

5-2011

Debriefing after Simulation: Guidelines for Faculty and Students

Cynthia Renee Johnson Pivec
St. Catherine University

Follow this and additional works at: https://sophia.stkate.edu/ma_nursing

Recommended Citation

Johnson Pivec, Cynthia Renee. (2011). Debriefing after Simulation: Guidelines for Faculty and Students. Retrieved from Sophia, the St. Catherine University repository website: https://sophia.stkate.edu/ma_nursing/14

This is brought to you for free and open access by the Nursing at SOPHIA. It has been accepted for inclusion in Master of Arts/Science in Nursing Scholarly Projects by an authorized administrator of SOPHIA. For more information, please contact amshaw@stkate.edu.

Debriefing after Simulation: Guidelines for Faculty and Students

Scholarly Project
Submitted in Partial Fulfillment
of the Requirements for the Degree of
Masters of Arts in Nursing

St. Catherine University
St. Paul, Minnesota

Cynthia Renee Johnson Pivec

May 2011

ST. CATHERINE UNIVERSITY
ST. PAUL, MINNESOTA

This is to certify that I have examined this
Masters of Arts in Nursing scholarly project
written by

Cynthia Renee Johnson Pivec

and have found that it is complete and satisfactory in all respects,
and that any and all revisions required by
the final examining committee have been made.

Graduate Program Faculty

Name of Faculty Project Advisor

Date

DEPARTMENT OF NURSING

Copyright Cynthia Renee Johnson Pivec 2011
All Rights Reserved

Table of Contents

1. Abstract	5
2. Literature Review	8
a. Debriefing in Simulation	8
b. Debriefing	11
i. Research	11
ii. Concept description and analysis	14
c. Characteristics of Debriefing	15
d. Models for Debriefing	17
3. Recommendations	20
4. References	24
5. Appendix A: Debriefing Process	29
6. Appendix B: Debriefing Model	30

Abstract

Debriefing is an essential component of simulation that is used in nursing education. It can be defined as an activity that follows a simulation experience that is led by a facilitator where feedback is provided on the participants' performance, all aspects of the simulation activities are discussed, and reflective thinking is encouraged. The review of the literature identifies significant learning occurs through discussion and reflection during debriefing. The literature also illustrates the need for research on the process, the environment, the student and facilitator roles, a theoretical framework, and a model for debriefing. The purpose of this project is to design a debriefing tool and process to be used following simulation activities to enhance student learning. From an extensive literature review a model was developed to guide debriefing following simulation activities to optimize student reflection and enhance learning.

Simulation has been used for a long time in the health care field. Currently, nursing programs are incorporating this teaching method into the curriculum to enhance the nursing education experience. Given the extent of content and skills nursing students must master during their education, the decrease in clinical time and settings, and the increase in patient complexity evident in most health care settings, simulation has become an imperative alternative strategy for nursing programs. Simulation provides a non-threatening life-like environment where students practice psychomotor skills, clinical reasoning, problem solving, and working together as a team. It also helps bridge the gap between the classroom and clinical setting (Benner, Sutphen, Leonard, & Day, 2010; Jeffries, 2010; Rothgeb, 2008).

Debriefing is an essential component of simulation. Debriefing can be defined as an “activity that follows a simulation experience led by a facilitator wherein feedback is provided on the simulation participants’ performance while positive aspects of the completed simulation are discussed and reflective thinking encouraged” (National League for Nursing, 2008). Pamela Jeffries (2010) further adds that debriefing assists in connecting theory to practice and research, and allows participants to think critically and discuss interventions in very complex situations. “Learning occurs in simulation through contextual task training and repetition, but significant learning occurs when deep insight is made explicit through reflection during debriefing” (Driefuerst, 2009, p. 109).

Despite the established importance, in practice the actual debriefing process varies significantly. Usually the students’ performance is critiqued and evaluated, and then the experience is discussed. The debriefing process depends on the instructor, objectives, simulation, and group of students. Techniques vary by instructor. Some faculty include a quick evaluation of the performance and discuss alternative actions. Others create an environment

where the students reflect, lead, and discuss the simulation which provides insight into the situation. Since debriefing is so important to the simulation, it is a concern that students' experiences vary.

The purpose of the project is to design a debriefing tool and process to be used following simulation activities to enhance student learning. The first objective is to create guidelines, or a tool, and a process to standardize debriefing after simulation in nursing curriculum. A second objective is to educate faculty and students about the guidelines and process of debriefing. This will ensure faculty and students have the knowledge and skills to provide the optimal debriefing following a simulated learning experience.

Theory or a framework for debriefing is scarce (Peter & Vissers, 2004). Facilitating reflection into a familiar framework for the students is challenging and the least common, but a much needed attribute of debriefing (Driefuerst, 2009). John Dewey's and Donald Schön's theories of reflective practice and experiential learning are fundamental to the concepts of debriefing and reflection (Decker, 2007; Decker, 2009; Dewey, 1933; Driefuerst, 2009; Schön, 1983)

Kolb's Experiential Learning model can also be incorporated into and provide a framework for the debriefing process after the simulated learning experience (Kolb, 2005, Mayo Clinic, n.d.). Kolb's four stages are (a) concrete experimentation, (b) reflective observation, (c) abstract conceptualization, and (d) active experimentation (Brackenreg, 2004; Decker, 2007; Decker, 2009; Fanning & Gaba, 2007). The concrete experimentation phase explores the feelings and reactions of the participants. In the reflective observation phase, participants describe and discuss the actual events that took place. Thinking and analyzing events occur in

the abstract conceptualization phase, and generalizing and transferring to the clinical setting is discovered in the active experimentation component.

