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Enhancing Clinical Reasoning Through Debriefing: Student’s Perceptions

St. Catherine University

NURS 8000 Scholarly Project

Melanie Smerillo, BSN, RN

May 27, 2014
As patients become more complex the role of a nurse requires a higher level of clinical reasoning (IOM, 2010). Simulation in nursing education provides opportunities for nursing students to practice clinical reasoning skills (Jeffries, 2007). Both Kolb’s theory of “Experiential Learning” and Benner’s “Novice to Expert” support the use of simulation in nursing curricula. Kolb’s experiential learning theory is “the process whereby knowledge is created through the transformation of experience and knowledge results from the combination of grasping and transforming experience” (Kolb, 1984, p.41). As novice nurses become experts, they learn better with experiences such as complex patient care scenarios, specific to an area of nursing (Benner, 1984). Simulations provide students the opportunity to learn by transforming their experiences and knowledge to patients in a controlled setting. An important component of each simulation is the experience and quality of debriefing. Debriefing is a time at the end of a simulation when faculty and students discuss and reflect on the simulation to assist in making the connections between theory and practice (Dismukes et al., 2006). However, the experience of debriefing needs to be meaningful for learning to occur. Debriefing that guides student thinking using reflection and dialogue to make links between thinking and doing is necessary to enhance clinical reasoning (Forneris and Peden-McAlpine 2007, 2009; Jeffries, 2007).

In 2012, a group of researchers at St. Catherine University, Bethel University, St. Olaf College, and Gustavus College sought to determine whether the use of Dreifuerst’s (2010) Debriefing for Meaningful Learning method positively impacts the development of clinical reasoning skills in undergraduate nursing students through a pilot study at four Midwestern colleges. The findings of this study suggested that meaningful learning that enhanced clinical reasoning had occurred. In order to validate these findings, a larger study, *Overcoming challenges: Operationalizing a multi-site nursing education research study* was initiated by the
same authors in fall of 2013. The objectives included: a) to determine whether an improvement in clinical reasoning occurred and, b) to ascertain whether the students involved in this study felt that the DML debriefing model was of higher quality than the normal or traditional model of debriefing. As a graduate student, the writer was asked to participate in this study and was given the opportunity to report the findings of the second objective. These findings are presented in the following paper.

**Background & Significance**

Nurse educators are routinely seeking new teaching and learning pedagogies to engage students in more active forms of learning (Lasater 2007). One strategy, simulation, is becoming more and more popular. Simulation is one teaching strategy that replicates the patient care environment with various levels of fidelity (Dreifuerst, 2010). Learning through simulation facilitates the application of theoretical knowledge obtained in a classroom setting to life-like procedural, technical, and conceptual based scenarios (Dreifuerst, 2010). Despite the increased use of simulation across nursing curricula, establishing whether learning has occurred is still being navigated. This is a known gap in the current literature.

The research on learning in simulation that does exist suggests that the most important learning occurs following the simulation in the debriefing phase (Jeffries, 2007; Decker, 2007; Lasater, 2007; Parker & Myrick, 2010; Chronister & Brown, 2011). Many approaches to debriefing have been used over the years, often relying on the expertise of the faculty to make the links for students between theory and practice. However, not all faculty are well prepared for this role, and as such, debriefing experiences can vary (Dreifuerst, 2012). Many nursing faculty report that they feel ill equipped to skillfully guide students through the learning experience (Jeffries, 2005). In these situations, debriefing experiences can last little more than 15 minutes
despite the recommendation that debriefing be two to three times the time spend in the actual simulation (Dieckman, Fris, Lippert et. al, 2009). Therefore, in an effort to provide faculty with the skills needed to assure student learning outcomes were being met, Dreifuerst (2010) developed the Debriefing for Meaningful Learning (DML) model.

The use of the DML model (Dreifuerst, 2010; Appendix A) provides a consistent structure to the debriefing process, and provides faculty with the necessary tools to facilitate the debriefing and reflective learning portion of simulation. The DML is a structured, standardized method of debriefing that is student driven, faculty guided, and helps students make links between their “thinking and doing”. While a fairly new tool, three studies, including the original DML research, have demonstrated the potential benefit of this model. These studies are summarized next.

In a comparative study of debriefing, Dreifuerst (2010) led the intervention group through the DML debriefing process while the non-intervention-group was led through the debriefing process using a standard debriefing approach. The Health Reasoning Sciences Test (HRST) was used to measure changes in clinical reasoning in both groups pre and post simulation experiences. The author reported that nursing students who were in the DML group (N = 238) improved their clinical reasoning skills to a greater extent than those students who were in the non-intervention group (N = 238). The findings were significant lending to further inquiry.

Further evidence of the success of this method of debriefing has been reported by Mariani, Meakim & Cantrell (2012). The purpose of this study was to determine whether the DML model for debriefing increased clinical reasoning. The authors in this study used an alternative form of measuring change in clinical reasoning, the Lasater Clinical Judgment Scale
(LCJS) (Mariani et. al, 2012). The intervention group (N = 42) were led through the debriefing experience using the DML model while the non-intervention group (N=44) experienced a traditional approach to debriefing. The results of this study were not significant, which differs from Dreifuerst’s findings. However, the authors reported that there was a greater increase in the pre and post-LCJS scores in the intervention group compared to the non-intervention group which is noteworthy (Mariani et. al, 2012).

In the most recent study, Forneris et. al recruited 30 students to participate in a series of simulations using the DML debriefing model. The authors reported a positive change in the raw scores of the Health Science Reasoning Test (HSRT) suggestive of enhanced clinical reasoning. Although these results were not statistically significant, there was no control group to compare their findings to and ultimately the authors determined that the sample size in the pilot study was too small and not powerful enough for significant statistical measurement (2013). A portion of the findings of the follow up study are the focus reported in this paper.

Determining the most effective method for assuring that the desired student learning outcome of enhanced clinical reasoning is met is important. The authors of the parent study of the findings presented in this study are in the process of reporting their findings which suggest a significant change in clinical reasoning between the DML and non-DML debriefing groups. In this paper, the student’s perception of learning following the use of the DML debriefing model offers additional opportunities to improve this model. In this scholarly project, an evaluation of the student perception of learning following the use of the DML method of debriefing was evaluated. The methods and findings are presented next.
Methodology

This paper reports the findings of a subset of data from a larger quasi-experimental study that evaluated student nurses’ clinical reasoning in simulation using Dreifuerst’s (2010) DML method of debriefing (Forneris et. al, in progress). The study was conducted with four baccalaureate nursing programs in Minnesota; St. Catherine University, Gustavus Adolphus College, St. Olaf College, and Bethel University. The objectives of the larger study include: 1) to evaluate the impact of a faculty-facilitated, guided reflection teaching strategy to enhance students’ development of clinical reasoning and 2) to assess students’ perception of the quality of debriefing using the DML as compared to their usual and customary debriefing. The second objective is the focus of this paper. This study was approved by each respective Institutional Review Board (IRB) (Appendix B).

Sample

All first semester senior level students enrolled in fall semester nursing courses across participating campuses included in this study. The majority of participants were female (90.3%; n=155). Participant ages ranged from 19 to 47 with an average age range of 18-22. Eighty-two percent of the participants self-reported as Caucasian, 7% as Asian, Pacific Islander, 5.8% as African American, and 1.9% of other Hispanic descent. English as a first language was reported by 83.2% of the participants, Spanish by 2.6% and Hmong as 2.6%, 8.4% declined to report their first language.

Process

Students were expected to 1) complete the Health Sciences Reasoning Test (HSRT) (Appendix C) during their first week of classes; 2) participate in a National League for Nursing (NLN) Advancing Care Excellence for Seniors (ACES) geriatric unfolding simulation (Appendix
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D); 3) complete evaluations of their simulation experience using the Debriefing Assessment for Simulation in Healthcare Student Version (DASH-SV) (Appendix E) and Debriefing for Meaningful Learning Student Questionnaire (DMLSQ) (Appendix F); and 4) complete the HSRT three weeks following the ACES geriatric unfolding simulation. Students were consented (Appendix G) prior to participating in the simulation and debriefing experiences.

