

2016

# Evaluation of Clinical Reasoning of Nursing Students in the Clinical Setting

Stefanie Lynn LeGrande  
*Walden University*

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# Walden University

COLLEGE OF EDUCATION

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Stefanie LeGrande

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Walden University  
2016

Abstract

Evaluation of Clinical Reasoning of Nursing Students in the Clinical Setting

by

Stefanie LeGrande

MSN, Oklahoma Baptist University, 2011

BSN, Southern Nazarene University, 2006

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

December 2016

## Abstract

The primary focus of nursing education in the 21<sup>st</sup> century is to graduate students with well-developed critical thinking and clinical reasoning skills. This descriptive case study explored the perceptions of 6 faculty and 6 unit staff nurses concerning the assessment of critical thinking and clinical reasoning skills of nursing students in the clinical setting. Benner's novice to expert theory served as the conceptual framework for the research. The guiding research questions focused on faculty and staff perceptions concerning unit staff nurses' level of preparedness to assess the critical thinking and clinical reasoning ability of nursing students, and explored how faculty and unit staff nurses perceived the process of evaluating nursing students' clinical reasoning and critical thinking skills in the clinical setting. Data were collected using semi structured interview questions, then coded and analyzed following Creswell's approach. This analysis identified six themes: (a) lack of consistency, (b) faculty and staff clinical expectations of students, (c) barriers to clinical education, (d) faculty and staff differences in educational definitions, (e) faculty and staff comfort level with students, and (f) resources needed for clinical education. Learning how faculty and staff nurses assess student nurses' ability to demonstrate effective clinical reasoning and critical thinking skills can positively impact social change in nursing education on the local and state level by informing best practice in how critical thinking and clinical reasoning are taught and assessed in nursing education. This facilitates graduating nurses who are prepared to deliver patient care that affect positive outcomes.

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## Dedication

This dissertation is dedicated to family who has unconditionally supported me through this rigorous process. Specifically, to my husband who has cooked dinners, cleaned house, done laundry, and taken the kids to activities, without you it would have been impossible. I love you and am so thankful God put you in my life. To my mom, you started helping when this whole process began with my master's degree, and just kept supporting my family right into my doctoral studies. You too cooked endless meals, kept the kids, and ran countless errands for me. I love you forever and always! To my kids, I love you both so very much and hope I have set an example, that through perseverance and endless hard work and God opening doors you can achieve your dreams. Don't ever forget to put God first in all you do and to pay your blessings forward. To my Dad, you pray over my life daily and this has impacted my life in a powerful way and means the world to me. Love you, Dad. Psalm 46:10, Romans 8:28.

## Acknowledgments

I would like to acknowledge Dr. Melissa Duprey first and foremost. Without her push I would have never left my comfort zone. You have been an amazing friend and professional mentor that leads by example.

Dr. Stacy Wahl, I thought I was lucky to have you for a very rigorous semester; the experience led me to know that I wanted you as my dissertation chair. You give constructive feedback, set the example for being timely in returning student work, and hold the bar high for each of your students. I appreciate you were always available for a phone consultation and through these got me back on track numerous times. You are the best at what you do. Dr. Marianne Borja, thank you for agreeing to be my second chair and for always being prompt with your feedback, support and for always fine tuning my work. Dr. Anita Dutrow, your commitment to making certain my study was aligned in the early stages made the rest of the journey easier.

Dr. Carol Mannahan, you have supported my career as a nurse educator since I had my first class with you. You are an inspiration and your passion for teaching and nurturing your students is noted by many of us. I'll never forget you taking time to drink coffee with me and another student and spending your personal time talking about our master's thesis and where might be a great place to begin our teaching careers. God blessed us to be colleagues where you were only one floor away, and your door was always open and the pursuing visit always inspirational.

Lastly, there is a list of faculty that mean the world to me and helped nurture me to this point: Dr. Lois Salmeron, Dr. Linda Cook, Dr. Diana Blackmon, Dr. Liz Diener,

Dr. Alicia Hutchings, Professor Pam Tucker, Professor Stacy Swim and Professor Pam Boeck. There is not a person in this list that did not always have an open door to discuss and support my ideas, critique and help me become a better educator. Each of you has imparted a piece to this journey.



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## Section 1: The Problem

### **Introduction**

Today's healthcare environment is dynamic. Nurses must be skilled professionals capable of providing safe, competent care. High patient acuity, increased patient demands, and limited staffing all contribute to increased levels of stress amongst nurses (Berg & Dickow, 2014). Such factors influence the longevity of a nurse's career, which in turn perpetuates the nursing shortage.

According to a report from the Carnegie Foundation for the Advancement of Teaching (2010), there is a need for a radical transformation in the education of nurses. Nurse educators are challenged to provide appropriate teaching and assessment strategies that develop students' critical thinking and clinical reasoning skills (Waters & Rochester, 2012; Yanhua & Watson, 2011). For nursing students, a large amount of education and learning occurs in the clinical practice setting (Benner 2012; Benner, Sutphen, Leonard, & Day, 2010) and nursing students must be able to connect theoretical content with clinical application. There is a need for reliable student assessment strategies to be in place for faculty and unit staff nurses who serve in the preceptor role. Without reliable student assessment strategies, student nurses fail to receive an objective evaluation, which is necessary to develop their ability to think critically and clinically reason (Furze, Gale, Black, Cochran, & Jensen, 2015).

The educational process of student nurses is a collaborative effort between schools of nursing and health care facilities (Marchigiano, Eduljee, & Harvey, 2011). Nurse educators are responsible for teaching students how to care for patients in the

clinical setting and for assessing students' understanding of the rationale behind clinical actions. A primary goal for nurse educators teaching in the clinical setting is to promote the development of critical thinking and clinical reasoning skills of the students and to bridge the theory-practice gap (Burrell, 2014; Rencic, 2011). In order to meet the high standards of national and international organizations calling for new graduates to have clinical reasoning skills upon entry into professional practice, there must be a reliable and consistent way for unit staff nurses to assess clinical reasoning (Lasater, 2011).

Faculty and unit staff nurses both serve in nursing students' development of critical thinking and clinical reasoning skills; both parties must have consistent and reliable assessment methods. The purpose of this qualitative case study was to explore the ability to evaluate students' critical thinking and clinical reasoning skills in the clinical setting from the perspective of both the faculty and unit staff nurse. Inconsistencies in student assessment in the clinical setting can have a negative impact on students' ability to develop critical thinking and clinical reasoning skills (Chong, Lim, Liu, Lau, & Wu, 2016).

### **Definition of the Problem**

In the traditional model of clinical nursing education, faculty members accompany nursing students into the clinical setting and the students' pair with a unit staff nurse for the day. Students work under the direction and supervision of a unit staff nurse while providing primary care for a single patient and assisting in the care for the remaining patients assigned to the unit staff nurse (Slaughter-Smith, Helms, & Burris, 2012). The faculty member is present in the hospital and evaluates students' preparation



for clinical performance, which includes knowledge of medications administered, the ability to identify critical patient blood tests, and being able to articulate the pathophysiology of the assigned patients' diagnoses prior to starting the clinical day (Ironside, McNelis, & Ebright, 2014).

To perform an evaluation of student nurses, the faculty member uses a variety of methods throughout the day to assess students' ability to think critically in regards to prioritizing patient care and optimizing patient outcomes. In comparison, the unit staff nurse the student works with is busy taking care of multiple patients and may or may not have time to assess the student's knowledge, depending on the patient workload demands and/or acuity. With heavy patient workloads, the unit staff nurse is less likely to provide an objective assessment of the nursing student's ability to critically think and/or clinically reason (Chuan, & Barnett, 2012; Slaughter-Smith et al., 2012). The unit staff nurse may not have any training in the assessment process, which further limits the ability to provide meaningful feedback to the student as pertains to critical thinking and clinical reasoning (McClure & Black, 2013). Inconsistent assessments of clinical performance by the faculty and unit staff nurse can lead to confusion and uncertainty, ultimately hindering the learning process (Benner et al., 2010).

Currently, there are no defining criterion for unit staff nurses to evaluate a student's critical thinking and clinical reasoning abilities. This lack of standardization creates inconsistencies in clinical performance evaluation. Butler et al. (2011) and Levett-Jones, Gersbach, Arthur, and Roche (2011) identified the need for a standardized assessment tool as well as specific training in the evaluative process of clinical

competency of nursing students. Without a standardized assessment process, students will continue to experience inconsistent assessments between how faculty and unit staff nurses perceive their critical thinking ability and clinical reasoning skills. Although researchers have attempted to create assessment tools, controversy remains on how critical thinking and clinical reasoning is best evaluated (Butler et al., 2011; Fahy et al., 2011; Levett-Jones et al., 2011).

The assessment of a complex skill, such as clinical reasoning, can be difficult even for the seasoned faculty member who has specialized training in nursing education (Furze, Gale, Black, Cochran, & Jensen, 2015; Nishioka, Coe, Hanita, & Moscato, 2014b). Because nursing students spend the majority of their clinical training time with the unit staff nurses, the staff nurses' assessment of students' performance weighs heavily in the overall evaluation process (Struksnes et al., 2012). Functioning in the role of preceptor and clinical educator, the unit staff nurse may have little or no formal education or experience in the assessment of critical thinking or clinical reasoning skills of nursing students (Courtney-Pratt, FitzGerald, Ford, Marsden, & Marlow, 2012). Consequently, students may or may not have an accurate assessment of their critical thinking ability in the clinical setting, which is not conducive for students' professional growth (Shipman, Roa, Hooten, & Wang, 2012).

### **Rationale**

Understanding how unit staff nurses and faculty evaluate and assess critical thinking and clinical reasoning in the clinical setting will influence how these skills are taught to students (Furze et al., 2015). Nursing educational programs strive to develop

nurses who can think critically in the clinical setting in order to achieve positive patient outcomes. The results from this research study provide critical insight into how faculty and staff nurses determine the level of competency student nurses possess as related to their ability to demonstrate effective clinical reasoning and critical thinking skills.

Based on the findings from this research, specific interventions will be implemented to evaluate the student nurse in a consistent and informed manner by both faculty and unit staff nurse. This affects a positive social change in nursing education by decreasing or eliminating conflicting student assessments performed by staff nurses and nursing faculty. Positive social change will occur because of a triangulated evaluative process of student performance through two perspectives, one being the educator and the other being the staff nurse. Consistent evaluations will serve to provide a greater understanding of students' strengths and weakness. This will allow further remediation in areas needing improvement, ultimately producing a safe and competent nurse.

The changes brought about by health-care reform are making significant impacts on the environment in which nursing students will enter professional practice (Halstead, 2012; Institute of Medicine [IOM], 2010; 2011). Because of these changes, there is an increased demand for nursing graduates to enter the workforce upon graduation with developed critical-thinking and clinical reasoning skills. Nurse educators must look for ways to develop assessment strategies for students in the clinical setting in order to prepare nursing graduates to work collaboratively and effectively with other health professionals in a complex and evolving health care system in a variety of patient care settings.

Nursing students prepared for practice in this manner will be highly sought after by employers as possessing competent clinical reasoning skills correlate with the ability to deliver safe nursing care (Hunter, Pitt, Croce, & Roche, 2014). Clinical reasoning skills are needed for safe professional practice. Nurse competency is closely tied to healthcare reform and patient outcomes are increasing being linked to reimbursement (Dickson & Flynn, 2012).

### **Evidence of the Problem at the Local Level**

The site for this study was a metropolitan area baccalaureate program comprised of 80 to 120 nursing students who participated in medical-surgical clinical placements each semester (School of Nursing, 2015). The school attracts students from all over the nation and offers a fast track program that can be completed in sixteen months for students pursuing a second-degree. The program has no cap on the number of students entering the program, meaning if the student has met all the prerequisites and qualifies with the mandatory grade point average (GPA), he or she enters the program. This is significant to the study as the School of Nursing program graduates a large number of nursing students entering practice upon graduation twice a year.

According to faculty teaching the Student Leadership course and faculty teaching the Medical-Surgical courses, in the spring of 2015, the school of nursing identified trends from the fall of 2014 to the spring of 2015 that revealed inconsistencies between faculty and unit staff nurses' assessments of the clinical performance evaluations of students. Specifically, the assessment of critical thinking and clinical reasoning skills (BSN medical-surgical clinical faculty, personal communication, December 5, 2014)

were not demonstrated by students at the competent level. The development and assessment of clinical performance is essential to developing competencies in nursing education that ultimately affect patient safety (Stayt & Merriman, 2013). Of particular importance is the ability to assess a nursing student's ability to critically think and further evaluate the student's ability to clinically reason as it pertains to identifying critical signs and symptoms, which impact how rapidly interventions are implemented to stabilize patients (Bucknall et al., 2016).

Faculty members asserted that discrepancies in the assessment of student performances occur every semester during students' sophomore and junior years in both the Adult I and Adult II medical-surgical clinical period, as well as in the medical-surgical leadership course (BSN medical-surgical clinical faculty, personal communication, December 5, 2014). Hart et al. (2015) identified that teaching students how to identify patient decline begins with early education and assessment of critical thinking and clinical reasoning skills. Discrepancies in the assessment of critical skills impedes nursing students' development of critical thinking and critical reasoning skills, which are the foundation to identifying patient decline.

This issue was documented in the 2015 February and March baccalaureate, BSN, faculty-meeting minutes. From these meetings, the faculty from the school of nursing identified that inconsistency in unit staff evaluations of students' critical thinking and clinical reasoning skills occurred in approximately 15-20% of all medical-surgical student clinical evaluations. This was an issue needing investigation so that improvements to the evaluation process could be formulated (BSN medical-surgical

clinical faculty, personal communication, December 5, 2014). Inconsistencies in performance evaluation negatively affect students' perception of their ability to clinically reason and critically think in the clinical setting. According to Bonnel, Gomez, Lobodzinski, and West (2012), with inconsistency in evaluation of students' clinical performance, students' ability to self-reflect and improve performance is negatively impacted. Inconsistent evaluation of student performance by clinical staff leads to discrepancies in student learning outcomes. This has the potential to negatively affect patient safety outcomes by creating a false perception in how students perceive their ability to clinically reason and critically think in the patient care setting (Forbes, Bucknall, & Hutchinson, 2016)

In response to this problem, the faculty pursued reformatting the clinical evaluation tool and removing staff nurse evaluations. This resulted in a one-sided assessment of student performance, as students spent the majority of a clinical day with an assigned unit staff nurse. The staff nurse has a one-on-one relationship with the nursing student where the faculty member must oversee all students in the clinical setting. Student nurses spend the majority of their time in the clinical setting learning from a unit staff nurse (Evans, Costello, Greenberg, & Nicholas, 2013). As a result, the school of nursing wanted to explore how nursing staff could be included in student evaluations by identifying why discrepancies occurred between faculty and staff assessments of students. This fostered the development and implementation of practice improvements to include staff nurse evaluations and created consistency and accuracy in how students are assessed. Mahoney, Hancock, Iorianni-Cimbak, and Curley, (2013) identified practice

improvements are critical to fostering the early development of critical thinking and clinical reasoning skills of nursing students who are entering the practice.

A staff nurse working with the same student for multiple clinical rotations can develop a relationship that facilitates learning leading to the identification of how that student learns best in the clinical setting (Dimitriadou, Papastavrou, Efstathiou, & Theodorou, 2015). When students have the chance to work consistently with unit staff nurses, they have the opportunity to identify how the unit staff nurse critically thinks and makes decisions in regards to patient care (Sharpnack, Koppelman, & Fellows, 2014).

The observations of how the nurse cares for a patient is especially useful to the student's learning experience if both faculty and staff appropriately assess the observation. It is important to know the student's current skill and knowledge level in order to set goals that are assessable and obtainable (Rencic, 2011, p. 891). Due to the complexities in how clinical reasoning and critical thinking of nursing students is developed, there is an increased need for collaboration between staff nurses and nursing faculty regarding clinical education and evaluation of student performance in the clinical setting (Courtney-Pratt et al., 2012; Niederhauser, Schoessler, Gubrud-Howe, Magnussen, & Codier, 2012). When students have an accurate assessment of their clinical reasoning and critical thinking skill set and are able to reflect on the information provided from the assessment, they grow personally and professionally.

### **Evidence of the Problem From the Professional Literature**

The IOM (2011) reported that competencies in nursing education must move from lower level thinking skills based assessments to higher order critical thinking and clinical

reasoning assessments. In order to implement this change, there needs to be consistent evaluation of nursing students from faculty and staff. One of the essential core competencies that the National League of Nursing (NLN, 2005) identified is the development of critical thinking skills for nursing students. To meet the NLN's call for transformation in nursing education, there needs to be a consistent process to assess students throughout the learning process (Jensen, 2015; Shipman et al., 2012). Without consistency in the clinical setting, nursing students lack clarity in learning outcomes and performance improvement.

Marnocha, Marnocha, and Mason (2014) discussed how better interdisciplinary communication between staff nurses and clinical instructors provides a more cohesive academic clinical assessment of student performance. Christie, Hamill, and Power (2012) reported consistency between unit staff nurses and faculty is a fundamental aspect of nursing education for nursing students. At the national level, current practices in the clinical setting revealed faculty and unit staff nurses are inconsistent in evaluating student critical thinking and clinical reasoning skills (Fahy et al., 2011). Bonnel et al. (2012) asserted there is a need for identifying the reliability between how faculty and staff determine student evaluations. Ultimately, clinical evaluation of critical thinking and clinical reasoning skills helps to develop nurses who can reflect on their performance and identify gaps in safe patient practice with the goal of improving their clinical performance.



## Definitions

*Clinical Education:* Clinical education provides nursing students opportunities for real-life decision-making and the application of knowledge in a realistic setting (Gaberson, Oermann, & Shellenbarger, 2014).

*Clinical education:* Gaberson et al. (2014) described the clinical practice of nursing education as an environment that is essential for nursing students to experience real life practice which helps the student apply theory to practice and discover the purpose of nursing and patient care.

*Clinical evaluation/assessment:* Bonnel et al. (2012) described formative assessment in the clinical setting as having a focus on the immediate clinical activity the student is involved with, and summative assessment assesses assigned outcomes at the end of the clinical rotation.

*Clinical faculty:* For the purpose of this study, clinical faculty is expert registered nurses who supervise nursing students during the semester and perform summative and formative evaluations of clinical performance (O'Mara, McDonald, Gillespie, Brown, & Miles, 2014).

*Clinical reasoning:* Clinical reasoning is the ability of a nurse to assess a large volume of clinical data and then correctly identify an appropriate nursing action to address clinical care based problems (Jensen, 2013; Simmons, 2010).

*Clinical rotations:* Clinical rotations are healthcare sites where nursing students have the opportunity to work with unit staff nurses in the clinical setting observing and

performing direct patient care under the supervision of clinical faculty and unit staff nurses (Andresen, & Levin, 2014).

*Critical thinking:* Gaba (2015) defined critical thinking as the ability to use intuition and individual thoughts in a situation that one is accustomed to working in and come to a conclusion.

*Medical-Surgical Clinical:* As cited by Marnocha, Marnocha, and Mason (2014), “Unit-based clinical education takes place in groups of seven to nine nursing students with one academic clinical instructor in the acute care hospital setting” (p. 45). For the purpose of this study, this includes the Adult 1 and Adult II clinical rotations for nursing students.

*Novice nurse:* The novice nurse is a nursing student in the patient care setting. The novice-nursing student relies only on what he or she has learned in the academic setting to make sense of the day-to-day activities in the clinical unit (Jewell, 2013).

*Preceptor:* Trede, Sutton, and Bernoth (2016) defined a preceptor as unit staff nurses who work in the healthcare setting and assist in the education of nursing students by mentoring, teaching as well as providing feedback and assessment of clinical performance.

*Unit staff nurse:* Bormann and Abrahamson (2014) identified a unit staff nurse as a registered nurse who has completed an accredited nursing program (associate or baccalaureate), and a hospital orientation period and works on an assigned clinical unit caring for patients. The unit staff nurse functions as a preceptor for nursing students on the assigned clinical unit (Slaughter-Smith, Helms, & Burris, 2012).

### **Significance**

Understanding how unit staff nurses and faculty evaluate and assess critical thinking and clinical reasoning in the clinical practice setting will influence how these skills develop in students (Furze, Gale, Black, Cochran, & Jensen, 2015). Nursing educational programs strive to develop nurses who can think critically in the clinical setting. The results from this research study give critical insight into how the faculty and the staff nurses determine the level of competency student nurses possess concerning their ability to demonstrate effective clinical reasoning and critical thinking skills. Based on the findings from this research, a project was developed (Appendix A) so that student nurses' are evaluated in a consistent and informed manner by both faculty and unit staff nurses.

Nurse educators must ensure that nursing students graduate with a sound foundation of clinical reasoning skills that can be further developed as the student enters the workforce as a new graduate (Jensen, 2013). Positive social change in nursing education has occurred through the development of a 3-day professional development program for unit staff nurses. After successful completion of the professional development, unit staff nurses will be better prepared to precept students and assess critical thinking and clinical reasoning skills in a reliable and consistent manner. This will further positively affect student nurse clinical practice by developing students who are safe clinical practitioners.

The changes brought about by health-care reform are making significant impacts on the environment where nursing students will enter practice (Halstead, 2012; IOM,

2010; 2011). Because of these changes, there is an increased demand for nursing graduates to enter the workforce with competent critical-thinking and clinical reasoning skills. Nurse educators must find ways to develop reliable and consistent assessment strategies for students in the clinical setting in order to prepare nursing graduates to work effectively in a variety of patient care settings. Nursing students prepared for professional practice in this manner developed their self-efficacy, and are highly sought after by employers (Hunter, Pitt, Croce, & Roche, 2014).

### **Guiding Research Questions**

The following research questions guided this study:

- RQ1. What are faculty and staff perceptions concerning the level of preparedness staff nurses need to assess critical thinking and clinical reasoning ability of nursing students in the clinical setting?
- RQ2. How do the medical-surgical faculty members describe their process of evaluating the critical thinking and clinical reasoning skills of nursing students in the clinical setting?
- RQ3. How do unit staff nurses describe their process of evaluating the critical thinking and clinical reasoning skills of nursing students in the clinical setting?

### **Review of the Literature**

#### **Organization of the Literature Review**

Education and nursing databases were accessed in search of articles related to assessment of critical thinking and clinical reasoning of nursing students in the clinical

setting. Literature searches were conducted using databases, which included: EBSCO, CINAHL, MEDLINE, ERIC, ProQuest Central and outside sources which included Google Scholar. The key concepts and topics which yielded the most results were *clinical education and nurses, critical thinking and nursing, clinical reasoning and nursing, assessment in the clinical setting, teaching in the clinical setting, and clinical education*. The literature review was organized around the topics, which yielded the most information relating to assessment of critical thinking and clinical reasoning of students in the clinical setting.

### **Conceptual Framework**

Benner (1982) introduced the novice to expert theory over 30 years ago; this theory is still foundational to nursing education and practice. The model describes the five stages or levels in the development of nurses' critical thinking and clinical reasoning. These five phases illustrate the growth in clinical judgment that nurses go through from the foundations of nursing education into their respective careers. The primary stages of this theory are the novice, advanced beginner, competent, proficient, and expert. The five steps form the basis of clinical reasoning in the clinical setting. Assessing nursing students' knowledge at each stage of development is essential for establishing growth and identifying gaps in knowledge. With accurate assessments of student performance, teaching strategies can be developed focusing first on critical thinking and then on the progression of clinical reasoning.

Observing nurses in the clinical setting was foundational in the development of Benner's novice to expert theory. This establishes the basis for how nurses make

decisions at different developmental stages. The decisions at each of the five developmental levels is based on the nurse's ability to assess changes in the patient's condition, recognize the nursing actions required for each scenario, perform reassessments to evaluate patient outcomes, and develop new nursing actions based on the patient response (Thompson, Aitken, Doran, & Dowding, 2013). Thompson et al., further described a patient's clinical status can change very quickly due to complex disease processes, and the nurse is responsible for using the nursing process to identify and inform decisions about patient care

The first stage in Benner's (1982) model is the novice nurse and at this stage of development the nurse or nursing student has no familiarity with the treatment plan in the context of the clinical setting. There is a focus on task completion and a lack of knowledge or understanding of the bigger concepts behind decision-making in regards to patient care (Nummimen et al., 2014). At this stage, successful clinical experiences for the nursing student rely upon structured learning objectives (Wruble Hakim et al., 2014). In addition to satisfying the clinical objectives, the student's learning opportunity is carefully guided and assessed by faculty who facilitate what the student learn in the clinical setting (Démeh, & Rosengren, 2015). The nursing students rely only on what they have learned in the academic setting to make sense of the day-to-day activities in the clinical unit (Jewell, 2013).

The next stage is the advanced beginner, which is similar to the novice stage except that the nurse has now gained minimal experience and begins to see small connections or patterns on the nursing unit and within patient care (Benner, 1982). The

students' skills are becoming more developed and more congruent over time. The advanced beginner relies on knowledge acquired from nursing school, but still struggles to prioritize patient care and determine overall priorities in the clinical setting (Benner, 2001). Traditionally, this is an accepted stage of development for a new graduate entering practice. Changes in the healthcare system deem it necessary to make educational changes in nursing education to begin developing this stage within nursing education (Benner, 2012).

