

THE IMPACT OF GUIDED REFLECTION ON
CLINICAL JUDGMENT OF ASSOCIATE
DEGREE NURSING STUDENTS

by

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ABSTRACT

The health care environment continues to be fraught with errors and poor patient outcomes. Nurse, having the most constant time with patients, are in a position to make a difference in those outcomes. Due to many technological, social, and health care changes and advancements, nurses have responsibilities requiring high levels of clinical judgment. Nursing education must respond to the changes and expanded roles of nurses by changing how students are taught, specifically in the clinical setting. Pedagogical tools and methods are needed to assist the student with making integrations between classroom theory and clinical practice. The purpose of this study was to explore the use of a guided reflection tool based on a model developed from the practice of novice and experienced registered nurses on clinical judgment development as measured by a rubric based on the same model, of associate degree nursing students, in an acute care setting. A mixed methods approach was used. Clinical judgment scores of a comparison group (n = 9) were compared with an intervention group (n = 9) and each groups' scores were examined for progression of clinical judgment abilities using a quasi-experimental time series design for the quantitative portion of the study. Using RM-ANOVA, findings indicated there was no statistical significance between the two groups or within the time intervals for either of the groups. A focus group interview was also held to identify perceptions of each group concerning reflective journaling and development of clinical judgment. Both groups felt reflective journaling enhanced development of clinical judgment; however, the intervention group articulated situational learning to a greater degree than the comparison group.

DEDICATION

I would like to dedicate this work to my family: my heavenly Father who knitted me together before I was born (Psalm 139:13), who knew the plans He had for me (Jeremiah 29:11), and Jesus Christ, who said “all things are possible to he who believes” (Mark 9:23); my deceased mother who, though divorced and without a college education, raised two kids with college degrees and taught me hard work, motivation, and strong morals and work ethics; my deceased father who provided for, and loved his children, though he could not show it; my wonderful, brilliant, and talented husband, my soul mate, who has been steadfast in his love for over 37 years and who I want to spend the rest of my life with; my mother and father in-law who helped raise me from the age of 15, and who have demonstrated love, forgiveness, patience, and commitment for over 50 years, and happiness (the list could go on); our precious children, Darren and Brittini, who are beautiful on the inside and out, are always encouraging, and who I couldn't be prouder of; our newest addition, Anastasia, our only grandchild at this time, who is an angel sent from heaven; my brother who is resilient and always encouraging; and my brother in-law and sister in-law who have also been supportive and encouraging of this endeavor.

LIST OF ABBREVIATIONS AND SYMBOLS

AD	Associate Degree
ADN	Associate Degree in Nursing
AIE	Assessment, Intervention, and evaluation
ANOVA	Analysis of Variance
BSN	Bachelor of Science in Nursing
CINAHL	Cumulative Index of Nursing and Allied Health Literature
DTLSC	Dare to Learn State College
DEU	Designated Education Unit
EMT	Emergency Management Technician
GPA	Grade Point Average
HF	High Fidelity
HFS	High Fidelity Simulation
HIPAA	Health Insurance Portability and Accountability Act
Inc.	Incorporated
IOM	Institute of Medicine
IRB	Internal Review Board
LCJR	Lasater Clinical Judgment Rubric
LORAA	Level of Reflection on Assessment
LPN	Licensed Practical Nurse

N	Number in Sample
NURS	Nursing
p	Probability Value
RAI	Reflection and Articulation Inventory
RM-ANOVA	Repeated Measures Analysis of Variance
RN	Registered Nurse
RVPA	Retrospective Verbal Protocol Analysis
SPSS	Statistical Package for the Social Sciences
SRL	Self-regulated Learning
SRM	Structured Reflection Model
UK	United Kingdom
US	United States

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CHAPTER I: INTRODUCTION

The Institute of Medicine's (IOM) report published in 1999 indicated prodigious changes were needed in health care to improve patient safety outcomes. And, although efforts have been made, significant improvements in health care continue to be needed to avoid preventable errors to patients (Chassin & Loeb, 2013). Nurses, as managers of patient care, hold a unique position. Nurses have more contact time with a patient than any other healthcare practitioner and are, therefore, in the most ideal position to make a difference in patient safety and outcomes. Nurses are functioning in a health care environment, however, that is more complex than in years past. A few of the many challenges nurses face today are responsibilities for operating continuously evolving technologies, managing patients with multiple and increasingly complicated physiological problems, making critical life-threatening decisions based on specified parameters and expanded duties, and communicating with families possessing multifarious social and cultural beliefs and behaviors (Benner, Sutphen, Leonard, & Day, 2010). Considering the increasing responsibilities of nurses and the undulation of the overall health care environment, it is imperative that, in addition to a solid and extensive knowledge base and proficient skill abilities, nurses possess adroit reasoning and clinical judgment competencies in order to make a difference in patient safety and outcomes (Benner et al., 2010).

To prepare nurses with the clinical reasoning and judgment skills needed in the contemporary practice environment nursing education must change (Benner et al., 2010). What the nurse needs to know (cognitively), be able to do (skilled know-how), and possess (ethical

comportment), as described by Benner et al. (2010) to promote favorable patient outcomes, must be the focus of nursing education. Moreover, transformation of the clinical component of nursing education was declared the most critical element needed to produce nurses who can function in today's health care environment by the National League for Nursing (2008).

In most nursing education settings, students are expected to apply the knowledge and skills learned from the classroom and skills laboratory to the total care taking of one or two patients in the clinical setting. Hence, the focus in the clinical setting becomes task and skill oriented. The clinical instructor is concerned with patient safety and task and skill performance of students, thereby, providing little opportunity for students to develop needed clinical reasoning and judgment skills (Gubrud-Howe, 2008). Therefore, focused learning methods are needed to promote application and synthesis of salient aspects of key concepts where student nurses can begin to develop increasing clinical reasoning and judgment skills.

Tanner (2006) developed a model (hereafter referred to as Tanner's *Clinical Judgment Model*) to articulate practicing nurses' clinical judgment. Past research on clinical judgment has been mostly descriptive (Tanner, 2006) and focused on registered nurses in the clinical setting (Lasater, 2007a). More recently, researchers investigating development of nursing students' clinical judgment have begun using High Fidelity Simulation (HFS), specifically using Tanner's Clinical Judgment Model in HFS settings (Blum, Borglund, & Parcels, 2010; Dillard, Sideras, Ryan, Carlton, Lasater, Siktberg, 2009; Gubrud-Howe, 2008; Johnson, Lasater, Hodson-Carlton, Siktberg, Sideras, & Dillard, 2012; Lasater, 2007a; Lasater, 2007b; Lasater & Nielsen, 2009a; Mann, 2010; Sideras, 2007). A rubric based on Tanner's Clinical Judgment Model was developed by Lasater (*Lasater's Clinical Judgment Rubric [LCJR]*) to evaluate nursing students' clinical judgment. A guided reflection tool (hereafter referred to as the *Guide for Reflection*) has

also been developed based on Tanner's Clinical Judgment Model by Nielsen, Stragnell, and Jester (2007).

Reflection, a major tenet in Tanner's Clinical Judgment Model, is a teaching strategy first introduced by Dewey in 1933. Reflection allows the student to reflect on, or step back and take a look, at a situation to contemplate whether the action taken was the correct one or whether an alternative action should be taken (Dreyfus & Dreyfus, 2009). Ruth-Sahd (2003) analyzed 38 articles, dissertations, and books on reflection published between 1992 and 2002 in various fields. Of these, 20 studies revealed positive outcomes including increased theory to practice integration, self-esteem, and critical thinking and judgment while only two nursing studies indicated there was no difference in outcomes. Ruth-Sahd concluded that more research on reflection is needed. Moreover, Ruth-Sahd declared that reflection is not an easy task to accomplish, and students need guidance in the area of reflection. Tanner (2006), while noting that there is a large body of research on reflection, asserted that there is little research connecting reflection specifically to clinical judgment.

Reflection alone may not produce quality learning (Nielsen et al., 2007). Guided reflection, or reflection based on cues or prompts, forces the student to examine the clinical experiences in a directed and focused manner (Nielsen et al., 2007). Moreover, Glynn (2012) asserted a need for a framework to direct students' reflection in order to close the theory to practice gap that exists in nursing education.

Use of a clinical judgment rubric and a guided reflection tool based on a clinical judgment model provides students with needed and clear expectations and standards for evaluation (Lasater, 2007b) and a common language for students and faculty (Cato, Lasater, & Peebles, 2009). Moreover, repeated use of tools with the same language contributes to a

consistent methodical way of regarding situations and dilemmas (Kuiper, Murdock, & Grant, 2010) and could assist the student in making connections between salient aspects of theory and use of knowledge, skills, and ethical comportment in actual clinical situations. Nielsen et al.'s (2007) Guide for Reflection follows Tanner's Clinical Judgment Model in precisely this manner guiding the student through a focused reflection of evaluating how they notice, interpret and respond to a clinical situation.

There is limited research noted in the literature on guided reflective journaling organized around a model or framework and only one study was found where the researcher used a modified version of Nielsen et al.'s Guide for Reflection. No studies have been identified using the LCJR in the acute care setting except Dillard et al.'s (2009) limited use to train instructors. Research measuring clinical judgment in the acute care setting with guided reflection has not been found. Therefore, the primary focus of this study was to explore the impact of guided reflective journaling using the Guide for Reflection on clinical judgment in the acute care clinical setting as measured by Lasater's Clinical Judgment Rubric (LCJR) compared to clinical judgment using reflective journaling with course learning outcomes.