The ACES geriatric unfolding simulation is broken into three 30-minute simulation scenarios that were specifically scripted to ensure reliability across campuses. Following each simulation scenario students debriefed for one hour. Students were randomly assigned to either their usual and customary debriefing group (non-intervention group) or to DML debriefing group (intervention group). At the completion of the debriefing all students completed the DASH-SV. Students in the DML debrief additionally completed the DMLSQ. Three weeks after participating in the ACES geriatric unfolding simulation students completed the HSRT again. The findings of the HSRT pre and post simulation scores and the DASH-SV debriefing tool are reported elsewhere (Forneris, Blazovich, Kuehn, et. al, in progress).

Tools

A description of the HSRT and the DASH-SV are reported in Forneris et al (in progress). The DMLSQ was administered to students in the intervention group to assess student perception of the quality of the DML debriefing experience. This tool was developed by Dreifuerst (2010) to be used in conjunction with the DML debriefing model. The DMLSQ is described in more detail next.

Debriefing for Meaningful Learning Student Questionnaire

The DMLSQ was designed by Dreifuerst (2010) to explore students’ perceptions of the quality of the DML model of debriefing and the associated tools compared to their usual and
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customary style of debriefing. The DMLSQ includes five statements to evaluate student perception of specific elements of the DML method. These include: 1) the worksheet was useful for debriefing; 2) the participant will know what to do the next time they encounter a patient with a main medical diagnosis of the assigned simulation; 3) the time allotted for debriefing was appropriate; 4) reflective thinking was evident in this simulation and debriefing experience; and, 5) what role did the participant play in the simulation (charge nurse, primary nurse, secondary nurse, family member, or observer/recorder). The students used a 7 point Likert scale to evaluate statements 1-4. An optional section for each question allowed the student to provide comments and feedback. Previous use of this tool in conjunction with the DML model of debriefing demonstrates that the tool is reliable and valid (Mariani et. al, 2012).

Debriefing Experience

Students were led through the DML model of debriefing using the DML worksheet (Appendix A). Following each simulation, students and faculty investigators debriefed for 1.5 hours using the DML student worksheet and DML faculty guide. Faculty underwent orientation to the DML model to ensure reliability of debriefing. Following the debriefing experience, students immediately filled out the DMLSQ to assure reliability of student responses. These results are presented next.

Results

The DMLSQ was completed by participants following the completion of the unfolding geriatric simulation by the intervention group. A total of seventy four participants (N=74) completed the DMLSQ. Figure one (pg. 9) depicts the data collected from the participations and the average rating for each question.
Figure 1. DMLSQ results

The DML model relies heavily on the DML worksheet that was designed to help facilitate the debriefing session. However, students were unsure whether they perceived the DML worksheet as helpful for the debriefing process (N=74, mean=4.4) stating, “They were unable to use all of the boxes”, “Not really useful, prefer discussion”, and “Couldn’t understand what to do with all of the boxes”. Despite this, students did perceive that the DML debriefing model itself provided them with the knowledge necessary to know what to do the next time they encountered a patient with the same medical diagnosis they encountered in the simulation (N=74, mean=6.1).

Similarly, participants’ feedback was positive indicating that they felt that the DML debriefing model increased their clinical reasoning. A similar rating was seen in student evaluation of question four which asked whether students felt that reflection was evident in the simulation and debriefing experience (N=74; mean 6.4). Overall students trended to agreeing that the time allotted for the simulation and debriefing was appropriate to allow for reflection,
discussion and synthesis of the simulation, however several noted that their peers in the traditional debriefing group finished much sooner (N=74, mean=5.7). The results of the DMLSQ are discussed next.

**Discussion**

The purpose of this paper was to report the student perception of the DML debriefing model on enhancing their clinical reasoning. Dreifuerst’s (2010) DML model is a more intuitive, and collaborative type of simulation debriefing that requires the use of critical reasoning more than traditional simulation debriefing. The data presented from the DMLSQ for this study demonstrates that students leave knowing how to apply knowledge learned in simulation to similar medical situations. This is important as the depth and breadth of a nurse’s understanding within the context of care is vitally important to achieving successful patient outcomes.

The DMLSQ asked participants about the quality of debriefing, specifically if the worksheets were helpful. Data and comments from the DMLSQ demonstrated that the interventions group did not find the DML worksheets particularly helpful in guiding their reflection process, specifically page two. Page two included a prescriptive concept map, students indicated they did not know what to do with all of the boxes and would have preferred a blank sheet for creating their own concept map or documenting what the debriefing faculty member documented on the white board. Concept mapping is used as teaching learning strategy in nursing education; it moves students away from rote memorization to application of their knowledge linking old concepts to new ones (All & Havens, 1996). To employ meaningful learning nurse educators and students use concept mapping to create a unique framework of ideas or “concepts” in an organized hierarchical fashion (Senita, 2008). Modifying page two of
the DML debriefing worksheet to allow for student creativity in relaying their perception of how concepts are inter-related would be one way to address this concern. Students found the other pages of the DML worksheet helpful in guiding their thinking and reflection, which suggests that only slight modifications are necessary to enhance student perception of learning.

In the second question, students strongly agreed that they could knowledgably care for a similar patient in the future. However, the question as asked doesn’t specifically request that the student rate their ability to care for a similar patient in the future by differentiating the experience of the simulation versus the debriefing. Therefore it’s difficult to determine whether it was the simulation, the debriefing experience or both that influenced their perception of learning. While it is likely that learning occurred in both settings, the literature indicates that the most significant learning occurs when students are able to reflect on their thinking and doing during the debriefing process (Dreifuerst, 2009).

The time allotted for the debriefing was deemed as mostly appropriate by the students. Students in this study participated in an unfolding simulation with three different scenarios. Each scenario was approximately 30 minutes in length and required approximately 1.5 hours of debriefing post simulation, per simulation. This is atypical of most simulation scenarios. Often one simulation is offered at a given time related to a specific content area being addressed in the theoretical portion of the course/clinical/lab. As such, most students’ previous experiences were likely much shorter simulation and debriefing periods, potentially skewing the results of this particular question. Students may have scored the appropriateness of the timing differently if they had a more typical day simulation and debriefing experience. Further, students in the intervention group may have seen or heard that other students were done sooner than they were,
influencing their ratings. Using the DMLSQ following a typical simulation scenario versus a longer unfolding scenario would be advisable.

Lastly, the DMLSQ findings indicate that students perceived that their clinical reasoning was enhanced. While not a part of this reporting structure, it is worthwhile noting that the student perception of learning presented here was supported by the increased HSRT post-test scores (Forneris et.al, in progress). This was also true of the DASH-SV scores. Nursing students who experienced the DML debriefing following their simulation (intervention group) had higher DASH-SV scores than nursing students who had the traditional debriefing (non-intervention group). The treatment group scored an average of 1.5 points higher than the control group, which while not a large difference, was found to be statistically significant (p<0.5). The complementary findings suggest that student perception of learning may also be reflective of actual learning taking place.

Overall, students’ perception of whether the DML debriefing model enhanced their clinical reasoning skills correlated with the quantitative measures gathered on the HRST and the DASH-SV strongly supporting the use of the DML debriefing model. However, a significant weakness in this study was noted by the researchers while reviewing results. Researchers did not have the non-intervention group complete the DMLSQ (with the exception of question one which is not relevant to the non-intervention group). As such, the author(s) were not able to determine whether students’ perception that they had enhanced clinical reasoning was in fact due to specifically to the use of the DML model, or whether students in both groups would have had the same perception regardless of debriefing method. This flaw is noteworthy and as such, results need to be interpreted with caution.
Implications for Nursing Education

The implications for practice and education are clear, the use of reflection and dialogue to improve thinking and transfer learning to new practice situations is essential to enhance patient care outcomes (Forneris et al., 2009). Research supports the use of simulation and debriefing as a teaching learning strategy that engages the learner in active learning and reflective thinking (Jeffries, 2007; Dreifuerst, 2010; Lasater, 2007; Parker & Myrick, 2010; Chronister & Brown, 2011). Dreifuerst (2010) highlights the need for trained nurse educators that can consistently debrief students following simulation. Faculty must be able to incorporate guided reflection to promote meaningful learning. Opportunities exist to more strategically approach the use of this innovative technology in a way that assures achievement of student learning outcomes and safe patient care. Nurse educators need to enhance their debriefing skills. The DML debriefing method offers educators a consistent and collaborative approach to do this. Continued exploration of alternative strategies to integrate the content and context of theoretical knowledge through reflective dialogue is warranted.