Literature Review

Debriefing was originally used and defined by the military and aviation industry as essential to analyze the performance and events of the crews' mission or simulation (Dismukes, Gaba, & Howard, 2006; Fanning & Gaba, 2007; Ledermen, 1992; McDonnell, Jobe, & Dismukes, 1997). Through active involvement in the simulation, crew members reported feeling responsible for their learning and that this enhanced their learning (Dismukes et al., 2006). The educational and psychological settings also provide information on debriefing, especially as it relates to experiential learning such as gaming or simulation (Lederman, 1992; Peters & Vissers, 2004). Simulation has been used in healthcare for more than 15 years, but its role has increased and changed since utilizing it as a teaching strategy and integrating it into nursing curriculum (Cantrell & Deloney, 2007; Waxman, 2010). There is a growing body of literature on the use of simulation in healthcare and teaching nursing students.

Debriefing in Simulation Literature

Debriefing is often embedded in the simulation articles, but seldom the sole focus of research. Much of the literature addresses the active or "doing" part of simulation, development, and implementation, but rarely concentrates on debriefing and reflection (Brackenreg, 2004; Nehring, Ellis, & Lashley, 2001; Seropian, 2003).

Despite the lack of literature centering on debriefing, the literature frequently identifies debriefing as the most important part of the simulation (Childs & Sepples, 2006; Covington, 2006; Dismukes et al., 2006; Larew, Lessans, Spunt, Foster, & Reese, Jeffries, & Engum, 2010; Sanford, 2010; Waxman, 2010). Jeffries (2007) recognizes debriefing as the time when students

and faculty look at what happened in the simulation and what learning took place. A great deal of the literature on simulation identifies that debriefing is where the learning actually occurs (Cantrell & Deloney, 2007; Dreifuerst, 2009; Galloway, 2009; Peters & Vissers, 2004; Petranek, Cory, & Black, 1992; Rothgeb, 2008). The Nursing Education Simulation Framework designed by Pamela Jeffries includes debriefing as a distinct characteristic in the simulation design (Jeffries, 2007).

The literature uses the words reflection and debriefing interchangeably, however their definitions differ (Anderson, 2008). Reflection is often a part of debriefing. Articles on simulation state debriefing is where students reflect on their experiences and to help identify what they learned (Cantrell & Deloney, 2007; Galloway, 2009; Petranek, Cory, & Black, 1992; Sanford, 2010; Rothgeb, 2008).

The ultimate goal of simulation is for the participant to take what they learned in the activity and debriefing and apply it to the “real world” and clinical setting (Galloway, 2009; Rothgeb, 2008). This type of learning improves the care and safety of the patients. Much of this learning takes place during the debriefing process.

Research studies of simulation often focus on the fidelity of the simulation, the process, as a teaching strategy, and the learners’ outcomes. Through this research debriefing was discovered as an essential part of simulation. When looking at teaching effectiveness in simulation, the effect of debriefing on students and faculty was discovered (Becker, Rose, Berg, Park, & Shatzer, 2006). Post group discussion was found to be valuable in supporting and broaden the learning of the participants (Becker et al, 2006). Further, students reported the unique opportunity and importance of discussing the “patient” with other students. Additional simulation studies found debriefing to be reflective, a focal point for learning, and where

students request more feedback about their clinical performance (Garrett, MacPhee, & Jackson, 2010; Lasater, 2007a; Lasater, 2007b).

A large national multi-site and multi-method project was conducted to (a) develop and test models for nursing faculty to use for simulation to promote student learning, (b) develop a cadre of nursing faculty who can use simulation in innovative ways to enhance student learning, (c) contribute to the refinement of the body of knowledge related to simulation in nursing education, and (d) demonstrate the value of collaboration between the corporate and not-for-profit worlds (Jeffries & Rizzolo, 2006; Jeffries, 2007). This project spanned 3 years and was sponsored by National League of Nursing (NLN) and Laerdal Medical Company. A simulation was used at eight sites with 403 nursing students in their first medical-surgical nursing course. Six instruments were used to collect data for the study. The students participated in a 20 minute simulation with a post-operative adult patient scenario followed immediately by a 20 minute reflective thinking session. Embedded in the vast and varied results was the finding that the debriefing/feedback sessions were the most important simulation design feature.

Childs and Sepples (2006) conducted a research with 55 nursing students at the University of Southern Maine (USM) using simulation. The simulation included nursing assessments and interventions of a SimMan, a human patient simulator, experiencing cardiac dysfunction. The research looked at simulation development and implementation process and measured student satisfaction. It also tested the reliability and validity of two simulation instruments. Students reported the feedback and objective information were the most important part of the simulation. Researchers identified debriefing for 10 minutes as not sufficient time for the students to discuss their feelings, reactions, and simulation events.