Theoretical Framework

The theoretical framework for this study is Tanner's Clinical Judgment Model. Tanner (2006) reviewed the literature to assess clinical judgment of beginning and experienced nurses. Other terms Tanner used interchangeably were "problem solving," "critical thinking," and "decision making." Tanner determined that beginning and experienced nurses do not use the nursing process in nursing practice, as taught in nursing education, to formulate judgments and make decisions about patient care and management. Instead, she concluded, nurses use "clinical judgment" and "clinical reasoning." Tanner's (2004) definition of clinical judgment is "an

interpretation or conclusion about a patient's needs, concerns, or health problems, and/or the decision to take action (or not), use or modify standard approaches, or improvise new ones as deemed appropriate by the patient's response" (p. 204) while clinical reasoning is the process used to come to the decisive judgment. Clinical judgment, rather than clinical reasoning, was the focus of this study.

Components of clinical judgment, according to Tanner (2006), are noticing, interpreting, responding, and reflecting. Clinical judgment begins with the nurse's initial grasp of the clinical situation, called noticing. What the nurse grasps of the situation is largely dependent on the values and ideas the nurse possesses, the nurse's knowledge of and relationship to the patient, the environment or context of the situation, and the nurse's expectations of what normal is based on knowledge and experience.

Interpreting, or how the nurse reasons through or understands what is taking place in a situation, is done by an analytic process, intuition, or/and narrative thinking (Tanner, 2006). An analytic process usually occurs when there is little information known about a situation. Intuition is a method of *just knowing* that develops over time and experience. Narrative thinking occurs when the nurse sees the situation in a story format, interpreting the situation as if the nurse was involved in the situation.

Responding, according to Tanner (2006), is when the nurse decides to take action or to not take action. *Reflection* occurs during the action, or responding phase, called reflection-in-action and also takes place after the action, called reflection-on-action (Tanner, 2006). The nurse reflects while taking action to determine if the action is beneficial or harmful to the patient. Any further intervention needed is taken. After the situation has subsided, reflection-on-action to evaluate the entire process occurs. This after-the action reflection promotes the benefit of the

experiential learning by adding to the nurse’s erudition when faced with a similar situation. See Tanner’s Clinical Judgment Model depiction (see Figure 1).

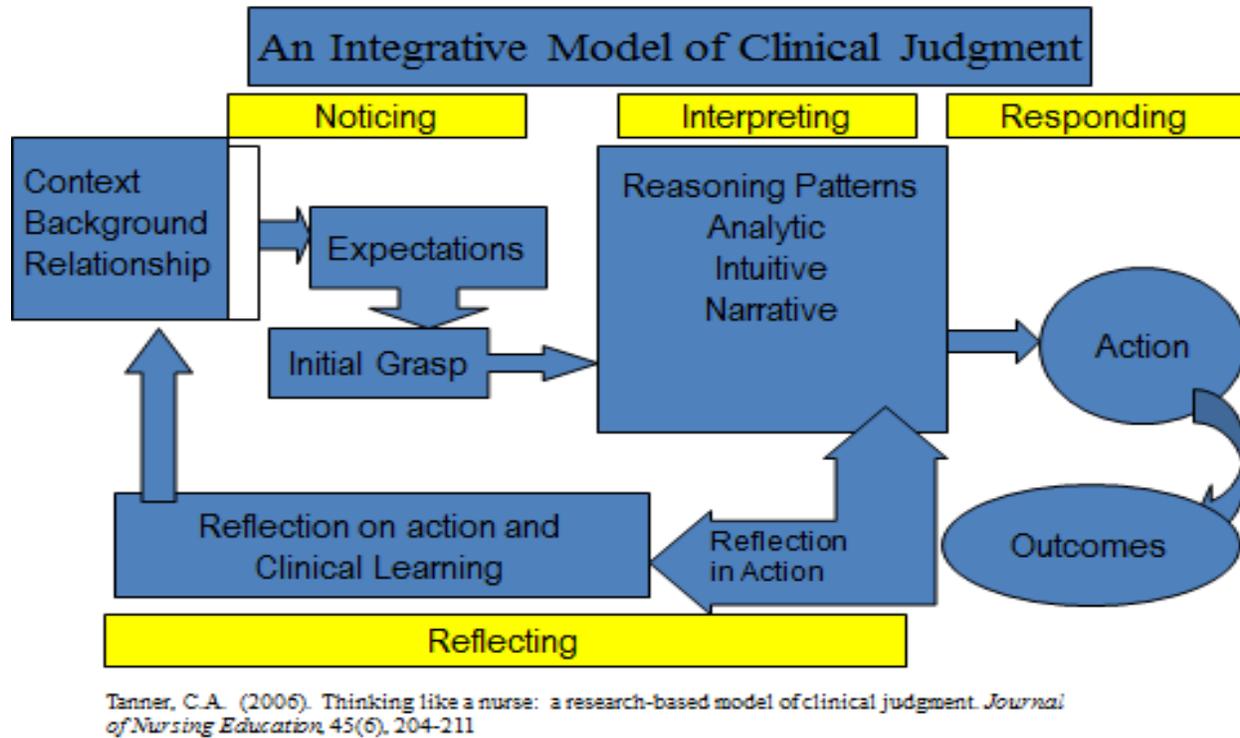


Figure 1. Tanner’s Clinical Judgment Model

Tanner (2006) stated that faculty at the university where she works has used the Clinical Judgment Model as a debriefing tool after simulation. Debriefing provides an opportunity for the student to identify areas where they failed to notice salient cues and possible causes of failure such as lack of knowledge about a condition or medication, an inability to stay focused due to interruptions, or reaching a conclusion prematurely (Tanner, 2006).

Problem and Purpose Statements

Having nurses who are knowledgeable, skilled, ethical, and possessing good clinical judgment skills is believed to promote increased favorable patient outcomes in this contemporary complex health care environment (Benner, 2010). A primary goal of nursing education must be

to find and implement pedagogical methods to promote understanding and integration of salient theoretical concepts and clinical experiences, thus providing opportunities to increase students' knowledge, skills, and clinical judgment capabilities that are needed upon graduation (Benner, 2010). Valid instruments to evaluate clinical judgment as objectively and effectively as possible are also needed in nursing education (Adamson, Gubrud, Sideras, & Lasater, 2012).

Studies with reflective journaling utilizing various frameworks and guides (Ip, Lui, Chien, Lee, Lam, & Lee, 2012; Khan, Ali, Vazir, Barolia, Rehan, 2012; Kuiper et al., 2010; Murphy, 2004; Padden, 2011; Taylor-Haslip, 2010; Schuessler, Wilder, & Byrd, 2012) have been shown to assist the nursing student in making important connections between class and clinical in undergraduate nursing students, to some extent, thus closing the theory-practice gap. No studies were found specifically connecting Nielson et al.'s (2007) Guide for Reflection, as is, to clinical judgment in the clinical setting. One study (Padden, 2011), however, modified the Guide for Reflection and related levels of reflection with levels of thinking.

Studies using the LCJR, a tool for evaluating clinical judgment, have been performed in the HFS setting (Blum et al., 2010; Dillard et al., 2009; Gubrud-Howe, 2008; Johnson et al., 2012; Lasater, 2007a; Lasater & Nielsen, 2009; Mann, 2010; Sideras, 2007). However, studies using the LCJR in the acute care hospital setting have not been found in the literature.

A study in which the researchers quantified clinical judgment using the LCJR or other tool in an acute care hospital setting after a guided reflective journaling intervention was not identified in the literature. Therefore, the purpose of this study was to explore whether there was a difference in clinical judgment, as measured by the LCJR, of associate degree nursing students in the acute care setting who participated in guided reflective journaling utilizing the Guide for Reflection compared to clinical judgment, as measured by the LCJR, of associate degree nursing

students in the acute care setting who participate in reflective journaling using course learning outcomes. A secondary purpose was to examine whether there was a difference in each group's ending clinical judgment scores, as rated by the LCJR, compared to the same groups' clinical judgment scores at the beginning of the semester. And lastly, student perceptions as related to improvement of clinical judgment with reflective journaling throughout the semester was sought.

Significance of the Study

This research is significant because exemplary nursing judgment skills are essential for promoting positive patient outcomes in the complex health care environment (Benner et al., 2010). Any method that would improve nursing students' ability to apply and synthesize salient aspects of key theoretical components leading to enhanced judgment skills in the practice environment would be beneficial (Glynn, 2012).

The real-life practice environment is, as previously noted, complex and constantly evolving. Registered nurses, whether novice or experienced, according to Tanner (2006), utilize skills of noticing and interpreting to reason and formulate clinical judgments. The context of the situation and the clinical environment impacts the nurses' clinical judgment and cannot be completely replicated in a lab setting. Nursing students' abilities to make clinical judgments in the acute care hospital environment in preparation for real-life practice is needed to identify essential alterations in teaching methodologies. The LCJR is valuable because it follows Tanner's research-based model and provides students and instructors with clear performance expectations of nursing clinical judgments. Nielsen et al.'s (2007) Guide for Reflection leads the student to focus on the important skills of noticing, interpreting, and responding to a situation as a practicing nurse would.

Research supporting the use of guided reflective journaling with Nielsen et al.'s (2007) Guide for Reflection, based on Tanner's research-based Clinical Judgment Model, as a significant pedagogical tool to increase student nurses' clinical judgment in the acute care hospital setting gives credibility to using a research-based guide (the Guide for Reflection) to promote deeper learning and integration of concepts and prepare students for real-life nursing practice. Also, use of a validated instrument (the LCJR) based on the same model gives students and instructors clear performance expectations and consistent language and could provide educators with a research based tool to measure clinical judgment of students in the acute care setting. Results of this study provides data needed to support use of Nielsen et al.'s Guide for Reflection to enhance theory-to-clinical integration and the use of the LCJR to evaluate clinical judgment in an acute care setting, both based on Tanner's research-based Clinical Judgment Model of practicing nurses. Use of the model, rubric, and guide may provide a comprehensive research-based method of teaching students in the classroom and clinical setting that may prepare students in a more realistic manner for real-life nursing practice (Lasater & Nielsen, 2009b).