Conclusion

In an era where knowledge is constantly evolving, effective and consistent learning strategies that fluidly adapt to changing environments are necessary. The findings reported in this paper support the use of the DML debriefing model as one approach to effectively contribute to enhanced clinical reasoning in undergraduate nursing students. Continued exploration of this important topic in nursing education is warranted.
Appendix A

DML Student Worksheet

1. What is the first thing that comes to mind about the simulation experience?

2. What went right and why?

3. What would you do differently and why?

Framing: (What is the client’s story?)

Focused Key Problem/ND:
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DML, p. 3
Reflective Thinking

Thinking-in-Action

Thinking-on-Action

Thinking-beyond-Action
July 29, 2013

Susan Forneris PhD, RN, CNE, CHSE
St. Catherine University
2004 Randolph Ave
St. Paul, MN 55105, F-22

Re: IRB#13-N-23 Evaluation of Simulation Debriefing

Dear Dr. Forneris:

Thank you for submitting your research proposal to the St. Catherine University Institutional Review Board (IRB). The primary purpose of the IRB is to safeguard and respect the rights and welfare of human subjects in scientific research. In addition, IRB review serves to promote quality research and to protect the researcher, the advisor, and the university.

On behalf of the IRB, I am responding to your request for Exempt level approval to use human subjects in your research. A member of the St. Kate’s IRB has reviewed your application. As a result, the project is approved as submitted.

If you have any questions, feel free to contact me by phone (X 7739) or email (jschmitt@stkate.edu). Also, please note that all research projects are subject to continuing review and approval. You must notify our IRB of any research changes that will affect the risk to your subjects. You should not initiate these changes until you receive written IRB approval. Also, you should report any adverse events to the IRB. Please use the reference number listed above in any contact with the IRB. When the project is complete, please submit a project completion form.

We appreciate your attention to the appropriate treatment of research subjects. Thank you for working cooperatively with the IRB; best wishes in your research!

Sincerely,

[Signature]

John Schmitt, PT, PhD
Chair, Institutional Review Board

Cc: Vicki Schug
HEALTH SCIENCES
REASONING TEST

Good reasoning means using critical thinking skills to judge, in a careful and reflective way, what to do or what to believe in any given situation. This test assesses reasoning skills using items framed in health care and health sciences contexts. There are no trick questions on this test; words are used in their ordinary, everyday meanings. The questions themselves supply most of what a person needs in order to reason to the best choice from among those provided. Experience, basic education, and critical thinking skills supply the rest.
Instructions – Health Sciences Reasoning Test

**PAPER & PENCIL:**
1. Use a pencil.
2. Use the *Health Sciences Reasoning Test* - Code 08.1.08 Answer Sheet.
3. Bubble in your ID number and write your name on the Answer Sheet.
4. When answering, select the *best choice from among those provided.*
5. Read questions carefully.
6. Respond to all the questions.

**EXAMPLE QUESTION:**

E.g. Three friends, Anna, Barbara, and Carol, completed the same clinical skills training course. The three of them worked together as a team the whole time. When the final grades came out, Anna had earned a grade of “pass with distinction,” which was higher than Carol’s grade of “pass.” Carol’s grade was the same as Barbara’s, who also earned a “pass.” Deirdre, who always had said that she thought the course was silly and too easy, was given a grade of “fail.” Given this information only, it follows that

A = Carol and Barbara deserve “pass with distinction” too.
B = Barbara’s grade was higher than Carol’s.
C = Barbara’s grade was higher than Anna’s.
D = Deirdre’s grade was lower than Anna’s.
E = Anna will decide to take more advanced courses.

**EXAMPLE RESPONSE:**

<table>
<thead>
<tr>
<th>A</th>
<th>O</th>
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<tbody>
<tr>
<td>B</td>
<td>O</td>
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<td>D</td>
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<td>E</td>
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</table>

**EXPLANATION OF CHOICE D:**

A: Perhaps, but not enough is known about how one earns “pass with distinction” in this course.
B: No. The item says Carol and Barbara have the same grades.
C: No. In fact, we can infer Anna’s grade is higher.
D: Yes. Deirdre’s grade was lower than Carol’s and, as a result it is lower than Anna’s. Choice “D” must be true.
E: Maybe, but from the information given we cannot determine what she will decide to do.
The Health Sciences Reasoning Test

1. For the last couple of days Julia, a twenty-six year old female, has been experiencing a mild sore throat and nasal congestion. These symptoms could be associated with a variety of illnesses but they are most commonly associated with a common cold virus. What is the most reasonable thing to think at this point?
   A = Julie probably has a cold.
   B = Julie definitely has a cold.
   C = Julie definitely doesn’t have a cold.
   D = Julie probably doesn’t have a cold.

2. When a new drug is approved for use, it is usually believed to be a little better than previously available drugs. Suppose that a new drug, Bexigong, is introduced. Fred is currently using the old drug, Pinafax. Pinafax works better for Fred than the drug he used to take, Zygothyme. What is likely to happen if Fred switches to Bexigong from Pinafax?
   A = Bexigong will definitely be worse for Fred.
   B = Bexigong will probably be worse but it might be better for Fred.
   C = Bexigong will definitely be better for Fred.
   D = Bexigong will probably be better for Fred, but it might be worse.
   E = Bexigong will be no better nor worse than Pinafax or Zygothyme.

3. On a damp March afternoon a person stops at the pharmacy to buy some over the counter cold medicine for herself. She sees dextromethorphan to suppress a cough, pseudoephedrine for nasal congestion, and acetaminophen for fever and discomfort. There is also a nationally known and widely advertised combination preparation that mixes all three of these drugs. She has no fever and no nasal congestion for now her symptom is her nasal congestion. So, for her, the best choice of medication would probably be
   A = acetaminophen because she might develop a fever.
   B = pseudoephedrine to ease her nasal congestion.
   C = dextromethorphan in case she does get a cough.
   D = the combination preparation because the box says “For colds.”
   E = none, because it is always better not to take any medications.

4. Suppose that the city’s health care services are suddenly inundated with hundreds of victims seeking emergency care. Initially they present with nausea, vomiting, severe headaches, bleeding from the gums and nose. Within six to eight hours many of these victims begin experiencing severe respiratory distress. Within twenty-four hours children and elderly begin dying. At about the same time the health care workers who had been on duty caring for these victims begin exhibiting some of the same symptoms. At this point, the cause of the symptoms has not been identified. Given what is known and what is not known about the situation, which of the following principles should take the top priority in guiding decision-making in this time of crisis?
   A = Minimize the threat of litigation by refusing to accept any more patients.
   B = Ration food, water, and medical supplies for an uncertain future.
   C = Respect the rights of all citizens to privacy and freedom of assembly.
   D = Assure that the victims give their informed consent to treatment.
   E = Use all necessary means to find and quarantine all who have been exposed.
5. Assume that there may be layoffs among the pharmacy staff based on seniority. Suppose we know that pharmacist L is junior to pharmacist X. Pharmacist Y is junior to L. And pharmacist M is junior to Y. Which additional piece of information allows us to know that pharmacist Y is junior to J?
   A = Pharmacist X is senior to Y.
   B = Pharmacist X is senior to J.
   C = Pharmacist J is senior to L.
   D = Pharmacist J is senior to M.
   E = Pharmacist L is senior to J.

6. Consider this case: “Even though Hashem was extremely tired, he hardly slept at all because he woke up repeatedly coughing. Every time he tried to get up or talk his cough started again. He did not feel hungry at all. That day and all the next he stayed in bed. Each time he awoke, his chest hurt and he began coughing. The third morning his wife phoned the medical clinic seeking help. The clinician said that Hashem’s coughing could mean several different things. The wife said that Hashem believes that his allergies are acting up. But, she added that Hashem’s allergies are not usually this bad. The clinician knows that one very probable cause of Hashem’s coughing is an upper respiratory virus. The clinician advises that Hashem should continue with the bed rest, make sure to take plenty of fluid and phone again in three days if the coughing continues.” Is this management of Hashem’s condition adequate or not?
   A = Yes, because by making Hashem stay in bed he will not be driving his car.
   B = Yes, because the most likely cause of Hashem’s cough is a respiratory virus.
   C = No, because it is not certain what is causing Hashem’s symptoms.
   D = No, because we must address the dangers of chronic allergies.
   E = No, because Hashem is only trying to stay away from work for a few days.