A qualitative and quantitative study of 300 third-year nursing students was conducted to evaluate their perceptions of high-fidelity simulation (Wotton, Davis, Button, & Kelton, 2010). Students participated in three interactive simulations with a high-fidelity simulator addressing the management of different medical-surgical scenarios. Each simulation interaction was 15 to 20 minutes followed by 15 to 20 minutes of debriefing. They then completed an evaluation form anonymously. The students identified the debriefing to be valuable and positive, and indicated the need for more debriefing time. More than 95% of students felt the feedback/debriefing sessions helped with managing patient problems and developing validation for actions, as well as assisted with understanding medication and fluid actions. Students also remarked that debriefing was useful and many things were clarified after the seminar, and that it was good to be able to reflect on actions and understand things more (Wotton et al., 2010, p. 636).

The topic of debriefing has been embedded in the simulation literature for 40 years (Crookall, 2010). Although the literature review found numerous studies related to simulation, scant research focused on debriefing was discovered. In fact, the simulation literature identified debriefing research as lacking and recommends studies to be conducted on its benefits, design, process, education, and evaluation (Decker, 2007; Garrett, MacPhee, & Jackson, 2010; Nehring & Lashley, 2009; Neill & Wotton, 2011; Peters & Vissers, 2004; Wotton et al, 2010). More recently, articles focused only on debriefing have been published. These articles suggest there are certain characteristics and elements to define when, where, and how to debrief.

Debriefing Literature

Research. A thorough literature search found only five research studies reporting on the importance, structure, and process of debriefing. These studies were set in the nursing or medical realm. Rall, Manser, & Howard (2000) conducted a small study of 14

European simulator centers in order to define the key elements of debriefing. They identified debriefing as essential for a successful learning experience and the most important part, or the “heart and soul”, of simulator training. Also recognized was that poorly performed debriefing can produce negative consequences to the participants, such as misinformation, bad habits, humiliation, and decreased motivation and involvement. Thus, training the instructors regarding debriefing is imperative.

Education-based research evaluated the benefits of debriefing after simulation (Cantrell, 2008). Eleven senior nursing students completed three pediatric clinical simulations and received structured debriefing to provide feedback about their performance. Cantrell identified three critical components that influenced the students’ learning: adequate preparation, faculty’s demeanor, and debriefing immediately after the simulation experience. Participants stated the manner of debriefing, oral or video, was not important, but that it is best done immediately after the experience so it is fresh in their minds. Students preferred the faculty who facilitate debriefing also be a part of the simulation to coach and guide them. Cantrell states these results should be considered as only a beginning as future research and exploration are needed to more fully understand the debriefing process.

In another study, eight nurse educators were interviewed to determine how they structured the debriefing or reflective phase with experiential learning activities (Brackenreg, 2004). The nurse educators stated debriefing is very important but their approach and what each educator actually did differed. All eight of the instructors identified structured and planned steps for the action part of the simulation, but only three of them had clear and planned phases for the debriefing. These three also allotted more time for the debriefing, whereas the other five allowed the majority of the time for the action part of simulation. Brackenreg (2004) concludes that when

debriefing and reflection is ignored or insufficiently planned, poor learning outcomes and negative emotional effects on the students may occur.

Qualitative and quantitative research was conducted to identify areas that would optimize debriefing (Dieckmann, Friis, Lippert, & Ostergard, 2009). Eighty-nine questionnaires were sent to simulation center leaders in Europe, USA, Australia, and Asia to identify the instructor's role during the ideal debriefing and interactions with the participants comparing medical to crisis resource management (CRM) oriented courses. Twenty-two of the questionnaires were returned from Europe, USA, and Australia. The results concluded that various roles are needed based on the goals of the simulation and that they are equally important for medical and CRM courses. However, the information provider role was rated as more important for the medical courses. They also identified four interaction patterns for different debriefings: line, triangle, fan, and net. Ideally, instructors are to facilitate debriefing by asking questions so that participants do most of the talking. Instructors in this study reported that they were involved in most of the interactions and often explained issues. Researchers concluded that the actual debriefing practice may differ from what is ideal. They also recommended additional research is needed to understand debriefing, its concepts, and practice.

Using a high-fidelity simulator (HFS) to simulate an adult patient with heart failure, another research looked at where in simulation experience the knowledge is gained (Shinnick, Woo, Horwich, & Steadman, 2011). The purposes of the study were to (a) identify if this scenario would improve the pre-licensure nurse knowledge of heart failure and (b) determine where the knowledge is gained, hands-on versus hands-on plus debriefing. An experimental study using a convenience sample of 162 students from three schools of nursing was completed. The result indicated that knowledge decreased after the hands-on part of the simulation and

increased after both the hands-on and debriefing. Researchers concluded the gains in heart failure knowledge were accomplished after debriefing. They also suggested further research to replicate these findings and to understand debriefing.

Concept description and analysis. The literature portrays the importance of debriefing, however, much of it describes the various programs and authors' insights in how they use and conduct debriefing. The purpose of debriefing is to give the participants time to reflect, discuss the simulation experience, and analyze, synthesize, and evaluate their actions (Anderson, 2008; Arafeh, Hansen, & Nichols, 2010; Ghauri, 2011; Jeffries, 2010). Students discuss what happened during the simulation, why certain actions were chosen, and what they learned from it. Participants also discover and address any changes needed to improve their patient outcomes (Anderson, 2011; Jeffries, 2010).