The third stage is the competent stage and is associated with nurses who have been in practice for some time and are gaining proficiency in all areas of their respective fields (Benner, 1982). In this stage, nurses are becoming competent because they are working in the same clinical area and begin to see and make connections between clinical patterns, both in the care they deliver to patients and in the prioritization of care in the clinical setting. Garside and Nhemachena (2013) explained that in Benner's theory, the competency level nurse provides safe patient care and is more in tune with all aspects of patient care from providing family support to all aspects of interdisciplinary care. Garside and Nhemachena identified competence for a nurse entails professional accountability and recognized development in this area is fundamental for advancing to the next level. Although an upper-level skill, the concept of competence needs to be established early in nursing education and there needs to be a cohesive way for faculty and staff to teach and assess beginning competencies of nursing students in the clinical setting.

The fourth stage is the proficient stage where the nurse is able to respond quickly and accurately to changes in patient acuity using intuition that develops over time

(Benner, 1982). The unit staff nurse who is precepting a student nurse in the clinical setting is aware of this process and begins to develop the student's awareness to patterns. Gaba (2015) asserted that clinical reasoning must be developed and fostered by the unit staff nurse to encompass all aspects of the disease process from how the disease alters the body, what nursing care is associated with these signs and symptoms, diagnostics, and holistically looking at all aspects of patient care.

Gaba (2015) identified that a priority in preparing nursing students to become better prepared towards proficiency in the clinical setting revolves around linking clinical reasoning in the classroom to real practice in the clinical setting. This idea goes beyond the concept of bridging the theory to practice gap and requires faculty and unit staff nurses to facilitate and continually assess the learning process. Gaba reiterated that the development of clinical reasoning skills is the foundation for establishing nursing students who are more readily prepared to enter practice and have a greater ability to progress from novice to proficient in the clinical setting. Faculty working with unit staff nurses can develop activities and assessments, which support students developing clinical reasoning skills to encourage their development towards becoming more proficient in the clinical setting.

The last stage is the expert stage. At this point in practice, the nurse can act on intuition, identify changes in patient acuity that are not textbook clinical changes, and is proficient in her area of specialization (Benner, 1982). An expert nurse is a skilled practitioner who has a diverse clinical background and can function as an expert in more than one location within the hospital or specialty hospital (Camp, 2015). The expert nurse



can interpret the clinical setting and patient responses with intuition and a knowing that transcends explanation (Master, & Gilmore, 2015). Obtaining the level of expert registered nurse in the clinical setting takes years and growth in a variety of settings and is an invaluable resource for teaching clinical reasoning skills to nursing students (Adelman-Mullally et al., 2013). There is also an expert level of clinical nurse educator and that person is able to effectively teach clinical reasoning skills and assess students' responses to learning (Benner, Tanner, & Chesla, 1996). Expert clinicians and clinical educators respond to a variety of situations in an unconscious approach that is second nature (Robert, Tilley, & Petersen, 2014).

The language from Benner's novice to expert theory guides the clinical education of nursing students by faculty and unit staff nurses. This model establishes a common language that faculty and unit staff nurses should be using as a guide for consistency in evaluating the nursing students' ability to use clinical reasoning skills and critical thinking in the clinical setting. Benner's theory sets the stage for teaching clinical reasoning and assessing it in the clinical setting. Making clinical decisions related to patient care is the process of using clinical reasoning and critical thinking skills in the clinical setting (Alfaro-LeFevre, 2015).

When a nurse begins to recognize untoward signs and symptoms in a patient and responds by escalating the issue to prevent patient harm, the action demonstrates experience and intuition (Pearson, 2013). With facilitation and guidance in the clinical setting, nursing students will become better prepared to enter the practice setting at a

more proficient level. Using Benner's novice to expert theory facilitates faculty and unit staff nurses' ability to assess clinical reasoning abilities of nursing students.

### **Clinical Education**

The clinical environment is essential to meeting the learning outcomes of nursing education (Löfmark, Thorkildsen, Råholm, & Natvig, 2012). Immersion into the clinical setting is of utmost importance for nursing students to gain exposure to clinical reasoning skills and is essential for students entering practice after graduating nursing school (Burrell, 2014; Chan, 2013; Marchigiano, Eduljee, & Harvey, 2011; Nishioka, Coe, Hanita, & Moscato 2014a; Rencic, 2011; Slaikeu 2011). Gaberson et al. (2014) described the clinical practice of nursing education as an environment that is essential for nursing students to experience real life practice which helps the student apply theory to practice and discover the purpose of nursing and patient care. Gaberson et al. further identified that classroom experiences could never adequately prepare a student nurse for practice in the clinical setting.

Theoretical knowledge gained in the classroom impacts clinical performance but ultimately, how well the student can put this knowledge into practice is where critical thinking and clinical reasoning come into play (Hatlevik, 2012). Clinical education should not be a rigid structure where the faculty member finds and creates the learning environment; in contrast, it is best to expose the nursing student to clinical problems that need multiple solutions (Gaberson et al., 2014). In a meta-analysis done by Shin and Kim (2013), problem-based learning, such as what occurs in the clinical setting, was identified

as key to the nursing students developing clinical reasoning skills through immersion in a clinical learning environment.

Clinical education provides nursing students opportunities for real-life decision-making and the application of knowledge in a realistic setting (Gaberson et al., 2014). Exposure to the clinical environment helps to influence the student's behavior and is fundamental in developing the culture of nursing (Henderson, Cooke, Creedy, & Walker, 2012). Nursing students need exposure and repeated experiences to real life scenarios in the clinical setting to develop safe nursing judgment (O'Leary, Nash, & Lewis, 2016). Without the clinical experience, students are unable to connect theory to practice.

Students do weekly rotations in a diverse clinical environment for the goal of gaining expertise in the medical-surgical setting (Blomberg et al., 2014). The medical-surgical clinical floor routinely has students from a variety of schools, but also is working with students who possess a variety of skill levels and from "licensed practical nurse programs to associate degree and Bachelor of Science degree registered nurse programs" (Slaughter-Smith, Helms, & Burris, 2012, p. 55). This setting creates a challenging environment for the unit staff nurse to evaluate and assess clinical reasoning and critical thinking skills as the staff struggles to identify what level of student they are precepting (Helminen, Coco, Johnson, Turunen, & Tossavainen, 2016). If the staff nurse is constantly trying to take care of multiple patients in various degrees of illness, she may not have time to identify the level of student she is precepting, and this could be detrimental in the evaluation of the student's performance (Dolansky, Druschel, Helba, & Courtney, 2013).

Dolansky et al. (2013) explained busy unit staff nurses might assess student performance based on how the student did not impose her presence or bother the nurse during a busy day of patient care. In contrast, Plakht, Shiyovich, Nusbaum, and Raizer (2013) identified that the faculty member who routinely meets with the student multiple times, reviews student-preplanning paperwork, and has gone thru and examined the patient's chart, can readily identify student weaknesses. The unit staff nurse may be a one-shift preceptor who has not seen the student's paperwork, is unable to determine the student's educational level, and is not familiar with the student's clinical objectives (Esmaeili, Cheraghi, Salsali, & Ghiyasvandian, 2014). Each of these issues can affect the ability to assess the student in a congruent manner with the assigned faculty member. This setting creates an environment that leads to inconsistencies in the assessment and evaluation of nursing students' ability to clinical reasoning and critical thinking.

### **Evaluation in the Clinical Setting**

The clinical setting is an essential part of a nursing student's educational practice. As the clinical setting establishes the foundation for students to link theory and practice, assessment of student clinical reasoning and critical thinking must be part of clinical education standards (Rubenfeld, Scheffer, & Rich, 2014). Ulfvarson and Oxelmark (2012) described faculty and unit staff preceptors in the clinical setting lacking knowledge regarding current clinical assessment practices. Assessing nursing student competence is essential to developing safe practitioners, yet there remains a lack of consistency and uncertainty in how nursing students are assessed by faculty and staff in the clinical setting (Zasadny, & Bull, 2015). Henderson et al. (2012) discussed the

clinical setting as a dynamic shifting environment, which needs a thorough evaluation of student learning and assessment. The evaluation of student performance in the clinical setting remains challenging because of how fast healthcare is evolving in the 21st century. Helminen et al. (2016) asserted that there is a prevalence of inconsistencies in the assessment of student performance in the clinical setting. Helminen et al. further identified that unit staff nurses may inflate student grades to create a more welcoming environment.

Kantor (2014) identified the need to reassess how nursing student evaluations are performed in the clinical setting, as there are variations with little to no consistency from nursing program to nursing program. Sedgwick, Kellett, and Kalischuck (2014) identified a discrepancy between clinical partners and nursing program evaluations of student performance in the clinical setting, and specifically identified the need to engage faculty and unit staff nurses in discussions to improve assessment processes. Clinical demands on unit staff nurses influence how student assessment practices are currently done in the clinical setting affecting assessment consistencies between staff and faculty (Cassidy et al., 2012). The unit staff nurse who does not have enough time to gauge the student's prior experience or learning outcomes can affect and lead to inconsistencies between the faculty and unit staff nurse's assessment. Bradshaw et al. (2012) found that there is a lack of consistency in assessing clinical practice due to personal bias revealing a wide variation in student assessments.

DeBrew and Lewallen (2014) reported one difficulty in assessing students in the clinical setting relates to clinical evaluation tools lacking a connection with course

learning outcomes. This leads to the assessment tool being too broad and having no valid link to student clinical performance resulting in a lack of ability to define passing or failing clinical behaviors. DeBrew and Lewallen asserted that faculty assessment of students is sometimes difficult to do in the clinical setting as there are many sources to gather data from in regards to clinical performance and identified that this can lead to discrepancies in assessment of student performance.

Hegenbarth, Rawe, Murray, Arnaert, and Chambers-Evans (2015) called to attention inconsistencies occurring among faculty and staff in regards to nursing students' clinical learning environment. Hegenbarth et al. went on to elaborate that these inconsistencies should be of concern to both the school of nursing and the hospital and recommended that future studies examine the perceptions of both faculty and staff in regards to clinical education of nursing students in the clinical setting. Bengtsson and Carlson (2015) identified issues unit staff nurses had with assessing student performance in the clinical setting. Unit staff preceptors in this study reported challenges in evaluating students that led to inconsistencies with faculty assessment of students. These challenges relate to students who were not knowledgeable about disease processes and faculty being unable to recognize deficits in student knowledge. Another issue arose with adult students dealing with diverse life experiences who posed a challenge for staff nurses to instruct and assess. These situations led to unit staff nurses being uncomfortable with the assessment of students, which created inconsistencies in assessments.

## **Formative and Summative Assessment**

Two of the primary goals in the evaluation of students in clinical nursing practice are to evaluate student progress of clinical reasoning and to evaluate the nursing program as a whole (Kantor, 2014). There is an increased focus on competency-based frameworks, which outline the core knowledge, skills, and attitudes that nurses need to enter professional practice. Bonnel et al. (2012) described formative assessment in the clinical setting as having a focus on the immediate activity the student is involved with, and summative assessment focusing on assessing assigned outcomes at the end of the clinical rotation. Nurse educators have an obligation to the profession of nursing to create and develop environments that foster learning and accurate assessment of nursing students (Burrell, 2014).

A tremendous amount of education for nursing students, which occurs in the clinical setting that results from collaborative efforts between schools of nursing and medical facilities (Marchigiano et al., 2011). Another reason formative assessment is done is to evaluate the student's progress and to increase the student's potential for success (Kantor, 2014). Formative assessments of nursing students occur daily in the clinical setting. The practice of evaluation is to assure that students focus on patient priorities and that they are processing information correctly in the clinical environment in which they are immersed (Nielsen, Sommer, Larsen, & Bjørk, 2013).

The traditional model of clinical education where the student is precepted by the staff nurse who lacks training in formative assessment contributes to inconsistencies in student assessments. Unit staff nurses must be able to improve their knowledge about

student assessments in the clinical setting and should be versed in formative and summative assessment standards (Rafiee, Moattari, Nikbakht, Kojuri, & Mousavinasab, 2014). Lack of knowledge on behalf of the unit staff nurse can lead to inconsistencies in student assessment in the clinical setting. Evaluating students in the clinical setting can be challenging if unit staff nurses lack formal training in the process of performing formative assessments (Skela-Savič, & Kiger, 2015). Seurynck, Buch, Ferrari, and Murphy (2014) identified strategies that focus on training staff nurses to evaluate student performances, which can decrease discrepancies in faculty and unit staff assessments of students' performance.

Another key aspect associated with formative assessment in the clinical setting is the use of clinical assessment tools to evaluate clinical reasoning skills of students (Butler et al., 2011; Fahy et al., 2011; Levett-Jones, Gersbach, Arthur, & Roche, 2011). These researchers explained that the purpose of formative assessment criteria is to identify students' clinical reasoning skills or lack of clinical reasoning skills in the clinical setting. Despite this, the majority of clinical nursing staff has not been educated in the use of clinical evaluation tools. A requirement of being a clinical staff nurse in the medical setting includes the ability to precept students and educate students in caring for patients, yet this is a proficiency that is rarely taught in the workplace (Burgess & Mellis, 2015; Skela-Savič & Kiger, 2015). Summative assessment allows for the evaluation of the student at the end of the clinical rotation and is usually completed by the clinical instructor with essential feedback from the staff nurse. Wells and McLoughlin (2014)



identified that staff in the medical setting are most often the first line of evaluating how the student cares for, and understands, what is happening with the patient.

The purpose of giving feedback to the student is to improve the learner's comprehension, skills, or performance and ultimately impact future practice (Burgess & Mellis, 2015). Faculty members are responsible for performing summative assessments on the nursing student's clinical performance and the unit nurse assigned to the student gives feedback on the student's performance as well. Wells et al. (2014) found staff nurses are often reluctant to give accurate feedback and assessment because they do not want to create an uncomfortable or negative environment for the student. Student summative assessments are fraught with discrepancies due to staff lacking training, students rotating with multiple staff nurses, as well as staff precepting a variety of nurses from numerous educational programs (Helminen et al., 2016). Struksnes et al. (2012) found that clinical staff nurses deal with anxiety when given the task of assessing student performance in the clinical setting. This fear creates an environment, which leads to inconsistencies in how the nurse evaluates the student.

Summative assessments ensure nursing students are functioning as safe practitioners in the clinical setting. Assessing the competence of graduating students in nursing education is a part of creating a clinical environment conducive to safe practice and improving patient safety (Kajander-Unkuri et al., 2014; Steven, Magnusson, Smith, & Pearson, 2014). Tella et al. (2013) described a link between education and patient safety, clearly identifying nursing students need help in connecting safe practice to patient care and this required faculty and unit staff nurses to be able to assess students'

knowledge. Bengtsson and Carlson (2015) found that unit staff preceptors identified their ability to evaluate nursing students as lacking objective judgment. In response to this, unit staff nurses requested more training in the role of assessing nursing students in the clinical setting.

### **Faculty and Unit Nurse Educational Levels**

Faculty educational levels range from masters prepared to doctoral prepared nurses with specialties in nursing education (Penn, Wilson, & Rosseter, 2008). In comparison, the educational level of the unit staff nurse can range from licensed practical nurses, associate degree register nurse, and baccalaureate prepared registered nurses (Moscatto, Nishioka, & Coe, 2013). The advanced practice nurse in the hospital system is routinely in a leadership or advanced clinical position that is not a part of precepting students on the floor.

Offering authentic assessments of nursing students' clinical assignments is a struggle for clinical staff nurses as they have no training in evaluations and may not know how to give appropriate student feedback (Struksnes et al., 2012). Feedback obtained from unit staff nurses lacking education in student assessment may not be consistent with what expert faculty assess in regards to student performance. Pennbrant, Nilsson, Öhlén, and Rudman (2013) identified that in order to develop clinical reasoning skills among nursing students there must be qualified and educated unit staff nurse who serves as preceptors in the clinical setting. Pennbrant et al. further acknowledged that unit staff preceptors in this role would need pedagogical training appropriate to the level of student they were precepting.

## **Critical Thinking**

One of the biggest topics in nursing education, and on a global scale, is how to develop and create students who can graduate and be critical thinkers in the workforce. According to Benner et al. (2010), the new nurses entering into practice must have skills to be safe practitioners in a variety of settings that are changing at a rapid pace. The Quality and Safety for Nurses Institute (QSEN, 2103) and the IOM (2010) have both identified the link to safe patient practice and nurses who can use critical thinking skills. In a systemic review of critical thinking in nursing education Chan (2013), identified a critical thinker is competent in the following four factors:

- Gathering and seeking information
- Questioning and investigating
- Analysis, evaluation, and inference
- Problem solving and application of theory

These four critical thinking concepts relate closely to Benner's theory of novice to advanced practitioner and are essential to developing clinical reasoning skills. Gaba (2015) defined critical thinking as the ability to use intuition and individual thoughts in a situation that one is accustomed to working in and being able to come to a conclusion.

The level of patient acuity can change at a rapid pace. Critical thinking is the foundation for nurses to understand and use the nursing process, which is essential to making decisions in regards to patient care (Williams & Hopper, 2015). The patient is either improving or the disease process is deteriorating. The seasoned nurse relies on years of experience to inform a high level of critical thinking. The expert nurse can help

the novice nurse develop and hone skills necessary to function in the clinical setting (Banister, Bowen-Brady, & Winfrey, 2014). The knowledgeable nurse recognizes when a patient's condition changes and can respond with appropriate interventions. The ability to quickly identify shifts in a patient's condition and respond appropriately can prevent adverse outcomes and prevent life-threatening medical emergencies. Marchigiano, Eduljee, and Harvey (2011) recognized expert nursing care requires critical thinking for clinical reasoning skills and decision-making skills. The ability to quickly identify shifts in a patient's condition and respond appropriately can prevent adverse outcomes and prevent life-threatening medical emergencies (Kaddoura, 2013).

The novice nurse does not have the experience of a seasoned nurse and lacks the development of critical thinking skills, which is required to identify the subtle changes in a patient's clinical condition (Jewell, 2013). Benner et al. (2010) explained one of the goals of nursing education is to develop critical thinking skills wherein the student can learn to look at the whole patient setting and quickly recognize the most important patient issues as well as the least important concerns. Chan (2013) described how theory and application in the clinical setting to develop critical thinking. Without the theoretical background in the clinical setting, students make decisions that lack the theory of evidenced-based practice. Without proper assessment of critical thinking, there remains a gap in how to develop this essential skill.

### **Clinical Reasoning**

Clinical reasoning is an essential mental component for nurses to make decisions in the clinical setting and is a necessary element for providing patient care (Hunter &

Arthur, 2016). Effective clinical reasoning depends upon the nurse's ability to collect the right cues and to take the right action for the right patient at the right time and for the right reason (Gaba, 2015). Clinical reasoning is the ability of a nurse to look at a large volume of data and then correctly identify an appropriate nursing action to address the problems identified during the assessment (Jensen, 2013; Simmons, 2010). Nurse educators are responsible for teaching students how to respond in the clinical setting and teaching the rationale behind the actions. Nair and Stamler (2013) defined critical reasoning in nursing as a process that involves cognitive and affective domains of reasoning. This type of reasoning refers to clinical judgment, clinical reasoning, and critical thinking in nursing education.

Waters, Rochester, and McMillan (2012) identified the need for new graduates to have the ability to manage complex patient care, which is comprised of acute and chronic symptoms. The development of clinical reasoning skills is essential for nursing education and must be included in learning outcomes within nursing programs (Forsberg, Ziegert, Hult, & Fors, 2014). Russell, Geist, and Maffett (2012) described the clinical setting as an essential component to developing clinical reasoning skills in a hands-on learning environment that facilitates real-life decision-making.

For nursing students to develop required skills, they need exposure to many scenarios while in school. Role modeling by the unit staff nurse helps to develop student clinical reasoning skills (Johnson et al., 2012). This exposure occurs through clinical rotations, nursing labs, and simulation. To produce graduates with clinical reasoning skills requires faculty and unit staff nurses to have the appropriate means to evaluate

clinical reasoning of students in a consistent manner (Forsberg et al., 2014; Hunter & Arthur, 2016). Hunter and Arthur (2016) identified that 9 out of 10 faculty members found current assessment strategies to be inadequate and not consistent in the evaluation of student clinical reasoning. Hunter and Arthur (2016) acknowledged that the development of clinical reasoning is essential in the clinical setting and that unit staff nurses largely influence the development of clinical reasoning in nursing students.

The clinical setting is a dynamic environment that involves caring for acute and chronic patients, and working with multiple healthcare providers from different disciplines, which creates an environment that is not conducive to allowing time for accurate assessment of student clinical reasoning skills (Jensen, 2013). To meet the high standards of national and international organizations calling for new graduates to have clinical reasoning skills, preceptors and unit staff nurses need to be consistent in assessing and teaching in the clinical setting (Lasater, 2010; McCarty & Murphy, 2011). Ironside et al. (2014) identified the need to develop better strategies to teach clinical reasoning skills to nursing students. Ironside et al. (2014) further identified that although there has been a call for transforming nursing education away from being task-oriented, there remains a gap in how clinical reasoning is taught and developed in the clinical setting.

Nursing education in the clinical setting needs a focus on developing clinical reasoning skills associated with changes in patient acuity, making decisions that impact patient care, and development of ongoing assessment and revising care based on patient changes (Russell et al., 2012). In this study, through the implementation of a clinical

reasoning tool, students were carefully guided through the process of clinical reasoning and showed significant growth in their capacity to recognize changes in patient acuity. Clinical reasoning is essential to developing nurses who are safe practitioners and who can function in today's complex healthcare environment.

### **Implications**

In order to meet the call for developing nurses who can enter practice with a sound basis of clinical reasoning skills, nurse educators must be able to collaborate with the nurses on the floor who precept students on a one-on-one basis. The leading nursing organizations that oversee nursing education and the IOM (2011) have called for innovative reform in the way students are educated in the classroom and the clinical setting.

In the literature review, I examined the importance of the clinical education setting for nursing students to develop clinical reasoning skills (Löfmark et al., 2012). The literature review established a lack of consistent assessments between faculty and staff nurses, which could be linked to educational levels. Clinical reasoning and critical thinking were identified and described laying the foundation as to why it is imperative to develop nursing students.

The results from this study revealed the challenges unit staff nurses face as pertains to assessing the performance of nursing students in the clinical setting. This led to the development of a dedicated education unit to serve one nursing program. A professional development workshop will be implemented to train unit staff nurses working in the new dedicated educational units. The components of the staff

development workshop will include: (a) defining critical thinking and clinical reasoning, (b) the use of Socratic questioning, (c) creating an educational workplace environment, (d) how to facilitate the development of critical thinking and clinical reasoning, (e) defining roles of faculty, and clinician instructors and student, (f) effective communication, and (g) learning needs and goal setting as a team (Appendix A).

Training staff nurses is not easy, as nurses on the floor already feel pressured with high patient acuity and being too busy to take on a new task. The culture on the floor may be resistant to change and may not embrace the learning of higher assessment skills of nursing students. The ability to include the staff nurses in making decisions in regards to how students are assessed is significant for gaining buy-in from the staff to embrace undergoing education to evaluate students. As a dedicated educational unit was identified as an appropriate project, training will include linking how a dedicated educational unit affects student clinical reasoning skills and the positive impact it has on orienting new graduates entering practice.

The development of a dedicated educational unit and the 3-day professional development for unit staff nurses has the potential to make a positive social impact in nursing education by creating consistency in how critical thinking and clinical reasoning skills are taught and evaluated. This can have a positive impact on a local, state, and national level by creating nurses who possess a keen understanding and foundation of how the clinical educational environment influences the development of critical thinking and clinical reasoning of nursing students. This will have a positive impact on patient safety and outcomes.



## Summary

Section 1 of the proposal discussed the local problem of inconsistencies in faculty and unit staff nurses' assessment of nursing students' clinical reasoning and critical thinking ability in the clinical setting. This section outlined the rationale, specific terms used in the study, significance of problem, guiding research questions, and a detailed analysis of the literature review related to the problem. Lastly, implications of this study were described.

Nurse educators working alongside unit managers and unit staff nurses face new challenges in the management of complex diseases. Developing new teaching strategies that are unique and promote critical thinking require input from all parties to ensure that these strategies evolve into a comprehensive nursing practice (Marchigiano et al., 2011). Although there are multiple tools to assess competencies, they are often inadequate and lack appropriate identification of where performance can be improved (Zasadny & Bull, 2015).

The need for nursing students to have clinical reasoning and critical thinking skills is well documented, yet how faculty and unit staff nurses assess these attributes remains elusive. Although the level of patient acuity continues to increase and the health care system is evolving and changing at a rapid speed, there remains a gap in how to teach clinical reasoning skills, but also how to assess these skills. The clinical environment remains the best setting for students to develop these skills as they are exposed to a diverse patient population that range from wellness to the very sickest. In

this environment, students are actively involved with patient care and are a part of the team performing direct patient care.