7. “Not all the patients have the same symptoms,” means the same as
   A = Some patient has the same symptoms as someone else.
   B = Some patients have symptoms that differ from other patients.
   C = No two patients have the same symptoms.
   D = Every patient’s symptoms are unique.
   E = All patients do not have the same symptoms.

8. At the meeting of the Medical Center’s Review Committee, the case being discussed involved when if ever it was permitted to ignore the established protocols when caring for a patient. One committee member criticizes a physician’s failure to carry out the established protocol for a patient presenting with acute abdominal pain. In this case the patient suffered from Alzheimer’s disease. The committee member said, “This case came perilously close to unethical care. The patient may have died if the diagnosis was incorrect as a result of an inadequate diagnostic workup.” In response the treating physician argued, “This was one case among many where being ethical required doing something that could be interpreted as outside the protocol.” Could the treating physician’s argument be true?
   A = No. Because following the protocol is always doing the right thing.
   B = Yes. Because everyone should be free to decide for themselves.
   C = No. Because the Medical Center is responsible if the patient dies.
   D = No. Because you can always work around the protocol.
   E = Yes. Because following the protocol may cause needless suffering.
Questions 9, 10, and 11 are related

Because of low morale during tough budget times, the Clinical Services Director is assigned to select a staff spirit team with exactly five members. She wants to select no more than one representative from any of the various services, which include Nursing, Medicine, Pharmacy, Dentistry, Physical Therapy, Dietetics, and the Laboratory. Medicine has insisted that a doctor must be on the staff spirit team. For reasons unknown the chief administrator has ruled out selecting anyone from Dietetics. Physical Therapy insists that if there is a Laboratory representative on the team then there must be a Physical Therapy representative as well.

9. Which combination of representatives fits the many demands being put on the Clinical Services Director in creating this team?
   A = Medicine, Nursing, Physical Therapy, Dietetics, and Pharmacy
   B = Nursing, Pharmacy, Dentistry, Laboratory, and Medicine.
   C = Laboratory, Physical Therapy, Dentistry, Nursing, and Medicine.
   D = Nursing, Pharmacy, Dentistry, Laboratory, and Physical Therapy.
   E = None of the other choice satisfy the conditions.

10. The Clinical Services Director decides that the team must have a representative from Nursing, Pharmacy, and the Laboratory. Given these three, and given the other demands placed on team membership in the item above, which group listed below will not be represented on the five-person team?
    A = Pharmacy
    B = Medicine
    C = Physical Therapy
    D = Dentistry
    E = None of the other choice satisfy the conditions.

11. Before the team could be formed, Medicine decided that it did not want to have a representative. The Clinical Services Director thought that this would allow for the inclusion of the Chaplain. However Physical Therapy and Pharmacy said that they did not want the Chaplain on the staff spirit team. With the added constraints, which two services must the Clinical Services Director include no matter what?
    A = Medicine and Dietetics
    B = Nursing and the Chaplain
    C = Pharmacy and Administrative Services
    D = Laboratory and Physical Therapy
    E = None of the other choice satisfy the conditions.

12. Suppose all the women in the world exposed to tobacco smoke at home or at work are represented by the space inside the rectangle below. Suppose the space inside the long oval represents all the women in the world who smoke tobacco. And, suppose the space inside the circle represents women who get heart disease. It would be most reasonable to interpret the figure as meaning:

   A = All of the women in the world are exposed to tobacco where they live or where they work.
   B = Every woman who smokes tobacco at home gets heart disease.
   C = If a woman has heart disease she is exposed to tobacco smoke at work.
   D = Some women with heart disease do not smoke tobacco.
   E = None of the other four choices is a reasonable interpretation.
Questions 13 and 14 use the following diagram:

13. Tay-Sachs is a genetic disease. The genes for this disease may or may not be passed from a parent who is a carrier to that person's biological child. If the Tay-Sachs gene is passed on from both parents, their child is born ill. The chart above indicates the probable pattern of passing Tay-Sachs from parents to their biological children. It would be most reasonable to interpret the chart as meaning, more or less, that:

A = One out of four children will be born ill.
B = All their children will be born ill.
C = Girls have a 50% chance of not being affected.
D = Only the boys will get Tay-Sachs.
E = None of the other choices is a suitable interpretation.

14. If both parents are genetic carriers of the Tay-Sachs gene mutation, their biological children have roughly a 75% chance of being affected. The probabilities break down this way: each biological child of two Tay-Sachs carriers has about a 50% chance of being a carrier and about a 25% chance of actually having the disease. Assume that Harvey and Sharon are thinking that they want to have a child together. They visit the genetics counselor and undergo a Tay-Sachs screening test. The test indicates that they both are Tay-Sachs carriers. Given this information, it follows that:

A = Their biological child will either have Tay-Sachs or be a Tay-Sachs carrier.
B = Their biological child may not be affected.
C = The sex of their child will determine whether or not she or he is a carrier.
D = They will consider the risks and decide not to conceive a child.
E = Wanting to become parents, Harvey and Sharon will adopt a child.

15. “Only those who want to be leaders and to serve others should become nurses,” means the same things as:

A = No one should become a nurse unless they want to be a leader and to serve others.
B = All who become nurses want to be leaders and to serve others.
C = All who want to be leaders and to serve others should become nurses.
D = One should not want to be a leader or to serve others except by becoming a nurse.
E = All of the other four choices offered here mean the same thing.
16. If this passage is true, the study referred to here supports the claim that:

A = College students must not be permitted to smoke.
B = Smoking will cause a measurable reduction in a student's respiratory capacity.
C = Persons who need excellent respiratory capacity should not be allowed to smoke.
D = Smoking is unrelated to reduced respiratory capacity in children.
E = Smoking cigarettes is associated with reduced respiratory capacity.

17. If the information in the passage above is true, which of the following hypotheses would not have to be ruled out in order to confirm the claim that those who smoke daily experience measurable losses in respiratory capacity?

A = If a person stops smoking entirely, respiratory capacity returns to its pre-smoking level in about six months.
B = The lower test scores at the end of the study actually resulted because many of the college students did not put as much effort into the tests at the end of the study.
C = College students often exaggerate how much they actually smoke, so the claim reported in this study may not be accurate.
D = Since health sciences student populations are predominantly female, the findings of this study may not apply to men.
E = Reduced respiratory capacity in college females is the result of other factors, such as sleep deprivation, poor diet, and excessive stress.

18. Two people in bathing suits and cotton T-shirts are enjoying a beautiful sunny day at the beach. One person, concerned about the risk of skin cancer from too much exposure to direct sunlight, goes to sit in the shade under a beach umbrella. The other stays sitting in the sun saying, "It's too late to sit under an umbrella, we've been in the sun for an hour already, so the umbrella will do me no good. " What would be the best evaluation of this person's reason?

A = Poor reason. The shade of the umbrella will offer some protection from further damage.
B = Poor reason. But the umbrella's shade does not reduce the cancer risks anyway.
C = Good reason. The sun will be going down in a few hours anyway.
D = Good reason. The cancer risk of sunlight has been exaggerated by the media.
E = Good reason. The cooler shade will repair the damaged already done by the sun.

19. Which ethical principle in the list below is the most important?

A = Act for the greatest good of the greatest number.
B = Protect innocent persons from harm.
C = Respect autonomy and secure informed consent.
D = Distribute benefits and burdens justly to all.
E = None of the other answer choices is correct.
Questions 20, 21, 22, and 23 relate to the following scenario:

You did an Internet search on "genetically transmitted disease" and one of the websites that turned up had the following message: "Consanguineous marriage, a tradition in some cultures, greatly increases the risks of transmitting life threatening diseases to your offspring. For the last 25 years, various studies have shown that the risk of beta-thalassemia, mental retardation, neurological handicaps, deafness, and other severe diseases increase dramatically in the offspring of consanguineous individuals. There is no justification for the health of the next generation by carrying on these old traditions! In a government study of Yemeni children, consanguinity was a factor in 31% (1st degree relatives) and 16% (2nd degree relatives) of children with sickle cell disease. In a Saudi study, nearly 69% of the cases of beta-Thalassemia occurred in the offspring of consanguineous matings. This percentage was 60.6% in an Egyptian study. These three studies demonstrate a significant relationship between consanguinity and high rates of genetically transmitted disease in offspring of these couples. Don't fall victim to this problem. Click here to learn more about reproductive counseling before you decide to have children with your consanguineous spouse."