Driefuerst (2009) defines the attributes of debriefing as reflection, emotion, reception, and integration and assimilation. The critical goals in reflection are identified as assimilation and accommodation where nursing students are able to transfer their knowledge from simulation to practice and other areas. Driefuerst expands on Schon's "reflection on action" and "reflection in action" to include "reflection beyond action". She identifies the "what if" questions as important to promote students to think beyond the simulation and anticipate what is next, thus symbolizing higher level thinking for clinical judgment and clinical reasoning. These characteristics work together to produce significant and optimal learning for the students. Driefuerst recognizes the lack of research on debriefing which would expand knowledge of the debriefing process.

Rudolph, Simon, Rivard, Dufresne, and Raemer (2007) report that using a judgmental approach of evaluation during debriefing can have negative effects on participants such as

humiliation, confusion, and decreased motivation and involvement. The authors suggest using advocacy and inquiry to promote a positive and safe environment for student reflection and learning. The goals of debriefing are for participants to clarify, analyze, and synthesize information and reactions to the simulation to improve their future performance in similar situations (Rudolph et al, 2007). These goals can be accomplished by incorporating the following characteristics and models of debriefing.

Characteristics of Debriefing

The literature identifies several characteristics essential to the debriefing process. Debriefing with good judgment assumes that everyone participating in simulation is intelligent, well trained, cares about doing their best, and wants to improve (Ghauri, 2011).

Elements. Lederman (1992) identified seven common structural elements of the debriefing process: (a) the guide or debriefer; (b) the participants; (c) the experience; (d) the impact of the experience; (e) the recollection of it; (f) the mechanisms for the reporting on the experience; and (g) the time to process it. These concepts are still used today though different terminology may be applied.

Environment. The environment should be positive, non-threatening, and, if possible, separate from the simulation experience (Anderson, 2008; Fanning & Gaba, 2007; Ghauri, 2011). Participation is encouraged and best accomplished by all participants sitting eye-level in a circle (Anderson, 2008; Fanning & Gaba, 2007; Ghauri, 2011). An environment of trust, respect, and confidentiality is necessary for all participants to feel comfortable to share (Anderson, 2008; Ghauri, 2011; Waxman, 2010). In some cases, participants may sign a confidentiality agreement in order to promote this safe environment (Waxman, 2010).

Time. Timing of the debriefing is crucial. It should occur immediately (less than 5 minutes) after simulation so thoughts, feeling, and actions are not forgotten (Anderson, 2008; Arafeh et al., 2010; Cantrell, 2008; Ghauri, 2011; Jeffries, 2007; Waxman, 2010; Wotton et al., 2010). The length of debriefing should be 20 to 30 minutes and ideally, two to three times the length of the scenario (Anderson, 2008, Arafeh et al., 2010; Ghauri, 2011; Waxman, 2010; Wotton et al., 2010). Arafeh et al. (2010) identified the majority of time should be spent in the analysis or discussion of the events with only five minutes in the initial reaction and feelings phase, and 5-10 minutes at the end of debriefing to summarize events and generalize transference of knowledge to clinical setting.

Facilitator. The role of the facilitator is very important in the debriefing process. The facilitator guides the conversation without lecturing, clarifies information, provides constructive feedback, uses active listening, and is trustworthy and respectful (Anderson, 2008; Cantrell, 2008; Ghauri, 2011; Lasater, 2007a). The facilitator must be able to promote learning and discussion in a non-threatening and organized fashion. The facilitator must identify pertinent elements of the simulation to discuss and relate to the objectives (Seropian, 2003). The role is to ask pertinent questions, give feedback, and clarify information (Anderson, 2008; Cantrell & Deloney, 2007; Waxman, 2010).

Fanning and Gaba (2007) discovered the students' perception of the simulation experience is connected with the perceived skill of the facilitator. The facilitator is not the expert but rather a co-learner in this debriefing process. Harvard Center for Medical Simulation identified the following facilitator proficiencies: (a) establishes an engaging learning environment; (b) maintains an engaging learning environment; (c) structures debriefing in an organized way; (d) provokes engaging discussions; (e) identifies and explores performance gaps;

and (f) helps trainees achieve and maintain good future performance (Ghauri, 2010). These skills are not always apparent in facilitators so training is desirable. Some additional factors to consider are (a) the learning objectives, (b) the time available, (c) the complexity of scenario, (d) the familiarity with the simulation equipment, (e) the learner's level and prior experience, and (f) the participants' relationships (Fanning & Gaba, 2007).

The facilitator can be faculty or a student depending on the situations and the level of facilitation needed. The three levels are high facilitation, intermediate facilitation, and low facilitation (Fanning & Gaba, 2007; McDonald et al., 1997). High facilitation requires low level of involvement by the facilitator. At this level the participants have developed a high level of reflection and self-discovery creating their own conclusions and change through rich discussions. The facilitator only guides if needed. The intermediate facilitation level requires more involvement of the facilitator primarily to guide analysis and deepen discussion. At the low level of facilitation, participants lack initiative and skills to debrief, consequently, the facilitator must guide the discussion through the debriefing phases, asking a lot of questions and directing the conversation.