There is a documented difference between levels of education in regards to faculty and unit staff nurses. The nursing faculty members have additional training that directly addresses teaching and assessing of students in the clinical setting whereas the unit staff nurse has the expertise to care for patients but lacks education in teaching and assessing nursing students. Understanding how faculty and unit staff nurses assess clinical reasoning skills is vital for determining how the future of nursing education evolves in the clinical setting (Raines, 2012). Section 2 provides a description of the research design and methodology used for this study.

## Section 2: The Methodology

### **Introduction**

In the 21st century, nursing education must focus on developing the clinical reasoning skills of nursing students (Holland & Ulrich, 2016). Clinical reasoning is associated with safe clinical practice and is a fundamental skill that all nursing students must begin to develop while in nursing school. The purpose of this qualitative case study was to explore the ability to evaluate students' critical thinking and clinical reasoning skills in the clinical setting from the perspectives of faculty and unit staff nurses who served as preceptors in a BSN nursing program in a large metropolitan hospital.

Creswell (2007) described qualitative research as exploring the perceptions and experiences of people by using structured face-to-face interviews, group interviews, and surveys, as well as direct observations. I used semistructured face-to-face interviews to explore the perceptions of faculty and unit staff nurses in regards to the assessment of clinical reasoning skills of nursing students in the clinical setting. Broad and open-ended research questions were posed to focus the study and, at the same time, remain open to what emerged from the data (Bogden & Biklen, 2007). The following research questions were addressed in this study:

- RQ1. What are faculty and staff perceptions concerning the level of preparedness staff nurses need to assess critical thinking and clinical reasoning ability of nursing students in the clinical setting?

RQ2. How do the medical-surgical faculty members describe their process of evaluating the critical thinking and clinical reasoning skills of nursing students in the clinical setting?

RQ3. How do unit staff nurses describe their process of evaluating the critical thinking and clinical reasoning scores of nursing students in the clinical setting?

The subquestions that guided the development of the interview questions (Appendix B) were:

1. What do faculty and unit staff nurses perceive as training needs for overcoming barriers to assessing students in the clinical setting?
2. How comfortable are you assessing clinical reasoning of nursing students while they are in the clinical setting?
3. How do faculty and unit staff nurses explain the reason for assessing critical thinking and clinical reasoning of nursing students in the clinical setting?
4. What are barriers to assessing nursing students clinical reasoning in the clinical setting?
5. How do faculty and unit staff nurses describe critical thinking and clinical reasoning and why are these skills important for students in the clinical setting?

The primary goal of this study was to explore how faculty and staff assess critical thinking and clinical reasoning skills of nursing students in the clinical setting. Through

this process, strategies could be further aligned and developed to assess student clinical reasoning as well as impact on how clinical reasoning can be taught in the clinical setting. Qualitative research yields thoughtful and relevant findings that have the potential to affect education and influence how decisions are made in a variety of settings (Lewis, 2015).

### **Research Design and Approach**

A descriptive case study was used to explore the experiences faculty and unit staff nurses described in assessing students' ability to think critically and use clinical reasoning skills in the clinical setting. A case study is used to discover meaning or gains insight or understanding of an individual or group or situation (Lodico, Spaulding, & Voegtle, 2010). This was a bounded case study as it explored the interactions of one set of faculty and one set of unit staff nurses' interactions with nursing students in one specific hospital. A bounded case study specifically sets the place and physical boundaries in which the study is centered (Creswell, 2012). The descriptive case study allows a researcher to look at patterns of behavior and, from this insight, gain a better understanding of how critical thinking and clinical reasoning of nursing students is assessed in the clinical setting by faculty and unit staff nurses. Descriptive case studies allow for the exploration of a person or a group's thoughts and perceptions (Creswell, 2012).

Several other types of studies were considered and ruled out as not suitable for this study. Specifically, ethnography was considered but ruled out as it has a focus on culture (Creswell, 2012). Although there is a culture to nursing, this was not the purpose

of this study. Another study design that was not chosen for this study was grounded theory research. A grounded theory research study is used to explore a particular theory and help to modify or develop the theory in some manner or form. The intention of this study did not include exploring a specific theory, but rather exploring perceptions of individuals. A quantitative approach was rejected, as it is unable to gather rich descriptions of feelings, thoughts, and perceptions of an individual or group, which was needed to best answer my research questions.

### **Participants**

The site for this study was a metropolitan area baccalaureate program, comprised of 80 to 120 nursing students who participated in medical-surgical clinical placements each semester (School of Nursing, 2015). The school attracted students from all over the nation and offered a fast track program that can be completed in 16 months for students pursuing a second-degree. The program had no cap on the number of students entering the program, meaning if the student met all the prerequisites and qualified with the mandatory GPA, he or she was allowed to enter the program. The large amount of students entering the program was significant to the study as this program graduated twice each year a large number of nursing students who entered nursing practice. The new graduates needed to have a solid basis of clinical reasoning skills when entering a dynamic healthcare setting (Watt, & Pascoe, 2013).

The purposeful sample was derived from multiple Adult I and Adult II medical-surgical clinical faculty and unit staff nurses associated with a baccalaureate-nursing program. Adult I and Adult II medical-surgical clinical experiences are the second and

third clinical rotations in which the student works under the direct supervision of a registered nurse caring for patients in a clinical unit based within a hospital. The medical-surgical faculty member accompanied students into the clinical setting and oversaw student preparation and participation with the unit staff nurse during the assigned clinical rotation on a medical-surgical floor. The unit staff nurse was an RN who precepted a nursing student for an assigned daily clinical rotation and the student nurse worked with this registered nurse (RN) to provide direct patient care. The student may have worked with the same assigned RN or may have been assigned a new RN each week. The inclusion criteria to be selected for the pool of potential participants was to be a licensed RN, and either faculty that taught in the clinical setting or a unit staff nurse who precepted students on a medical-surgical unit within the hospital. In the state where the study was conducted, an RN is prepared at either the associate or baccalaureate level. There was no distinction in rank or pay and both levels of educationally prepared RNs had the title of staff nurse.

Creswell (2012) defined purposeful sampling as intentionally selecting where the research is conducted as well as the participants for the study as this allows for specific insight to a particular phenomenon. Purposeful sampling involves choosing specific participants that are integral to the study based on their connection and involvement to the study. There was a purposeful sample of unit staff nurses selected from a mix of medical-surgical units associated with a hospital in a large metropolitan city. A purposeful sample of six faculty and six unit staff nurses participated in the descriptive case study. Arcury and Quandt (1999) described purposeful sampling will ultimately

reflect the intent of the study and allow the researcher to choose participants who have the potential to represent characteristics that are representative of the study. Creswell described a small sample as being appropriate to gain an understanding of a specific site or representative of a group of individuals.

### **Access to Participants**

University and hospital Institutional Review Board (IRB) approval was obtained before IRB approval was sought from Walden. Formal approval was granted from the Walden IRB before any data were collected. The Walden IRB approval number for this study is 09-12-16-0443582. Once IRB approval was given, the Associate Dean of the School of Nursing was contacted to gain access to potential faculty participants. The hospital IRB approval was obtained before contacting potential unit staff nurses. The hospital education department served as a gatekeeper to identify appropriate clinical units from which to recruit potential unit staff nurse participants. A hospital IRB approved flyer was distributed by the researcher to recruit potential participants from the clinical units.

With qualitative research, there always exists a possibility of an ethical dilemma in how a researcher acquires access to research participants, which can influence how participants respond to the investigator (Holloway, & Wheeler, 2013). For the purpose of this study, the dean of the nursing department was contacted to help identify faculty who met the inclusion criteria from each organization. The e-mail was used to explain the study to both faculty members and unit staff nurses. A purposeful sample was then chosen from a pool of volunteers at each location. The faculty participants were from the



school of nursing located within the university and unit staff nurse participants were RNs employed at the hospital. Medical-surgical faculty and unit staff nurses were assigned in both the fall and spring 16-week semesters; study participants were from one semester.

### **Researcher Participant Working Relationship**

I had no authority over any of the participants. Interviewing participants required that I establish contact with individuals who I may or may not have had previous contact with (Seidman, 2013). Houghton, Casey Shaw, and Murphy (2010) explained that a researcher should reinforce to study participants that they should feel no coercion to participate in the study, and I reiterated that the participants could withdraw consent to participate at any time.

### **Ethical Considerations**

Once participants were identified, I gave participants a consent form in person to review before the study began. They were given a consent form that also served as an invitation to participate in the study. The consent form provided details about the study, reinforced that participation in the study was voluntary, and identified that participation was confidential. The consent form explained that all individual identities were protected.

After the individual read the consent form and any questions he or she posed were answered, the participant was asked to sign the consent form. It was explained to each participant that by signing the consent form, he or she acknowledged an understanding of the protection the consent form provided. I reinforced that all responses would be coded so no identifying elements remained. All data are stored in a locked file cabinet within my office that only I have access to. A back-up copy of collected data is in my home in a

locked safe that only I have access to. Documents will be stored for 5 years as required by the Walden University IRB. No data from this study will be used for any purpose outside of this research study. After 5 years, the data will be shredded and disposed of with a licensed shredding company.

## **Data Collection**

### **Semistructured Interviews**

The structured interviews allowed me to ask questions that solicited rich descriptions and allowed for additional clarification, and probing questions to be posed to fully gain the participants' perspective. Participants were assigned a unique identifier, which was denoted on the transcript. A series of open-ended questions (Appendix B) were used during the individual interview sessions. Both the faculty and unit staff nurses answered the same questions. Interviews were conducted with faculty members from the university and unit staff nurses from one hospital. Open-ended questions were prepared to explore participants' thoughts and perceptions (Creswell, 2012). Field notes were also hand written during the interviews and compared to the transcribed data.

One-on-one interviews were conducted in a location convenient to the participants. Interviews were recorded for consistency and to ensure reliability. Before the interviews, an expert panel of three to four faculty and unit staff nurses outside of the research participant pool reviewed the questions to screen for bias issues and assess whether the questions gave an adequate range of responses (Chenail, 2011). The criteria to be an expert reviewer were a unit staff nurse who had 5 years or more of medical-surgical experience who worked with students in the clinical setting, and faculty

members who taught medical-surgical courses and had experience supervising students in the clinical setting on medical-surgical units. Member checking requires interview participants to validate the transcripts after the interviews are transcribed (Koelsch, 2013).

The individual interviews took place in a facility conference room that was in a private setting or in a faculty member's private office space or any such place that the participant found convenient. The unit staff nurse interviews took place in a reserved and private conference room located within the hospital or within private office spaces. I suggested a place that was quiet and without distractions. Once the consent form was signed, interviews took place at times that were convenient to participants. Permission was obtained to record and collect the responses during the interviews. Individual interviews allow for insight into personal perspectives and gauge the experiences and the overall atmosphere of an instructional setting (Barlish & Sullivan, 2012). Interviews lasted from 45 to 60 minutes and participants were only scheduled for one interview. Transcribed data were assigned a letter corresponding with either faculty or staff nurses and stored in a binder locked in a file cabinet. The interviews were separated into sections for unit staff nurses and faculty. Hand written field notes were assigned the same corresponding letter and filed with the transcribed interviews. No clarification or additional information was needed after the first transcript was reviewed, and no additional interviews were required.

### **Gaining Access to Participants**

I used an interview protocol to guide the interview sessions (Appendix C). The interview protocol ensured at the beginning of the interview that I discussed critical details about the study and explain informed consent (Jacob & Furgerson, 2012). I asked the participants if they had any questions and provided detailed answers before they signed the informed consent. Participation was voluntary and participants could choose to withdraw from the study at any time prior to completion of the individual interviews without fear of reprisal. The consent form identified in writing that participation in the study was in no way linked to job performance and evaluation.

### **Role of Researcher**

I had been an employee at the university where I interviewed faculty. I was not currently employed at the university where faculty were asked to participate in the study. I currently teach nursing education in another baccalaureate institution with no affiliation with the university where the research was conducted. I had no existing work relationships with any potential participants within the university setting. I have taken students into the clinical setting where unit staff nurses were selected for study participation; but, I was never an employee of this facility. In both locations, I did not have any supervisory role or authority over faculty in the academic setting or nurses in the hospital. As a faculty member who had experience in evaluating students' performance in the clinical setting, I had to be diligent about remaining free of bias during question development and the semi structured interview process (Lewis, 2015).

## **Data Analysis**

Phase 1 of data collection involved identifying who, what, when, and where data was collected. This stage included the audio-recorded responses being transcribed into text data. The printed transcripts were e-mailed or hand delivered back to the participant for member checking to confirm that the thoughts and statements of the data were accurate (Creswell, 2012). Participants had 3 days to make any changes they desired to the transcript. No response from any participant was received after 3 days, and it was assumed no changes were desired. Once member checked, I sorted, coded, categorized, and analyzed the data.

Phase 2 was associated with hand coding the data and the transcribed interviews were broken into smaller sections and identifiable descriptive terms were picked out which led to identifying the emerging themes (Creswell, 2012). Segments of the text were bracketed and assigned labels of setting, perspectives, strategies, barriers, experiences, resources, examples, expectations, and suggestions. In Vivo coding was then used to further delineate participants' actual words (Creswell, 2012). These coded data sets were reviewed and read over numerous times while I made notes and identified recurring themes.

In the next step, Phase 3, I began to extract the major themes or ideas from the coded sections, identifying five to seven themes recurring in faculty and unit staff nurses' interviews (Creswell, 2012, p. 245). The data were then analyzed to look for overlapping themes. When considering data analysis, Elo et al. (2014) identified trustworthiness as being closely related to how data are collected and deciphered and coded with a reliable

and valid method. These five to seven themes were identified, highlighted, and were coded with descriptive terms as this process helps identify categories (Creswell, 2012). The final step in data analysis included a comparison and contrast between faculty and unit staff nurse themes. Coded data had no identifying information and was only linked to a participant by a code. No identities or facilities were revealed while the study was being conducted or when the report was compiled.

Table 1

*Data Analysis: Phases of Qualitative Data Analysis*

<b>Phase 1</b>	
a. Describing data: who, what, when, and where	Initiated before each interview
b. Transcribing	Interviews transcribed within one week of interviews
c. Member checking	Transcribed interviews returned to participants within 1 week after interview is conducted
<b>Phase 2</b>	
a. Open coding: Identifying themes	Emergence of findings, initiated after member checking
<b>Phase 3</b>	
a. Coding: Looking for repeating themes	Begins with initial review of findings, reviewed every two interviews
<b>Phase 4: Final step</b>	
a. Comparison: Comparing final themes	This is done as the final step and will compare and contrast the final identified themes between staff RNs and faculty

**Evidence of Quality**

Within 7 days after interviews were transcribed, I submitted them back to the participants for member checking. Participants had 3 days to review and return the transcribed interviews. If transcripts were not returned, it was assumed that no changes to

the document were desired by the participant. Triangulation of data consisted of using two sources for data collection. For the purpose of this study, the two sources were semi structured interviews with both faculty and unit staff nurses. As a researcher, I was aware of my personal biases. I had interview questions reviewed by the expert panel before they were used in the study to assure that the questions were open-ended and reflected the guiding research questions. Additional attention was paid to having a neutral demeanor in all of my physical actions during the interviews.

Discrepant data are data that conflict with the overall findings in a research study (Creswell, 2012). In order to avoid bias it is necessary to identify discrepant findings that are outside of identified themes. Discrepant data can offer unexpected insight and, although singular in nature, can sometimes help to clarify certain themes (van Gennip, Pasman, Oosterveld-Vlug, Willems, & Onwuteaka-Philipsen, 2013). These were identified in the study and noted in relation to the identified themes. Contradictory data can also be used to identify perceptions that need further exploration by a researcher (Merriam, & Tisdell, 2015). I was objective in analyzing discrepant findings and discrepancies identified in the study were discussed.

### **Limitations**

The methodological limitations associated with this study included participant limitations and transferability of the findings. The study was limited to faculty who taught clinical experiences on medical-surgical units and unit staff nurses who precepted students on medical-surgical units. Additional limitations included purposeful sampling of faculty from one university institution and unit staff nurses from one hospital. A

limitation of any qualitative study is the ability to generalize the findings to a broader population. This study was bounded to one population and setting and the reader can decide whether or not the findings are transferable to other settings (Marshall & Rossman, 2014). As semistructured interviews were used to gain participants' perceptions of previous events, there remains a limit to how accurate and detailed the responses represent prior experiences (Berge, Loth, Hanson, Croll-Lampert, & Neumark-Sztainer, 2012). Further limitations were discussed after the study was completed and the project was identified and described.

### **Data Analysis**

Once IRB approval was established by both research sites and Walden University, I began to prepare to conduct research. There was a purposeful sample of unit staff nurses selected from a mix of medical-surgical units associated with a hospital in a large metropolitan city. A purposeful sample of six Adult I and Adult II medical-surgical faculty from the school of nursing were also chosen to participate in the study. Once participants were selected they were either hand delivered a consent form or emailed a consent form for review, and a time for an interview was scheduled. Once interviews were scheduled the consent form was reviewed and the interview procedures were explained, risks and benefits of participating in the study were discussed, and the consent form was signed. Permission was obtained to record and collect the responses during the interviews. I used an interview protocol to guide the interview sessions (Appendix C).



### **Data Analysis Results**

The data were obtained via semistructured interviews and then transcribed prior to beginning the process of coding (Creswell, 2012). After transcription, the documents were submitted by email back to participants for member checking to verify that the statements accurately reflected participants' thoughts and transcribed data were correct (Creswell, 2012). Participants were given 3 days to review data and no responses from participants verified there were no desired changes to the transcribed documents. Once member checked, I began to sort, code, categorize, and analyze the data via color coding. The data were then broken into smaller sections and the themes were identified and labeled.

In Vivo coding was then used to identify sections of the transcripts that represented the major themes (Creswell, 2012). I developed narratives of the participants' viewpoints once the data had been broken into themes and I used supporting quotations from the interviews to support these themes. I then compared the faculty and unit staff nurses' interviews and comprised the final six themes that accurately represented both groups. These final themes were then contrasted and compared between faculty and unit staff nurses. A well written qualitative study uses rich descriptions derived from participants to support and validate the researcher's conclusions (Bogdan & Bilken, 2007).

### **Findings in Relation to Problem**

The purpose of this qualitative case study was to explore the ability to evaluate students' critical thinking and clinical reasoning skills in the clinical setting from the

perspective of both the faculty and unit staff nurse. Twelve participants were asked to participate in semistructured interviews over the course of 4 days. An interview protocol (Appendix C) was used to help gather demographic information and the interview questions (Appendix B) with guiding subquestions were used to gather participant perceptions. When further clarification was needed during the interviews, additional questions were used to help clarify participant responses.

Faculty interviewees were very direct and detailed in explaining how critical thinking and clinical reasoning of nursing students was assessed in the clinical setting. In contrast, the unit staff nurses often gave illustrations and examples of basic clinical skills in regards to how critical thinking and clinical reasoning of students was assessed. Faculty and staff interviews revealed barriers to assessing students, a lack of consistency in definitions of critical thinking and clinical reasoning, and needed resources for educating nursing students in the clinical setting. Faculty and unit staff nurse interviews revealed in rich detail expectations they had for students in the clinical setting.

Individuals who were interviewed expressed a variety of reasons as to why there were inconsistencies in how students were taught and assessed in the clinical setting. Faculty and unit staff nurses both expressed that the identified clinical inconsistencies needed more than just additional staff training. Both faculty and unit staff nurses acknowledged that students needed more consistency in where and how long students were assigned to clinical units. The unit staff nurses discussed how it would be easier to work with the same students on the unit consistently to develop trust and rapport with the student in order to better facilitate critical thinking and clinical reasoning. Faculty stated

having students in multiple locations was not conducive to facilitating learning and rotating facilities and clinical units made it very hard to encourage relationships with staff and develop an environment beneficial to teaching students. Overall, the consensus of the participants in the study agreed there was a need for the school of nursing and the hospital to develop a partnership to move forward with a dedicated educational unit. To facilitate this, a 3-day professional development program has been created for unit staff nurses in order to better prepare them to facilitate student success in the clinical setting.

### **Research Questions**

The following research questions were used to guide the data collection:

RQ1. What are faculty and staff perceptions concerning the level of preparedness staff nurses need to assess critical thinking and clinical reasoning ability of nursing students in the clinical setting?

Research Subquestion 1: What do faculty and/or unit staff nurses perceive as training needs for overcoming barriers to assessing students in the clinical setting?

Interview Question 1. Describe the resources needed available to evaluate students in the clinical setting?

All of the faculty participants expressed that utilizing a dedicated educational unit was needed to better facilitate teaching in the clinical setting. One faculty member described the clinical units as “not conducive to the staff nurse being able to teach...because of time constraints and the volume of student rotating through the unit” (Faculty D). Faculty and staff identified that a clinical evaluation tool would create consistency between faculty and unit staff nurses when assessing critical thinking and

clinical reasoning. Additionally, staff explained that they “rarely” (Unit Staff Nurse A) take part in formal evaluations of medical-surgical patients. The following response was typical of all staff nurse participants. “I wouldn't say we have a formal evaluation. An informal one would be I usually try to interact with students, just to give them confidence as they are learning. I wouldn't say anything formal” (Unit Staff Nurse D).

Staff did communicate that having an assessment tool would make it easier to provide feedback to faculty and provide performance feedback to the student. Responses included:

Some people do bring a thing that said, "Was I professional? Did I come on time?" All of those things, "Was I engaged?" I guess and a few of them have in the past... little things like that...you check mark and then sign your name and they give it back to their instructor but most, I don't think lately any (*students have brought anything like that*) but it would be beneficial to provide feedback. (Unit Staff Nurse E)

“Yes, having a way to communicate with the student and help them to think thru the disease process would be helpful” (Unit Staff Nurse A).

As a group, the faculty communicated that in order for there to be a more balanced teaching and assessment environment, the unit staff nurses would need additional training in how to develop the critical thinking and clinical reasoning skills of students. The following response was typical of all faculty participants:

I think it would be very helpful if we could get some type of tool and work together with the particular nursing unit that we're going to be on. Then, we

would have something that we can actually talk to the nurses about because right now, we ask the nurses, "Okay, how's the student doing?" They'll say, "Oh, they're doing great." Sometimes the nurses come up and just volunteer that information, but I don't know what they're measuring. (Faculty B)

“The other thing is that a really good clinical nurse a lot of times is not the best teacher as they don't have the education to be able to teach” (Faculty A). “When I walk by the nurses, if I ask how they are doing, ‘Oh, they are doing really good.’ That's pretty much all I hear, no explanation really...ever” (Faculty C).

Interview Question 2: What are your suggestions for staff and/or faculty training in the evaluation of students in the clinical setting?

All of the staff nurses, with the exception of one staff nurse who had previous training in precepting leadership students, agreed that training would be beneficial. Specifically, the focus of training should be on the facilitation of learning experiences for nursing students while on the clinical units. The unit staff nurses identified time and incentives as needed resources in regards to additional training. Responses included: “We don't really do that. We don't really evaluate them during the day. If we did have training, it would certainly make sense” (Unit Staff Nurse E).

I wouldn't say we have a formal evaluation. An informal one would be I usually try to interact with students, just to give them confidence as they are learning. I wouldn't say anything formal. Yes, training would be beneficial if we have time and incentives. (Unit Staff Nurse D)

Faculty responses indicated the focus of training should be on the facilitation of learning experiences for nursing students while on the clinical units. The faculty unanimously agreed that training for the unit staff nurses is very important and there is a distinct lack of unit staff nurses' ability to provide feedback to faculty about the students' ability to think critically or clinically reason. They further identified the importance of developing dedicated educational units where the culture would be one of embracing the educational process of nursing students. Additionally, faculty described incidences where they always have to ask for feedback about student performance but rarely get anything but generic feedback by stating:

If I do get feedback. It is only if I go and ask for it. A lot of times, I'll just stop by the nurse when the student is not around and just ask how the student is doing.

Usually in that circumstance, I get really positive feedback but very generic.

They're doing really good or they're a hard worker. (Faculty D)

"I personally think that every nurse who is going to be a preceptor and going to help with student learning should have all their nurses trained to be able to facilitate student learning" (Faculty C).

Interview Question 3: What are your views on having an evaluation tool to evaluate clinical reasoning?

All of the faculty agreed that a formal way to evaluate critical thinking and clinical reasoning of nursing students could make a significant impact and improve student learning in the clinical setting. However, many reiterated that it would take

training to accomplish this as well as having clinical units that embrace the paradigm of teaching. Responses included:

I think (*the nurses need*) a way to openly evaluate the students on understanding the disease process and how it could (*the disease process*) potentially affect the patient including labs and medication, if a nurse isn't willing to educate or doesn't know how to educate a student, often you'll see a student that can just get by in clinical without ever having to discuss labs and meds and how they can really effect the patient. The nursing instructor should also be doing that with the student but the nursing instructor doesn't know everything about the patient like the nurse does. (Faculty D)

I think, in my opinion, that that would objectify the process, that it would keep it (*assessment of students*) consistent. I believe it needs to have input from curriculum committees, even hospital committees I think (*we need to*) work together. (Faculty A)

Well, not all nurses are receptive to having students and you can't force that I don't think. I believe those nurses who are receptive to having students need to be the nurses that the students are going to follow. I think that those nurses need to have some training on what we're looking at and what we're actually measuring to make sure that the students are connecting the dots. (Faculty B)

The unit staff nurses felt that having a tool to evaluate clinical reasoning could positively impacts how clinical reasoning of students is assessed. They also thought it

could help them (nurses) be more predictive about what patient care they allowed the student to perform. Responses included:

I think it's necessary. Clinical reasoning is something that is built over time. That's why I said it's so flexible. There's not a specific thing you can say, 'Okay learn this'...a tool would be helpful to identify (patient) trends... Seeing things that are critical to the patients. All information of a patient is important, but not everything is pertinent at that moment for the patient. (Unit Staff Nurse D)

"If we had a tool, when they can prove to me that they've got some knowledge I (*would*) certainly feel more comfortable giving them a little more leeway and allowing them to perform more patient care" (Unit Staff Nurse E)

Interview Question 8: If you had a tool to evaluate clinical reasoning of nursing students, what would you like to see included on this tool?