20. Suppose that a respected official of the government objected by saying, "The website's warning about consanguineous marriage was wrong because it was a violation of a tradition." If it were true that this information was a violation of tradition, is the government official's reason for disagreeing with the website's claim a good one or not, and why?

A = Good reason. A violation of tradition invalidates the credibility of the research.
B = Good reason. Following tradition is vital to the security of the nation.
C = Poor reason. If the study's results violate tradition, then conducting the study violates tradition.
D = Poor reason. The tradition has no affect on the findings of the research.

21. Suppose a religious leader objected saying, "We cannot trust a website that advocates irresponsible and immoral activity, perhaps even abortion if there are congenital defects in the fetus. At the very least the website should have safeguards to prevent children from viewing its message without the consent of their parents." As it is true that some children can be adversely affected by what they find on the Internet, is the religious leader's reason for discreditting the research a good one or not, and why?

A = Poor reason. The owner of the website probably never intended to cause harm to children.
B = Poor reason. The morality of the website is not relevant to the scientific claim it makes.
C = Good reason. Openly immoral and irresponsible behavior must be stopped at all costs.
D = Good reason. Scientific research about consanguineous marriage can stimulate unhealthy thoughts in children.

22. Suppose that a medical researcher objected by saying, "One reason that the findings presented on the website are incomplete is that the range of people studied in this research is not large enough. Beta-Thalassemia may be statistically associated with consanguinity in Saudi Arabia, Yemen and Egypt but maybe not in other populations." Is the reason for this medical researcher's objection good or not, and why?

A = Good reason. Statistically, consanguineous marriage is more common in Saudi Arabia, Yemen and Egypt than in some other countries.
B = Good reason. The findings should be reviewed to see if they hold true for people in other countries around the world.
C = Poor reason. This researcher is probably just studying consanguinity.
D = Poor reason. Having healthy children is important to people in all countries.

23. Suppose that a nursing student objected saying, "From these studies we cannot know if consanguinity is the reason for illness in children. Children may become ill for many reasons, a poor diet, for example, or exposure to dangerous chemicals. Not every childhood disease can be traced back to consanguineous marriage." Is the reason for this student's objection a good one or not, and why?

A = Poor reason. What does this student really know about scientific research?
B = Good reason. We know the causes of childhood disease.
C = Poor reason. The website does not claim that consanguineous marriage is the cause of every childhood disease.
D = Good reason. The website is really aimed at making money by selling counseling services and books about genetically transmitted diseases.
SCHOLARLY PROJECT: STUDENTS PERCEPTION OF DEBRIEFING

24. Amanda, an eight year old in the orthopedic service, used family photos and magazine pictures to make the poster above. By the size of the pictures Amanda wanted to show her nurse how much she liked each thing in comparison to the others. Which would it not be fair to say?

A = Amanda likes learning about the planets less than she likes her flower garden.
B = Amanda likes her flower garden as much as she likes seeing big buildings.
C = Amanda likes ribbons and presents more than she likes her flower garden.
D = Amanda likes visiting Grandma more than she likes learning about the planets.
E = Amanda likes visiting Grandma about as much as she likes seeing big buildings.

Questions 25 and 26 are related.

The free trolley between the downtown Life Sciences Building and its parking structure six city blocks away can carry no more than ten passengers. There are 23 people waiting at the parking structure to ride the trolley back to the Life Sciences Building and 27 people waiting at the Life Sciences to take the trolley to the parking structure.

25. If the trolley starts at the Life Sciences Building and no additional people show up to ride in either direction, how many trips between the Life Sciences Building and the parking structure must the trolley make in order to deliver all 50 people where they want to go?

A = 8  B = 6  C = 7  D = 8  E = 9

26. After the free trolley departed the second time with passengers bound for the parking structure, 22 more people came to the Life Sciences Building trolley stop wanting to ride to the parking structure. How many additional trips between the parking structure and the Life Sciences Building must the trolley now make in order to accommodate the additional 22 people?

A = 8  B = 4  C = 3  D = 2  E = 1

27. The rule, “Admission to the Med-Center requires an ID badge or a Guest Pass,” means

A = If you do not have an ID badge you cannot be admitted.
B = If you have an ID badge or a Guest Pass you can be admitted.
C = If you have a Guest Pass you can be admitted.
D = If you have been admitted you have a Guest Pass.
E = If you have not been admitted you have a Guest Pass but not an ID badge.

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28. Consider this case: "In the privacy of the bathroom Marge palpated her left breast doing breast self-exam. There was another, that odd feeling lump. It had not been there last month. That was for sure. But then, the nipple was pushed in the last month. Since noticing that Marge had pulled at the nipple a little each day, started taking Vitamin C daily, gone on a strict no-fat diet, and jogged two miles five times a week. And now, four weeks later, she thought that the left nipple was beginning to look more like it should. And, thought Marge, seeing herself in the mirror, the rest of me is looking a little better too. Well, she decided, if the tough regime can fix the problem with my nipple, then it can fix that breast lump too." The kind of reasoning exhibited by Marge in this case is best evaluated as

A = good. Eating a healthy diet, exercising, and taking Vitamin C has been associated with fewer cases of breast cancer.
B = good. What evidence is there that if she had not gone on the tough regime, the nipple would have improved?
C = poor. The tough regime may have allowed Marge to notice the lump, but continuing with the regime should not reverse that result.
D = poor. There is no doubt that Marge has breast cancer and she needs a biopsy.

29. James, an RN, describes this incident that happened today on the ward. "I was responding to Mrs. Le's request for a pain shot when her husband arrived. The husband waved away the pain shot saying he did not want his wife to be drowsy while he visited her. I glanced at Mrs. Le to question this decision. She averted her eyes from mine and bowed her head as she always does when she is deferring to her husband's judgment. So I left the room without giving her the pain shot." What is the best assessment of James' decision not to give the pain shot?

A = James respected the rights of the family to control health care delivery.
B = James should have insisted that Mrs. Le take the pain medication.
C = James lacked compassion when he allowed Mr. Le to make the decision.
D = James was angry at Mr. Le and should have been honest and told him so.
E = James violated Mrs. Le's individual autonomy by not giving her the pain shot.

30. Suppose someone reasons this way: "There are three popular reasons in favor of not reporting newly diagnosed HIV/AIDS cases. One is that HIV/AIDS is not highly communicable in the first place. Second new treatments control the virus and make people far less likely to infect others. The third is that personal privacy is more important than community health. But we should report newly diagnosed cases. For one, HIV/AIDS infection is a major public health problem and the virus is communicable in very much the same way as hepatitis, which is reportable. Second, personal privacy is not more important than community health; if privacy were more important we would not have mandatory reporting for tuberculosis, plague, or other dangerous diseases. There are no downsides to mandatory reporting for this horrific disease." The strength of this speaker's argument to convince policy makers who are opposed to mandatory reporting is best evaluated as:

A = Convincing, because it demolishes all the arguments against reporting.
B = Convincing, however it trivializes the suffering of the people with HIV/AIDS.
C = Weak, because the speaker ignored advances in the treatment of HIV/AIDS.
D = Weak, but there must be some problem with reporting the speaker has not thought of.
E = Weak, because the family of an infected person has the right of privacy too.
31. Consider the claim: "Every single professional health care provider who works here, even a float RN on the night shift, is responsible for monitoring patients' health care outcomes." Suppose that the hospital administrator who made this claim gives this reason: "Our hospital is obligated to assure the quality of the health care outcomes for our patients. We all realize that measuring health care outcomes can be a difficult process. Nurses, dietitians, pharmacists, lab assistants, physical therapists, and physicians have responsibilities for patient safety. And, patient safety is one of the health care outcomes every professional who works here is responsible for monitoring." Assuming all the statements the hospital administrator made as part of the reason are true, the initial claim

A = must be true.
B = is probably true, but may be false.
C = is probably false, but may be true.
D = must be false.
E = None of the other answer choices is right.