Student role. The student's role is to actively participate and be involved in the simulation and all phases of debriefing. They are expected to discuss, analyze, and summarize the experience to enhance their learning (Fanning & Gaba, 2007; Ghauri, 2011). Students may lead and conduct the debriefing following the recommended roles for facilitation as previously outlined. This allows for more involvement and active participation (Anderson, 2008).

Models for Debriefing

The literature illustrates many models created for debriefing. See Table 1. Lederman identified three phases for debriefing, its importance, and the need for research in 1992. Despite

the fact that these recommendations were made almost two years ago, there is still not a standardized process or model for debriefing today. There are different names for the debriefing models and phases, though often the same ideas and concepts are incorporated into the various models.

Table 1

Different Debriefing Models and Identified Phases Found in the Literature

Model or Author	Identified Phases
National League for Nursing Simulation Innovation Resource Center (SIRC) (Anderson, 2008)	Beginning/Introduction/Opening Middle Closing/Summary
Mayo Clinic Model for Debriefing (Mayo Clinic, n.d.)	Experience Reflection Conceptualization Experimentation
Plus-Delta (Decker, 2009, Jeffries, 2010)	What went well What would like to change How to change
Advocacy-Inquiry (Decker, 2009, Jeffries, 2010)	Statement of observation followed by probing question of inquiry/why
Lederman (1992)	Systematic reflection and analysis Intensification and personalization Generalization and application

GREAT (Owens and Follows, 2006)	Guidelines Recommendations Events Analysis Transfer
Stadsklev (Patranek et al., 1992)	Experience Identify Analyze Generalize
4 E's (Patranek et al., 1992)	Events Emotions Empathy Explanation
Fanning & Gaba (2007)	Description Analogy/analysis Application
3D Model of Debriefing (Zigmont, Kappus, & Sudikoff, 2011)	Defusing Discovering Deepening

The NLN debriefing model is explained by Anderson (2008) on their Simulation Innovation Resource Center (SIRC) website and identifies the phases of introduction, middle, and summary as functional and simple to categorize. This model is useful for faculty

development and incorporation in a nursing curriculum. Several other models can be integrated into this model to allow for more direction and guidance. The Mayo Clinic Model for Debriefing includes the Kolb Learning Style (2005) that is fundamental to nursing education. It also further explains the debriefing phases by incorporating the Plus-Delta and Advocacy-Inquiry models.

Recommendations for the Debriefing Process and Guidelines

The literature review identified various essential components that would apply to debriefing after simulation. The following recommendations and conclusions gleaned from these studies are presented. In general, debriefing after simulation should include the following elements:

- Debriefing Process (Appendix A)
 - a. Identify the debriefing process which include the definition, environment, timing, facilitator's role, and student's role
 - b. Present and provide written guidelines to facilitate faculty and students
- Debriefing Model (Appendix B)
 - a. Present and provide the debriefing model with phases, definitions, and guiding questions to faculty and students
 - b. Recommend the SIRC/NLN model with three phases (Beginning, Middle, and Summary)
 - c. Incorporate Kolb's Stages of Experiential Learning into the Middle Phase using Plus-Delta and Advocacy-Inquiry approach
 - d. Questions in each phase to help facilitate discussion/dialogue

- Faculty responsibilities
 - a. Facilitate student reflection on events in scenario
 - b. Enable students to understand how to improve
 - c. Empower them to know that they can improve
 - d. Ensure that students do not leave with misinformation
- Facilitator role
 - a. Vary the role of facilitation by level
 - i. Low-level facilitation with high level of facilitator involvement and low participant lead
 - ii. Intermediate facilitation with student moderate level lead/discussion and faculty to assist and cover content not familiar to students, correct misinformation, and assist with transfer knowledge to clinical area
 - iii. High facilitation with more participant lead and low faculty lead.
 - b. Provide psychological safety by being trustworthy, respectful, confidential
 - c. Provide honest feedback
 - d. Develop debriefing skills to enhance the students' perception of the simulation and learning
 - e. Portray a positive demeanor
- Debriefing environment
 - a. Create a positive, non-threatening, respectful, and confidential atmosphere
 - b. Utilize a circle formation with all participants and facilitator at same eye level
 - c. Videotape session if desired and refer to during debriefing

- d. Encourage participants to talk and discuss feelings, events, and transfer of knowledge
- e. Conduct in a different area than the simulation where students are out of the role which they played for simulation
- Timing of debriefing
 - a. Conduct right after simulation so participants' thoughts and emotions are present with debriefing lasting double or triple time of simulation
 - b. Utilize the majority of time in debriefing for discussion and analysis of events
 - c. Explore feelings and reactions of the event for the first 5-10 minutes, and summarize with transfer of information to the clinical setting in the last 5-10 minutes
- Standard orientation for simulation and debriefing
 - a. Create a video to post online so participants can view as needed prior to simulation
 - b. Discuss the definition, process, and phases of debriefing in class before simulation occurs in the course
 - c. Display simulation area, mannequins, and equipment
 - d. Discuss rules of simulation and debriefing in regards to confidentiality, "What happens in simulation lab stays in the simulation lab"
- Need for research
 - a. To determine best practice for debriefing techniques and process
 - b. To develop models, frameworks, and theories for debriefing

Simulation is an important and needed strategy to enhance nursing students' reflection, learning, and practice of psychomotor skills, clinical reasoning, problem solving, and team collaboration. Debriefing is an essential component of simulation but the literature reviewed illustrates the need for focused research on the process, the environment, the student and facilitator roles, a theoretical framework, and a model. The purpose of this project is to design a debriefing tool and process to be used following simulation activities to enhance student learning. The literature provided information to guide the development of recommendations and creation of a Debriefing Model and Process tool. These recommendations and tool provide a framework for understanding and conducting proper debriefing to optimize student reflection and enhance learning.