The unit staff nurses agreed that a tool would allow them to take a more active role in assessing the Adult 1 and Adult II medical-surgical students in the clinical setting. The perspective of the entire faculty interviewed agreed that being able to have consistent and structured feedback from the unit staff nurses would help establish a foundation of critical thinking and clinical reasoning skills of the medical-surgical nursing students. The faculty described teaching strategies and concepts that would help students link critical clinical pieces together and facilitate clinical reasoning. Faculty Participant D stated:

I think a way to openly evaluate the students on understanding the disease process and how that could potentially affect the patient including labs and medication, if



a nurse isn't willing to educate or doesn't know how to educate a student, often you'll see a student that can just get by in clinical without ever having to discuss labs and meds and how they can really effect the patient. The nursing instructor should also be doing that with the student but the nursing instructor doesn't know everything about the patient like the nurse does.

RQ2. How do the medical-surgical faculty members describe their process of evaluating the critical thinking and clinical reasoning skills of nursing students in the clinical setting?

RQ3. How do unit staff nurses describe their process of evaluating the critical thinking and clinical reasoning scores of nursing students in the clinical setting?

Research Subquestion 2: How comfortable are you assessing clinical reasoning of nursing students while they are in the clinical setting?

Interview Question 4: What is your experience with students in the clinical setting, please give me a few examples of what a day with nursing student in the clinical setting is like.

A staff nurse described working with the nursing student in performing hands on patient care and referred to the student as being an “extra hand” (Unit Staff Nurse C). Another unit staff nurse described how it took time during the initial introduction to the student to identify what semester student she was working with and if the student was from an associate or baccalaureate program. One unit staff nurse participant described how it was difficult to identify what level of student she was working with from day to

day. This perspective was reiterated by almost all of the interviewed unit staff nurses. In contrast, the faculty gave a very detailed example of what a clinical day looked like from the start to the finish including examples of how critical thinking and clinical reasoning was facilitated. Participant responses included: “I don’t ever know what level of student I have been assigned. It is confusing and takes time out of the day” (Unit Staff Nurse D). “We need more nurses so it's a good feeling when you're able to teach them, but it (*precepting a student*) does really make you work extra hard (Unit Staff Nurse C).

In comparison, the faculty were very unified in describing how each clinical day began with scholarly preparation for patient care as evidenced by the following responses:

We start out with preplanning and we do a pre-conference, talk about what our goal is for the day, maybe how the flow of the day is going to go, what my expectations are related to the objectives of the clinical and of the clinical week, then they go and they take report from their nurse that has the patient that they're assigned to. (Faculty A)

We start talking about the patient diagnosis. They are required to do a pathophysiology tree that discusses what the patient's problem is and the expected outcomes. We connect the expected outcomes with what their patient is presenting. Then we start going through labs and medications. I generally will just ask the students information that could make them think (*Socratic questioning*) and help connect the dots. (Faculty D).

Interview Question 5: Please describe your comfort level when interacting with students in the clinical setting.

There were not any study participants that alluded to being dissatisfied with interacting with students in the clinical setting. The faculty expressed satisfaction with teaching in the clinical setting and being very comfortable with students in the clinical environment. All unit staff nurses in this study were supportive of having students assigned to them in the clinical setting. However, the study did reveal that one of the barriers that occur for faculty is having students assigned to clinical staff who do not want to precept students. Supporting this finding are select quotations from the participants:

I am very comfortable with students in the clinical setting. I have a passion for working with them in the clinical setting because I also work in the didactic part so I like to see those pieces come together. (Faculty A)

“I’m very comfortable with interacting with nursing students in the clinical setting” (Unit Staff Nurse B).

Research Subquestion 3: How do faculty and unit staff nurses explain the reason for assessing critical thinking and clinical reasoning of nursing students in the clinical setting?

Interview Question 6: Describe how critical thinking influences a student’s role in the clinical setting?

In discussing critical thinking and clinical reasoning related to nursing students there were distinct differences among faculty and unit staff nurses. Faculty described

critical thinking as the foundation to the nursing process and how it was introduced in the first nursing courses. They further explained that it related to skills and medications, and life experiences. There was an example that critical thinking was a must have skill in nursing as pertained to being able to “think through situations” (Faculty C). Staff also thought critical thinking evolved through life situations and that it was an essential skill nurses needed in order to function in their professional role. Responses included: “They're (*nursing students*) just thinking about situations and maybe trying to problem solve or they're thinking through processes. It doesn't necessarily have to do with a patient outcome or an intervention” (Faculty F). “It's important because that's what the life of a nurse is. They have to be able to discern between what's priority, what can be delegated” (Faculty A). “I think their critical thinking makes them (*student*) ask questions and maybe makes them (*student*) curious in how things correlate” (Unit Staff Nurse F).

Interview Question 9: Please describe some examples that involve you and clinical reasoning while working with a nursing student in the clinical setting?

The faculty excelled at facilitating and describing clinical reasoning and how to teach this skill to nursing students. For example, there was numerous examples of tying theory to practice, and identifying differences in how patients can present with the same disease process and helping the student work through a variety of clinical scenarios. In contrast, unit staff nurses would describe a task and identify if the student could perform skills correctly or correlate clinical reasoning with simple tasks such as, identifying side effects of medications. Both of these skills are important to nursing education but are knowledge based and do not utilize higher order level of thinking skills associated with

clinical reasoning. The unit staff nurses stressed time constraints and not always knowing the performance level of the student they were working with as a limitation to teaching clinical reasoning. This is evident in the following responses:

*Clinical reasoning is taught by ...* Socratic questioning and teaching there at the bedside and drawing inference from other patients they have had previously... Last week you had a diabetic patient as well... this week you have a diabetic patient, but what looks different about them and why are we treating them different? Yes. Connecting the dots continuously. (Faculty A)

We start talking about the patient diagnosis. They are required to do a pathophysiology tree that discusses what the patient's problem is and the expected outcomes. We connect the expected outcomes with what their patient is presenting. Then we start going through labs and medications. I generally will just ask the students information that could make them think and help connect the dots. (Faculty B)

“I ask them if have ever they done the skill you know, because certain facility and schools have different kinds of products. I will walk them through it, kind of get them comfortable with the supplies” (Unit Staff Nurse C).

Interview Question 10: Please describe what your expectations are for students in the clinical setting?

All but one person interviewed described having set expectations for nursing students in the clinical setting. All participants stated they expected students to be “conduct themselves professionally” (Unit staff nurse E and Faculty C). Other responses

were: “I expect professionalism. Professional behavior, professional look, and appearance. I expect that they will be self-motivated to seek out learning opportunities” (Faculty E).

One is professionalism that they behave in a way that they should. Two is trans-personal caring behaviors and relationships based on Jean Watson's Model of Caring and human caring science. Safety and competency. That they come wanting to learn something and they come not afraid to get their hands dirty.

(Unit Staff Nurse F)

Interview Question 11: In your opinion what constitutes a successful day with students in the clinical setting?

Both faculty and unit staff nurses wanted students who were active participants in their learning experiences while attending clinical rotations. Both also expressed the importance of the clinical experiences focusing on safe patient practice and developing nursing students with a high regard for patient safety. This is evidenced in the following responses: “A student that is willing to jump in. A student with a good attitude that wants to learn and ask a fair amount of questions” (Unit Staff Nurse B). “Ultimately, I think that if a student can care for a patient and understand what's going on with that patient, making some sort of connections to their pathophysiology, lab work medication and anticipate needs, I think that's successful” (Faculty C). “No bad events with the patient, obviously. SAFETY. I feel like I've taught them (students) something, or they've learned something and if I can find them a skill they want to try” (Unit Staff Nurse E).

Interview Question 12: What is your involvement in the evaluation of students during a routine clinical day?

All of the unit staff nurses stated they had no involvement in the evaluation of Adult I and Adult II medical-surgical students doing clinical rotations within their units. One unit staff nurse referred to one school of nursing within the region as having an evaluation tool. However, the unit staff nurse was unable to recall what the tool evaluated in regards to student performance. In contrast, all of the faculty members were able to describe how they assessed nursing students at the beginning (preconference) of the clinical day, during the clinical day, and at the end (post conference) of the clinical day as stated below:

I use Socratic questioning and teaching at the bedside. I even try to draw inference from other patients that they've had during previous (*clinical rotations*). Last week you had a diabetic patient as well... This week you have a diabetic patient but what looks different about them and why are we treating them different? Yeah. Connection of those dots. (Faculty A)

"We don't really do that. We don't really evaluate them during the day" (Unit Staff Nurse C). "I wouldn't say we have a formal evaluation. An informal one would be I usually try to interact with students, just to give them confidence as they are learning. I wouldn't say anything formal" (Unit Staff Nurse D).

When faculty was asked about getting feedback from the unit staff nurses in the clinical setting faculty stated they received "little to none" (Faculty B). They further clarified if they received feedback about student performance it was generally very

generic and very general in nature, and was often positive feedback related to “good help today” (Faculty B), or “they did well today” (Faculty C). One respondent stated:

Usually the only time I hear from a staff nurse is if I address them directly because I have something I want to discuss with them regarding the student or if they have a concern or a problem with a student” (Faculty D).

Interview Question 13: How does a student’s ability to use clinical reasoning impact the clinical experience?

Faculty were very clear in formulating how clinical reasoning is needed to make connections between theory and application. Furthermore, faculty gave examples of facilitating the development of clinical reasoning and how, without the development of this skill, the student not progress towards safe nursing practice. They faculty further described how clinical reasoning impacts learning and interactions with unit staff nurses in the clinical setting: “If they (*staff*) see a student capable of critical thinking or clinical reasoning, they allow them to have more autonomy and take more initiative in that patient’s care. It's like there's that trust there” (Faculty E).

Critical thinking and clinical reasoning and initiative are two of the biggest things that impacts our clinical environment. Whenever they see a student that is actively trying to learn new processes, one that is asking questions, one that wants to be there and they're not just there checking off a certain amount of hours, that's when we see a buy-in from our staff, from our hospital members. (Faculty F)

Research Sub Question 4: What are barriers to assessing nursing students clinical reasoning in the clinical setting?



Interview Question 7: What barriers do you encounter while dealing with nursing students in the clinical setting?

The unit staff nurses described barriers associated with not knowing what level of student they were working with, and difficulty in the constant flow of students rotating through their floors. All of the faculty, in contrast, described barriers in logistically having students assigned to a variety of clinical units. The majority of faculty discussed having students assigned to nurses who did not want to participate in precepting nursing students as evidenced in the following quotations:

We're (*students*) in different geographical locations (*during the clinical day*)

I've had one clinical experience, or one clinical institution, where all my students were on the same floor. There was so much learning that happened every single clinical day. (Faculty A)

Some facilities I've been in have had situations where the nurse refused to take a student. I've reported it to management. I've reported it to the school. Pretty much the same answer I get is we're sorry but that nurse just doesn't take students. As far as what I can see, it's not a requirement for nurses to take students. I guess it's highly encouraged but some of the floors we've been on, it's not been a requirement. (Faculty D)

I'm constantly rounding. In fact, I checked my phone one day to see how much I had walked through the hospital that day and it was over 5 miles that I had walked. My students are on five different areas of the hospital. You just can't get to every student every time. Sometimes when you do get to the

student, they could be with a nurse, with a patient, or just honestly in an unknown location. (Faculty C)

The big challenge sometimes is you are on Floor 11 and then there are 2 other students who need your assistance on Floors 2 or 5. It's just the constant rounding that makes it hard and challenging at times (*to facilitate learning*) As much as possible, I try to meet with the students and discuss patient priorities. (Faculty B)

The unit staff nurses described how there was inconsistency in school and faculty expectations of students. Some schools allowed students to do certain procedures but others would only let the student perform skills if the clinical instructor was present. They described different clinical expectations as creating confusion for staff nurses and how these varied expectations negatively impacted student learning on the clinical unit.

It is sometimes not never really knowing (*the student's clinical objectives*) and just what that particular student can do and that's kind of a common thing. They'll hand me a typed, written or document that will say, "This is what I can do," and to be honest I'm so busy I don't always have time to read it... I'll just have them verbally let me know what they can do, but I wish there was a better way of knowing. If we had that same student week after week or the same group so we knew but that's the thing that slows us down, really knowing just what they can do and what they can't. (Unit Staff Nurse E)

The responses to this question revealed there are many different schools with a variety of educational levels rotating through the medical-surgical clinical units every

week. Compounding this problem is the student clinical blocks are scheduled every eight hours. Furthermore, the student clinical shifts occur during the unit staff nurses scheduled twelve-hour shift. The large influx of students from a variety of nursing schools makes identifying learning objectives and goals almost impossible for the staff nurses as they are already very busy with caseloads.

Research Sub Question 5: How do faculty and unit staff nurses describe critical thinking and clinical reasoning and why are these skills important for students in the clinical setting?

Interview Question 14: How would you describe clinical reasoning?

There was distinct difference in how faculty described clinical reasoning compared to the unit staff nurse. The faculty related clinical reasoning to identifying how to assess and make decisions about the client's care. In contrast, the unit staff nurses identified clinical reasoning in association with teaching students as looking at the whole patient or made no distinction between critical thinking and clinical reasoning skills. "If they (*student*) cannot show signs of clinical reasoning ...they're just completing tasks. We don't want nurses that can only complete tasks" (Faculty B). "Clinical reasoning is looking at a patient holistically. Prioritizing the patient's illness, what they're there for (*in the hospital*)" (Unit Staff Nurse A). "I think clinical reasoning is being able to evaluate your clients and determine the needs of the clients based on the information that you have and then expected to know potential complications" (Faculty D).

To be honest, sadly I know on this floor so often we're so task oriented that we really don't really get to spend the kind of time that I'd like to do in those areas

(teach clinical reasoning) unless I'm seeing a problem then I will show them and teach them, "Look this is what we're looking for. This is how we're trying to help this patient," but sadly we are just trying to do the task at hand, trying to get our meds passed on a timely matter.

“Clinical reasoning? (*It is*) Critical thinking in the nurse setting.”

Interview Question 15: How would you describe critical thinking? In your own words, describe the difference between critical thinking and clinical reasoning.

Faculty were able to define critical thinking and clinical reasoning in regards to student performance in the clinical setting. Furthermore, faculty were able to give clear examples and illustrations of how they developed these two critical skills. In comparison the unit staff nurses did not have clearly defined examples of critical thinking and clinical reasoning in relationship to teaching or assessing students in the clinical setting.

Critical thinking to me is advanced multi-tasking. It's being able to understand how the body system works as related to the disease process. Clinical reasoning is same thing, but maybe a little bit more advanced. It's, again, going back to looking at the patient holistically. You can even go beyond that. Not just looking at one patient, but looking at your group of patients that you've seen. (Faculty A)

“Critical thinking to me is advanced multi-tasking” (Unit Staff Nurse B).

Table 2

*Themes*

Themes	Codes: Key words in context
Lack of consistency	<ol style="list-style-type: none"> <li>1. Scheduled hospitals</li> <li>2. Scheduled clinical units</li> <li>3. Definition of critical thinking</li> <li>4. Definition of clinical reasoning</li> <li>5. School expectations</li> <li>6. Faculty expectations</li> </ol>
Faculty and staff clinical expectations of students	<ol style="list-style-type: none"> <li>1. Professionalism</li> <li>2. Communication</li> <li>3. Student engagement</li> <li>4. Responsibility</li> </ol>
Barriers to clinical education	<ol style="list-style-type: none"> <li>1. Lack of training</li> <li>2. Students frequently changing units</li> <li>3. Short amount of time on units</li> <li>4. Having students on a variety of clinical floors.</li> <li>5. Refusal of assigned student</li> <li>6. Different nursing programs</li> <li>7. No consistency in expectations: faculty and schools</li> <li>8. Too many students in a clinical group</li> <li>9. New graduate orientees taking clinical preceptors</li> </ol>
Faculty and staff differences in educational definitions	<ol style="list-style-type: none"> <li>1. Critical thinking</li> <li>2. Clinical reasoning</li> </ol>
Faculty and staff comfort level with students	<ol style="list-style-type: none"> <li>1. Very comfortable</li> </ol>
Resources for clinical education	<ol style="list-style-type: none"> <li>1. Dedicated educational unit</li> <li>2. Training</li> <li>3. Tool</li> <li>4. Incentives</li> </ol>

**Theme 1: Lack of Consistency**

**Faculty.** Faculty expressed frustration in the inconsistency of what hospitals students were scheduled to report to for clinical rotations each semester. The faculty described being rotated to facilities based upon availability of clinical slots. If faculty were scheduled at the same hospitals, there were routine inconsistencies in the location of assigned clinical units from semester to semester or clinical rotation to clinical rotation. This constant shifting of hospitals and clinical units creates difficulty for the faculty members to develop relationships with the unit staff nurses and for the unit staff nurses to develop relationships with the nursing students.

There was also a lack of consistency in the definition of critical thinking and clinical reasoning among faculty and unit staff nurses. The faculty gave rich descriptions of both definitions as well as applying them to clinical education and facilitating learning of nursing students. Faculty understood how to use Socratic questioning and how to connect previous learning to new situations for the nursing student. In contrast, the staff described isolated incidences of teaching and there was not a focus on higher order level of thinking. The staff inconsistencies connected to lack of training and lack of time with students to develop relationships in which higher order level of thinking could be developed.

**Staff.** Staff described inconsistencies among nursing schools related to student clinical expectations, and faculty expectations of the students. There were many examples offered that included: (a) one school allowing the student to care for more than one patient, (b) another school would let the student could help care for all patients while

another school would only let the student care for one patient, (c) one faculty member might let students perform certain tasks, and (d) other schools would not allow students to do certain skills. Unit staff nurses shared trying to determine what the goal and student objectives for each clinical rotation was to be a common occurrence during the clinical day. Unit staff nurses identified keeping up with student and clinical expectations from an assortment of nursing programs is frustrating. Unit staff nurses identified that time spent trying to identify student clinical objectives affects the time needed they need to care for patients.

## **Theme 2: Faculty and Staff Clinical Expectations of Students**

**Faculty.** Faculty expectations in the clinical setting focused on professionalism, which included: (a) arriving prepared, (b) dressed appropriately, and (c) communicating with clinical staff in a professional manner. The faculty participants put a strong emphasis on expectations of student preparation and taking responsibility for their educational experiences in the clinical setting. Faculty further described how students must be responsible for seeking out learning opportunities while in the clinical setting. Additionally, they expressed as a whole that students needed to care about patients and families and be cordial with staff and each other in the clinical setting.

**Staff.** Staff had the same expectations of students as the faculty. They were consistent as well with expecting: (a) professionalism, (b) student preparation, and (c) nursing students be self-motivated. They further shared that it was of very high importance that the students be responsible and let the staff know what their goals were

for the clinical day and the clinical semester. There was also an expectation from staff that students would be a part of patient care on the clinical unit.

### **Theme 3: Barriers to Clinical Education**

**Faculty.** Faculty unanimously remarked about unit staff nurses being experts in their clinical disciplines but lacked training in facilitating the development of critical thinking and clinical reasoning of nursing students. All faculty gave an example of how students in the clinical setting were shifted not only from unit to unit, but were moved from facility to facility between adult medical-surgical clinical rotations sites. Faculty remarked how this created an environment not conducive to teaching students clinical reasoning skills as it hinders the student from reaching a comfort level with the nurses on a single unit clinical.

Another significant barrier faculty noted was the logistics of having students on too many clinical units within the facility. The logistical problem creates an environment where the faculty member is constantly on the move trying to meet with sometimes 10 to 11 students on five different floors in the hospital. The faculty members find there are several students they just cannot meet with more than once or twice in a clinical day. Not being able to meet with the students leaves the burden of facilitating the learning process to the unit staff nurse. Faculty added another obstacle happens when they are in the same hospital, but not assigned the same clinical unit from one semester to another semester.

All faculty shared frustration in having nursing students assigned to staff nurses prior to the start of the clinical day who would refuse to precept a student the day of clinical, or just ignore or be rude to the student. This situation leads to frustration on the



part of faculty and the student. It takes additional time to contact the charge nurse, get the student reassigned, and delays the start of critically needed clinical hours for the student. The faculty furthermore described situations where the unit nurses are assigned new graduates to precept and this limits the availability of unit nurses able to take a student. It creates a situation where the faculty member must reassign the student to another nurse altogether, or reassign the student to another floor. It takes time out of the clinical day and disrupts the student's ability to participate in patient care during the morning. This causes the student to miss report, and early rounds with the unit staff nurse.

**Staff.** When asked about the need for further training to precept students in the clinical setting, all but one staff nurse agreed that some form of professional development is needed to better facilitate student learning in the clinical setting. Staff also noted that a barrier to creating a better learning environment was the constant influx of students from different nursing programs. This creates an environment where the nurse is: (a) always trying to discern the level of student she is precepting, and (b) what the student is allowed to do and not do in the clinical setting. Further complicating this situation is faculty rotating students to a variety of clinical units during the semester. Staff nurses remarked that there is no consistency among nursing programs in regards to student expectations. Furthermore, there is the issue of trying to contact instructors for permission for students to perform skills, which takes the nurse away from priority care of the patient. Over half of the staff remarked that patient care was a priority over teaching students in the clinical setting. These barriers make it difficult for the staff nurse to meet the learning needs of the student.

**Theme 4: Faculty and Staff Differences in Educational Definitions**

**Faculty.** Faculty expressed expertise when discussing the assessment of students in the clinical setting. Faculty defined how critical thinking and clinical reasoning affected the learning experience of students. They further gave rich descriptions and examples of how they facilitated the development of critical thinking and clinical reasoning skills during clinical interactions. They described how they connected didactic information to the clinical setting. All faculty had a minimum of a master's degree and over half of the faculty working with students in the clinical setting were pursuing doctoral degrees.

**Staff.** The unit staff nurses frequently described skills when referring to assessing critical thinking or clinical reasoning skills of students. A few unit staff nurses who described clinical examples of helping students to think and reason through clinical scenarios. The unit staff nurse described a variety of reasons, which could have a negative impact on students' learning in the clinical setting. They included: (a) lack of student engagement, (b) lack of knowing clinical expectations, and (c) lack of training to facilitate the development of critical thinking and clinical reasoning skills. All of the staff had a minimum of a bachelor's degree and a few held higher degrees outside of nursing. Only two of the nurses had participated in training courses to precept students and the training was not within the last five years. All other unit staff nurses had no training teaching and precepting nursing students in the clinical setting.

**Theme 5: Faculty and Staff Comfort Level With Students**

Both faculty and staff expressed being comfortable with students in the clinical setting. The faculty referred to this comfort level in association with teaching and assessing the student in the clinical setting. The unit staff nurses stated they were comfortable with having students in the clinical units but listed barriers to facilitating student learning.

**Theme 6: Resources for Clinical Education**

**Faculty.** Faculty unanimously agreed more training is needed for staff to better prepare them to precept medical-surgical students in the clinical setting. The faculty agreed that an assessment tool to assess critical thinking and clinical reasoning of students in the clinical setting would help keep faculty and the unit staff nurse focused on the same learning objectives for students. The faculty commented numerous times that having students in one clinical unit would create an environment conducive to learning. Faculty spoke about needing the support and input from hospital administrators, curriculum committees, and the unit staff nurses to make such an endeavor a success.

**Staff.** All but one unit staff nurse agreed that there was a need for formal training in precepting students in the clinical setting. The unit staff nurses shared beliefs that having students for more than one day or more than one clinical rotation would facilitate better student outcomes. The staff spoke about not having clear learning objectives for students and how training could better help them make the student clinical rotation more successful. Staff did feel supported by faculty and felt like faculty were approachable whenever there was a concern regarding student performance or participation on the

clinical unit. At least half of the staff discussed an incentive program might be required to obtain staff buy-in for attending staff training. Lastly, staff shared the importance of needing students to come prepared to learn and to be active participants in their clinical rotation.

### **Discrepant Data**

Conflicting data arises when one or two participant viewpoints disagree or give different perspectives than the majority of other participants (Creswell, 2012). The results of this case study identified one participant's viewpoint that was vastly different from other participants. This perspective came from one of the unit staff nurse. She was a seasoned nurse with numerous years of experience who did not think additional training for staff would be beneficial. The perspective was based on the overall opinion that many of the unit staff nurses on this particular unit had many years of experience and would not be open to additional training for precepting students. Additionally, when asked about the development of a tool to assess clinical reasoning of nursing students, she was opposed to having a tool. The participant expressed this opinion based on the concern that a unit staff nurse precepting a student for a short time may not: (a) get along with the student, or (b) have spent enough time with the student to evaluate the students' performance. This could result an evaluation of the student that was unfair or biased.