32. William, a practitioner on duty in the emergency room, is leaving work one cold winter night when he encounters an older woman in the parking lot. Obviously homeless and malnourished, she asks William if he has any money so she can buy her baby some milk. William sees that she is holding a small child wrapped in blankets. The child looks to be about four years old and asleep. Handling the woman some money, William asks how the child is doing. She says the baby is always like this because of the cold. The woman thanks William and hurries away in the direction of a nearby convenience store. William suddenly thinks he could be acting negligently because the law requires that health care professionals report cases of suspected child abuse. William’s inference about negligence is:

A = correct, because the law applies until he exits the parking lot.
B = correct, because the woman may use the money for drugs.
C = incorrect, because this woman obviously loves the child.
D = incorrect, because he did give the woman money for milk.
E = None of the other answer choices is right.

33. The panelist at the bio-ethics conference said, "Confidentiality is an important part of the relationship between a health care professional and his or her patient. But protecting vulnerable people, especially the frail elderly, from serious harm is also an important consideration. Frankly, neither I nor anyone else can say with certainty which of these two is the more important. This can create some agonizing ethical dilemmas for the health care professional. For example, she or he may worry that the patient is going to harm someone or be harmed by someone, as in the instance when an elderly husband with Alzheimer’s may cause bodily harm to his elderly spouse. This can put the healthcare professional in a difficult situation regarding whether to maintain patient confidentiality or to inform the proper authorities about the potential danger." The best evaluation of this panelist’s reasoning is:

A = good thinking, because confidentiality cannot be compromised.
B = good thinking, because in the abstract these values conflict.
C = poor thinking, because the law requires that the professional report the potential violence.
D = poor thinking, because in practice the professional does choose one value over the other.

That was the final question.
Appendix D

Millie Larsen-Simulation #1

Faculty Nutshell:

Millie Larsen has been newly admitted to the care unit after an overnight observation in the ED due to some new confusion. The focus of the simulation is for the students to recognize the patient’s confusion, assess it appropriately using the correct assessment tools (SPICES, CAM). As well, the confusion has developed as a result of a new UTI. Students should be able to differentiate the common geriatric syndromes (The term “geriatric syndrome” is used to capture those clinical conditions in older persons that do not fit into discrete disease categories. Many of the most common conditions that geriatricians treat, including delirium, falls, frailty, dizziness, syncope, and urinary incontinence, are classified as geriatric syndromes. Nevertheless, the concept of the geriatric syndrome remains poorly defined) and be able to recognize her confusion as delirium and not dementia.

Date: Spring 2014  
Discipline: Nursing  
Expected Simulation Run Time: 20 minutes  
Location: Simulation lab  

File Name: Millie Larsen (Scenario #1)  
Student Level: Varied  
Guided Reflection Time: 40 minutes  
Location for Debriefing/Reflection: J111 and J112

<table>
<thead>
<tr>
<th>Admission Date: Day of Admission</th>
<th>Psychomotor Skills Required Prior to Simulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital Day One (HD1)</td>
<td>General head-to-toe assessment</td>
</tr>
<tr>
<td></td>
<td>Assessment tools:</td>
</tr>
<tr>
<td></td>
<td>SPICES</td>
</tr>
<tr>
<td>Today’s Date: HD1 Time: 0930</td>
<td>Confusion Assessment Method (CAM)</td>
</tr>
<tr>
<td></td>
<td>Katz Index of Independence</td>
</tr>
</tbody>
</table>

Brief Description of Client:

General head-to-toe assessment
Assessment tools:
SPICES
Confusion Assessment Method (CAM)
Katz Index of Independence
| Name: Millie Larsen | Hendrich II Fall Risk Model.  
| Gender: F Age: 84 Race: Caucasian | Medication administration  
| Weight: 48 kg Height: 61 in | Cognitive Activities Required prior to Simulation  
| Religion: Lutheran | Geriatric Syndromes and the atypical presentation of older adults  
| Major Support: Dina (daughter) | Principles of safe medication administration  
| Phone: 555-1210 | Information on medical diagnoses (dehydration, UTI), including ongoing diagnoses from past history (glaucoma, hypertension, osteoarthritis, stress incontinence, hypercholesterolemia) and confusion.  
| Allergies: no known allergies |  
| Immunizations: Influenza & pneumonia | (2 years ago)  
| Attending Physician/Team: |  
| Dr. Eric Lund |  
| Past Medical History: Glaucoma, hypertension, osteoarthritis, stress incontinence, hypercholesterolemia |  
| History of Present Illness: |  
| Millie’s daughter became concerned yesterday when she stopped over to check on her and found her still in her bathrobe at 5:00 PM. The house was very unkempt, and Millie couldn’t remember her daughter’s name. Millie was brought to the |
emergency department by her daughter and she was finally admitted to the general medical-surgical unit around 9:30 AM. U/A, CBC, and basic metabolic panel labs have been completed and sent to the lab. Results are available.

**Social History:** Widow for one year; involved in church activities and gardening. Daughter and grandchildren live nearby.

**Primary Medical Diagnosis:** Dehydration; UTI

**Surgery/Procedures & Dates:** Cholecystectomy at age 30

**Nursing Diagnoses:** Urinary incontinence; acute confusion; fluid volume deficit

### Simulation #1 Learning Objectives

**Simulation Learning Objectives – for faculty**

1. Use and interpret appropriate evidence-based tools to assess patient condition and abilities (SPICES, CAM, Katz Index of Independence, and Hendrich II Fall Risk Model).

2. Identify critical assessment findings (elevated blood pressure and confusion) and intervene effectively.

3. Recognize geriatric syndrome(s) present in simulation. (urinary incontinence and confusion)

4. Recognize differences between delirium and dementia.

5. Assess patient discharge needs and intervene as needed.
Simulation Learning Objectives – for learners

1. Use and interpret appropriate evidence-based tools to assess patient condition and abilities (SPICES, CAM, Katz Index of Independence, and Hendrich II Fall Risk Model).

2. Identify critical assessment findings and intervene effectively.

3. Recognize geriatric syndrome(s) present in simulation patient.

4. Recognize differences between delirium and dementia.

5. Assess patient discharge needs and intervene as needed.

Millie Larsen-Simulation #2

Faculty Nutshell:

Millie Larsen has sustained a fall following her admission. While her cognition is improving, from an ongoing safety standpoint she requires some assistance with ambulation. The key focus of this simulation is for students to recognize the need for accurate assessments of patient’s level of function and appropriate assessment skills and screening that provide a safe and accurate reflection of the best discharge plan and environment. Students should be familiar with and use the following assessment tools: Hendrich II Fall Risk Model, and Katz Index of Independence.

Date:  
 Discipline: Nursing

Expected Simulation Run Time:  
 20 minutes

Location: Simulation lab

File Name: Millie Larsen (Scenario #2)

Student Level: Varied

Guided Reflection Time:  
 40 minutes

Location for Reflection:  
Classroom or debriefing area

Admission Date: Day of Admission  
Hospital Day One (HD1)

Psychomotor Skills Required Prior to Simulation
**Today’s Date:** HD2  Time: 0700

**Brief Description of Client**

<table>
<thead>
<tr>
<th>Name:</th>
<th>Millie Larsen</th>
</tr>
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<tbody>
<tr>
<td>Gender:</td>
<td>F</td>
</tr>
<tr>
<td>Age:</td>
<td>84</td>
</tr>
<tr>
<td>Race:</td>
<td>Caucasian</td>
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<tr>
<td>Weight:</td>
<td>48 kg</td>
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<tr>
<td>Height:</td>
<td>61 in</td>
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<tr>
<td>Religion:</td>
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<tr>
<td>Major Support:</td>
<td>Dina (daughter)</td>
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<td>Phone:</td>
<td>555-1210</td>
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<tr>
<td>Allergies:</td>
<td>no known allergies</td>
</tr>
<tr>
<td>Immunizations:</td>
<td>Influenza &amp; pneumonia (2 years ago)</td>
</tr>
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</table>

**Attendance Physician/Team:**

Dr. Eric Lund

**Past Medical History:** Glaucoma, hypertension,

General head-to-toe assessment and the following assessment tools: SPICES, Confusion Assessment Method (CAM),

Katz Index of Independence, and Hendrich II Fall Risk Model.