References

- Anderson, M. (2008) Debriefing and guided reflection. Retrieved April 28, 2011, from <http://sirc.nln.org/mod/resource/view.php?id=168>
- Arafeh, J., Hansen, S., & Nichols, A. (2010). Debriefing in simulated-based learning: facilitating a reflective discussion. *Journal of Perinatal & Neonatal Nursing*, 24(4), 302-311.
- Brackenreg, J. (2004). Issues in reflection and debriefing: How nurse educators structure experiential activities. *Nurse Education in Practice*, (4), 264-270. doi: 10.1016/j.nepr.2004.01.005
- Becker, K. L., Rose, L. E., Berg, J. B., Park, H. & Shatzer, J. H. (2006). The teaching effectiveness of standardized patients. *Journal of Nursing Education*, 45(4), 103-111.
- Benner, P., Surphen, M., Leonard, V., & Day, L. (2010). *Educating nurses: A call for radical transformation*. San Francisco: Jossey-Bass
- Cantrell, M. A. (2008). The importance of debriefing in clinical simulations. *Clinical Simulation in Nursing*, 4(2). doi: 10.1016/j.ecns.2008.06.006
- Cantrell, M. A., & Deloney, L. A. (2007). Integration of standardized patient into simulation. *Anesthesiology Clinics*, 25(2), 377-383. doi: 10.1016/j.anclin.2007.03.003
- Childs, J., & Sepples, S. (2006). Clinical teaching by simulation lessons learned from a complex patient care scenario. *Nursing Education Perspectives*, 27(3), 154-158.
doi: 10.1043/1094-2831(2006)027[0154:CTBSLL]2.0.CO;2
- Crookall, D. (2010). Serious games, debriefing, and simulation/gaming as a discipline. *Simulation & Gaming*, 41(6) 898–920. doi: 10.1177/1046878110390784

- Decker, S. (2007). Integrated guided reflection into simulated learning experiences. In P. R. Jeffries (ed), *Simulation in nursing: From conceptualization to evaluation* (pp. 73-85). New York: National League for Nursing.
- Decker, S. (2009). Until we meet. *Debra L. Spunt Lecture Slides*. Retrieved April 8, 2011 from <http://sirc.nln.org/>
- Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. Lexington, KY: D.C. Heath.
- Dieckmann, P., Friis, S. M., Lipperst, A., & Ostergaard, D. (2009). The art and science of debriefing in simulation: Ideal and practice, *Medical Teacher*, 31(7), e287-295. Retrieved from [http://www.ncbi.nlm.nih.gov/pubmed?term=Dieckmann%2C%20P.%2C%20Friis%2C%20S.%20M.%2C%20Lipperst%2C%20A.%2C%20%26%20Ostergaard%2C%20D.%20\(2009\).%20The%20art%20and%20science%20of%20](http://www.ncbi.nlm.nih.gov/pubmed?term=Dieckmann%2C%20P.%2C%20Friis%2C%20S.%20M.%2C%20Lipperst%2C%20A.%2C%20%26%20Ostergaard%2C%20D.%20(2009).%20The%20art%20and%20science%20of%20)
- Dismukes, R. K., Gaba, D. M., & Howard, S. K. (2006). So many roads: Facilitated debriefing in healthcare. *Simulation in Healthcare: The Journal of the Society for medical Simulation*, 1(1), 23-25.
- Dreifuerst, K. (2009). The essentials of debriefing in simulation learning: A concept analysis. *Nursing Education Perspectives*, 30(2), 109-114.
- Fanning, R. & Gaba, D. (2007). The role of debriefing in simulation – based learning. *Simulation in Healthcare*, 2(2), 115-125. doi: 10.1097/SIH.0b013e3180315539
- Galloway, S. (2009). Simulation techniques to bridge the gap between novice and competent healthcare professionals. *Online Journal of Issues in Nursing*, 14(2), 1-9.

- Garrett, B., MacPhee, M., & Jackson, C. (2010). High-fidelity patient simulation: Considerations for effective learning. *Nursing Education Perspectives, 31*(3), 309-313.
- Ghuri, B. (2011, March). *Debriefing with your pants on*. Presentation. Presented at the Drexel University Conference: Simulation in Healthcare, Orlando, Florida.
- Jeffries, P. R. (Ed.). (2007). *Simulation in nursing education: From conceptualization to evaluation*. New York: National League for Nursing.
- Jeffries, P. (2010, October). *The art of debriefing: How to conduct a guided reflection and its importance*. Presentation. Presented at the National League of Nursing Conference, Las Vegas, Nevada.
- Jeffries, P., & Rizzolo, M. A. (2006). NLN/Laerdal Project Summary Report, Designing and implementing models for the innovative use of simulation to teach nursing care of ill adults and children: A national multi-site study. Published online by *National League for Nursing* (NLN), retrieved at www.nln.org.
- Kolb, D. A. (2005). *The Kolb Learning Style Inventory* (Version 3.1). Boston, MA: Hay Group.
- Larew, C., Lessans, S., Spunt, D., Foster, D. & Covington, B. (2006). Innovations in clinical simulation: Application of Benner's theory in an interactive patient care simulation. *Nursing Education Perspectives* (27), 16-21.
- Lasater, K. (2007a). High-fidelity simulation and the development of clinical judgment: Students' experiences. *Journal of Nursing Education, 46*(6), 269-276.
- Lasater, K. (2007b). Clinical judgment development: Using simulation to create an assessment rubric. *Journal of Nursing Education, 46*(11), 496-503.
- Lederman LC. (1992). Debriefing: Toward a systematic assessment of theory and practice. *Simulation and Gaming, 23*(2), 145-160.

