual Education Conference, Nashville, TN, March.
- 1995-present Annual CEU's/self-assessment modules, pediatric primary care/pharmacology, Pediatric Nursing Certification Board