Patient transfer/ambulation skills

Medication administration

**Cognitive Activities Required prior to Simulation** [i.e. independent reading (R), video review (V), computer simulations (CS), lecture (L)]

Basic knowledge of geriatric syndromes and the atypical presentation of older adults. (R)

Principles of safe medication administration (L, V)

Tools in the *Try This* ® and How to *Try This* Series, available on the ConsultGeriRN.org (www.ConsultGeriRN.org). Specific tools recommended for this scenario are the Katz Index of Independence, and Hendrich II Fall Risk Model.(R)

Read chapter in fundamentals text related to care of the older adult; stress incontinence and confusion; medication administration
osteoaarthritis, stress incontinence, hypercholesterolemia

**History of Present illness:** Millie Larsen is an 84-year-old female admitted from home with confusion about 36 hours ago with a diagnosis of dehydration and urinary tract infection. She has been receiving IV fluids and antibiotics. Prior to admission she was not taking her medications properly and as a result had an elevated blood pressure yesterday evening. Her blood pressure has improved. She had a fall last night and was found on the floor. Assessment findings revealed a 3x2cm bruised area on her right forearm and her right hip/buttocks. X-rays confirmed no further orthopedic injury. Her confusion is improving.

**Social History:** Widow for one year; involved in church activities and gardening. Daughter and grandchildren live nearby.

**Primary Medical Diagnosis:**
Dehydration; UTI

**Surgeries/Procedures & Dates:** Cholecystectomy at age 30.

**Nursing Diagnoses:** Risk for falls, urinary incontinence, risk for fluid volume imbalance
Simulation #2 Learning Objectives

Simulation Learning Objectives – for faculty

1. Perform a head-to-toe physical assessment and use the following assessment tools: SPICES, Confusion Assessment Method (CAM), Katz Index of Independence, and Hendrich II Fall Risk Model. (Identify changes in cognition from simulation scenario #1. Recognize conflict between daughter and client regarding discharge plan.)

2. Communicate therapeutically with patient and daughter.

3. Identify issues related to the transition of care specific to the patient in this simulation.

4. Identify and discuss geriatric syndromes evident in the simulation: fall risk, confusion, and incontinence.

5. Assist with patient transfer and ambulation, recognizing safety issue.

6. Administer medications safely if ordered/needed. Students should be prepared to give meds but will not administer meds because they are due at 0900.

Simulation Learning Objectives – for learners

1. Complete appropriate assessments during the simulation.

2. Use therapeutic communication techniques with the patient and family members.

3. Discuss the risks and benefits of discharge to home.

4. Identify geriatric syndromes evident in the simulation.

5. Assist with patient transfer and ambulation.

6. Administer medications safely if ordered/needed.
**Faculty Nutshell:**

Millie Larsen has discharge orders to home written by the treating provider. At Millie’s request, the provider has agreed to send her home with a sleeping aid. The combination of her osteoarthritis pain med (Tramadol) along with the sleep aid (Ambien) requires very careful monitoring and should not be administered together without close supervision. The focus of this simulation is for the student to understand the complex nature of Millie’s discharge (poly-pharmacy) and the difficulty and frustration that is developing around difference of opinion between mother and daughter on Millie’s discharge back to home, to communicate therapeutically, and to recognize the need for an interdisciplinary approach to the discharge plan.

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<th>Date:</th>
<th><strong>File Name:</strong> Millie Larsen (Scenario #3)</th>
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<tr>
<td><strong>Discipline:</strong></td>
<td>Nursing</td>
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<tr>
<td>Expected Simulation Run Time:</td>
<td>Varied</td>
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<tr>
<td>20 minutes</td>
<td>Guided Reflection Time:</td>
</tr>
<tr>
<td><strong>Location:</strong></td>
<td>40 minutes</td>
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<tr>
<td>Simulation lab</td>
<td>Location for Reflection:</td>
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<td></td>
<td>Classroom or debriefing room</td>
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<tr>
<th>Admission Date: Day of Admission</th>
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<tbody>
<tr>
<td>Hospital Day One (HD 1)</td>
</tr>
</tbody>
</table>

| Today’s Date: HD2 Time: 1000 |

| Brief Description of Client |

| Name: Millie Larsen |

| Psychomotor Skills Required Prior to Simulation |

| General head-to-toe assessment skills and use of appropriate tools from in the Try This:® and How to Try This Series, available on the ConsultGeriRN.org website. |
| Patient/family teaching skills |
| Conducting a Falls Risk Assessment (both in patient and in the home) |
Gender: F  Age: 84  Race: Caucasian

Weight: 48 kg  Height: 61 in

Religion: Lutheran

Major Support: Dina (daughter)

Phone: 555-1210

Allergies: No known allergies

Immunizations: Influenza & pneumonia
(2 years ago)

Attending Physician/Team:
Dr. Eric Lund

Past Medical History: Glaucoma, hypertension, osteoarthritis, stress incontinence, hypercholesterolemia

History of Present illness: Millie was admitted from home about two days ago with a urinary tract infection, dehydration and confusion. Since admission she has been receiving IV fluids and antibiotics. Her blood pressure was elevated after admission, but has since returned to baseline after her antihypertensive medications were

Cognitive Activities Required prior to Simulation [i.e. independent reading (R), video review (V), computer simulations (CS), lecture (L)]

Basic knowledge of geriatric syndromes and the atypical presentation of older adults. (R)

Basic knowledge of medication interactions (Polypharmacy)

Tools in the Try This ® and How to Try This Series, available on the ConsultGeriRN.org website. (R)
Specific tools recommended for this scenario are the Katz Index of Independence, and the Hendrich II Fall Risk Model. (R)

Read chapter in fundamentals text related to the care of the older adult; stress incontinence and confusion, as well as teaching and learning principles.

Read from the selection of referenced articles provided on Polypharmacy.
resumed. She was confused upon admission and she had a fall the night before last. Millie was found on the floor. Assessment findings revealed a 3x2 cm bruised area on her right forearm and her right hip/buttocks. X-Rays confirmed no further orthopedic injury. Her confusion is improved and she is awaiting discharge.

**Social History:** Widow for one year; involved in church activities and gardening. Daughter and grandchildren live nearby.

**Primary Medical Diagnosis:**
Dehydration, UTI

**Surgeries/Procedures & Dates:**
Cholecystectomy at age 30

**Nursing Diagnoses:**
Risk for falls, urinary incontinence, risk for fluid volume imbalance, knowledge deficit: medications

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**Simulation #3 Learning Objectives**

**Simulation Learning Objectives – for faculty**

1. Facilitate transition of care from hospital
2. Administer medications safely if ordered/needed. Students will not administer because the meds were given at 0900 as indicated in the MAR.
3. Communicate therapeutically with patient and daughter. (Respond to daughter’s concern regarding the number of medications that Millie is taking – possibility of polypharmacy.)
4. Complete discharge teaching about medications (polypharmacy) using appropriate teaching/learning methods.
5. Identify possible financial concerns and community resources, including concerns of medications and additional support in the home/assisted living (during debriefing).

6. Identify and discuss geriatric syndrome now evident in the simulation #3: polypharmacy.

**Simulation Learning Objectives – for learners**

1. Facilitate transition of care from hospital.
2. Administer medications safely if ordered/needed.
3. Communicate therapeutically with patient and family.
5. Identify patient and daughter concerns and possible community resources.
6. Identify geriatric syndromes evident in this simulation.
Appendix E

Debriefing Assessment for Simulation in Healthcare (DASH) Student Version

Directions: Please summarize your impression of the introduction and debriefing in this simulation-based exercise. Use the following scale to rate each of six “Elements.” Each Element comprises specific instructor behaviors, described below. If a listed behavior is impossible to assess (e.g., how the instructor(s) handled upset people if no one got upset), don’t let that influence your evaluation. The instructor(s) may do some things well and some things not so well within each Element. Do your best to rate the overall effectiveness for the whole Element guided by your observation of the individual behaviors that define it.