- Mayo Clinic (n.d.). Basic debriefing principles. Retrieved February 5, 2011 from http://www.mayo.edu/simulationcenter/Instructor_Development-Course.html
- McDonnell, L. K., Jobe, K. K., & Dismukes, R. K. (1997). *Facilitating LOS debriefings: A training manual*. Retrieved February 5, 2011, from http://human-factors.arc.nasa.gov/flightcognition/Publications/Final_Training_TM.pdf
- National League for Nursing (2008). *Simulation innovation resource center (SIRC) glossary*. Retrieved from <http://sirc.nln.org/>
- Nehring, W., & Lashley, F. (2009). Nursing simulation: A review of the past 40 years. *Simulation Gaming, 40*(4), 528-532. doi: 10.1177/1046878109332282
- Nehring, W., Ellis, W., & Lashley, F. (2001). Human patient simulators in nursing education: An overview. *Simulation Gaming, 32*(2), 194-204. doi: 10.1177/104687810103200207
- Owen, H. and Follows, V. (2006). GREAT simulation debriefing. *Medical Education, 40*, 488-489. doi: 10.1111/j.1365-2929.2006.02421.x
- Petranek, C. F., & Corey, S., & Black, R. (1992). Three levels of learning in simulations: Participating, debriefing, and journal writing. *Simulation & Gaming, 23*(2), 174.
- Peters, V. A., & Vissers, G. A., (2004). A simple classification model for debriefing simulation games. *Simulation & Gaming, 35*(70), 70-84. doi: 10.1177/1046878103253719
- Rall, M., Manser, T., & Howard, S.K. (2000). Key elements of debriefing for simulator training. *European Journal of Anaesthesiology, 17*(5), 516-517. doi: 10.1046/j.1365-2346.2000.00724-1.x
- Reese, C. E., Jeffries, P. R., & Engum, S. A. (2010). Learning together: Using simulation to develop nursing and medical student collaboration. *Nursing Education Perspectives, 31*(1), 33-37.

- Rothgeb, M. (2008). Creating a nursing simulation laboratory: A literature review. *Journal of Nursing Education, 47*(11), 489-494.
- Rudolph, J., Simon, R., Rivard, P., Dufresne, R. & Raemer, D. (2007). Debriefing with good judgment: Combining rigorous feedback with genuine inquiry. *Anesthesiology Clinics (25)*, 361-376.
- Sanford, P. (2010). Simulation in nursing education: A review of the research. *The Qualitative Report, 15*(4), 1006-1011. Retrieved from <http://www.nova.edu/ssss/QR/QR15-4/sanford.pdf>
- Schon, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Seropian, M. (2003). General concepts in full scale simulation: Getting started. *Anesthesiology & Analgesia (97)*, 1695-1705. doi: 10.1213/01.ANE.0000090152.91261.D9
- Shinnick, M. A., Woo, M., Horwich, T. B., & Steadman, R. (2011, May). Debriefing: The most important component in simulation? *Clinical Simulation in Nursing, 7*(3), e105-e111. doi:10.1016/j.ecns.2010.11.005
- Waxman, K. (2010). The development of evidence based clinical simulation scenarios: Guidelines for nurse educators. *Journal of Nursing Education (49)*, 29-35. doi:10.3928/01484834-20090916-07
- Wotton, K., Davis, J., Button, D., & Kelton, M. (2010). Third-Year Undergraduate Nursing Students' Perceptions of High-Fidelity Simulation. *Journal of Nursing Education, 49*(11), 632-639. doi:10.3928/01484834-20100831-01
- Zigmont, J., Kappus, L., & Sudikoff, S. (2011). The 3D Model of Debriefing: Defusing, Discovering, and Deepening. *Seminars In Perinatology, 35*(2), 52-58.

Appendix A: Debriefing Process

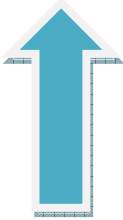

Debriefing After Simulation:

- Debriefing is defined as an activity that follows a simulation experience led by a facilitator wherein feedback is provided on the simulation participants' performance while positive aspects of the completed simulation are discussed and reflective thinking encouraged (SIRC glossary - NLN online, 4/7/11).
- Debriefing reinforces the positive aspects of the experience and encourages reflective learning, which allows the participant to link theory to practice and research, think critically, and discuss how to intervene professionally in very complex situations (Pamela Jeffries, 2010).
- Debriefing is where the learning occurs during a simulation. Students should reflect on the experience. The goal is for the student to understand what happened in the scenario and what their role should be in the future.
- The literature indicates that it is important to begin the debriefing by giving students an opportunity to vent their feelings. The focus should be first on the positive aspects of the experience and what the students did well. Participants should discuss how they would do things differently, and generalize how this would transfer to the clinical setting.
- Debriefing is also a time to correct any mistakes in thinking or intervening, by helping them explore alternatives. We do not want them to leave with incorrect information.