Research Questions

Proficient judgment abilities in the clinical setting are imperative for nurses. Guided reflective journaling based on a researched-based model of practicing nurses provides nursing education with an additional pedagogical tool to promote theory-to-practice integration; thus enhancing clinical judgment in the acute care setting. Five questions were explored in this research. They were as follows:

- 1) How does clinical judgment, as rated by the Lasater Clinical Judgment Rubric, in one group of associate degree nursing students in an Adult Health Nursing course

who have participated in guided reflective journaling using the Guide for Reflection, compare to clinical judgment of another group of associate degree nursing students in an Adult Health Nursing course who have participated in reflective journaling using course learning outcomes;

- 2) How does clinical judgment, as rated by the Lasater Clinical Judgment Rubric, in one group of associate degree nursing students in an Adult Health course who have participated in reflective journaling using course learning outcomes at the beginning of the semester compare to the same group's clinical judgment at the end of the semester;
- 3) How does clinical judgment, as rated by the Lasater Clinical Judgment Rubric, in one group of associate degree nursing students in an Adult Health course who have participated in guided reflective journaling using the Guide for Reflection at the beginning of the semester compare to the same group's clinical judgment at the end of the semester;
- 4) What are associate degree nursing students' perceptions of reflective journaling using course learning outcomes as related to development of clinical judgment;
and
- 5) What are associate degree nursing students' perceptions of guided reflective journaling using the Guide for Reflection as related to development of clinical judgment?

Theoretical Definitions

Clinical Judgment

Clinical judgment is the dependent variable of this research. For purposes of this study, the theoretical definition of clinical judgment is the ability to reach a conclusion or decision concerning a patient's needs through effective and mindful observation, efficient and prioritized elucidation of all data, appropriate and skillful response, and reflective analysis of patient response to actions with further introspection for continued growth and improvement (Tanner, 2006). The definition was operationalized using Lasater's Clinical Judgment Rubric (LCJR) which measures Tanner's four categories of behavior: (a) noticing, (b) interpreting, (c) responding, and (d) reflecting (Lasater, 2007). Eleven dimensions further elucidated the four categories. Measures included in the noticing category were focused observation, recognizing deviations from expected patterns, and information seeking. The interpreting category dimensions included prioritizing data and making sense of the data. A calm and confident manner, clear communication, well-planned intervention and flexibility, and being skillful made up the responding category. The reflecting category measures included evaluation/self-analysis and a commitment to improve.

Students' clinical judgments were rated as exemplary, accomplished, developing, or beginning for each of the 11 dimensions using the LCJR (Lasater, 2007). To quantify the LCJR's 11 dimensions for research purposes, Lasater provided a numerical scoring guide to Sideras (2007) initially and then Gubrud-Howe (2008) and Mann (2010) as follows: exemplary (4); accomplished (3); developing (2); and beginning (1). This same numerical scoring was assigned by the researcher to each of the LCJR's 11 dimensions for every study participant after the reflective journaling and guided reflective journaling were evaluated. Scoring the student's

clinical judgment in this manner provided separate scores for each of the categories – noticing, interpreting, responding, and reflecting – and also provided a total clinical judgment score, as rated by the LCJR. In other words, a score of 1, 2, 3, or 4 was given to each of the three dimensions in the noticing category - focused observation, recognizing deviations from expected patterns, and information seeking- resulting in a score ranging from 3 to 12 for the noticing category. Assigning a score of 1, 2, 3, or 4 to each of the two dimensions in the interpreting category – prioritizing data and making sense of data – resulted in a score of between 2 and 8 for the interpreting category. Continuing the same process for the responding category resulted in a score of between 4 and 16 for the four dimensions – calm, confident manner, clear communication, well-planned intervention/flexibility, and being skillful. And continuing for the reflecting category, the two dimensions of evaluation/self-analysis and commitment to improvement resulted in a score of between 2 and 8. Thus, the possible minimum score for a category was 2 and the maximum score for a category was 16. The minimum total clinical judgment score for a student based on the LCJR could possibly be 11 and the possible maximum score was 44.

Reflective Journaling

Reflective journaling is reflecting on a situation and writing about it. The nursing literature provides inconsistent definitions and meanings of the term (Forneris & Peden-McAlpine, 2007). For purposes of this study, the definition of reflective journaling was pondering or thinking about a clinical encounter with a patient in an acute care setting which brings to mind other thoughts or alternatives to actions or behaviors that should be taken or should have been taken (Dreyfus & Dreyfus, 2009) and facilitating those thoughts into the appropriate context or words (Josephsen, 2013). Learning outcomes from Adult Health III,

NURS 2115 were used to develop statements to promote thoughtful contemplation of the clinical experience as noted by the outline *Student Instruction: Reflective Writing* (see Appendix A) and operationalized the comparison group. Learning outcomes from the last semester course, Adult Health III, NURS 2115 were used because these are the expected abilities of the entry-level graduate nurse.

Guided Reflective Journaling with the Guide for Reflection

Guided reflective journaling with the Guide for Reflection is the independent variable of this dissertation research. For purposes of this study, the theoretical definition of guided reflective journaling with the Guide for Reflection was journal writing by nursing students in response to prompts intended to assess students' present knowledge, experiences, and feelings and promote acquisition and creation of new knowledge as reflection occurs about what the student noticed about a patient, how the situation was interpreted, responded to, and what the student would do differently the next time in a similar situation (Nielsen et al., 2007). Nielsen et al.'s (2007) Guide for Reflection is based on Tanner's Clinical Judgment Model.

Summary

Nurses are in an ideal position to make a difference in patient outcomes. Possession of excellent judgment skills is needed in the current tumultuous health care arena. Nurse educators are in need of robust research studies to identify evidence-based practices that will link salient aspects of theory with the knowledge and skilled and ethical behaviors required in the practice environment, thus enhancing students' preparation for real-life practice. Tanner's Clinical Judgment Model, the framework for this study, provides a researched-based model for teaching students how to identify, or grasp, the most important aspects of a situation, how to interpret and respond in the situation, and then how to reflect on the situation to identify actions that could

have been improved upon. The purpose of this study, therefore, was to explore whether participation in the use of guided reflective journaling with the Guide for Reflection made a difference in clinical judgment of associate degree nursing students compared to students who participated in reflective journaling with course learning outcomes. A second purpose was to examine the progression of clinical judgment with both groups – the guided reflective journaling using the Guide for Reflection group and the reflective journaling using the course learning outcomes group - over the semester and compare clinical judgment scores at the end of the semester with those at the beginning of the semester. Lastly, the researcher probed associate degree nursing students' perceptions in both groups of how the reflective journaling impacted their clinical judgment.

CHAPTER II:

REVIEW OF THE LITERATURE

The search terms and phrases used to initiate a literature review in preparation for this research study included “Tanner’s Clinical Judgment Model,” “clinical judgment and nursing education or nursing students,” “guided reflection nursing judgment,” “Tanner and clinical judgment,” and “clinical judgment and reflection and nursing” primarily in the Cumulative Index of Nursing and Allied Health Literature (CINAHL) and the ProQuest Nursing and Allied Health Source databases. An additional recent search using the terms “guided reflective journaling and undergraduate nursing education” and “guided reflective journaling and undergraduate nursing education and clinical judgment” was also conducted. Applicable references as cited by the research authors were also obtained. As stated by Tanner (2006), reflective journaling is not new and has been used in most disciplines including nursing education, but a lack of literature connecting reflection to clinical judgment exists. Considering the imperative for improved clinical judgment of graduates, nursing education is in need of evidence-based pedagogical practices. This chapter presents an analysis of the current and applicable research methods on guided reflective journaling, Tanner’s Clinical Judgment Model, and the Lasater Clinical Judgment Rubric (LCJR) that was developed to measure clinical judgment.

Tanner’s Clinical Judgment Model

Tanner (2006) developed the Clinical Judgment Model after research findings revealed that neither beginning nor experienced clinical nurses use the widely taught nursing process while performing care and making clinical judgments. A growing number of nurse researchers

are utilizing the Clinical Judgment Model with various teaching methodologies to evaluate student nurses' clinical judgment capabilities (Gerdeman, Lux, & Jacko, 2013; Glynn, 2012; Harmer, Huffman, & Johnson, 2011). Three qualitative studies of BSN students were identified using Tanner's Clinical Judgment Model. Gerdeman et al. (2013) had eight students perform concept mapping with a rubric based on Tanner's Clinical Judgment Model while Glynn (2012) had 34 students present a clinical experience in the classroom utilizing Tanner's Clinical Judgment Model. In both studies, researchers indicate that utilizing the model with its clear dimensions (noticing, interpreting, responding, and reflecting) improved students self-reported clinical judgment skills.

Harmer et al. (2011) performed the third qualitative study. Harmer et al. used situated learning theory and Tanner's Clinical Judgment Model in a clinical situation with peer mentoring on a designated education unit (DEU). Sixteen seniors were paired with 16 sophomore students for patient care with the senior students coaching the novices. Student perceptions concerning whether this experience helped the student make better clinical judgment in a post-experience survey resulted in both senior and sophomore groups overwhelmingly agreeing or strongly agreeing that the experience improved their clinical judgment.

Guided Reflective Journaling

Literature related to reflective journaling is present in a number of disciplines. Nursing has begun to realize the importance of providing guidance to students' reflection using prompts or other methods to enhance the learning experience and promote clinical judgment in students (Ip et al., 2012; Khan et al., 2012; Kuiper et al., 2010; Murphy, 2004; Padden, 2011; Schuessler et al., 2012).