### **Evidence of Quality**

I was able to eliminate my own biases with careful attention to only using the transcribed findings with supporting quotations from participants. Bogdan and Biklen (2007) suggested that the data collected and transcriptions presents a much richer

description of thoughts and perceptions of the participants than any personal biases can conceive prior to a study. I took field notes and was able to crosscheck these with the transcribed interviews to verify the accuracy of the findings. Member checks allowed the participants to review the transcribed interviews and validate the credibility of the data collected during the interviews (Creswell, 2012). The participants had 3 days to review the transcribed interviews, and notify me of any needed changes that might misrepresent their opinions. No returned e-mail from the participants reflected that the transcribed interviews accurately represented their views and beliefs. Data triangulation was accomplished with a comparison of faculty and unit staff perspectives and crosschecked with field notes. Identifying discrepant data is part of the process of developing validity in a qualitative study (Maxwell, 2012).

### **Outcomes in Relation to the Study and Project**

The purpose of this qualitative case study was to explore the ability to evaluate students' critical thinking and clinical reasoning skills in the clinical setting from the perspective of both the faculty and unit staff nurse. As I interviewed both faculty and staff, it became apparent that often the nurses are very busy, patient care is a priority for the staff nurse, and trying to keep up with the assigned patient load is a priority over teaching students in the clinical setting. Teaching students is a secondary task for unit staff nurses, the majority spoke of being overloaded with patient care. When teaching does occur there is no consistency in how critical thinking and clinical reasoning are developed or assessed. The majority of the unit staff nurses interviewed for this study had

no training on precepting students and do not take part in the evaluation of nursing students in the clinical setting.

There was a distinct gap between what faculty and staff nurses define as critical thinking and clinical reasoning. Faculty gave rich illustrations in how they facilitated and assessed students' ability to think critically and how to facilitate clinical reasoning skills. Staff, in comparison, explained they did not routinely assess medical-surgical students in the clinical setting. These are significant findings as the nursing student spends the majority of her time with unit staff nurses during clinical rotations.

Faculty identified difficulties in having too many students as well as students assigned to multiple locations. Multiple clinical units make the logistics of faculty getting to spend quality time with the student facilitating the development of critical thinking and clinical reasoning with Socratic questioning and dialogue very difficult. It is essential for the faculty member, or the unit nurse, to use Socratic questioning and dialogue as teaching strategies because this is a fundamental approach in linking theory to practice in the clinical setting. Debriefing in the clinical setting and the use of Socratic questioning contributes to the development of higher order thinking skills in nursing education (Mariani, Cantrell, Meakim, Prieto, & Dreifuerst, 2013).

Based on the results of the data analysis, there is a distinct need for a shift in the paradigm of how students are assessed in the clinical setting. This new paradigm needs to be a dedicated educational unit that creates a learning environment conducive to teaching critical thinking and clinical reasoning to nursing students. Students spend the majority of their clinical hours with the unit staff nurses. In the current clinical model, the unit staff

nurses are not prepared to teach and assess students. Faculty are clearly the experts when it comes to facilitating the development of critical thinking and clinical reasoning skills of nursing students but are faced with logistical obstacles that make it impossible to spend enough time with each student. Once a partnership forms between the school of nursing and the hospital, a 3-day professional development program for unit staff nurses will be implemented. The dedicated educational unit will foster a better learning environment for students, build staff skills for facilitating learning in the clinical setting, and cultivate the development of critical thinking and clinical reasoning skills of nursing students.

During data analysis, Benner's novice to expert theory (1982) served as a theoretical basis for identifying gaps in the clinical education processes. The theory provided a basis to compare and assess current teaching and assessment activities in the clinical setting. A gap was identified among faculty and staff in defining critical thinking and clinical reasoning. The theory aided me in identifying barriers to teaching and assessing clinical performance. Without defining criteria, there is no consistency in how critical thinking and clinical reasoning is defined or taught among faculty and staff.

Faculty will work with unit staff nurses to establish criteria for evaluating critical thinking and clinical reasoning skills of the novice and advanced beginner. Clinical reasoning entails many activities and steps for the nurse to process information and is very difficult to manage without guiding criteria (Rose & Babajanian, 2016). The Tanner Model of Clinical Reasoning will serve to guide the professional development of the dedicated educational unit. It will help establish a common language for teaching and

assessing critical thinking and clinical reasoning. A unit dedicated to educational practices facilitates the development of students progressing from novice to advanced beginner in clinical reasoning (Rhodes, Meyers, & Underhill, 2012). The data analysis established the need for this shift in the educational processes of students. This professional development project to establish a dedicated educational unit founded on Benner's (1982) novice to expert theory will have a positive social impact on clinical education of nursing students.



### Section 3: The Project

#### **Introduction**

The primary goal of this qualitative case study was to explore how faculty and staff assess critical thinking and clinical reasoning skills of nursing students in the clinical setting. For this study, six faculty and six unit staff nurses who taught students in the medical-surgical clinical setting were interviewed. Semi structured interviews were conducted in order to gain an understanding of how both groups were similar and how they differed in their assessment of critical thinking and clinical reasoning skills of nursing students. The interview process allowed the participants to describe their perspectives, voice their concerns, make suggestions on how the student assessment process can be improved, identified staff training needs, and revealed the need for a new model of clinical education.

Data analysis from the interviews revealed themes which guided the development of the project. There were six themes identified: (a) lack of consistency, (b) faculty and staff clinical expectations of students, (c) barriers to clinical education, (d) faculty and staff differences in educational definitions, (e) faculty and staff comfort level with students, and (f) resources for clinical education. From these themes surfaced the evidence that helped identify a framework the professional development would be based upon. A 3-day professional development (Appendix A) was established to address the unit staff nurses' educational needs and guide the development of a dedicated educational partnership between the school of nursing and the hospital. Based on the assessment

needs from the themes, topics were chosen to guide the professional development and are as follows:

- Benefits of a dedicated educational unit
- Dedicated educational unit concepts
- Creating an educational workplace environment
- Staff development for the role of precepting
- Roles and expectations of participants

### **Project Goals**

The major objective for this project is to create a situation where faculty and unit staff nurses have a setting where student learning can occur in a supportive atmosphere to develop critical thinking and clinical reasoning of nursing students. There are three goals for developing a dedicated educational unit between the school of nursing and the hospital: (a) to bring awareness to all stakeholders on the benefits of a formed partnership for an exclusive dedicated educational unit, (b) educate unit staff nurses on becoming clinician instructors who are able to facilitate critical thinking and clinical reasoning skills of students in the clinical setting, and (c) develop a culture conducive to learning and collaboration. The development of a DEU is intended to provide better collaboration between faculty and unit staff nurses. Collaboration will offer more opportunities for faculty and unit staff nurses to identify priorities for teaching and assessing students in the clinical setting.

The proposed project will address the local problem identified during the data analysis. Strategies that focus on addressing the educational needs of unit staff nurses will

better prepare them to precept students in the clinical setting, develop critical thinking and clinical reasoning of nursing students, and ultimately impacting patient safety. A collaborative project between faculty and unit staff nurses will create an environment where the student's learning is a priority to both faculty and the unit staff nurse. The unit staff nurses will have training which will allow them to become comfortable and knowledgeable precepting students. The DEU will foster a positive culture on the clinical unit that embraces helping develop students as well as a staff of nurses who are confident in their role of clinician instructors.

### **Rationale**

Professional development is a universal and lifelong responsibility of all healthcare providers. Today's healthcare is becoming increasingly complex for nurses to navigate. Being an effective nurse and preceptor in the clinical setting requires nurses to pursue professional development (Pool, Poell, & ten Cate, 2013). To become an effective preceptor who can facilitate learning in the clinical setting requires additional training and an environment which fosters education. A clinical unit staff nurse might be an expert in the clinical setting, however clinical knowledge does not correlate to being an expert educator while precepting nursing students (Carlson & Bengtsson, 2015). As the data analysis from this study has shown, unit staff nurses do not have training in facilitating the development of critical thinking and clinical reasoning skills of nursing students. The current clinical model is burdened with barriers to the educational process that include: (a) students frequently changing clinical units, (b) students being on the unit a short amount of time, (c) faculty having students on a variety of clinical floors, (d) staff

nurses refusing an assigned student, (e) different nursing programs competing for clinical placements, (f) no consistency in expectations from faculty and nursing schools, (g) new graduate orientees taking up available clinical preceptors, and (h) no consistency between faculty and staff in the assessment and development of critical thinking and clinical reasoning of nursing students.

The most appropriate project will be to form a partnership with the school of nursing and the hospital to create a dedicated educational unit (DEU). By creating a DEU, the staff nurses will have professional development to teach critical thinking and clinical reasoning skills, develop skills to perform student assessments, improve communication with students, learn how to create an environment conducive to learning, and providing student feedback. This project will ultimately impact the development and assessment of critical thinking and clinical reasoning skills of students as the clinical unit and the unit staff nurses will be better prepared to facilitate student learning in the clinical setting.

### **Literature Review**

The purpose of this qualitative case study was to explore the ability to evaluate students' critical thinking and clinical reasoning skills in the clinical setting from the perspective of both the faculty and unit staff nurse. Literature searches were conducted using databases, which included: EBSCO, CINAHL, MEDLINE, ERIC, ProQuest Central, and outside sources which included Google Scholar. The key concepts and topics which yielded the most results were *clinical education and nurses*, *clinical environment*, *positive nurse role models*, *educating clinical staff nurses*, *teaching in the clinical setting*,

*clinical education, dedicated education units, clinical education, and frameworks for clinical education.* The literature review was organized around the topics, which yielded the most information relating to data analysis and barriers in the assessment of critical thinking and clinical reasoning of students in the clinical setting.

The clinical environment where nursing students work side by side with registered nurses is a difficult and changing environment as identified in the prior literature review Section 1. Through the data analysis, I was able to identify barriers and inconsistencies in how nursing students are assessed in the clinical setting. O'Brian et al. (2014) found that only about a third of unit staff nurses in the clinical setting received formal training for being student preceptors. Lack of training in educational methods makes the time students spend in the clinical unit less of a learning experience and often more observational for the nursing student (Hilli, Melender, Salmu, & Jonsén, 2014).

Professional development can address this gap in knowledge and create an environment conducive to teaching and assessing critical thinking and clinical reasoning. Furthermore, there is a need for clinical staff nurses to have professional development in the area of clinical instruction, methods of assessment, and the theoretical basis for teaching nursing students in the clinical setting (Seibert, & Bonham, 2016). Professional development can enrich the interactions between the nursing student and the unit staff nurse. Training unit staff nurses is an essential part of how students are taught in the clinical setting, ultimately impacting how nursing students are integrated into hospital and the culture of the clinical unit (Cotter, & Dienemann, 2016).

### **Creating a Positive Culture**

Creating an atmosphere that is both well-structured and accepting of students is another area that can be enhanced by professional development. The hospital environment creates high levels of stress for unit staff nurses (Danque, Serafica, Lane, & Hodge, 2014). Nursing students are at risk for experiencing incivility which creates stress and is detrimental to student learning in the clinical setting (Babenko-Mould & Laschinger, 2014). Having professional development that addresses incivility helps unit staff nurses and unit managers to develop an environment that is beneficial for student learning and able to nurture the development of critical thinking and clinical reasoning skills (Laschinger, Wong, Cummings, & Grau, 2014).

Establishing the unit environment should originate with administration and unit staff managers. Twigg and McCullough (2014) identified the creation of nursing units that were student friendly begin with the support and leadership from unit managers. Tanner (2006) asserted that nurses base their clinical decisions partly based on the environment and influence of the culture of the unit. Socialization of nursing students with a welcoming atmosphere in the clinical unit makes students feel safe to learn and helps to prepare them for professional practice (Del Prato, 2013).

### **Educational Needs of Staff**

Providing student feedback can be challenging for unit staff nurses. Nursing students identified the ability to give constructive feedback to be one of the most identified and sought after characteristics of unit staff nurses functioning as clinical instruction (Esmaili, Cheraghi, Salsali, & Ghiyasvandian, 2014). Professional

development is needed to educate unit staff nurses on evaluating and providing student feedback in the clinical setting (Kang, Chiu, Lin, & Chang, 2016). A critical component to a successful clinical unit where nurses act as preceptors is highly trained unit staff nurses who can socialize and efficiently teach and assess nursing students (Mann-Salinas, 2014). Professional workshops are ideal for unit staff nurse preceptors to gain valuable skills to improve collaboration with nursing schools. Nurses who attended professional workshops for the development of precepting skills found the training highly beneficial in future interactions with nursing students (Jeffries et al., 2013).

### **Barriers to Professional Development**

A component to professional development involves identifying barriers to individual participation. Interviewing and talking to staff is one piece of the puzzle to discovering why unit staff nurses are reluctant to participate in professional development. Seeking input from unit staff nurses is a technique that can help deconstruct resistance to professional development (Lee & Daugherty, 2016). Gaining stakeholder buy-in can be accomplished through presentations of research-based information that supports professional development and organizational changes (Bressan et al., 2016). Bressan et al. further identified that bringing awareness to nurses and encouraging collaboration could have a positive impact on how hospital staff viewed changes.

### **Conceptual Framework**

The Tanner (2006) model of clinical judgment will be used to guide this professional development project. The model describes the four stages, or levels, in the development of clinical judgment. These four phases illustrate the major components of

clinical judgment associated with the patient care setting. The main concepts are noticing, interpreting, and responding to changes in the patient's status. These are followed by the fourth step, the thinking-on-action skills using reflection after responding to the situation (Lasater, 2011). The four steps form the basis of clinical reasoning in the professional practice setting. Assessing nursing students' knowledge at each phase is important for establishing growth and identifying gaps in knowledge. With these assessments, teaching strategies can be developed for unit staff nurses, which focus on how to develop and assess clinical reasoning and critical thinking of nursing students in the clinical setting.

The Tanner model of clinical judgment establishes the background of why clinical judgment requires critical thinking and clinical reasoning skills and illustrates how clinical reasoning and critical thinking is a very complex phenomenon (Cappelletti, Engel, & Prentice, 2014). Noticing is the first concept in Tanner's model and is a key foundational concept in the clinical nursing model where pattern recognition begins (Appel, Wadas, Talley, & Williams, 2013). The patient is in a constant state of change and has the potential to decline rapidly. Without the nursing process, unit staff nurses are more likely to miss relevant cues and make appropriate decisions related to patient care (Kalisch, Tschannen, & Lee, 2012). Assessment is the first concept in the nursing process and begins with the nurse's ability to observe signs and symptoms that the patient is experiencing as well as identifying failure of the patient to exhibit expected clinical manifestations.

Noticing is a nurse's ability to make appropriate observations, to recognize actual and probable patient problems, to intercede, and to prioritize care. To do this effectively,



the nurse must be competent in her decision-making ability (Tanner, 1987). A nurse's ability to utilize noticing effectively, meaning the ability to recognize the smallest signs and then analyze and interpret the signs, varies with the clinical practice setting. The background and experience that the nurse has, as well as in what context the nurse is caring for the patient, play an important role in how the nurse responds to changes in patient acuity (Dillard et al., 2009). Noticing involves identifying verbal and nonverbal cues from the patient. This is a fundamental ability that leads to nurses developing intuition over time, which is a foundation to establishing clinical reasoning skills (Benner & Tanner, 1987). Experienced nurses who work in the same units over time are more likely to draw on knowledge that is specific to that unit, and this experience enables the nurse to be more aware of changes in patient acuity (Victor-Chmil, & Larew, 2013). This is a skill that nursing students need expert facilitation with in the clinical setting.

Interpreting is the second step in the model and entails deciphering what was noticed during the first phase. Nursing care is based on how this information is processed and interpreted (Gerdeman, Lux, & Jacko, 2013). The nurse's ability to notice a change in a patient's medical condition and then determine what actions are most appropriate is paramount to safe nursing practice (Tanner, 2006). This process is done over and over again by the nurse every day in the clinical setting and sets the foundation for developing clinical reasoning skills. Over time the nurse is able to begin to see and recognize patterns in patients' behaviors and response to treatment. A novice nurse struggles with interpreting and relies on experienced nurses and faculty to guide them through the process (Robert, Tilley, & Petersen, 2014). The nursing students are bound by limited

experience and rely on textbook examples as they lack clinical reasoning skills (Benner, 2004). The expert nurse can quickly process and interpret numerous sources of information, including the patient and the environment, and simultaneously make decisions in regards to patient care (Payne, 2013).

This process results in the third step of the decision making model and it is referred to as the responding stage. Responding is where the nurse has interpreted the signs and symptoms from the patient and then makes critical decisions in regards to the nursing care (Kelly, Forber, Conlon, Roche, & Stasa, 2014). This process can range from simplistic to very complex decisions. In order to make correct decisions concerning patient care, the nurse must use comprehensive clinical judgment (Cappelletti et al., 2014). For nursing students, decision-making at this level requires expert guidance as the students lack the competency to demonstrate comprehensive clinical judgment. The Tanner (2006) model of clinical judgment “provides language to describe how nurses think when they are engaged in complex, undetermined clinical situations that require judgment” (p. 209).

Reflection is the fourth stage of the Tanner model of clinical judgment. Reflection in the clinical setting involves the nurse evaluating clinical decisions after they are made in regards to patient care. The experienced nurse makes links between clinical decisions, theory, and research during reflection (Nielsen, Stragnell, & Jester, 2007). Reflection is often used in the clinical setting for evaluating student performance and the faculty member is usually the catalyst to help bridge the gap between clinical decisions and theory. The process of reflection facilitates nurses and nursing students making sense of

practice (Asselin, Schwartz-Barcott, & Osterman, 2013).

The Tanner model of clinical judgment will create a common language to assess student critical thinking and clinical reasoning by faculty and unit staff nurses. As this model is comprised of established stages of clinical judgment, it will serve as a common language that faculty and unit staff nurses should be using as a guide for consistency in evaluating the nursing student's ability to use clinical reasoning skills and critical thinking in the clinical setting.

Making decisions about patient care in the clinical setting is based upon the development and use of critical thinking and clinical reasoning skills (Mariani, Cantrell, Meakim, Prieto, & Dreifuerst, 2013). Intuition is a process established on experience in the clinical setting where the nurse has a feeling that something is not quite right with a patient and acts on this intuition by initiating the nursing process (Cork, 2014). The Integrative Model of clinical judgment is a circular process where the nurse or nursing student cycles through various stages of clinical reasoning (Tanner, 2006). This cycle ends with the process of reflection and once this step is complete, the process may begin again. Over time the nurse develops increased competency in critical thinking and reflection and develops a deeper meaning while cycling through each of the four phases.

The complex critical thinking stages are composed of context, background, and the relationship of a nurse or nursing student to the issue or patient. Each of the stages impacts how the nurse or nursing student responds to the four phases of clinical judgment. The first phase of noticing begins with the nurse's expectations. At this stage, the nurse has an initial understanding of what is happening with the patient and is

beginning to look for changes in the patient's acuity. Second, the nurse is interpreting the data. This is supported by the building blocks of recognizing reasoning patterns, analysis and intuition, and the use of narratives to help interpret the data. The third step occurs with responding with an action which leads to outcomes. The last stage, reflection on actions, facilitates a deeper analysis of how the data was interpreted. This stage leads to critical thinking and clinical reasoning which, over time, sets the stage for how a nurse views the patient in all aspects of context, background, and relationships. As time and experience progresses, the nurse becomes more adept at all of the processes. Early introduction of these concepts will help nursing students develop clinical reasoning skills. Furthermore, being able to consistently assess these skills will help to define the areas for needed growth and development (Tanner, 2006)

Tanner's model of clinical judgment provides a common, and identifiable language that faculty and unit staff nurses are familiar using in the classroom and daily practice. Tanner's model can be used to guide the language and expectations of nursing students from the beginning stages of critical thinking to advancement into clinical reasoning (Kim, Kim, Kang, Oh, & Lee, 2016). Kim et al. (2016) further described how Tanner's model is useful in setting up the context in which the nursing process can be broken down for the student and the unit staff to comprehend clinical expectations during each phase. Rhodes, Meyers, and Underhill (2012) further supported the use of Tanner's model of clinical reasoning as a comprehensive model for teaching in the clinical setting as it uses the expert nurse to guide the learning processes of the novice nursing student. A DEU founded on this model can serve to provide the basis of essential learning

experiences, engage the student in a variety of learning scenarios appropriate for each level, and the model is designed with a strong foundation of critical thinking and clinical reasoning.

### **Dedicated Educational Unit**

The nursing student experiences a wide variety of clinical placement, sometimes with little consistency in how they are precepted and taught from clinical unit to clinical unit (Bisholt, Ohlsson, Engström, Johansson, & Gustafsson, 2014). The clinical setting is a key component to teaching the nursing student clinical reasoning skills. In a study done by Benner, Sutphen, and Day (2010), students from multiple teaching institutions were interviewed and the students identified one key aspect in the ability to learn how to think like a nurse was lack of immersion into the clinical setting. One of the shortcomings of clinical experiences is that students rotate facilities and clinical units. This creates tension for the student and staff members, as both parties do not know each other or the learning expectations.

Nishioka, Coe, Hanita, and Moscato (2014a) found that traditional units where students rotate do not allow a chance for students and preceptors to develop a working relationship (p. 295). This produces a situation where the student is constantly starting over every time he or she begins a new clinical rotation. Students find that the clinical experience is often correlated with how well a unit staff nurse does or does not enjoy having a student nurse assigned to them for the day (Nishioka, Coe, Hanita, & Moscato, 2014b, p. 303b). Due to these circumstances the student never gets comfortable in the clinical setting and cannot focus on developing clinical reasoning skills. Clinician

instructors (CI) working in a DEU have the opportunity to promote clinical reasoning skills during daily interactions where the clinical instructor (CI) can give constructive and formative feedback (Nishioka, 2014a). Chan (2013) identified that in order to develop clinical reasoning in the clinical setting students need “autonomy and empowerment” to work towards good clinical reasoning skills (p. 23).

Nursing programs have an obligation to identify best practices and explore innovative teaching strategies that promote critical thinking (Burrell, 2014). A key goal for instructors teaching in the clinical setting is to promote the growth of clinical reasoning skills of the student (Alfaro-LeFevre, 2015). This is done by personal one on one dialogue in the clinical setting where the CI and faculty instructor use a variety of teaching strategies to better develop critical thinking and clinical reasoning skills. The CI has advanced training in the role of adult learning theories, teaching, assessment strategies, and handling difficult and challenging students in the clinical setting (Reid, Hinderer, Jarosinski, Mister, & Seldomridge, 2013).

Teaching in a DEU allows for a personalized educational experience for nursing students. Clinician instructors working with the same students for multiple clinical rotations can identify how a student learns in the clinical setting. Some students are hands-on learners while others may learn better by watching a nursing action multiple times before trying a skill. Due to the dynamic shifts in today’s healthcare setting, nurse educators are looking for teaching strategies that can improve critical thinking (Kong, Qin, Zhou, Mou, & Gao, 2014). Problem-based learning (PBL) taught in the clinical setting has the potential to develop critical thinking of nursing students. Learning in the

clinical environment utilizing PBL engages students by self-directed exploration of data and situations (Martyn, Terwijn, Kek, & Huijser, 2014). Learning in this fashion helps establish patterns for critical thinking, which are fundamental to the novice nurse. This style of learning is student-centered learning and is an influential tool in the development of critical thinking and clinical reasoning (Martyn et al., 2014).

Using DEU and staff nurses to foster PBL in the clinical setting creates a learner centered environment for nursing students and can be tailored for a diverse student population. Experiential learning is associated with education in the clinical setting. Experiential learning is very applicable to any discipline that has a clinical component because it has the development of knowledge, skills, and behaviors that are important to learning patient care (de Oliveira, 2015). Working one-on-one in a consistent setting allows for the CI to identify the nursing students' style of learning and tailor their educational experience. Identifying the learning strategy of the nursing student and then aligning that with a particular style of learning impacts the student's abilities to think critically in the clinical setting (Seibert et al., 2016).

Role modeling is an identified form of teaching in the clinical setting as the CI is constantly modeling clinical reasoning skills. When a student has the opportunity to work with the same CI, the student is able begin to identify patterns that the unit staff nurse does routinely, which is clinical reasoning, while making decisions in regards to patient care throughout the clinical day. A student centered clinical unit that is designed to offer consistency in keeping students paired with the same unit staff nurse found students favored this learning environment over the traditional model of rotating preceptors and

unit staff preceptors (Jefferies et al., 2013).

The DEU will exist between one nursing school of education and one hospital system with designated units for clinical rotations. The use of expert CIs to teach in the clinical setting with a dedicated faculty member overseeing the learning environment is how a DEU is designed to function (Freundl, 2012). With this design teaching and evaluation strategies implemented by the CI can be tailored to meet the learning goals of the school and the individual nurses. This project creates an environment where both faculty and staff will work towards evaluating critical thinking and clinical reasoning with the same criteria and learning goals.