Rating Scale

<table>
<thead>
<tr>
<th>Rating</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptor</td>
<td>Extremely Ineffective / Detrimental</td>
<td>Consistently Ineffective / Very Poor</td>
<td>Mostly Ineffective / Poor</td>
<td>Somewhat Effective / Average</td>
<td>Mostly Effective / Good</td>
<td>Consistently Effective / Very Good</td>
<td>Extremely Effective / Outstanding</td>
</tr>
</tbody>
</table>

Element 1 assesses the introduction at the beginning of a simulation-based exercise.

- Skip this element if you did not participate in the introduction.
- If there was no introduction and you felt one was needed to orient you, your rating should reflect this.

<table>
<thead>
<tr>
<th>Element 1</th>
<th>The instructor set the stage for an engaging learning experience.</th>
<th>Overall Rating Element 1</th>
</tr>
</thead>
</table>

- The instructor introduced him/herself, described the simulation environment, what would be expected during the activity, and introduced the learning objectives.
- The instructor explained the strengths and weaknesses of the simulation and what I could do to get the most out of simulated clinical experiences.
- The instructor attended to logistical details as necessary such as toilet location, food availability, schedule.
- The instructor made me feel stimulated to share my thoughts and questions about the upcoming simulation and debriefing and reassured me that I wouldn’t be shamed or humiliated in the process.

Elements 2 through 6 assess a debriefing.

<table>
<thead>
<tr>
<th>Element 2</th>
<th>The instructor maintained an engaging context for learning.</th>
<th>Overall Rating Element 2</th>
</tr>
</thead>
</table>

- The instructor clarified the purpose of the debriefing, what was expected of me, and the instructor’s role in the debriefing.
- The instructor acknowledged concerns about realism and helped me learn even though the case(s) were simulated.
- I felt that the instructor respected participants.
- The focus was on learning and not on making people feel bad about making mistakes.
- Participants could share thoughts and emotions without fear of being shamed or humiliated.
Element 3
The instructor structured the debriefing in an organized way.

- The conversation progressed logically rather than jumping around from point to point.
- Near the beginning of the debriefing, I was encouraged to share my genuine reactions to the case(s) and the instructor seemed to take my remarks seriously.
- In the middle, the instructor helped me analyze actions and thought processes as we reviewed the case(s).
- At the end of the debriefing, there was a summary phase where the instructor helped tie observations together and relate the case(s) to ways I can improve my future clinical practice.

Element 4
The instructor provoked in-depth discussions that led me to reflect on my performance.

- The instructor used concrete examples—not just abstract or generalized comments—to get me to think about my performance.
- The instructor’s point of view was clear; I didn’t have to guess what the instructor was thinking.
- The instructor listened and made people feel heard by trying to include everyone, paraphrasing, and using non-verbal actions like eye contact and nodding, etc.
- The instructor used video or recorded data to support analysis and learning.
- If someone got upset during the debriefing, the instructor was respectful and constructive in trying to help them deal with it.

Element 5
The instructor identified what I did well or poorly—and why.

- I received concrete feedback on my performance or that of my team based on the instructor’s honest and accurate view.
- The instructor helped explore what I was thinking or trying to accomplish at key moments.

Element 6
The instructor helped me see how to improve or how to sustain good performance

- The instructor helped me learn how to improve weak areas or how to repeat good performance.
- The instructor was knowledgeable and used that knowledge to help me see how to perform well in the future.
- The instructor made sure we covered important topics.

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Appendix F

Debriefing for Meaningful Learning Supplemental Questions

On a scale of 0–7 using the criteria listed below; please respond to each of the first four statements below. Each of the statement is followed with an open-ended free-text box with the instructions.

Feel free to provide any additional information or confidential comments to the researcher.

0 = Not Applicable
1 = Strongly Disagree
2 = Disagree
3 = Mostly Disagree
4 = Unsure
5 = Mostly Agree
6 = Agree
7 = Strongly Agree

Questions:
1. The worksheet was useful for debriefing.
2. I will know what to do the next time I encounter a patient with UTI.
3. The time allotted for debriefing was appropriate.
4. Reflective thinking was evident in this simulation and debriefing experience.

Using the scale provided below; please respond to the fifth statement:
5. The role I played in the UIT simulation.

1 = Primary Nurse
2 = Second Nurse
3 = Charge Nurse
4 = Family Member
5 = Observer/Recorder

Dreifuerst, (2010)
Appendix G

Enhancing clinical reasoning: Teaching thinking through debriefing
Information and Consent Form

Introduction
You have been invited to participate in a research study to evaluate the impact of the Debriefing for Meaningful Learning (DML) strategy on undergraduate nursing students’ development of clinical reasoning skills during simulation. This study is being conducted by baccalaureate nursing faculty members in the following academic institutions: Bethel University, College of St. Catherine- St. Paul campus and Minnesota Intercollegiate Nursing Consortium (St. Olaf College and Gustavus Adolphus College). The faculty member(s) from ______ College are ________________ and __________. You have been selected as a possible participant in this research because you are a senior baccalaureate nursing student. Please read this form and ask any questions before you agree to be in the study.

Background Information
The purpose of this study is to determine the impact of the DML debriefing strategy on the development of clinical reasoning skills in undergraduate nursing students.

Procedures
The researchers from their respective institutions will answer any questions that you may have about the information and consent form, purpose of the study, or research procedures. Clarification will be provided if needed. During the study, faculty from alternate colleges (not the home college) will serve as the standardized patient and debriefing faculty to eliminate any conflict of interest.

If you choose to participate in this research study, you may be randomly selected to individually participate in a simulated clinical experience. Each student will participate in an unfolding simulation with three parts and a debriefing session between each part of the simulation. The total time commitment for the simulation and debriefing sessions will be approximately six hours. The Health Sciences Reasoning Test (HRST) pre-test will be administered to participants prior to the simulation experience. The HSRT post-test will be administered three weeks after the simulation experience. Each HSRT administration will take about 40-55 minutes for a total of 80-110 minutes. Meals and refreshments will be provided for all participants on the day of the study.

If you choose to participate, please sign the information and consent form, complete the demographic sheet and place the documents in the envelope and seal it. Place the sealed envelope in the box marked “Millie Research Study.” If you choose not to participate, place the unsigned consent form and blank demographic sheet in the envelope and seal it. Place the sealed envelope in the box marked “Millie Research Study.”
Confidentiality
Identification numbers will be assigned to students who agree to participate in this study. No names will be linked to the identification numbers. Any information obtained in connection with this research study that can be identified with you will be disclosed only with your permission; results will be kept confidential. In any written reports or publications, no one will be identified or identifiable. Research results and tapes will be kept in a locked file cabinet and only the investigators will have access to the records. Following completion of the final written report, all original reports and identifying information will be destroyed.

Risks and Benefits of being in the Study:
The study has minimal risks. There are no direct benefits to your participation. However, you will be assisting faculty to evaluate the impact of a standardized debriefing strategy on the development of clinical reasoning skills in undergraduate nursing students. The goal of the simulation experience including debriefing is to use reflection and dialogue to improve thinking and transfer learning to new practice situations as an essential component of improving patient outcomes. This study creates an opportunity to evaluate the DML strategy to enhance clinical reasoning skills for use in future nursing practice.

Voluntary nature of the study:
Participation in this research study is voluntary. Your decision whether or not to participate will not affect your future relations with ________College in any way. If you decide to participate, you are free to withdraw at any time without affecting these relationships.

Contacts and questions:
If you have any questions, please feel free to contact co-investigators at ___________ and ___________ at ___________, Director of Nursing, _______ at _____________, or IRB chair, ____________.

You may have a copy of this form to keep for your records.

Statement of Consent:
You are making a decision whether or not to participate. Your signature indicates that you have read this information and have decided to participate. Even after signing this form, please know that you may withdraw from the study at any time.

I have read the above information. My questions are answered. I consent to participate in the study.

__________________________________  ______________________
Signature                        Date

__________________________________  ______________________
Signature of Investigator         Date
References


SCHOLARLY PROJECT: STUDENTS PERCEPTION OF DEBRIEFING