Guided reflective journaling improved higher-level thinking of nursing students in Ip et al.'s (2012) study using John's *Structured Reflection Model* (SRM) and also in Padden's (2011)

study using an adaptation of Nielsen et al.'s Guide for Reflection (2007) and the author-developed *Level of Reflection-on-Action Assessment* (LORAA) based on Boud, Keogh, and Walker's (1985) guided prompts and Tanner's (2006) Clinical Judgment Model. Ip et al., using a pre-posttest design with 38 undergraduate Chinese students, had students submit a journal prior to a three-hour interactive workshop on reflective skills, participate in a four-week clinical practicum facilitated by instructors, and then submit reflective journaling on the second and fourth weeks of the clinical practicum. Instructors coded the reflective writings as either 1- non-reflector; 2 - reflector; or 3 - critical reflector. Statistically significant findings were reported with greater than 90% of students writing at the non-reflector level prior to the intervention while the majority of students improved to the reflector level after the intervention. The authors reported that, prior to the intervention, students focused on basic tasks and did not provide thoughtful details of actions but after the intervention most of the students were able to relate how they perform and solve problems including taking feelings into account and making associations. A post-experience survey performed also revealed that the students found the intervention useful in developing their self-reflection skills and was applicable to clinical practice.

Padden (2011), on the other hand, found improvements in levels of reflection but no statistical significance. Padden compared pre- and post-test measures of self-awareness and perceived clinical decision making skills in two groups of students. The intervention group also performed guided reflective journaling using an adaptation of Nielson et al.'s (2007) Guide for Reflection and also received written feedback to the guided reflective journal entries (n = 33) at three different times in one semester compared to the control group who did not perform guided reflective journaling (n = 79). Improvements, though not statistically significant, were made

from the lowest level of writing to the middle level of writing for the majority of students. The intervention groups' mean scores were higher on self-awareness after the intervention than the control group whereas the control group had higher mean scores on perceived clinical decision making skills.

With similar definitions of levels of reflection as in the above noted studies but no specific framework, Murphy (2004) measured clinical reasoning. Using a mixed methods study design with a convenience sample of 33 first semester nursing students, Murphy (2004) found statistically significant findings on the author's measure of clinical reasoning in the clinical setting, but not as related to exam questions. Murphy randomized the students into four clinical groups with two groups and their clinical instructors receiving instruction on use of focused reflection and articulation of thoughts through journaling. The two treatment groups scored significantly higher on the author's measure of clinical reasoning as assessment and analytic abilities observed by instructors in the clinical setting but there was no difference in clinical reasoning as measured by exam scores.

Murphy (2004) also used an author-developed self-report survey (*Reflection & Articulation Inventory* [RAI]) to ascertain student's frequency and perceived efficacy of focused reflection and articulation in the clinical setting. The author used responses to the surveys to formulate questions for interviews to then evaluate the differences between students with high clinical reasoning scores versus students with low clinical reasoning scores in relation to their use of focused reflection and articulation and how their perception of their use of focused reflection and articulation affected their learning. The top six and bottom six scorers on clinical reasoning were interviewed with thematic coding performed. Students with high clinical reasoning scores had a high frequency of use of focused reflection and articulation, engaged in

abstract learning and were more self-regulated in their learning than the low scorers. All high clinical reasoners were members of the treated group; two of the low clinical reasoners, however, were also members of the treated group. It is not clear how often the students had to write in their reflective journal but negative statements from a couple of students indicated journaling was most likely a weekly assignment.

Another study performed to evaluate higher level thinking between two groups was performed by Kuiper et al. (2010) using the *Self-Regulated Learning (SRL) Model*. Kuiper et al. compared thinking strategies of two groups of last semester BSN students using reflective journals with self-regulated learning prompts which are open-ended statements to promote reflection on the clinical experience, thinking processes, behaviors, and environmental influences. The difference in the two groups was the number of clinical hours the group was scheduled for; one was 60 hours and the other was 120 hours. A sample from each group was compared for student thinking strategies using descriptive statistics to identify major categories, then retrospective verbal protocol analysis (RVPA) to distinguish thinking practices used for analyzing problems. Themes identified with the 60-hour group included development of the RN role and choosing a field for employment. Themes from the 120-hour group included reexamining their clinical performance and identifying the need to locate additional resources as needed. The authors stated that although the group with the greater number of clinical hours (120 hours) performed more self-evaluative metacognitive strategies, there was no statistically significant difference between the groups. The authors suggested nurse educators increase clinical hours and/or increase focused clinical experiences as either may lead to higher-level thinking.

Taylor-Haslip (2010) also studied levels of journal writing. Taylor-Haslip divided 30 ADN mother-baby/pediatric students into three groups of ten students each. No framework was stated. For each clinical experience students were to set a personal goal, reflect upon their efforts at obtaining the goal, research any areas of knowledge deficit, reflect upon their preparedness for the next clinical, and reflect on what they could have done differently to reach the goal if it was not met. Journal writings were evaluated weekly and placed in four categories: descriptive writing, descriptive reflection, dialogic reflection, or critical reflection. Academic performance (exam grades and satisfactory performance in clinical) was correlated with the student's level of reflection. At the end of the semester, no student was writing at the critical reflection level but 90% were writing at the middle two stages (dialogic reflective or descriptive reflection stage). The average exam grade was 85 and 96% of students were satisfactory in clinical.

Statistically significant knowledge and attitude improvements were found by Khan et al. (2012) in a descriptive cross sectional study of 74 second, third, and fourth year nursing students in Pakistan using Kolb's experiential learning cycle. Khan et al. conducted research to assess students' perceptions of effectiveness of teaching strategies currently being used in the clinical setting. Using an instructor-developed questionnaire, the researchers asked questions including frequency of utilization of various teaching strategies, the effectiveness of the teaching strategies, and open-ended questions for students to respond to. Of the teaching strategies, and of concern to this study, Khan et al. found that reflection improved knowledge and attitudes in a statistically significant manner.

Schuessler et al. (2012) performed a qualitative study with improvement in thinking processes observed. Schuessler's study involved 50 students resulting in 200 researcher-read, anonymous, guided reflective journal entries. No framework was provided but students were

given semi-structured questions to guide their reflection. The purpose of the study was to identify how cultural humility can be revealed with guided reflective writing in nursing students. Of the 11 themes identified, improvement was noted from first to fourth semester. As in the previous studies noted, guided reflective journaling improved students thinking processes from basic skills to confidence and greater understanding of the concepts. Schuessler et al. also found an improvement from seeing a need to provide culturally competent care to persons different from them to demonstrating a change in thinking and feeling about people unlike themselves.

Lasater Clinical Judgment Rubric (LCJR)

In search for an instrument to evaluate clinical judgment, Lasater (2007a) found only one in the literature, and the instrument found was a self-reporting instrument. She then developed the Lasater Clinical Judgment Rubric (LCJR) in concert with Tanner's Clinical Judgment Model to clearly identify expectations and promote communication concerning clinical judgment between students and instructors.

There are a growing number of studies utilizing the LCJR to measure clinical judgment in the HFS setting. A couple of studies were performed with a priority being to provide reliability and validity data for the LCJR (Sideras, 2007; Gubrud-Howe, 2008). Statistically significant improvements in clinical judgment as measured by the LCJR have been demonstrated in the literature in one quantitative study identified (Johnson et al., 2012), and a couple of mixed methods studies (Lasater & Nielsen, 2009a; Mann, 2010), while no statistically significant findings, were found in another (Blum, 2010).

Sideras (2007) and Gubrud Howe (2008) examined the reliability and validity of the LCJR. Sideras (2007) performed a known groups methodology to examine the construct validity of the LCJR. Using a convenience sample, Sideras' study compared faculty-rated mean clinical

judgment scores of 24 graduating seniors with 22 end-of-the-year juniors and student evaluations. Inter-rater reliability was reported as modest. Mean clinical judgment scores for all 11 aspects of the LCJR were statistically significantly higher in the graduating seniors compared to the junior students. In Gubrud-Howe's study (2008), internal consistency of the LCJR was established with high Cronbach coefficient alpha scores obtained. Inter-rater reliability was also high pre- and post-test when comparing all 11 dimensions of the LCJR and there were no statistically significant differences between the raters when a one-way ANOVA was performed.

Of the two mixed methods studies with pre- and post-assessments of clinical judgment as measured by the LCJR, one evaluated using concept based learning activities (Lasater & Nielsen, 2009a) and one examined grand rounds (Mann, 2010). With third quarter BSN students, Lasater and Nielsen had half of the students in an adult acute care-nursing course (comparison group) and half in a pediatric/maternal-child course (treatment group). The treatment group consisted of each student participating in two or more concept-based learning activities. Clinical judgment was assessed for all students using the LCJR in a simulation setting. The treatment group had statistically significant higher scores in all phases of clinical judgment. At the end of the semester, treatment group students also shared their perceptions of concept-based learning activities and their thoughts about the impact of concept-based learning on their clinical judgment in a focus group format. Qualitative data obtained indicated that the concept-based activities, though "slow, tedious, and frustrating" (p. 445) were supportive of in-depth learning and applicable to later clinical experiences. Mann's study involved 22 BSN students divided into five groups with four groups receiving an intervention of a grand rounds-type scenario discussion and one group receiving no intervention. Clinical judgment was assessed using the LCJR with numerical grading after the first of two sessions for the intervention groups for the

pre-intervention data, and after the second session. The control group participated in one session of a grand rounds-type scenario but did not receive any discussion after the scenario by the researcher. A significant difference was found between the treatment groups' and the control groups' clinical judgment scores as per the LCJR.