## **Project Description**

### **Stakeholders**

The stakeholders in this project include the faculty members from the university as well as the nursing students and future employers, such as representative from a local hospital. The stakeholders are the primary people from both institutions who contribute input during planning (Cafferella & Daffron, 2013). The faculty member is responsible for creating a learning environment conducive to teaching clinical reasoning and to create a learning environment that fosters the development of clinical reasoning. Stakeholders are chosen based on breadth of experience and knowledge, as well as having a motivation and ability to express opinions that can affect a given situation (Addington et al., 2014). As a stakeholder, the learner brings to the table the responsibility of coming to the clinical unit prepared to engage in the learning process and to contribute to caring for patients and to participate in critical reflection, which is part of the Tanner model of



Clinical Judgement. Finally, the university itself has a vested interest in producing students who can pass the National Council Licensure Exam (NCLEX) required for nursing students in order to become a licensed nurse.

### **Existing Project Support**

**Faculty.** The medical-surgical faculty from the school of nursing are experts in the assessment and development of critical thinking and clinical reasoning of nursing students. The faculty will be available to help host the 2 day in-person training sessions and will serve as preceptors during the second 4 hours of Day 1 training. This will be scheduled individually during month 1 of training. Faculty will participate in breakout sessions and help lead discussions during both days of in person training.

**Hospital administration.** The hospital is a facility which supports research and professional development. They will offer support to the clinical directors and unit managers and offer an incentive for the unit staff nurses who commit to being part of the new DEU. The incentive plan will be designed by the hospital once the concept of the DEU has been described and introduced to the unit staff nurses. The hospital administration will agree to provide resources for the professional development such as space, and computers for the on-line training sessions if the unit staff nurse does not have access to a computer.

**Space.** The professional development will be hosted by the hospital education department. The hospital has a large array of classrooms available as they host educational events and support group meetings on a daily basis, as well as professional development for physicians, and staff in all departments. There are classrooms that can

host up to a hundred participants. There is an array of technology in every classroom for presentations and enough space to do breakout sessions for the in-person staff training days. There is also an onsite cafeteria and catering service which will provide a catered lunch for both days of training.

### **Potential Barriers**

The first source of resistance might come from other faculty members and unit staff nurses who might not approve of establishing a DEU. The hospital administration could offer resistance and criticize the fact that there are too many nursing schools within the metro area to make one floor an exclusive DEU for one school of nursing. Students might complain they are not gaining enough experience in multiple hospital settings which could negatively impact potential job placement upon graduation.

An additional obstacle which might prevent the formation of a DEU is hospital leaderships' fear of excluding other nursing schools. Faculty may criticize that students need a greater variety of clinical experiences in an array of clinical units and hospitals. Another potential barrier could come in the form of unit staff nurses not wanting to commit to taking a front line role in educating students in the clinical setting.

### **Solutions**

There are a variety of strategies to address each of these obstacles. In the process of making changes in the clinical setting there should be professional development to help transition the unit staff nurses. Professional development that can address faculty attitudes and beliefs is an integral part of facilitating a change that involves technology (Ertmer, Ottenbreit-Leftwich, Sadik, Sendurur, & Sendurur, 2012). Assuring stakeholder

buy in before establishing a DEU will assure there is limited resistance from faculty, and hospital representation. The process of buy in from faculty and unit staff nurses could include brainstorming and educational sessions on the benefits of establishing a DEU. Establishing dialogue with the hospital administration could help identify clinical units outside of the DEUs which may be used by other nursing schools. This process would help eliminate bias and allow the hospital to still serve the large community of schools of nursing. Finally, having meetings with the students and listening to concerns allows for faculty to present students with evidence-based practice to support participation in a DEU. The same concept also applies to involving the hospital in early planning and development meetings. The first step is to obtain buy-in from the important constituents by strategically selling the concept to key members of leadership across an institution (Gardner et al., 2015).

Faculty rebuttal about students exclusively attending clinical rotations within one hospital's DEU could be addressed by referring faculty to the National League of Nursing's call for the transformation for teaching nursing students in the clinical setting. By doing this, it clearly reiterates the importance of designing new clinical experiences which will provide a richer learning environment for students. The greatest barrier is perhaps unit staff nurse's resistance to picking up what is perceived as an additional assignment to nursing duties in the unit. Gaining buy-in from the unit staff nurse must include dialogue and presentations on how nursing students can positively affect the clinical unit, and improve patient care

### **Implementation**

In order to implement and establish the DEU, I will first meet with stakeholders to present my research findings. Once all stake holders have agreed to developing a DEU, I will then identify and implement a project timeline. Meetings will be held over the course of several weeks with faculty from the school of nursing, hospital administrators, as well as the hospital education department. Once all stakeholders have agreed on proceeding to develop the DEU partnership I will work with the hospital education department to coordinate meetings with unit directors and floor managers. This meeting will help me identify the total number of unit staff nurses to be trained. Next, I will work with the floor managers to establish the dates for training and the most efficient way to incorporate nurses from every shift.

As training will involve multiple shifts, I will offer a 4-hour online module and post-test for the first month. The nursing staff will be given 30 days to complete the online module. The education department will review, grade, and track completion of the online module. Additionally, the unit staff nurse will be required to shadow a medical-surgical faculty member for four additional hours and journal about this experience. I will review journal entries which will be submitted online. In the second month, I will then offer the second day of training, an eight-hour class that nurses will be required to attend in person. There will be two classes offered each week for 2 weeks with a Saturday option for training. In the third month, I will have the final professional development day. This will be offered in the same format as the second class. After all unit staff nurses have completed training, I will spend the rest of the clinical semester working with

faculty, unit directors, and managers to map out project implementation the following semester. Once this is complete the DEU will launch the following semester.

### **Roles and Responsibilities**

Collaboration between staff nurses, administrators, and faculty members will be the key to a successful educational program. All entities will ensure that the program aligns with the hospital mission and the nursing schools mission.

#### **Faculty Members**

The faculty members will contribute input to the development of the DEU, and assist with staff training and implementation, budget considerations, and training staff. The faculty members bring over 40 years of nursing educational experience. Specifically, they bring teaching and designing learning experiences and student assessment to the professional development project. The faculty members will give direction and input for the educational materials used in training the CIs in their new roles. Faculty members will also help with the in-person training of unit staff nurses and will precept them during training. Once the project is implemented in the clinical setting, faculty members will ensure that the student is receiving feedback from the CI. They will be available to the CI to address any questions or concerns in regards to student clinical performance and evaluation during clinical rotations. The faculty member will also be responsible for working with the hospital education department to develop future CI training.

#### **Administrators**

Hospital administrators will choose the unit to be developed into a DEU, supply conference rooms for training, and provide an incentive for CI to participate in the DEU.

The administrators have the overall hospital management skills to support the program and unit staff nurses, as well as the assets to support the instructor. The administrators will be on-site during training programs, will assure the CIs are supported during the training process, and make certain the faculty instructor has the facility resources for training: conference rooms, blackboards, computers, and any other electronic resources. Administrators will be available during the implementation phase. Administrators will monitor the transfer of learning and will have the ability in the post-program analysis to identify any perceived gaps in the transfer of learning. They will enforce any additional training the CI must attend if there is an identified lack of transfer of learning during implementation.

### **Instructor**

The instructor develops the final training material and schedules training sessions with the hospital while organizing resources within the hospital system. Additionally, she will run training sessions for all CIs and oversee additional faculty who participate in the professional development program. The instructor will be responsible for facilitating communication between the CI and faculty members in charge of student clinical rotations implementation of the online course, and overseeing the in-person training sessions. The faculty instructor will be available during clinical rotations to support staff and unit managers and directors.

The instructor unites the whole program, ensuring all participants are supported and have all available resources. She is responsible for the development of the DEU, continued collaboration with the hospital education department for continued CI

development, selecting student participants for the first semester of implementation, and collecting feedback from the CI, the unit directors, and floor managers. The instructor will be available to address any concern from stakeholders. She will supply all training material including didactic materials, hard copies, and flash drives. Additionally, she will be responsible for the transfer of knowledge by delivering content to the CIs in a variety of formats including the online professional development with a power point, role-playing, and facilitating faculty led group work during the in-person training sessions.

### **Clinician Instructors**

In their new role as a CI, unit staff nurses will contribute to the development of the DEU, be responsible for attending training sessions to learn about student assessment and the role of a clinical educator, and precept students during clinical rotations. Unit staff nurses are proficient in clinical nursing and bring knowledge of patient management, clinical reasoning skills, medical knowledge, and specialized clinical expertise to the program. The new CI will be responsible for filling out evaluation forms, turning in evaluation forms to the instructor provide feedback to the nursing student regarding clinical performance, and communicate student performance to the assigned faculty member(s). The CI will take responsibility for transfer of learning in regards to becoming a clinical educator on a DEU. Post program analysis will allow the CI to identify any gaps in transfer of learning.

## **Project Evaluation**

### **Summative Evaluation**

The establishment of a monitoring process assures that the professional development goals and objectives are being met. Monitoring is important for troubleshooting and solving issues to assure the professional development is a success. Part of the solution to identifying and solving issues is “being willing to be flexible in where, how, and when you provide the instruction” (Caffarella & Daffron, 2013, p. 190). It is crucial to the stakeholders to receive feedback during the assessment process to gain insight for planning future professional development. A paper copy of a Likert survey and open-ended questions will be used to evaluate the professional development program. The professional development evaluation will be used to judge the success of the training, gather information in regards to instructor performance, and capture the participant’s perspective of the learning process. Following the first semester after implementation of the DEU, data will be gathered from hospital administrators and faculty group interviews. The data will be used for developing future professional development programs for the CI’s.

### **Formative**

Monitoring during the implementation of the DEU will allow for quickly identifying problems and resolving issues as they occur to determine if the participants are transferring knowledge to daily practice. Maintaining open communication between all participants during DEU implementation is critical for a cohesive working environment that allows for adaptation and change. Specifically, during implementation,



the instructor will facilitate communication between unit staff nurses and faculty members as well as the hospital administrators. The instructor will be responsible for monitoring learning outcomes and transfer of learning, collecting assessment data, and keeping track of issues that arise during program implementation. Moreover, the instructor will meet with hospital administrators and faculty each semester to discuss issues associated with the DEU.

Formative monitoring will continue over the course of the following semester during implementation to ensure the transfer of learning. Initial data will be analyzed and presented by the instructor to faculty and hospital administrators. Meetings will be held monthly between stakeholders to discuss program modifications and the instructor will be the point of contact and serve as the facilitator between all stakeholders.

### **Overall Goals and Evaluation of Goals**

The findings from this research study revealed a gap in how students are assessed and taught by faculty and unit staff nurses in the clinical setting. A literature review informed that a partnership to form a DEU would address the barriers identified during data analysis. In order to form a DEU, unit staff nurses need to attend a 3-day professional development course. The first goal of evaluation is to determine how the participants perceived the 3-day professional development course. Specifically, how well the training addressed learning preferences and if the training prepared them to be clinician instructors in the DEU needs to be known. The second evaluation of goals will be done post DEU implementation and will assess hospital administrations' perspectives

on how the DEU has impacted the hospital, the staff RNs, and the new graduates who are hired by this organization.

### **Stakeholders**

The stakeholders are the primary people from both institutions who contribute input during planning and who have a stake in the program (Cafferella & Daffron, 2013). The faculty and hospital staff members are responsible for creating a learning environment conducive to teaching clinical reasoning that fosters the development of clinical reasoning. The stakeholders involved in this professional development project are the school of nursing, faculty, hospital administration, unit managers, unit directors, CI's, and students. Both institutions strive to develop nurses who think critically and excel at clinical reasoning when caring for patients. The school of nursing has the focus of educating new nurses, and the hospital, as a major entity in the community, has the responsibility to offer the highest level of safe patient care.

### **Implications**

The proposed program joins the expertise of both faculty and unit staff nurses into a partnership, which can enhance the educational process of nursing students in the clinical setting. This program will educate unit staff nurses on developing and assessing the critical thinking and clinical reasoning ability of the nursing student. The proposed professional development will create an exceptional clinical unit with a high level of focus on education nursing students in the clinical setting. Improved teaching and assessment of clinical reasoning skills in a DEU will serve to better prepare nursing students to enter practice with an increased level of safe patient practioners. An

established relationship between students and the dedicated educational unit will allow for the hospital to recruit and retain nursing students who are a good fit for the institution.

### **Conclusion**

The results of this study indicated that in order to provide more comprehensive and unified assessment and teaching of clinical reasoning skills of nursing students a partnership needs to be formed between the university and the hospital. From this partnership, there would be the formation of a DEU where students would spend their medical surgical rotations for two semesters. The formal training the unit staff nurses will receive from the professional development program will allow the new CIs to better facilitate and evaluate critical thinking and clinical reasoning skills of students. The formation of the DEU it will take the guesswork out of what level of student the nurse is working with and will allow nurses to become very familiar with student learning objectives. Being in the same clinical unit will foster students to develop relationships with the CIs. By having these established relationships, it will facilitate the students to focus more on learning critical thinking and clinical reasoning skills than continually trying to adjust to a new clinical setting. Continued monitoring of the DEU, once it is implemented, will allow for stakeholders to identify and work through any issues and provide additional training for the clinical unit.

## Section 4: Reflections and Conclusions

### **Introduction**

There is a national call for nursing education to advance educational paradigms to meet the needs of a diverse healthcare environment and for these changes to be established thru research by doctoral prepared faculty (Schnetter et al., 2014). Preparing nursing students who are better equipped to step into this diverse healthcare environment is a priority of nursing programs at the local, state, and national levels. Identifying ways to better prepare nurses to think critically and be better prepared was my goal when beginning this journey. In Section 4, I identify project strengths and limitations as well as make suggestions for alternative approaches to the local problem identified in this case study. This section includes a description of my personal journey of scholarship, leadership, and change. I also reflect on myself as a practioner, scholar, and as a project developer. I identified the potential social change this study can influence, and made recommendations for further research projects.

### **Project Strengths**

The strength of this project is it provides a solution to a local problem of inconsistencies between faculty and unit staff nurses in the evaluation of critical thinking and clinical reasoning of nursing students. There is a call for nursing educators to research and to develop solutions to educational challenges within nursing education (Broome, Ironside, & McNelis, 2012). Through a qualitative case study design, nurse and faculty perceptions were explored and a variety of reasons were identified contributing to inconsistencies in how critical thinking and clinical reasoning skills were assessed and

taught in the clinical setting. After carefully analyzing the data, a solution was developed and a professional development program was organized to address the data findings, which were leading to inconsistencies in student assessments. Current researchers addressed the need for consistency in how nursing students are taught and evaluated in the clinical setting (Papathanasiou, Tsaras, & Sarafis, 2014).

The strength of this project came out of the formation of a partnership to form a DEU and the resulting professional development of unit staff nurses to create a consistent environment for students to develop critical thinking and clinical reasoning skills. The formed partnerships between schools of nursing and clinical units encourages the unit staff nurses to become more involved in the education of nursing students who they precept on their clinical units (Beal, 2012). It further gives students a chance to become comfortable in their learning environment and focus on learning in the clinical setting. The DEU creates an environment where student centered learning, as well as patient care, is a primary focus. Another strength of this project is the support from all stakeholders on both sides. Buy-in from the stakeholders creates a stronger environment for project success as backing is gained from many participants (Gold, McLaughlin, Berenson, & Bovbjerg, 2012).

### **Addressing Limitations**

The limitations from this study in regards to the proposed project comes in the form of limiting the use of clinical units for only one school of nursing. As there are numerous nursing schools in the metro and surrounding communities, it creates limited space for students to do clinical rotations. Although buy-in from stakeholders will be

favorable for the duration of a pilot semester, it may be difficult to maintain an exclusive DEU for one school of nursing. Another limitation concerns how well unit staff nurses embrace becoming clinician instructors. In order to become comfortable and efficient in this new position it will take more than one semester to develop solid teaching and assessment skills and combine this role into the role of a unit staff nurse.

The unit staff nurse may not be open to participating in the professional development program or desire to have additional responsibility for teaching and assessing students in the clinical setting. Students have varied personalities and may or may not fit into the environment of the assigned clinical unit. If there is dissention among the students and clinical staff it could limit the success of the newly formed DEU.

### **Alternative Approaches**

There are a few alternative methods that could have been considered for this project. One such method would involve keeping the professional development to an online format. Moreover, the professional development would not involve the development of a DEU. With this format nurses would not have an opportunity to collaborate and apply what they had learned in the online environment. Pool et al. (2013) identified other forms of nurses undertaking professional development via reading professional journals, and learning from colleagues or formal learning activities (p. 41). Pool et al. further described that nurses in his study were surveyed, and they preferred a variety of learning methods dependent upon experience and influence from coworkers. Knowles (as cited in Merriam, Caffarella, & Baumgartner, 2007) described the adult as being self-directed and able to contribute to decisions in regards to his or her learning

needs and experiences as well as the evaluation of those experiences. By using a variety of learning strategies, I am meeting the needs of the adult learner. This project involves an online module, and in-person training that includes group work as well as role-playing among the unit staff nurses and faculty.

### **Scholarship**

Throughout the journey of my EdD program I have developed the needed skills to implement the scholarship of research. My scholarship skills are just forming at this stage and will take years to refine. I have learned a tremendous amount during this rigorous process and feel confident that I can move forward in nursing education and replicate these steps and produce and implement a project based upon what I have learned from this study.

An important part of my scholarship journey was the development of research and discovery. The process of identifying a local problem and writing it up in a scholarly manner, and finding supporting literature on a broad scale was a very difficult process that took considerable refining. Scholarship in nursing education needs to identify and develop educational strategies to address the call for educational reform (Nardi & Gyurko, 2013). Developing a literature review to round out and support the different pieces of the local problem and problem on a larger scale was daunting. However, being able to finally narrow down and define the contributing factors related to the problem was a challenging and rewarding experience. The practice of analyzing the data and discerning the broad themes to the most important findings was also a difficult task but one which I am able to walk away from and identify as a personal strength.

### **Project Development**

The professional development and project design was a part of the scholarship journey that I felt confident in developing. I chose to address the problem with professional development as it directly addresses the identified gap in how to teach nursing students and assesses critical thinking and clinical reasoning in the clinical setting. This professional development involved creating a partnership to serve the clinical education of the nursing student. The training addresses the research findings by equipping the unit staff nurses to be frontline leaders in the educational process of teaching critical thinking and clinical reasoning skills. It creates a centralized location, which addresses a multitude of barriers identified during data analysis.

The online portion of training allows the unit staff nurses to gain an understanding of the language associated with teaching students in the clinical setting. As this is an online platform, it allows nurses to access and engage in the training at their own place and at a convenient time. Online learning offers the student an instructor moderated experience with the ability of individual and group learning (O'Neil, Rietschel, & Fisher, 2013). The in-person workshop offers training from faculty members who are expert clinical educators and who are passionate about developing clinician instructors (CI) that influence the learning of nursing students in the clinical setting. The nurses are inspired and learn role-playing techniques that are applicable to their new role in a DEU. The role-playing workshop also features sessions which allow the unit staff nurses to interact with faculty and ask questions. Role-playing offers participants a variety of opportunities to act out potential scenarios and provide solutions before encountering real-life situations



(Lee, Cawthon, & Dawson, 2013). Providing role-playing and a question and answer time permits the unit staff nurses to work through their concerns prior to implementation.

The active learning strategy engages the adult learners and keeps them engaged in the learning process. This allows the adult learners to bring their life experiences to the learning process. Knowles (as cited by Merriam et al., 2007) described the adult as being self-directed and able to contribute to decisions in regards to his or her learning needs and experiences as well as the evaluation of those experiences.

By working on each phase of the project, it allowed me to think through the phases of role developer and participant. The process of researching a problem and seeing it through with a project that offers a very tangible solution is empowering. From this experience, I will look at all of my future research projects with a fresh perspective and continually look for ways to implement a solution based on the findings from data analysis.

### **Leadership and Change**

My research focused on critical thinking and clinical reasoning, which are integral to nursing education. This experience has allowed me to impact a social change on a local level. I have a fresh perspective about how educational changes need to begin on a local level, influence a state transformation, and then broadened to a national level. Although I do not carry a high rank in my educational setting, I have seen the potential of how I can influence change. I can do this through research and develop a project that can accurately address the educational change nursing leaders have been calling for on a national level. Foli, Braswell, Kirkpatrick, and Lim (2014) found that leading and developing a project

while in school developed leadership skills that can carry over into practice. The development of the project has shown me that I am a leader and that I am capable of initiating educational changes in nursing education at a local and community level.

### **Analysis of Self as a Scholar**

My doctoral journey began with a friend referring me to Walden University's EdD program during a summer clinical we were coteaching. With an e-mail confirmation of my acceptance to the program, my journey began 3 years ago. As a first generation college student, I was proud to have completed an MSN in Nursing Education. I was able to attend my master's program in person and had a small support group that encouraged my growth and development. However, I never considered my ability to achieve a doctorate, nor I did not think of myself as a scholar.

I was terrified of an online program. I was quickly immersed into a professional environment where scholarship was taught from day one. Each paper and discussion post helped me develop into the scholar I am today. Furthermore, this journey has equipped me to continue to grow and develop as an educator. It has taught me that a person must never be finished learning and must always have self-analysis of scholarship as a teacher and a researcher. The immersion into this study has made me aware of numerous other issues facing nursing education in and out of the clinical setting, which we must begin to address as nurse educators. When I complete this study I have plans in place to enter immediately into another study with one of my doctoral prepared friends and mentors.

### **Analysis of Self as Practitioner**

The educational field of nursing is finally beginning to change. As a practitioner, it is my job to continually evaluate practice and to develop as a professional. This means that I actively engage in the educational process of my students. Being a practitioner means looking for ways to continue to improve practice and continuing to add knowledge to the field of education (Creswell, 2012). Evaluating myself as a practitioner in relation to this project, I feel like I have made a significant social impact in nursing education at my local level. When considering project development, the practitioner must look at a multitude of stages to be successful. Caffarella and Daffron (2013) identified knowledge of the projects context, developing a support base, establishing goals and objectives, and developing the format and an appropriate schedule and timeline. When I evaluate myself based upon these criteria I feel like I met these steps of project development. In establishing a support base, I used all the stakeholders' input and buy-in for developing the partnership and the professional development of the unit staff nurses. I was able to clearly identify goals and objectives as well as work with administrators, unit directors, and managers to establish a timeline for professional development and implementation of the DEU.

### **Analysis of Self as a Project Developer**

As a project developer, I have been inspired to create a project that can serve the local community and impact how critical thinking and clinical reasoning are taught in the clinical setting. I have participated in project development in the past, but this has been a new experience creating a project from start to finish. Having previous learning

experiences with projects was beneficial to my ability to look at this project from a variety of stakeholder viewpoints. I was able to draw on my experiences as a clinical nurse, faculty member, and unit manager. The results of the data analysis gave guidance to the final project and fulfilled not only a way for student nurses to be assessed by faculty and unit staff nurses, but will also serve the school of nursing and hospital in a variety of ways. This gives me a sense of accomplishment that the project can have a greater impact on nursing education other than just providing a way to cohesively assess student critical thinking and clinical reasoning skills. This EdD journey has opened a whole new world of growth and opportunities.

### **Reflections**

#### **Implications, Applications, and Directions for Future Research**

When completing a research project, it is essential to look at future research opportunities that can originate from the study. While this project provides a solution for providing a more cohesive way for faculty and staff to assess and teach critical thinking and clinical reasoning skills, there remains other significant pieces to clinical education if explored could bring a significant contribution to nursing. The impact of a DEU on patient satisfaction could be explored as well as what effect the new role as a CI has on the unit staff nurses. Future research in nursing education needs to include the use of a DEU to impact patient care (Glynn, McVey, Wendt, & Russell, 2016). Additional research could focus on nurse workloads, and retention of students as future employees of the DEU where they did clinical rotations. On a local and national level, nurse educators must work together to research and develop an instrument to measure critical thinking

and clinical reasoning specific to nursing as these skills are fundamental to becoming safe nurse practitioners.

### **Social Impact**

The Nursing and Care Quality Forum (NCQF, 2012) called for keeping quality and safety at the forefront in nursing education and patient care. This project can make significant contributions to affect positive social change. This project creates professional partnerships that will have a focus on developing the critical thinking and clinical reasoning skills of nursing students. The partnership will also put the learning needs of the nursing student as a priority for both academic and clinical institutions. The project has the potential to impact student learning outcomes, and develop nursing students who are better prepared to enter the workplace. It develops an environment in the clinical setting where student learning is a priority to all stakeholders. The DEU can further make a positive impact on patient satisfaction by providing another set of hands and ears to pay close attention to patient acuity and care for patients.

The project can help the hospital recruit and retain nurses for the clinical units. The new graduates who enter practice from this partnership will require less precepting over the long run as they have had extensive exposure to the unit. Ultimately, establishing evidence based practice is important to nursing education in order to make informed decisions about how students are taught and perform in the clinical setting (Grove, Burns, & Gray, 2014).