Improving the debriefing experience:

1. Debriefing environment
 - a. Create a positive, non-threatening, respectful, and confidential atmosphere
 - b. Utilize a circle formation with all participants and facilitator at same eye level
 - c. Videotape session if desired and refer to during debriefing
 - d. Encourage participants to talk and discuss feelings, events, and transfer of knowledge
 - e. Conduct in a different area than the simulation where students are out of the role which they played for simulation
2. Timing of debriefing
 - a. Conduct right after simulation so participants' thoughts and emotions are present with debriefing lasting double or triple time of simulation
 - b. Utilize the majority of time in debriefing for discussion and analysis of events
 - c. Explore feelings and reactions of the event for the first 5-10 minutes, and summarize with transfer of information to the clinical setting in the last 5-10 minutes
3. Facilitator's role
 - a. Establishes and maintains an engaging learning environment
 - b. Structures debriefing in an organized way
 - c. Provokes engaging discussions
 - d. Identifies and explores performance gaps
 - e. Helps participants achieve and maintain good future performance
 - f. Guides the conversation without lecturing
 - g. Clarifies information
 - h. Provides constructive feedback
 - i. Actively listens
 - j. Portrays a trustworthy, respectful, and positive demeanor
4. Student's role –
 - a. Actively participates in all phases of simulation and debriefing
 - b. Discuss, analyze, and summarize the experience to enhance their learning

Appendix B: Debriefing Model

Phase	Description	
Introduction	<p>Thank students for engaging in simulation and debriefing.</p> <p>Establish confidentiality.</p> <p>Set participant expectations.</p> <p>State the roles of the facilitator and students.</p> <p>State the process and anticipated length of the debriefing.</p> <p>State the purpose of the overall simulation learning experience</p> <p>Review learning objectives.</p> <p>Summarize the simulated scenario.</p> <p>Discuss the rationale for why the debriefing is centered on participant analysis.</p>	
Middle	<p>Experiencing/Concrete Experience</p> <p>Participants fully discuss their feelings and personal reactions to the simulation experience.</p> <p>Participants should believe that their feelings have been recognized and validated.</p> <p><i>How do you think the simulation went?</i></p> <p><i>What and how are you feeling after this simulation? (allow role players to go first and then observers)</i></p> <p><i>What were your favorite and least favorite aspects of the simulation?</i></p> 	<p>Reflecting/Reflective Observation</p> <p>Participants describe and reflect on the actual events of the simulation.</p> <p><i>What happened?</i></p> <p><i>What do you think is going on with this patient?</i></p> <p><i>What are the primary concerns in this scenario?</i></p> <p><i>What knowledge, skills, and attitudes are needed for this simulation?</i></p> <p><i>Did you have sufficient knowledge/skills to manage this situation?</i></p> <p><i>How did the group work as a team?</i></p> <p><i>What focused assessments were needed and were they completed?</i></p> <p><i>What interactions and interventions were done and were they all appropriate?</i></p> <p><i>Was SBAR used when communicating with other healthcare professionals? Was different or additional information needed for the healthcare professional?</i></p> 

	<p>Applying/Active Experimentation Participants generalize and transfer information and new understandings to clinical setting. Participants apply to “real life” or clinical practice, including how what was learned can be used to improve safety and care of patients.</p> <p><i>What knowledge, skills, or attitudes displayed in this simulation would be useful for the clinical setting?</i> <i>How could or would you use this in the clinical setting?</i> <i>How will this improve your ability to take care of patients?</i></p>	<p>Thinking/Abstract Conceptualization Participants think and analyze the events. They look for patterns or new meanings. Mistakes are part of learning so information and misinformation must be clarified.</p> <p><i>What was done well in this scenario- the strengths?</i> <i>What should have been done?</i> <i>What could have been done better?</i> <i>How would you improve upon this?</i> <i>What can you tell me about what you were thinking?</i> <i>What was the rationale for what was done and the interventions performed?</i> <i>What would you have done differently?</i> <i>Were there any safety issues with the patient or the environment?</i> <i>Is there anything else you would like to discuss?</i></p>
<p>Summary</p>	<p>Assist the participants in looking at the overall experience. What did you learn from this experience? Give a quick summary briefly stating the simulation’s purpose and the major issues talked about in the debriefing. Link the learning back to simulation and objectives. Clarify the take-home message which should include how the participants’ learning from the overall simulation experience can improve patient care and safety. Thank participants keeping a positive attitude. Obtain participant feedback and comprehension about the learning experience through a post-simulation survey, oral feedback, post-test, and/or additional reflective writing.</p>	

(Adapted from Anderson, 2008; Brackenreg, 2004; Decker, 2007; Decker, 2009; Fanning & Gaba, 2007; Jeffries, 2007; Kolb, 2005; Mayo Clinic, n. d.)

Copyright 2011 by C. R. Pivec