Johnson et al. (2012) conducted a multi-site, quasi-experimental study with HF simulators to identify whether there is a difference in clinical judgment of nursing students who observe expert role modeling in the care of a patient versus those who do not have the observation experience. Five groups of students from diverse settings (associate degree, baccalaureate degree, private, public, large, small, United States [US], United Kingdom [UK]) participated in this study, totaling 275 students. Students in each group were randomized into an experimental or control group, and then again into team leader, assessment nurse, or medication nurse/educator roles. All students received the same pre-simulation activities. The experimental group observed a video recording of an expert nurse caring for the patient with a voice over of the expert's clinical judgment thoughts. Clinical judgment skills of noticing, interpreting, and responding using the LCJR were assessed in those participating as team leaders (27 UK students and 67 US students) and were statistically significant in the treatment group in all schools; however, the skill of reflecting was not statistically significant in the US treatment group but was statistically significant for the UK group. Student evaluations of the activities for both US groups indicated that they found the experience more helpful in noticing and responding to patient symptoms, relating theoretical concepts to the clinical setting and in confidence in caring for patients. UK student evaluations indicated a statistically significant difference in satisfaction with learning and provision of skills with all items between the experimental group and control group with the exception of not being confident in caring for a delirious patient.

Blum et al. (2010) performed a quasi-experimental study with 53 BSN students in their first clinical semester to assess the impact of HF simulation on student self-confidence and clinical judgment using the LCJR. Students were placed in one of three laboratory groups with two groups receiving the intervention (skill competency with HF simulation, n = 37) and one group receiving traditional skill competency. The LCJR was used at midterm and at the end of the semester. Self-confidence and competence improved from midterm to the end of the semester in all groups but there was no statistically significant difference between the simulation groups and the traditional group.

Clinical Judgment, LCJR, and Guided Reflection

Only one study combining Tanner's Clinical Judgment Model, the LCJR, and guided reflection has been found in the literature. Dillard et al. (2009) provided faculty development on student clinical judgment and evaluation using Tanner's Clinical Judgment Model and the LCJR. Outcomes assessed were faculty response to the workshop, student self-evaluation of learning, and student written guided reflections with subsequent teacher evaluation of clinical judgment using the LCJR. Faculty first received training on Tanner's Clinical Judgment Model and the LCJR. One week after the faculty training, students participated in a simulation scenario. Faculty observed, and then, they participated in the scenario as the voice of the patient. Later, faculty practiced evaluating student clinical judgment while watching videos of students caring for patients in a simulation setting. Students were asked to complete a self-assessment of the goals of the scenario. Student self-assessment mean scores revealed that the students felt they understood the concepts very well (all scores were greater than 3.0 on a scale from 1-4 with 4 being definitely understood). Participating students (25) were subsequently given a patient in the clinical setting with the same or very similar clinical situation. Students were asked to complete written guided reflections. The faculty then graded the students' clinical judgments using the

LCJR from the reflective statements. Examples of student reflections were given ranging from the beginning stage of clinical judgment to the exemplary stage.

Summary

The focus of this literature review was on research studies of undergraduate nursing students using Tanner's Clinical Judgment Model, guided reflective journaling, and/ or the Lasater Clinical Judgment Rubric (LCJR). The literature supports guided reflective journaling as an effective teaching strategy and researchers are searching for optimum ways, and the most appropriate frameworks or models to use, to promote higher-level thinking and improve clinical judgment in nursing students. Ip et al. (2012) using John's SRM, and Padden (2011) using the LORAA, found improved, and higher, levels-of-reflection. Khan et al. (2012) used Kolb's experiential learning cycle with statistically significant improvements or changes in student knowledge and attitudes, while Kuiper (2010) used the SRL model with improvements, but no statistically significant results.

There is a growing body of research using Tanner's Clinical Judgment Model and the LCJR indicating that one or both can be used in a variety of ways to stimulate clinical judgment. Gerdeman et al. (2013) used concept mapping with students; Glynn (2012) had students give presentations of clinical experiences in the classroom; and Harmer et al. (2011) had students use Tanner's Clinical Judgment Model with peer mentoring on a DEU. In all three studies, students perceived improvement in clinical judgment. Quantitative studies evaluating clinical judgment using the LCJR with treatment groups versus control groups were performed by Mann (2010) and Johnson et al. (2012) in the HFS setting with statistically significant findings obtained, whereas, Blum et al. (2010) did not find statistically significant results. Lasater and Nielsen (2009) performed a mixed methods study where statistically significant higher scores in clinical

judgment were found in the HFS setting and student perceptions were positive. Dillard et al. (2009) performed a mixed methods study using the LCJR and guided reflection based on Tanner's Clinical Judgment Model. Dillard et al.'s study, the first using Tanner's Clinical Judgment Model, the LCJR, and a guided reflection tool found positive student self-assessments of learning in a simulation setting, and predicated that an instructor is able to evaluate student clinical judgment capabilities from written work.

One gap identified in the literature includes a lack of research measuring clinical judgment in nursing students in the acute care hospital setting. The LCJR has been used to measure clinical judgment in the HFS setting but only Dillard et al.'s (2009) study has been identified measuring clinical judgment of nursing students in the acute care hospital setting and the purpose of that study was to train instructors, and, no statistics were given. The LCJR, based on clinical judgment behaviors of practicing nurses from Tanner's research-based Clinical Judgment Model, and tested and developed with student nurses, provides clear, concise, behaviors for quantifying clinical judgments and should be tested in the acute care clinical setting. Another gap identified is limited research of nursing students' use of a guided reflective tool based on an evidence-based model or framework. Nielsen et al.'s (2007) Guide for Reflection is based on Tanner's Clinical Judgment Model and the LCJR and guides the student to think about and approach a clinical situation in the same manner as the model does. Leading or guiding the student in this manner may help shape students' thoughts and learning processes in a method similar to the novice and experienced nurses Tanner identified in her research, thus, improving clinical judgment prior to graduation from nursing school.

CHAPTER III:
RESEARCH METHODOLOGY

Introduction

Authors of current literature espouse the use of Lasater's Clinical Judgment Rubric (LCJR) to measure clinical judgment in the High Fidelity Simulation (HFS) setting (Blum et al., 2010; Dillard et al., 2009; Gubrud-Howe, 2008; Johnson et al., 2012; Lasater, 2007a; Lasater, 2007b; Lasater & Nielsen, 2009a; Mann, 2010; & Sideras, 2007). However, there have been no studies identified in the nursing education literature using the LCJR to measure clinical judgment in the acute care setting. Evidence in the nursing education literature also supports use of reflective journaling to increase knowledge or promote higher level thinking with or without various frameworks (Dillard et al., 2009; Ip et al., 2012; Khan et al., 2012; Kuiper, 2010; Murphy, 2004; Padden, 2011; Schuessler et al., 2012; Taylor-Haslip, 2010); however, only Ip et al., Khan et al., and Murphy reported statistically significant differences in knowledge or thinking, and only Ip et al., Murphy and Padden performed experimental studies.

The purpose of this research, therefore, was to quantify and compare clinical judgment of associate degree (AD) nursing students in the acute care clinical setting, as measured by the LCJR, of students performing guided reflective journaling using the Guide for Reflection versus reflective journaling using course learning outcomes. Moreover, student's clinical judgment progression at the end of the semester compared with the beginning of the semester was investigated in both groups. Perceptions of students concerning the effect of reflective journaling and guided reflective journaling on clinical judgment was also explored utilizing focus group

interviews. A mixed methods research design was used and is discussed further in this chapter. In addition, the sample and setting, ethical considerations, study and recruitment procedures, and instruments are presented. Finally, data collection, management, and analysis used to answer the research questions will also be described.

Research Design

A mixed methods design was selected for this study. A mixed methods study combines quantitative and qualitative research methods to provide greater insight into problems dealt with in the health sciences strengthens the results of the study (Creswell, 2009). The researcher chose this method because evaluating clinical judgment with a tool, even a tool that has been validated, from journal writings alone may not totally encompass all aspects of clinical judgment and may miss important feelings and behaviors that were not identified in the journaling.

The qualitative portion of the study commenced after the quantitative section had concluded. The quantitative method used was a quasi-experimental time-series design and the qualitative method consisted of a focus group interview.

In a quasi-experimental study, the researcher performs an intervention to identify a cause-effect relationship but is unable to randomize individuals and uses a convenience sample instead (Creswell, 2009). This research design was chosen because randomization of individuals was not feasible with the small number of students available for study; therefore, the researcher chose to evaluate two groups for comparison in different semesters to increase the numbers of participants and thereby positively influence the internal validity of the study. Attrition is prone to occur in a time-series design. History, or chance that some other factor affects the outcome of the study, is also greater with a small sample (Polit & Beck, 2008).

Students in the traditional Adult Health III, NURS 2115 main campus class in the summer semester of 2014 comprised the comparison group while students in the traditional Adult Health III, NURS 2115 main campus classes in both fall 2014 and spring 2015 semesters constituted the intervention group. The spring 2015 class was recruited to provide additional research participants as only two students completed the research as planned in the fall 2014 semester. The time series design was selected to explore whether there was a difference, over time, in the two groups' clinical judgment scores, as measured by the LCJR. The comparison group performed reflective journaling using course learning outcomes and the intervention group performed guided reflective journaling using the Guide for Reflection. Three times during the semester, both groups performed journaling in lieu of part of their usual clinical paperwork. Usual clinical paperwork involved completing an assessment, database, laboratory forms, medication rationales, nursing diagnoses, and assessment, implementation, and evaluation (AIE) nursing notes for one or two patients. The course instructors agreed to allow students to omit the database if participating in the study. In the fall of 2014, an additional option for clinical instruction, preceptorship, was introduced for a few select students in Adult Health III, NURS 2115 and continued for more students in the spring of 2015. Preceptorship involved the same number of clinical hours but required the student to follow the preceptors' work schedule for the allotted clinical time. Less paperwork was required of students who selected the preceptorship as the requisite paperwork included two assessments and two nurses' notes throughout the semester and weekly responses to five questions generated by the course instructor. The course instructor accepted the guided reflective writing in lieu of the five questions if the students were research study participants.