### **Conclusions**

Nursing education is at a critical junction in the 21<sup>st</sup> century. Nurse educators must continually strive to evaluate self-practice and be involved in research to better determine what practices need to be further developed and what educational practices must be changed. Critical thinking and clinical reasoning skills are two vital skills to nursing practice. The establishment of this project met the needs evidenced by the research and data analysis by providing training for unit staff nurses in the teaching and assessment of critical thinking and clinical reasoning skills. The qualitative design allowed me to analyze data which provided rich perspectives representing what faculty and unit staff nurses perceived as the gap in the assessment of nursing students. As a novice researcher, I was able to bring the stakeholders information that served as a basis for a partnership that provides further professional development of nurses and establishes a clinical unit dedicated to preparing nursing students for future practice.

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## Appendix A: The Project

**3-Day Professional Development Agenda****Day 1 (Month 1)**

- 8:00 a.m. – 12:00 p.m. Unit staff nurse responsible for doing online training module and post-test on their own schedule, within a thirty-day timeframe. (PowerPoint and post-test provided below)
- 1:00 p.m. – 5:00 p.m. These four hours will be assigned to shadow medical-surgical faculty members in the clinical setting. Unit staff nurses will keep a journal during these hours and will bring it to Day 2 and Day 3 training sessions. (See objectives for this experience)

**Day 2 (Month 2)**

- 8:00 a.m. – 8:30 a.m. Breakfast: Faculty and Unit Staff Nurse Meet and Greet
- 8:30 a.m. – 8:40 a.m. Welcome from Hospital Administration
- 8:40 a.m. – 9:40 a.m. **Creating an Educational Workplace Environment**
- 9:55 a.m. – 10:30 a.m. **Breakout Session 1** (See PowerPoint)
- 10:30 a.m. – 11:00 a.m. Present findings from breakout session:  
Educational Workplace Environment: Top Five List
- 11:00 a.m. – 12:00 p.m. **Toolbox: Strategies for Developing Critical Thinking and Clinical Reasoning Skills**
- 12:00 p.m. – 1:00 p.m. Lunch
- 1:00 p.m. – 2:00 p.m. **Student, Faculty, Clinician Instructor and Role Expectations**
- 2:00 p.m. – 2:45 p.m. **Breakout Session 2**
- 2:45 p.m. – 3:00 p.m. Break
- 3:00 p.m. – 4:00 p.m. Present findings from breakout session:  
Develop Role Expectations



4:00 p.m. – 4:30 p.m.	<b>Wrap-up: Question and Answer Session</b>
	<b>Day 3 (Month 3)</b>
8:00 a.m. – 8:30 a.m.	Breakfast: Roundtable Discussions
8:30a.m. – 9:30 a.m.	Introduction to Role Playing and Team Assignments
9:30 a.m. – 10:30 a.m.	<b>Session 1: Effective Communication with Students</b>
10:30 a.m. – 10:45 a.m.	Break
10:45 a.m. – 11:45 a.m.	<b>Session 2: Evaluation and Feedback with Students</b>
11:45 a.m. – 12:00 p.m.	Wrap-up morning session.
12:00 p.m. – 1:00 p.m.	Lunch
1:00 p.m. – 2:00 p.m.	<b>Session 3: DEU and HCAHPS</b>
2:00 p.m. – 3:00 p.m.	<b>Session 4: Learning Needs and Goal Setting with Students</b>
3:00 p.m. – 3:15 p.m.	Break
3:15 p.m. – 4:15 p.m.	<b>Session 5: Conflict Resolution</b>
4:15 p.m. – 4:30 p.m.	<b>Program Evaluation</b>

## Day 1: Online Training Power Points

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### TEACHABLE MOMENTS: CLINICAL DECISION MAKING YOUR ROLE AS A CLINICIAN INSTRUCTOR



STEFANIE LEGRANDE, MSN, RN

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### LEARNING OBJECTIVES

- > Discuss theoretical & practical approaches for teaching critical thinking and clinical decision making.
- > Discuss Tanners Model of Clinical Reasoning and how it applies to teaching clinical reasoning.
- > Apply at least three strategies to facilitate effective critical thinking & clinical decision making.
- > Identify strategies to deal with student nurse who is unprofessional.



## TRADITIONAL ROLES PRECEPTOR AND FACULTY:

### Preceptor:

- Assists the student to practice in the organization
- Competent to Expert clinician in specific specialty
- Follows policies and procedures of the department, agency & state board regulations.
- Promotes critical thinking with ongoing feedback requiring communication, time management, and interpersonal skills.
- Plays a strong role in recruitment & retention of nurses to their facility & department.

Morrow 1984.

### Faculty:

- Assists the student to correlate classroom content with the practical realities of the clinical setting.
- Prepares the student to move forward in the nursing program.
- Proficient to Expert clinicians in nursing practice - follows the policies and procedures of the department, agency & state board regulations.
- Promotes critical thinking by provide feedback through pre and post conference, documentation, & final evaluation.
- Maintains a positive image of professional nursing and of their educational institution. Avoids showing bias to facility, dept, specialty, etc. (O'Conner 2001)

## DEU: CLINICIAN INSTRUCTORS AND FACULTY

### Clinician Instructor (CI)

- ✓ Performs the same duties
- ✓ Has additional training to support the development and assessment of critical thinking and clinical reasoning skills

### Faculty:

- ✓ Responsible for training the CI in effective learning and assessment strategies
- ✓ Provides the CI and unit manager with learning objectives
- ✓ Identifies course outcomes
- ✓ Establishes student schedules
- ✓ Available for consult in regards to student performance and educational issues

Notes:

Faculty Additional Roles:

- ✓ Serves as a resource for nurses for CE opportunities for professional development.
- ✓ Provides evaluative feedback to the lead teacher, nurse manager and CI regarding role performance specific to student learning.
- ✓ On-going presence on the DEU and is available at all time to the unit and CI by cell phone
- ✓ Provides timely and ongoing feedback to the lead teacher regarding individual student and group performance in accomplishment of the course outcomes.

## SO WHAT IS CRITICAL THINKING?



- Analytical
- Creative
- Application-oriented

Notes:

Ability to:

Analytical thinking

Comparing

Ordering

Classifying

Creative thinking

Explore alternative approaches

Contextual thinking

Application of knowledge

Critical thinking is fundamental to establish clinical reasoning skills.

### THE VISIBLE & INVISIBLE ROLE OF NURSES (THE RELATIONSHIP OF CRITICAL THINKING & CLINICAL REASONING )

- Recognize patient problems
- Prioritize & understand relative sense of urgency.
- Identify possible actions and explores consequences
- Confident in rationale for actions
- Evaluate and applies evidence
- Recognize contradictions
- Demonstrates clinical reasoning



O'Connor 2001  
Del Beuno, 2001

Notes:

Clinical Reasoning – accomplished through reflective thinking. Reasoning across time about a particular situation through changes in the patients condition or concerns.

As a preceptor it is essential to communicate and teach the visible and invisible RN role to the nursing student.

### IDEAL CRITICAL THINKER (FACIONE, 1990)

- Habitually inquisitive
- Trustful of reason
- Well-informed
- Fair-minded
- Honest
- Willing to reconsider
- Orderly in complex matters
- Diligent in seeking relevant information

Notes:

As a CI you need to foster this by building a safe environment where the student feels safe to ask and seek answers to questions in regards to their new role.

## DIMENSIONS OF CRITICAL THINKING

1. Clinical Decision Making
2. Priority Setting and Revising
3. Problem Solving & Troubleshooting
4. Care Planning

Identifying, evaluating, and using evidence to guide decision making by means of logic and reasoning (NLN, 2010, pg. 67).

## I. CLINICAL REASONING AND DECISION MAKING

- Identification of risks
- Intervening to prevent risks
- Ability to defend decisions
- Ability to make decisions related to urgency and time demands

## 2. PRIORITY SETTING

- Differentiating priority problems of a group of patients
- Determining the priority of uncontrolled events (acute before chronic)
- Predicting and minimizing harm from uncontrolled events



### 3. PROBLEM SOLVING/TROUBLESHOOTING



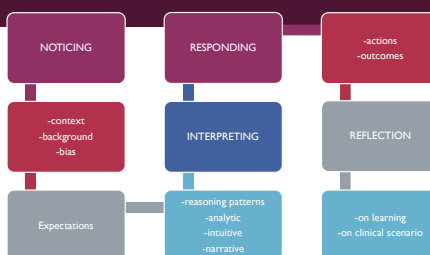
- Equipment Malfunction
- Interpersonal Issues
- Unusual Patient Responses
- Interdepartmental Issues
- Unavailability of Equipment/Supplies

### 4. CARE PLANNING

- Revising plan based on individualized needs
- Changes in condition/situation
- Focusing on future in the present
- Discharge plan based on actual or potential health risks



### TANNER MODEL OF CLINICAL REASONING



Notes:

Tanner, C.A. (2006). Thinking like a nurse: A research-based model of clinical judgment in nursing. *Journal of Nursing Education*, 45, 204-211.

Tanner's theoretical framework can be used to guide the language and expectations of nursing students from the beginning stages of critical thinking to advancement into clinical reasoning (Kim, Kim, Kang, Oh, & Lee, 2016). Kim et al. further described how

Tanner's model is useful in setting up the context in which the nursing process can be broken down for the student and the unit staff to comprehend clinical expectations during each phase.

**Noticing-** Noticing involves identifying verbal and nonverbal cues from the patient. This is a fundamental ability that leads to nurses developing intuition over time, which is a foundation to establishing clinical reasoning skills (Benner & Tanner, 1987).

**Interpreting-** Interpreting is the second step in the model and entails deciphering what was noticed during the first phase. Nursing care is based on how this information is processed and interpreted (Gerdeman, Lux, & Jacko, 2013).

**Responding-** Responding is where the nurse has interpreted the signs and symptoms from the patient and then makes critical decisions in regards to the nursing care (Kelly, Forber, Conlon, Roche, & Stasa, 2014).

**Reflection-** Reflection in the clinical setting involves the nurse evaluating clinical decisions after they are made in regards to patient care. The experienced nurse makes links between clinical decisions, theory, and research during reflection (Nielsen, Stragnell, & Jester, 2007).

**NURSING STUDENTS:**

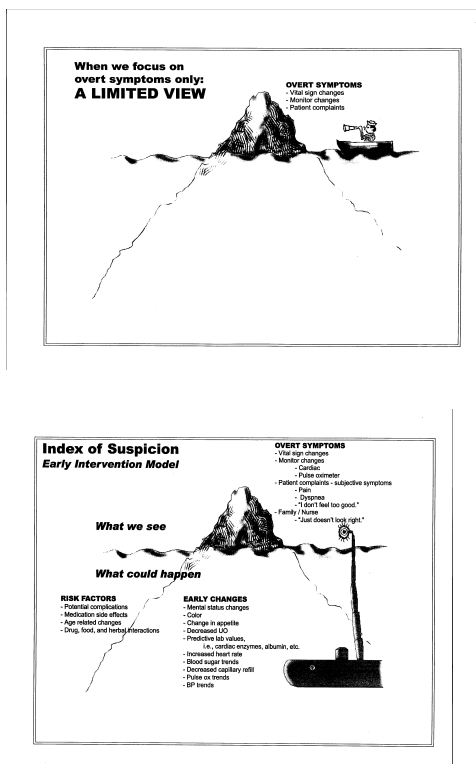
- Still developing an understanding of impact of pathophysiological changes
- Struggle most with prioritizing, evaluating outcomes, evaluating lab results, performing accurate physical assessments.
- Most concerned about skills, handling emergencies, and having multiple patients.
- May have minimal clinical exposure
- May miss subtle changes in assessment.
- Use rules and guidelines to guide practice decisions.

Del Bueno, 2001  
Cohen, 2006

Notes:

Teach the student general “rules” until they develop the ability to understand when the rules don’t apply (Bridging critical thinking to clinical reasoning skills.) They may not be ready to hear all the exceptions to the rules until they have had more exposure and can recognize when the rules don’t apply. AND this will not happen till they have had a much longer time in the clinical setting—may take a year or more—still important for the student to have a strong clinical rotation with an engaged clinician instructor who engages in teaching.

Example – basic dysrhythmia.



Notes:

You need to communicate and discuss these Risk Factors and Early Changes every time you have an opportunity with the student. Discuss the overt symptoms first and then tie in the Risk Factors and Early Changes.

THINK ABOUT IT...

Mrs. Bellows has been hospitalized because of shortness of breath & edema in her legs. What is your focus with:

- A beginning student in her first clinical rotation?
- A senior student in her critical care rotation?
- A second semester student in her maternal/child rotation?
- A senior preceptor student their first few weeks?
- A senior preceptor student at the end of 16 weeks?

Notes:



Remember! Not all students grow at the same level! For some students there may be significant growth between the beginning and end of this semester, other students may develop greater clinical reasoning skills!! It is your job to discern and figure out, what is this student's level? If the student is struggling with professional behavior (not on time, not dressed appropriately) or is unsafe in the clinical setting (wrong medication, not monitoring for side effects of a medication i.e. blood pressure). These are issues that **MUST** be discussed with the student, documented on the student's clinical evaluation tool and addressed as soon as possible with the faculty member overseeing the clinical unit.

#### USING SOCRATIC DIALOGUE

- Ask simple, basic questions
- Encourage a first response  
(wait – even if it is painful!)
- Encourage different views
- Paraphrase & summarize



Notes:

Discuss what Socratic dialogue is and how to incorporate it into clinical instruction.

Use Socratic Dialogue

Ask simple basic questions

Encourage a first response (wait...even when it is painful)

Encourage different viewpoints – allow discussion

Paraphrase & summarize appropriate responses

#### INSTRUCTIONAL STRATEGIES FOR TEACHABLE MOMENTS

1. Get a Commitment!
2. Search for Supporting Evidence
3. Provide Feedback/Coaching
4. Apply a General Rule/Principle.
5. Reflect and Evaluate

Notes:

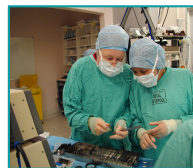
1. Have the student commit to a decision, then follow up with what is the evidence?

2. What feedback and coaching can you provide?

3. Give/remind the student of a general rule or principle: i.e. Blood pressure medication will result in a drop in the blood pressure, did you follow-up and either recheck the patient's blood pressure OR ask the CAN to AND follow-up with the CAN.
4. Help the student reflect and evaluate? Did this incident go as planned? Could we have acted sooner or differently? What is an adverse patient situation that could come from not making a good decision?

## 1. GET A COMMITMENT!

Ask the learner to identify top priorities and actions.



Notes:

Visiting prioritization over and over again helps “cement” that every patient and every patient group has a priority and it is a constant shifting priority minute by minute and hour by hour. Asking the student to reflect on “Why, is this patient now a priority?”, “What is the priority for your patient today? This afternoon or evening? Prioritizing and then Reflecting on this is part of the Tanner Model of Clinical Reasoning.

## 2. SEARCH FOR SUPPORTING EVIDENCE

WHY?

- Explore rationale for priorities and interventions.
  - Does the patient's data support the identified priorities?
  - Are the interventions appropriate for the patients condition?
- Has the cause been identified?
- If in doubt...reassess, seek evidence and/or resources. Constant REFLECTION

Notes:

Are the priorities appropriate based on physical assessment, lab and radiology results, patient history, etc.

### 3. WHAT ARE THE POSSIBLE CAUSES?

- Pathophysiology of the current condition?
- Potential complications?
- Adverse drug event or side effect?
- Age-related response?
- Process problem or error?
- Family or patient subjective data?

### 4. PROVIDE FEEDBACK

- Reinforce what was done well!
  - Include specific behaviors that demonstrate knowledge, skills, and critical thinking!
- Identify opportunities to improve.
  - Give guidance about errors or omissions (What about???)
  - Avoid negative terms if possible.
  - Explore other options (What if????)
  - Provide rationale

### 5. APPLY A GENERAL PRINCIPLE OR RULE

- Students and beginner nurses need general guidelines to follow. (Benner)
- With more experience and exposure, assist new nurse with identifying the "exceptions to the rule".

Example: In general, it's a good idea  
to ambulate patients as soon as  
possible after surgery.

Notes:

Where do you find these rules/principles – care plan books, policies & procedures, protocols, and online resources (Mosby's).

## 6. REFLECT AND EVALUATE

### Support students with:

- Identifying their own omissions or gaps.
- Identifying their own progress.
- Identifying opportunities to apply knowledge to current and future experiences.

## RESEARCH-BASED REASONS FOR REFLECTION

### Reflection:

- **Accelerates** learning
  - **Increases** self-respect & confidence
  - **Builds** on existing knowledge
  - **Assists** nurses to identify deficits & errors  
*Act to continue care plan or find a new approach!!!*
- Bottom line:** Reflective caregivers provide better care!

Notes:

Most important part of the learning process!!

## SOME REFLECTION “STARTERS”...

- ✓ Did I recognize the earliest signs?  
review pathophysiology; enhance assessment skills
- ✓ Did I respond correctly?  
enhance understanding of findings
- ✓ Was I anticipating and prepared to respond?  
lab values, meds, side effects, effects of age etc.
- ✓ Did I use my resources effectively?  
clinical instructor, peers, team manager, other health care team members, evidence from texts & other sources

Notes:

Ask the student to reflect with these questions. Start a dialogue that begins with asking the student to Reflect

## INNOVATIONS IN CLINICAL EDUCATION

Priority setting: assign student 1 patient for total care; student assists with nurse's other patients

- Determines priorities for the group of patients
- Clarifies RN role

Round & report: leadership student rounds on peers to get report on their patients

- Clarifies nursing activities
- Discusses plan of care
- Assesses with peers to decide on priority actions

## DIFFICULT STUDENT

- Difference in personality
- Unprofessional behavior:
  - "Can I discuss something with you?"
  - "From my perspective it looked like..."
  - "I noticed you did or said..."
- Document behavior
- Everyone has a bad day
- Take a moment and step away
  - ❖ Ultimately remember this is your time to develop a professional you will be proud to work with!
  - ❖ Remember you have a clinical instructor for advice and guidance! Contact them!!!

### Notes:

1. Know that there will be differences in personalities. But, also know how to deal with these in a professional manner. You are the professional, the RN, they are a student but held to professional standards.
2. Address a problem in a professional manner: make it non-confrontational. If it becomes confrontational you need to call the assigned clinical instructor. But you need to remain in an open state of mind to hear what the clinical instructor says.
3. Just like on the floor, if it is not documented, it did not occur. Is it a FAIR evaluation? Did you get the charge or another RN to collaborate what you said?
4. Has the student been consistently prepared and all of a sudden to day they are not?
5. Always step away from the issue at hand and analyze or talk to the charge nurse about what your next step should be.

## PRECEPTOR AGREEMENT AND EVALUATION

### Goal setting (5-7)

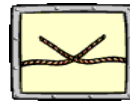
- CI and student agree on goals for clinical rotation
  - Only 2-3 goals may involve skills
- Student signs with you and will be responsible for returning to clinical faculty

### Student Evaluation

- Met
- Not Met
- Examples of how student goals were met/not met
- You must sign
- Faculty will pick up

## PUTTING IT ALL TOGETHER

- Critical thinking/clinical reasoning?
- Ideal critical thinker?
- Teachable moment?
- Socratic questioning?
- Tanner Model of Clinical Reasoning
- Value of reflection?



### Notes:

Above all remember that the impact you make on developing the foundation of critical thinking and clinical reasoning happens every day, in every clinical interaction you have with the student.

**Day 1****Journal Objectives**

1. Unit staff nurse will identify and discuss teaching strategies observed between the faculty and the nurse.
2. Unit staff nurse will use language learned during the online training session to describe interactions between faculty and students.
3. Unit staff nurse will describe one interaction they feel most confident in when interacting with a student.
4. Unit staff nurse will describe two areas of needed improvement they will work on developing during the next two training sessions.

**Post-Test for Day 1: Online Module**  
**Teachable Moments: Clinical Decision Making**  
**Your Role as a Clinician Instructor**

1. What is the first stage in Tanner's Model of Clinical Reasoning?
  - a. Reflection
  - b. Interpreting
  - c. Noticing
  - d. Planning
  
2. What is the best method for helping a student develop critical thinking skills?
  - a. Asking the student to identify steps to a procedure.
  - b. Telling the student, the steps to a procedure.
  - c. Telling the student why you are doing the procedure step by step.
  - d. Asking the student to explain what would happen to the client if you did the procedure out of order?
  
3. What is the most critical step of Tanner's Model of Clinical Reasoning when teaching clinical reasoning?
  - a. Reflection
  - b. Noticing
  - c. Responding
  - d. Action
  
4. Using Socratic questions with students means all of the following except?
  - a. Asking the student "why"?
  - b. Waiting for the student to make a first judgement?
  - c. Asking a question and then responding with the correct answer?
  - d. Giving an illustration or example and asking the student to connect the dots?
  
5. What is an important component to teaching students how to prioritize in the clinical setting?
  - a. Time management
  - b. Keeps the student busy
  - c. Develops critical thinking skills
  - d. Asking the student to reflect on how they prioritized patient care.
  
6. How can you help students improve clinical decision making skills? (select all that apply)
  - a. Provide feedback



- b. Explore other options
  - c. Provide rationales
  - d. Tell the student they are incorrect
  - e. Reinforce what was done well
7. What is a teaching strategy for teaching prioritization to nursing students in the clinical setting?
- a. Have the student take report on all of you patients.
  - b. Assign the student to the case manager for the day.
  - c. Have the patient prioritize your patients thorough out the day.
  - d. Establish a schedule for patient care.
8. What are the priorities in dealing with a student that has unprofessional behavior or is not engaged in the learning process? (select all that apply)
- a. Document the behavior.
  - b. Discuss the behavior and expectations with the student.
  - c. Notify the faculty member responsible for the unit.
  - d. Give the student multiple chance to improve behavior.
  - e. Refer the student back to their learning goals.
9. What is the purpose of helping the student learn to Reflect on their actions?
- a. So the student can evaluate the plan of care.
  - b. So the student can feel remorseful about mistakes.
  - c. To acknowledge the clinician instructor is correct.
  - d. To change the plan of care.
10. Providing feedback to the student does which of the following (select all that apply).
- a. Builds the students confidence.
  - b. Gives the student guidance in making decisions.
  - c. It makes the student defensive about the decisions they have made.
  - d. Makes the day go by quicker because you are talking to the student
  - e. It reinforces the what the student is doing well in the clinical setting.

## Day 2: Creating an Educational Workplace Environment



### DEDICATED EDUCATIONAL UNIT: THE ENVIRONMENT

Stefanie LeGrande, MSN, RN



STAFF

- Friendly



STAFF

- Welcomes student interactions
  - ✓ Integrates into daily schedule
  - ✓ Able to direct student

Notes:

Learn to integrate the student into your routine.

How can they help?

Can you turn this into a teaching moment?



STAFF

- Invites questions
  - ✓ How?

Notes:

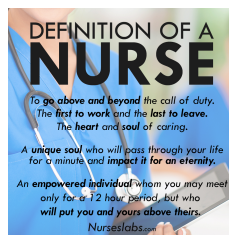
Establish early on that questions are appropriate and expected

Discuss when it might be appropriate to wait: ie patient crashing, patient upset



STAFF

- Encourage growth
  - ✓ Positive reinforcement



Notes:

Take time to reinforce correct decisions

Be a role model

Acknowledge when you do not know something

Acknowledge when you make a mistake



STAFF

- High Expectations
  - ✓ Student is not just a shadow
  - ✓ Expect the best

Notes:

Let the student know what your personal expectations are for them on the floor.



## STAFF

- Welcoming environment
  - ✓ Does not mean you are a pushover!

### Notes:

The unit is a professional environment, you can be friendly but remember this is a future co-worker. Establish behaviors that are a part of clinical excellency.

Example: Being on time, polite

Recognize we all have a bad day, ask for help with a student that is not meeting expectations



## DEU OUTCOMES

- Improved clinical quality
- Improved patient care
- Improved clinical education model
- Faculty and Clinician Instructors work as a team
- Students ability to CT and CR
- Impact on orienting the new graduate

There is a significant impact on patient satisfaction when clinical staff are part of the student educational team (Cassel, Seibert, & Moll, 2015; Seibert, Stroud, Cassel, & Huebner, 2015)



## BREAKOUT SESSION

Participants will divide up into groups of four and rotate thru four stations for 15 minutes each.

Each station will have one characteristic and participants will apply this characteristic to expectations of student and clinician instructor behavior.

The top 3 for each characteristic will be taken forward to develop expectations for the DEU. These will be posted on the walls of the unit.