Evaluating clinical judgment over time is important, especially in the last semester of a nursing program, as students are soon to be released as graduate nurses. One moment in time may not adequately assess a student's clinical judgment. Moreover, Lasater stated that the LCJR was developed to be used to "describe the trajectory of students' clinical judgment development over the length of their program" and is used in her nursing program on multiple occasions (K. Lasater, personal communication, October 31, 2013). Clinical judgment was evaluated early in the clinical rotations of the semester after students had adjusted to new instructors and environments, in the middle of the clinical rotations, and at the end of the clinical rotations, using numerical scores associated with the LCJR and provided by Lasater to Sideras (2007) initially, then Gubrud-Howe (2008) and Mann (2010), and the researcher (K. Lasater, personal communication, January 31, 2014). The LCJR was used to explore progression of clinical judgment as related to the four categories (noticing, interpreting, responding, and reflecting) noted in Tanner's Clinical Judgment Model. Therefore, each study participant received a score for each of the four dimensions (noticing, interpreting, responding, and reflecting), and a total clinical judgment score for each of the three journaling times. The planned journaling days were on the second consecutive day of the second, fifth, and eighth clinical weeks for all groups.

As part of the qualitative study, a focus group interview was conducted as an efficient means of obtaining information about a particular problem (Polit & Beck, 2008). Within a focus group, the facilitator is able to provide an atmosphere where thoughts, feelings, and viewpoints are expressed that might not be shared in single interviews as comments from one person may prompt sharing from others (Kvale & Brinkmann, 2009). Select students were invited to participate in the focus group interview to probe student perceptions of clinical judgment in relation to the reflective journaling. Details are further described in this chapter.

Sample

A convenience sample from two separate groups of last semester senior students in an AD nursing program at a junior college in the southeastern US constituted the participants for this study. Students from the Adult Health III, NURS 2115 were chosen because the last semester of nursing school is deemed as the time when students are in the optimum position to improve their clinical reasoning and make clinical judgments as they synthesize all they have learned in the undergraduate program prior to graduation. There are approximately 50 students admitted to the traditional Adult Health III, NURS 2115 main campus class each semester. Volunteers from the traditional summer 2014 Dare to Learn State College (DTLSC) (a pseudonym used throughout the study to protect the college) main campus senior group comprised the comparison group and journaled using course learning outcomes in place of part of a course clinical requirement. Volunteers from the traditional fall 2014 and traditional spring 2015 DTLSC main campus group constituted the intervention group and performed guided reflective journal writing using the Guide for Reflection in place of part of a course clinical requirement. Volunteers were recruited in the spring 2015 class to provide a larger sample size as only two students completed the three guided reflective journaling writings over the semester in fall 2014 (see details in Recruitment section).

Both groups were from the traditional, main campus classes. Both groups met the same entry requirements into Adult Health III, NURS 2115. Additionally, students in both groups were under the direction of the same course coordinator and lead instructor for Adult Health III, an assistant professor who has been with DTLSC for several years. A LPN-RN Bridge class of Adult Health III, NURS 2115 was held simultaneously as a traditional Adult Health III, NURS 2115 on main campus one semester during the research time period but these Bridge students

were excluded from this study because they were in an accelerated track (four semesters) and received instruction from a different instructor. Moreover, the Adult Health III, NURS 2115 for LPN-RN Bridge students' class is held only once per year; thus, having two separate groups, a last semester comparison group and last semester intervention group was not realistic for this study.

Setting

Dare to Learn State College (DTLSC) is a public community college in a rural southeastern section of the US offering an associate of science in nursing degree and a recently added RN-BSN degree. DTLSC is part of the 31 colleges and universities in a state university system and serves over 5,000 traditional and nontraditional students, mostly women, and approximately equal numbers of white and non-white students (University System, 2013). DTLSC is known for its friendliness to students of other nationalities; although all students in the associate degree (AD) in nursing program are fluent in English. Moreover, the nursing program has a long standing history of high NCLEX pass rates and also offers the associate degree of nursing in a variety of ways: a night program every other year, a hybrid program annually, and provides some nursing classes at other campuses.

The AD in nursing program consists of five semesters and is accredited by the state Board of Nursing and the Accreditation Commission for Education in Nursing [formerly the National League for Nursing Accrediting Commission]. Students may participate in clinical rotations in the two larger hospitals located locally or in smaller hospitals in outlying areas that have a contractual agreement with the college. As part of the curriculum, Adult Health III, NURS 2115 is the last nursing course in the program. Twelve hours per week for 15 weeks is the allotted clinical time for the course; however, the clinical rotations are frontloaded in the

curriculum and students participate in two eight-hour clinical rotations per week for nine weeks at the beginning of the semester. Students provide care to two medical-surgical patients with an experienced clinical instructor or provide care in the Intensive Care Unit alongside an experienced registered nurse (RN). Instructors for the course may include the course faculty and two to three master- or bachelor-prepared instructors. The bachelor-prepared instructors have been employed in the nursing program at DTLSC for many years. A recent addition to the clinical experience is a preceptorship program where the students perform all of their clinical time for the semester with an experienced RN, following the RN's work schedule. Students are selected based on an application process, faculty recommendation, and interviews in selected areas of the local hospital. This preceptorship program began in the fall of 2014 and students participating in the preceptorship program were noted with a "P" by their code number. However, all participant's data were treated the same for data analysis. The potential influence of this preceptorship experience on study outcomes is included in the discussion section in Chapter V.

Ethical Considerations

The researcher is presently employed in a part-time clinical instructor capacity at DTLSC. Permission to study a convenience sample of AD nursing students was obtained from the Internal Review Boards at The University of Alabama and at DTLSC prior to data collection. Participation in the research study was voluntary and participation, partial participation by completing only one or two journal writings, or nonparticipation did not affect any student's clinical or course grade in either the comparison group or the intervention group

All participants completed informed consent forms. The consent forms, one for the comparison group (see Appendix B), and one for the intervention group in the fall of 2014 (see

Appendix C1), and another one for the additional intervention group participants in the spring of 2015 (see Appendix C2), included 1) detailed information about all aspects of the study; 2) authorization to use the information for educational purposes; and also 3) contact information for questions, complaints, suggestions or concerns. A separate consent form was obtained for the focus group interview for each of the groups (see Appendix D).

Some of the students in Adult Health III, NURS 2115 had received clinical instruction with the researcher in previous semesters; therefore, anonymity was not feasible but confidentiality was assured and reassured throughout the study. Attempts to maintain student confidentiality with the reflective journaling was provided for by having students place a code number [the student's mother's eight-digit birth date] on their reflective journaling and placing the journaling in a folder for the instructor or the researcher. Yet, several students chose to include their name on the journaling. Moreover, several students chose to email the researcher with their journal writing. Two of the study participants at the comparison group focus group interview had been recipients of clinical instruction from the researcher. Students also were instructed to not include any patient identifying information in the reflective journaling, maintaining consistency with the Division of Nursing policy and the Health Insurance Portability and Accountability Act (HIPAA).

For the focus group, students were assured that their statements would not be assigned to them in anyway by the researcher. All participants were advised to keep all discussions and names of participants confidential. Participants were also assured that if any statement needed to be noted in quotation marks and needed to be identified with a student, the student would be given a pseudonym.

There were no tangible benefits to the comparison group (summer 2014) participants nor part of the intervention group participants (fall 2014). Because the number of participants providing all three guided reflective journal writings was so small in the first data collection attempt in the fall of 2014, the researcher requested and was given permission from review boards to provide monetary gift cards for participants the following semester (spring of 2015) to compensate students for their time. Indirect benefits for all students included possible improvement of clinical judgment and the knowledge that the students have contributed to nursing science.

Potential risks to the participants were uncomfortable feelings of sharing personal experiences and feelings and thoughts of being disadvantaged from disclosing actions and concerns (Epp, 2008). Students were made aware of the possibility of uncomfortable feelings during the consent process. Plans for any disclosure indicating unresolved issues of anguish in the journaling would result in the researcher expressing to the participant, in writing, that the participant should see the campus counselor or a personal counselor with a reminder that the participant had the option to withdraw from the study. Students were informed of this procedure if the researcher identified a concern with statements written indicating a need for follow-up with someone trained in counseling areas. There were no grief concerns or other issues noted.

Recruitment

Permission was obtained from the Dean of the Division of Nursing at DTLSC to conduct the research study. The Course Coordinator for Adult Health III, Nursing 2115 also gave verbal permission and elaborated that she would assist in any way with the study with the belief that reflective writing would enhance the students' learning outcomes.

Comparison Group

After IRB permission was granted, the researcher spoke with the Summer 2014 traditional Adult Health III, NURS 2115 DTLSC Main campus class face-to-face on the clinical orientation day. This day was prior to any student clinical rotations. The researcher discussed and provided instruction using reflective journaling using course learning outcomes with the students (see Appendix A). Next, the researcher gave written copies of the informed consent form to each potential participant and provided a copy of the informed consent for the course coordinator to post online in the class materials providing easy access to the students. The researcher read the prepared script (see Appendix E) that included the purpose of the study, the student's participation level or alternative to participation, time involvement, risks and benefits, procedures for obtaining data, and procedures for maintaining confidentiality. Students were informed that they could choose to withdraw from the study at any time. The researcher answered questions. Those students who volunteered to participate signed a copy of the informed consent, placed a code number [their mother's eight-digit birth date] on the consent form, and then place the signed informed consent forms in an envelope to be sealed to maintain confidentiality. Students were informed that the purpose of code numbers was to track and match reflective journaling across the three data collection periods. Moreover, students were instructed that they would not be identified with the code number on the consent form unless a situation arose where it was necessary. The researcher then asked the participants to complete a demographic survey (see Appendix F), place the code number on the survey, and place the survey in a separate envelope.

Recruitment for the focus group occurred after completion of the reflective journaling and after the last clinical day. After the journals were collected for the last clinical rotation, the

researcher assessed the writings of the students who completed all three journal writings and chose code numbers of students with journal writings that were expressive and provided a good deal of information about their learning experiences and learning outcomes. The researcher also chose code numbers of three students who provided limited details about the clinical experiences. These selections were subjective and based on the researcher's interpretation but the general assessment of which students fell into these categories was applied as consistently as possible. The rationale for selecting both students who had expressive and limited journal entries was to identify pros and cons of the reflective journaling. An email (see Appendix G) was sent to the course instructor asking for the code numbers to be forwarded to the students and for the students to RSVP the researcher via cell phone or email. Three students replied.

Intervention Group

The researcher spoke with the traditional Adult Health III, NURS 2115 DTLSC Main campus class face-to-face on the clinical orientation day in the fall of 2014 (same timing as of the comparison group). The researcher read the prepared script (see Appendix H1) that included the purpose (identical to the comparison group), student participation, time involvement, risks and benefits, procedures for obtaining data, and procedures for maintaining confidentiality. The initial informed consent (see Appendix C1) also was read to the students. The researcher then described Tanner's Clinical Judgment Model, the Lasater Clinical Judgment Rubric (LCJR), and the Guide for Reflection to the students. A brief, concise instruction sheet was given to the students to provide clarity about when the guided reflective journaling should be done (see Appendix I) and questions were answered. Because only two students completed all three guided reflective journal writings, the researcher decided to forego recruitment for a focus group interview at this time.

Additional students were recruited for the intervention group in the spring of 2015 because only two students completed all three guided reflective journal writings over the fall 2014 semester. The researcher spoke with the traditional Adult Health III, NURS 2115 DTLSC main campus class face-to-face on the clinical orientation day. The prepared script was read (see Appendix H2). Hoping to enhance student participation and assure the students of how valuable their time was to the researcher, the researcher pledged gift cards from a local retailer as a tangible benefit for participation. Students were directed, and did receive, a \$5 gift card in remuneration for providing one guided reflective journaling, a \$10 gift card in remuneration for providing two guided reflective journaling writings, and a \$25 gift card in remuneration for providing all three guided reflective journaling writings.

Besides the remuneration, the other difference in recruitment of participants for the intervention group in the 2015 spring NURS 2115 class was that the researcher abstained from describing the LCJR rubric in detail. The researcher felt discussing the LCJR lengthened the initial presentation and may have been confusing to the students. Moreover, the researcher did not feel it was necessary for the students to see and understand the grading rubric in order to reflectively journal using the Guide for Reflection.

Recruitment for the focus group occurred after completion of the guided reflective journaling and after the last clinical day. The researcher emailed the course coordinator the code numbers of the six students who had completed the journaling at that time (without regard to amount of expressiveness since only six had completed the process). (After the code numbers were emailed the researcher received another journal writing from one of the research participants).

Data Collection and Instruments

For this study, quantitative and qualitative data were collected to increase the breadth and strength of the study (Creswell, 2009). All data were collected by the researcher or submitted to the course instructor by the students. Demographic surveys were completed at the completion of the recruitment presentation during clinical orientation, and journals were collected at prescribed intervals via hard copy or email. The researcher visited the class on most data collection days (exceptions were when students were given an exam and then allowed to leave for the day). Scores for the LCJR for each student were noted promptly in the researcher's notebook. Focus group data were collected using a semi-structured interview guide by the researcher and were audiotaped verbatim along with handwritten notes by the researcher. The researcher transcribed the audiotaped interview.

Instruments used in this study included the (a) demographic survey (see Appendix F), (b) the Lasater Clinical Judgment Rubric (LCJR) (see Appendix J), (c) the Guide for Reflection (see Appendix K), and the focus group guide (see Appendix L). Each instrument, and when and how the instrument was used to collect data, is discussed in this section.

Demographic Survey

The demographic survey was developed by the researcher to capture descriptive data of the sample for purposes of reporting sample characteristics, contrasting the comparison and intervention groups, and identifying any sample characteristics that might influence clinical judgment (see Appendix F). Open-ended questions about factors that have helped the student be successful or have posed a barrier to success were developed to identify extraneous variables that might affect clinical judgment in the groups.

Lasater Clinical Judgment Rubric (LCJR)

The researcher obtained permission to use the LCJR (K. Lasater, personal communication, January 31, 2014), a rubric Lasater (2007a) developed and pilot tested to assess clinical judgment of 39 third term junior nursing students (53 observations) in a clinical simulation lab using a qualitative-quantitative-qualitative design (see Appendix J). She initially used the terms “best” and “worst” as performance descriptors for the four phases of Tanner’s Clinical Judgment Model: noticing, interpreting, responding, and reflecting. She then observed students in the simulation lab and further shaped descriptions of each phase and the levels or stages of development (noticing, interpreting, responding, reflecting) within those phases with explicit descriptors (11 total) in an ongoing manner for three weeks with clinical judgment performances being rated as beginning, developing, competent, or exemplary. She met weekly with a rubric development expert, and with Tanner, the developer of Tanner’s Clinical Judgment Model, and modified the rubric as needed. In the following fourth and fifth week, the rubric was pilot tested. During weeks six and seven, she continued to observe and polish the rubric. A final focus group meeting was held at the end of week seven to evaluate the final product (Lasater, 2007a). Although descriptive statistics and ANOVA were performed and reportedly not statistically significant, the statistics were not given.

The four categories or phases (noticing, interpreting, responding, and reflecting) were elucidated by 11 dimensions, as previously noted. Measures included in the noticing category are focused observation, recognizing deviations from expected patterns, and information seeking. The interpreting category dimensions include prioritizing data and making sense of the data. A calm and confident manner, clear communication, well-planned intervention and flexibility, and being skillful make up the responding category. The reflecting category measures include

evaluation/self-analysis and a commitment to improve. Students are rated as exemplary, accomplished, developing, or beginning for each dimension within the category. For this study, the researcher assigned numerical grades to represent the participant's clinical judgment in each dimension after reading the reflective and guided journal notations using the LCJR with Lasater's numerical grading as provided by Lasater to other researchers (Gubrud-Howe, 2008; Mann, 2010; Sideras, 2007) and this researcher (K. Lasater, personal communication January 31, 2014). Those numerical notations were as follows: exemplary (4); accomplished (3); developing (2); and beginning (1).

The reliability and validity of the LCJR was examined by Sideras (2007) and Gubrud-Howe (2008). Sideras (2007) performed a known groups methodology to examine the construct validity of the LCJR comparing faculty-rated mean clinical judgment scores of seniors with juniors and student evaluations. Inter-rater reliability was reported as modest. Mean clinical judgment scores for all 11 dimensions of the LCJR were statistically significantly higher ($p < .05$) in the graduating seniors compared to the junior students.

In Gubrud-Howe's study (2008), internal consistency was established with Cronbach coefficient alpha scores of .886 for noticing; .931 for interpreting; .887 for responding; and .914 for reflecting. Inter-rater reliability was assessed pre- and post- test with a 92% agreement between raters when comparing all 11 dimension performance indicators prior to testing and a 96% post-test agreement. One-way ANOVAs were performed to also assess for differences between raters with all 11 dimensions performance indicators with all F ratios being less than 4.84 and all p values $> .05$.

Guide for Reflection

The Guide for Reflection (see Appendix K) is a tool developed by Nielsen et al. (2007) to enhance the reflective portion of clinical judgment and is based on Tanner's Clinical Judgment Model and the LCJR. A request for permission to use this tool was granted from SLACK, Incorporated on December 12, 2013 (see Appendix N). There are no psychometric evaluations available for the Guide for Reflection but it was deemed appropriate for use in this study because it was developed specifically to guide students through Tanner's Clinical Judgment Model in concert with the LCJR affecting all three learning domains—cognitive, affective and psychomotor. The Guide for Reflection assists the student in thinking about the patient encounter in the context of how practicing nurses think—as to what they notice, how they interpret, and how they respond to a situation. Moreover, as the student reflects and responds to the thought provoking questions or statements such as “name three things you might do differently if you encounter this kind of a situation again” or “describe any changes in your values or feelings as a result of this experience” new learning is created. The Guide for Reflection is used at the university where Lasater teaches and students in their senior level courses are required to submit two guided reflections before and after midterm.

Focus Group Guide

The focus group guide (see Appendix L) was developed by the researcher to elicit student perceptions of reflective writing. The focus group guide, developed by the researcher after synthesis of the literature, was designed to yield information identified by researchers that may have a bearing on the ability of a student to reflectively write and improve clinical judgment abilities. Integration of classroom theory to clinical experiences and perceived improvement in clinical judgment was probed. Epp (2008) found that the skill of writing reflectively in itself

required learning and experience. Students were asked about previous writing assignments involving reflective journaling. Epp also stated that students may experience feelings of distress when writing about their clinical experiences. Students in this study did not voice or indicate in writing feelings of distress with reflective journaling but rather feelings of comfort and satisfaction and is described further in the following chapter. Student views about the time requirement has been a concern or complaint in other studies (Harrison & Fopma-Loy, 2010; Murphy, 2004) and the researcher asked questions to broach this subject, also (see discussion in Data Analysis).