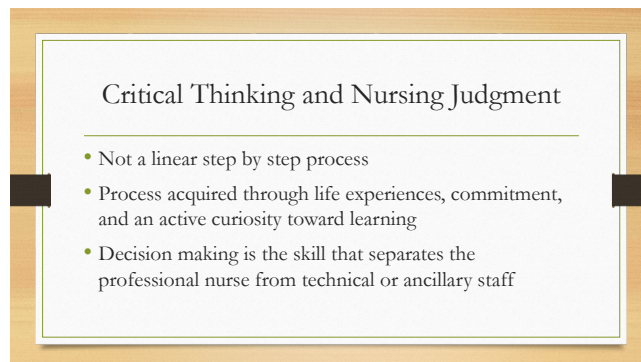
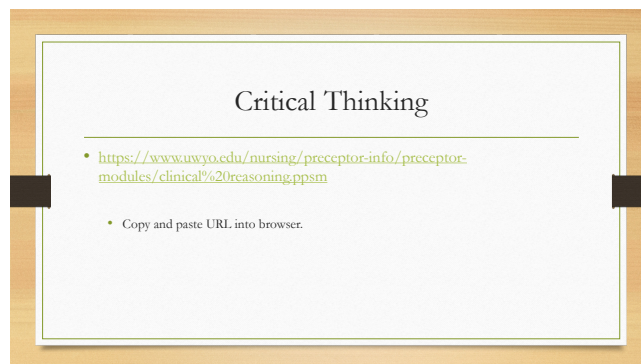
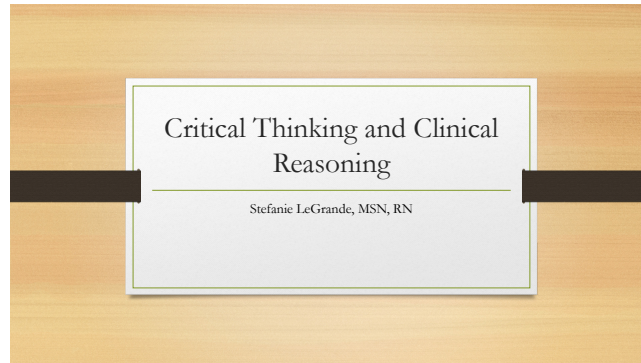
## QUESTIONS



## REFERENCES

- Cassel L., Seibert S., Moll M. (2015). *Poster presentation: Improved nurse recruitment and retention on a dedicated education unit*. Indiana Center for Nursing Summit, Indianapolis, Indiana
- Seibert S., Stroud A., Cassel L., Huebner C. (2015). *Improved HCAHPS scores and a DEU culture of excellence*. In *Virginia Henderson Sigma Theta Tau International Global Repository*. Retrieved from <http://hdl.handle.net/10755/579145>

## Day 2: Critical Thinking and Clinical Reasoning



## Critical Thinking

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- After watching the short module how can you help a nursing student develop critical thinking?
- Write down 2-3 ideas you can use in the clinical setting.

## Differences

---

- Critical Thinking:
  1. Encourages why
  2. Reflection
- Clinical Reasoning:
  1. Connects the concepts
  2. Encourages you to take action
  3. Reflection and Evaluation
  4. Next step?

## Clinical reasoning

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- “In nursing education, “effective clinical reasoning skills enable students to collect data, solve problems, make decisions, provide quality care and survive in the workplace”.

Boise State University  
School of Nursing

## Tanner Model of Clinical Reasoning

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- <http://cymcdn.com/sites/www.nmnursingexcellence.org/resource/resmgr/imported/Teaching%20Clinical%20Judgment%20Tuesday%20Morning%20FINAL.pdf>
- View Dr. Tanner's model of Clinical Reasoning presentation.

### Tanner Model of Clinical Reasoning

---

- From this presentation identify each step in the Tanner model of Clinical Reasoning

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

❖ You do these ALL Day long in the clinical setting!!

**Notes:**

1. Noticing
2. Interpreting
3. Responding
4. Reflecting

### Tanner Model of Clinical Reasoning

---

- As Dr. Tanner ask where do these fit into the clinical day with the student?
  - Where does nursing diagnosis fit in?
    - Student comes up with three nursing diagnosis for patient
    - Now prioritize these
  - Nursing care planning?
    - Interventions
    - Reflection! At the end of shift! Always reflect with the student.

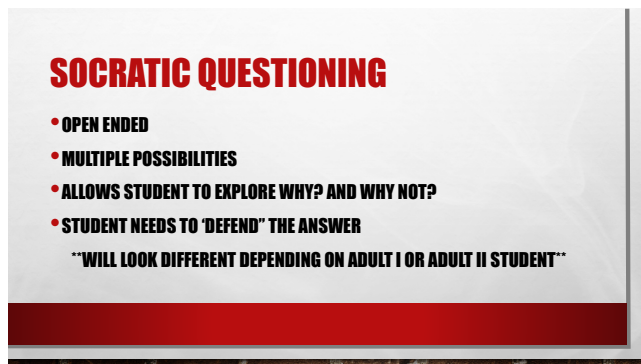
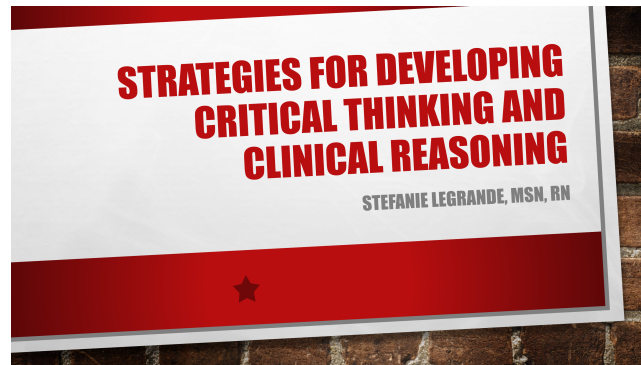
### References

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- Critical Thinking:  
<https://hs.boisestate.edu/nursing/mission/clinical-reasoning/>
- Tanner Model of Clinical Reasoning:  
<http://cymcdn.com/sites/www.nmnursingexcellence.org>



## Day 2: Toolbox: Strategies for Developing Critical Thinking and Clinical Reasoning Skills



Notes:

Discuss the differences between Adult I and Adult II student.

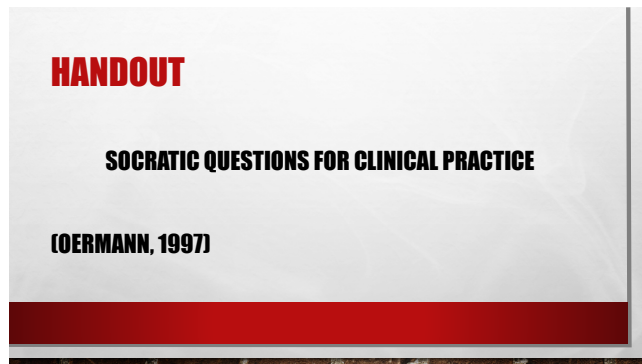
Adult I will need more leading, offering possibilities



Notes:

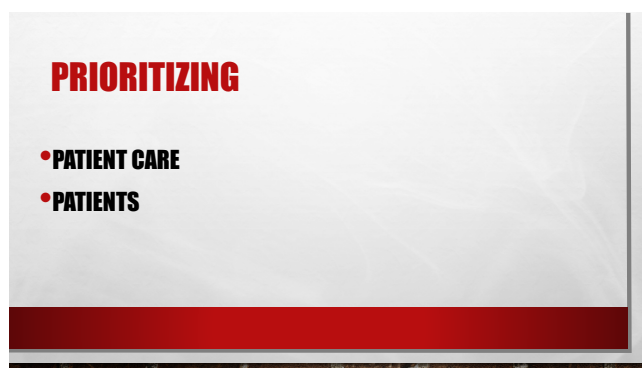
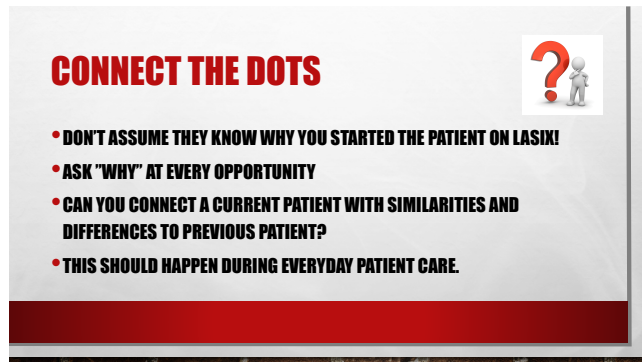
Guide the student thru similarities? Help them compare. Now ask about differences?

Again, the Adult I student may need examples of similar cases, the Adult II student may be able to do a comparison on their own.



Notes:

This will be a small front and back pocket size laminated copy.



Notes:

Take time to talk it out. i.e.: When one patient becomes septic, needs a transfusion, a discharge. Explain how this changes the priority for all your patients and the one in crisis.

## **ADVERSE EVENTS**

- **PLAY THE "WHAT IF" GAME!**
  - **WHAT IF WE DID NOT RE-CHECK A BLOOD PRESSURE?**
  - **WHAT IF WE DID NOT CALL THE HEALTHCARE PROVIDER?**
  - **WHAT IF WE DID NOT DO NOT TURN AND REPOSITION THIS PATIENT?**

## **REFERENCES**

**OERMANN, M. H. (1997). EVALUATING CRITICAL THINKING IN CLINICAL PRACTICE. *NURSE EDUCATOR*, 22(5), 25-28.**

## **Handout for Socratic Questioning**

### **Clarification**

- Tell me about your client's condition/problems/needs.
- What is the most important client/family problem?
- What do you mean when you say \_\_\_\_\_?
- Give me an example of \_\_\_\_\_?
- How does this new information relate to our earlier discussion of the patient's care?

### **Questions to Probe Assumptions**

- You seem to be assuming that your client's responses are due to \_\_\_\_\_?
- What assumptions have you made about \_\_\_\_\_?
- On what data have you based your decisions? Why?
- Your decisions about this client/family are based on your assumptions that \_\_\_\_\_. Is this always the case? Why? Or Why not?

### **Questions to Probe Reasons**

- How do you know that \_\_\_\_\_? What are other possible reasons for \_\_\_\_\_?
- Tell me why \_\_\_\_\_.
- What would you do if \_\_\_\_\_? Why?
- Is there a reason to question this information? Decision? Approach? Why?

### **Questions on Differing Perspectives**

- What are other possibilities? Alternatives?
- How might the client/family view this situation? Does anyone else in the clinical setting view this differently? Why?
- Tell me about different interventions that might be possible and why each one would be appropriate.
- What are other ways of approaching other members of the healthcare team?

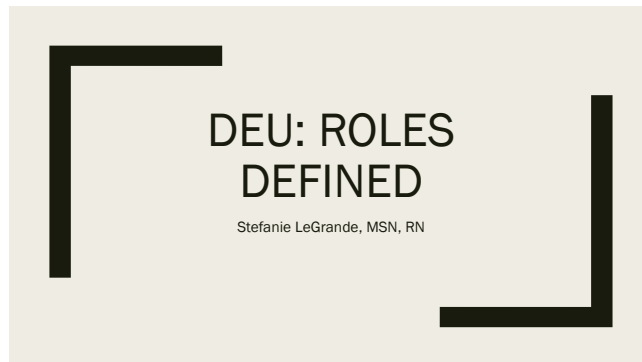
### **Questions on Consequences**

- If this occurs \_\_\_\_\_, what would you anticipate next? Why?
- What are the positive outcomes of each of these approaches?
- What are the possible negative outcomes of this approach? How would you know if this was happening?

## Reference

Oermann, M. H. (1997). Evaluating critical thinking in clinical practice. *Nurse Educator*, 22(5), 25-28.

## Day 2: Student, Faculty, Clinician Instructor and Role Expectations



### Clinician Instructor

- Require substantial critical thinking and clinical judgment
- ✓ Advanced clinical knowledge
- ✓ Excellent assessment skills
- ✓ Comprehensive approach to patient-and family-focused care

(Evans, Costello, Greenberg, & Nicholas, 2013)

### Faculty

- Expert educator: Resources
- ✓ Training for clinician instructor
- ✓ Responsible for overseeing educational experiences
- ✓ Developing learning outcomes
- ✓ On-going collaboration
- ✓ On-call
- ✓ Available during scheduled times

## Student

- Responsible for learning
- Engagement
- Preparedness
- Professionalism

## Breakout Session

- Convene and identify priorities for each role

### Notes:

There will be three, round tables for this session. Each table will have a faculty member to help guide discussions and record input. Major themes will be compiled at the end of the breakout session and formal recommendations will be made to the school of nursing and the hospital administration.

## References

Evans, L., Costello, M., Greenberg, H., & Nicholas, P. K. (2013). The attitudes and experiences of registered nurses who teach and mentor nursing students in the acute care setting. *Journal of Nursing Education and Practice*, 3(2), 67.

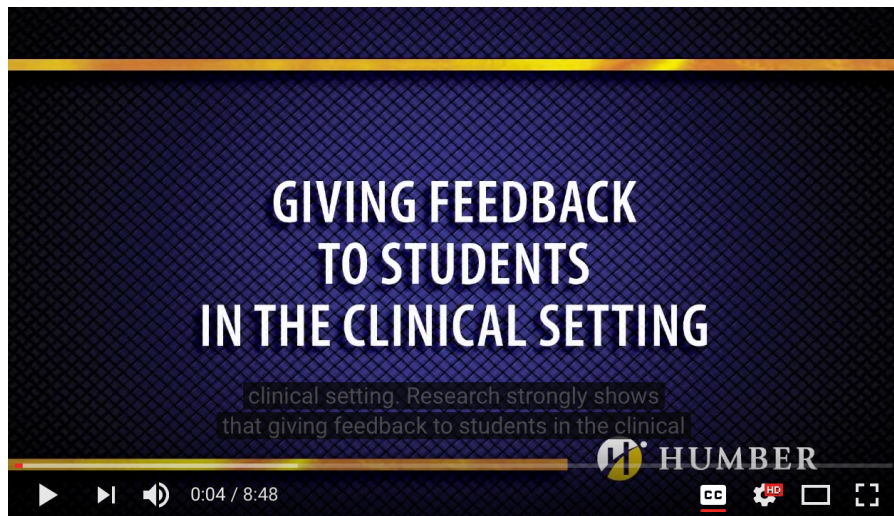
### Instructions for Day 3

#### Session 1: Effective Communication with Students

1. Clinician instructors in Group 1 will begin at Station A.
2. The faculty member at this station will facilitate leading participants through a discussion of verbal and nonverbal communication techniques.
3. Once participants have identified communication techniques they will partner and role play with both participants having a turn at being the student and the clinician instructor.
  - a. Scenarios:
    - i. Verbal communication
    - ii. Nonverbal communication
4. The facilitator will help reinforce correct and incorrect techniques of communicating with students.
5. Clinician instructors will identify their personal strengths and weaknesses.

#### Session 2: Evaluation and Feedback with Students

1. Clinician instructors in Group 2 will begin at Station B.
2. At this station the group will watch the YouTube video “Giving Feedback to Students in the Clinical Setting”
  - a. Link: <https://www.youtube.com/watch?v=IuufStMa21Y>





3. Faculty will then discuss real life scenarios where they have used both positive reinforcement and constructive feedback vs. intimidation and humiliation.
4. Faculty will also lead a brain storming session to dialogue about stressful nursing days and identify strategies to keep the educational environment positive for students.

### **Session 3: DEU and HCAHPS**

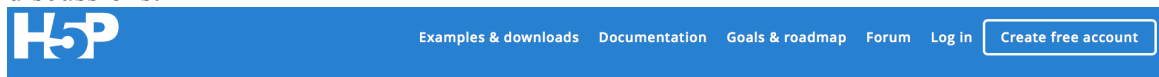
1. Clinician instructors in Group 3 will begin at Station C.
2. Faculty will lead a round table discussion on how nursing students can impact the clinical unit HCAHP scores?
3. Identify 2-3 core measures related to HCAHP scores that will be integrated into teaching nursing students in the DEU.
4. Identify strategies to get students engaged and using the 2-3 core measures while attending clinical rotations.

### **Session 4: Learning Needs and Goal Setting with Students**

1. Clinician instructors in Group 4 will begin at station D.
2. Faculty will review the article entitled “A Framework to Support Preceptors Evaluation and Development of New Nurses’ Clinical Judgment” and the school of nursing clinical objectives for the Adult I and Adult II med-surg courses.
3. Faculty will help the clinician instructors match learning goals with the nursing process.
4. Clinician instructors will then write statements to become familiar with the process of helping nursing students write goals aligned with learning needs.
5. Faculty Facilitator Learning Needs Cues:
  - a. What do you want to get out of this relationship over the next couple of weeks?
  - b. What are your strengths and what are your weaknesses?
  - c. What are some nursing skills that you wish to develop during this orientation period?
  - d. What are your biggest concerns or fears?
  - e. How can I best help you, as a preceptor, through this experience?
6. Faculty Facilitator Goal Cues:
  - a. Set clear responsibilities and tasks each day
  - b. Check in midday to make sure the goals are being accomplished
  - c. At the end of the day, comment on how the student did in completing the responsibilities
  - d. Provide clear directions on how to reach the same and additional goals for upcoming clinical days on the unit.

## Session 5: Conflict Resolution

1. Clinician instructors in Group 5 will begin at station E.
2. This station will be facilitated by a faculty member who teaches Leadership and conflict resolution.
3. Using the H5P interactive video sourcing, there will be 4 short vignettes demonstrating potential conflicts arising from interactions between Clinician Instructors:
  - a. The Late Student
  - b. The Unprepared Student
  - c. The Disengaged Student
  - d. The Know It All Student
4. The faculty facilitator will be nearby to assist if need arises, but prompts during the videos will ask clinician instructors for responses and to participate in discussions.



## Interactive Video

[View](#) xAPI coverage

Submitted by [Joubel](#) on Mon, 06/10/2013 - 23:12

An HTML5 based interactive video content type allowing users to add multiple choice and fill in the blank questions, pop-up text and other types of interactions to their videos using only a web browser. Make your videos more engaging with H5P and interactive video on WordPress and Drupal.

edback

## Reference

- Nielsen, A., Lasater, K., & Stock, M. (2016). A framework to support preceptors' evaluation and development of new nurses' clinical judgment. *Nurse Education in Practice, 19*, 84-90.

**Method A: Likert Survey  
Clinician Instructors**

**For each statement, mark an X below the number that corresponds to the degree of your agreement or disagreement. Note, there is not a right or wrong answer. It is the number most associated with how you agree or disagree with the statement.**

**Note: 1= strongly disagree (SD), 2 = Disagree, 3 = slightly disagree, 4= slightly agree, 5 = agree, 6 = strongly agree (SA)**

<b>Perceptions related to the professional development program: Staff</b>	<b>SD</b>					<b>SA</b>
After this class I feel more prepared to precept students.	1	2	3	4	5	6
Handouts were concise, legible, and appropriate.	1	2	3	4	5	6
The trainer was well prepared.	1	2	3	4	5	6
The trainer answered questions appropriately.	1	2	3	4	5	6
The format of the program was just the right length.	1	2	3	4	5	6
The program kept me involved in the learning process.	1	2	3	4	5	6

The online education prepared me for the 2 days of in-person training.	1	2	3	4	5	6
<b>Perceptions related to educational program: Staff</b>	<b>SD</b>					<b>SA</b>
The two days of in-person training helped me become aware of new teaching strategies.	1	2	3	4	5	6
I feel confident I can implement the teaching strategies I have learned during this professional development.	1	2	3	4	5	6
I feel confident I can implement the assessment strategies I have learned during this professional development.	1	2	3	4	5	6
I understand the difference between critical thinking and clinical reasoning.	1	2	3	4	5	6

**For each statement, mark an X below the number that corresponds to the degree of your agreement or disagreement. Note, there is not a right or wrong answer. It is the number most associated with how you agree or disagree with the statement.**

**Note: 1= strongly disagree (SD), 2 = Disagree, 3 = slightly disagree, 4= slightly agree, 5 = agree, 6 = strongly agree (SA)**

**Open Ended Questions****Method B: Questionnaire  
Clinician Instructors**

1. What evaluation techniques did you learn today in this program that you could use in practice?
2. What changes will you make in your student nurse interactions as a result of this program?
3. What specific assistance would be helpful to you in implementing the new practices presented over the 3-day professional development program?
4. In what way will your student/clinician instructor interactions be made easier by participation in this program?
5. What impact will this training have on you in your new position as a clinician instructor?

**Method C: Focus Group Interview**  
**Administration: Post Implementation of DEU**

1. Describe the impact of the professional development program on your facility?

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2. Describe the Knowledge/Skills your staff acquired from the professional development program that you found most useful to the organization?

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---

3. What aspects of the Student Evaluation training/instructions did you find to be least useful to the organization?

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---

4. How has the implementation of the dedicated education unit impacted the clinical unit?

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4. In general, to what extent did the training meet your expectations for the clinician instructors?

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## Appendix B: Interview Questions

The following section of sub questions has guided the development of the interview questions. The letter of each sub question corresponds with the following interview questions.

Sub questions:

1. What do faculty and unit staff nurses perceive as training needs for overcoming barriers to assessing students in the clinical setting?
2. How comfortable are you assessing clinical reasoning of nursing students while they are in the clinical setting?
3. How do faculty and unit staff nurses explain the reason for assessing critical thinking and clinical reasoning of nursing students in the clinical setting?
4. What are barriers to assessing nursing students clinical reasoning in the clinical setting?
5. How do faculty and unit staff nurses describe critical thinking and clinical reasoning and why are these skills important for students in the clinical setting?

Interview questions that address each sub question:

1. Describe resources needed available to evaluate students in the clinical setting? Please tell me about your experience using these resources. (c)
2. What are your suggestions for staff and/or faculty training in the evaluation of students in the clinical setting? Please tell me more about \_\_\_\_\_ you would like for training. (c)

3. What are your views on having an evaluation tool to evaluate clinical reasoning? “You mentioned \_\_\_\_\_ , tell me more about that.” (c)
4. What is your experience with students in the clinical setting, please give me few examples of what a day with nursing student in the clinical setting is like. (a)
5. Please describe your comfort level when interacting with students in the clinical setting. “It sounds like you’re saying . . . .” (a)
6. Describe how critical thinking influences a student’s role in the clinical setting? Please further describe a clinical situation where you have worked with a student and witnessed what you described as critical thinking. (d)
7. What barriers do you encounter while dealing with nursing students in the clinical setting? Please tell me more about this situation. (b)
8. If you had a tool to evaluate clinical reasoning of nursing students, what would you like to see included on this tool? What are your reasons for having \_\_\_\_\_ on the evaluation tool? (c)
9. Please describe some examples that involve you and clinical reasoning while working with a nursing student in the clinical setting? “You talked about \_\_\_\_\_ , describe that experience in as much detail as possible.” (d)
10. Please describe what your expectations are for students in the clinical setting? “It sounds like you’re saying . . . .” (d)
11. In your opinion what constitutes a successful day with students in the clinical setting? “You mentioned \_\_\_\_\_ , tell me more about that.” (d)
12. What is your involvement in the evaluation of students during a routine clinical day? Please provide a few examples of how this is done. (d)
13. How does a student’s ability to use clinical reasoning impact the clinical experience? “You mentioned \_\_\_\_\_ , tell me more about that.” (d)
14. How would you describe clinical reasoning? “You mentioned \_\_\_\_\_ , tell me more about that.” (e)
15. How would you describe critical thinking? In your own words describe the difference between critical thinking and clinical reasoning. “You mentioned \_\_\_\_\_ , tell me more about that.” (e)



## Appendix C: Interview Protocol

Institutions: \_\_\_\_\_

Interviewee (Title and Name): \_\_\_\_\_

Interviewer: \_\_\_\_\_

Survey Section Completed:

\_\_\_\_\_ A: Interview Background

\_\_\_\_\_ B: Institutional Perspective

\_\_\_\_\_ C: Assessment

\_\_\_\_\_ D: Department and Discipline

\_\_\_\_\_ E: Teaching and Learning

\_\_\_\_\_ F: Demographics (no specific questions)

To facilitate our note taking, we would like to audio tape our conversations today. Please sign the release form. For your information, only researchers on the project will be privy to the tapes, which will be eventually destroyed after they are transcribed. In addition, you must sign a form devised to meet our human subject requirements. Essentially, this document states that: (1) all information will be held confidential, (2) your participation is voluntary and you may stop at any time if you feel uncomfortable, and (3) we do not intend to inflict any harm. Thank you for your agreeing to participate.

We have planned this interview to last no longer than sixty to ninety minutes. During this time, we have several questions that we would like to cover. If time begins to run short, it may be necessary to interrupt you in order to push ahead and complete this line of questioning.

**Introduction:**

You have been selected to speak with me today because you have been identified as someone who has a great deal to share about your experience with students in the clinical setting. My research project as a whole focuses on nursing students in the clinical setting and student interactions with faculty and unit staff nurses, of particular interest is how clinical reasoning is observed by the faculty and unit staff nurses. It is my goal that the findings of this study impact how we see clinical reasoning in nursing students. This study does not aim to evaluate your techniques or experiences. Rather, we are trying to learn more about teaching and assessment which will hopefully impact faculty and unit staff nurse's interactions with nursing students in order to improve student learning in the clinical setting.

**Interview:****A. Interviewee Background**

How long have you been:

\_\_\_\_\_ in your present position?

\_\_\_\_\_ at this facility?

**B. and C. Institutional Perspective and Assessment**

How many years have you worked with students in the clinical setting?

**D. Department and Discipline**

What area do you primarily work?

Is this clinical setting your primary place where you work the majority of the time?

E. Teaching and Learning

What is your highest degree?

Have you had any formal training for precepting students in the clinical setting?

If yes, what training have you had?

Length and duration of training?