Data Management

All data were treated confidentially. All data obtained were immediately placed in envelopes and sealed. Consent forms were kept separated from all other data and placed in a locked file cabinet in the researcher's home. The control groups' code numbers, the participants' numerical clinical judgment scores, the researcher's notebook with information, and the focus groups' audio recording and notes were kept separate from the intervention groups' code numbers, participants' numerical clinical judgment scores, the researcher's notebook with information stated and the focus groups' audio recording and notes. All were and will continue to be kept at the researcher's home in a locked cabinet. Only the researcher has access to the cabinet. All data, including audiotapes, collected will be shredded in seven years after the study is completed.

Study Procedure

As previously noted, there were two groups of students in this study. The comparison group (summer 2014) and the intervention group (fall 2014/spring 2015) were enrolled in the traditional Adult Health III, NURS 2115 at DTLSC main campus. The quantitative portion of

the study was accomplished initially with journaling, followed by the qualitative portion and the focus group interview for each group. The participants in the comparison group were asked to allow the researcher to evaluate their course learning outcome reflective journaling and participants in the intervention group were asked to allow the researcher to evaluate their guided reflective journaling three times over the course of the semester. Students not participating in the study in each semester completed their usual clinical paperwork and turned it into their clinical instructor and the researcher did not have access to it.

Journaling via typing or writing was accepted. Journaling via email was also accepted for both groups. The initial plan for study participants to give the reflective journaling to their respective clinical instructor at the clinical setting at the end of the second clinical day of the week on each of the three research occasions to primarily prevent misplacement of a notebook and to also assist with confidentiality issues was altered to accommodate requests from the clinical instructors, and, was approved by the clinical coordinator. At the initial researcher-clinical instructor meeting, the clinical instructors stated that they allowed the students to turn in their paperwork on the following class day and would prefer this method for the journaling also rather than at the end of the second clinical day. Hence, this method was followed throughout the study. Participants gave the instructor or the researcher the reflective journaling on the following class day. The reflective journaling was then placed in a envelope for confidentiality. Some students preferred, and chose, to email the reflective journaling to the researcher. The researcher did not receive any paperwork of students not participating in the study.

Prior to Initiation of Research (Fall 2013/Spring 2014)

Permission was obtained from The University of Alabama, DTLSC, Dean of Nursing and the course coordinator of the traditional Adult Health III, NURS 2115 main campus class. Original dean and course coordinator permission included having the reflective writing as a course requirement but concerns were voiced about students being required to perform an assignment they had not been required to do previously as well as students being overwhelmed with too much paperwork. Foregoing all paperwork was not acceptable on the three occasions as the instructors did not feel the students had the knowledge base as yet. Moreover, the clinical coordinator was not involved in the initial planning; therefore, changes were adapted making the study more amenable to the course instructors. The course and clinical coordinator agreed to replace the database in the usual paperwork with reflective journaling using course learning outcomes for study participants.

The Study, Part 1—Comparison Group (Summer 2014)

Step 1, Course and clinical faculty initial buy-in and orientation. After IRB approval, the researcher met with the clinical coordinator for the traditional Adult Health III, NURS 2115 main campus class and discussed all details of the proposed study explicitly. As stated previously, the clinical coordinator and course coordinator agreed to replace the database in the usual course paperwork with reflective journaling using course learning outcomes in the summer 2014 course. The reflective journaling was planned for three acute care clinical experiences – the second consecutive clinical day for weeks two, five, and eight. For the summer 2014 course, the DTLSC traditional Adult Health III, NURS 2115 main campus clinical coordinator arranged an on-campus orientation in a nursing division conference room for the course prior to the beginning of the summer semester. Two clinical instructors and the clinical coordinator were

present. The researcher, using a PowerPoint with copies for each instructor, explained the purpose of the study and how study participants should perform reflective journaling using the course learning outcomes. A copy of the information the researcher planned to give the students; the three dates the reflective journaling was to take place rather than the database; how/when the researcher would collect the reflective journaling; and what to do if a student had questions were all explained (see Appendix O). The orientation lasted approximately 40 minutes. The researcher then contacted the remaining clinical instructor via phone, described the study and information previously noted, and sent the PowerPoint to the instructor. The researcher's goal was for all instructors to have the same information and feel comfortable answering questions or referring the students to the researcher.

Step 2, Recruitment of students. Senior students in the traditional Adult Health III, NURS 2115 main campus course were recruited for the comparison group in the nursing classroom on the clinical orientation day at the beginning of the term. The researcher met with the students and explained reflective journaling using course outcomes, read the recruitment script (see Appendix E), answered questions, provided copies of the consent form (see Appendix B), asked those who would be willing to participate to sign a copy of the consent form and place a code number [their mother's eight-digit birth date on the consent form] and place in a manila envelope. The researcher then provided a demographic survey (see Appendix F) and asked the study volunteers to complete the brief survey, place the code number on it, and place it in a separate manila envelope. The traditional Adult Health III, NURS 2115 Main campus clinical coordinator was present during the orientation.

Step 3, Recording of code numbers and demographic data. The researcher recorded the code numbers in the researcher's notebook, placed the consent forms back in the manila folder, and placed them in a separate drawer in a locked file cabinet in the researcher's home. The researcher also documented the demographic data in the researcher's notebook and placed the surveys back in the manila envelope and placed them in a secure file cabinet in the researcher's home.

Step 4, Reflective journaling using course learning outcomes. The planned days for the journaling experiences were the second, fifth, and eighth clinical weeks of the acute care experience. Students are usually in clinical rotations two days per week for nine weeks and the plan was for the study participants to perform reflective journaling concerning one patient they cared for using course learning outcomes in place of the database usual paperwork. Participants were able to complete reflective journaling three times during the semester—at the beginning, middle, and end—but not necessarily on the second, fifth, and eighth clinical week. Only seven clinical experiences were scheduled for this short summer semester and there were some scheduling changes due to clinical instructor requests or instructor/ student sick days. The researcher called each clinical instructor each week that the journaling was scheduled reminding them of the reflective writing assignment and asking them to encourage study participants to remember to perform the reflective journaling and inquiring if they had any questions. No questions were voiced. One instructor stated a student had a question and the student was instructed to call the researcher. The researcher did not receive any calls, emails, or texts from study participants with questions. Participants included their code number on the reflective journaling and submitted the journal writing via email or hard copy to the researcher or clinical

instructor who placed it in a manila envelope provided by the researcher. The researcher visited the classroom on the days the reflective journaling was scheduled to be turned in.

Step 5, Scoring of reflective journaling. The researcher scored each student's reflective journaling for each of the 11 dimensions of the LCJR resulting in scores for each of the four categories and a total score for clinical judgment as measured by the LCJR. The scores for each category of the LCJR and the total clinical judgment score were recorded in the researcher's notebook.

Step 6, Focus group recruitment and interview. Recruitment for the focus group occurred after completion of the reflective journaling, as previously stated. The researcher planned to interview six study participants in a focus group format to elicit student perceptions of reflective journaling using course learning outcomes related to clinical judgment employing a tentative guide developed for this purpose (see Appendix L). Three students responded to the invitation and attended the focus group meeting. Two of the three interview attendees had been selected as "not very expressive" and one of the attendees had been selected as expressive. The meeting lasted approximately 45 minutes and was held in a conference room in the nursing division. A lunch was served to provide a less threatening environment. The researcher explained the purpose of the focus group to the participants, had the participants sign the consent and keep a copy of the consent, and then proceeded with the interview. All three participants agreed to the researcher audiotaping and taking notes. Although the written responses had been varied, all three were expressive, congenial and eager to share their thoughts about the experience throughout the interview. After the interview had been transcribed, the researcher emailed or texted via phone the focus group participants asking for volunteers to read the transcripts to establish accuracy of the data transcription. Further member checking with student validation to

verify researcher themes was not done (Polit & Beck, 2008). All three participants indicated they would and were sent the transcript without names along with a statement reminding them of the importance of confidentiality. Two responded that the transcription was accurate; there was no response from the other participant.

The Study, Part 2—Intervention Group (Fall 2014 and Spring 2015)

Step 1A, Course and clinical faculty orientation, fall 2014. The researcher communicated with the course coordinator concerning the research study for this semester. The clinical coordinator had resigned and had not been replaced. The researcher was unable to arrange a meeting where all three clinical instructors could meet at the same time; therefore, the researcher met with each of the two adjunct clinical instructors individually to explain the study.

Using a brief PowerPoint, the researcher explained the purpose of the study, how study participants would be providing the researcher with reflective journaling using the Guide for Reflection, and that the guided reflective journaling would replace the database in the usual course paperwork for three acute care clinical experiences (as in the comparison group in the summer 2014 semester) – the beginning, middle, and end of the clinical rotations, and scheduled for weeks two, five, and eight. The researcher also explained Tanner’s Clinical Judgment Model, the Lasater Clinical Judgment Rubric (LCJR), and the Guide for Reflection. The researcher provided each instructor a copy of the information the researcher planned to give the students (see Appendix H); the three clinical dates the reflective journaling should take place and be submitted to the researcher or class instructors; and what to do if a student had questions (see Appendix O). Each presentation took approximately 30 minutes.

The course coordinator, who was also performing clinical supervision, listened to further details about the research study during the student presentation on orientation day. All

instructors received the same information and the researcher's goal was for all instructors to feel comfortable answering questions or referring the students to the researcher. The researcher provided a personal mobile phone number and two e-mail addresses. The researcher also sent the course coordinator an electronic copy of Nielsen et al.'s (2007) Guide for Reflection to be posted on-line with the other regular scheduled clinical paperwork (see Appendix N). The researcher reminded the course instructor of the research weeks on the appropriate class day, asking her to remind the students of the research study. All instructors were contacted, via text messaging, during the clinical experience to remind them of the guided reflective journal writing and to remind students. The researcher visited the class on the weeks the guided research journaling was due.

Step 1B, Course and clinical faculty orientation, spring 2015. Considering the low rate of completion (2) of all three guided reflective journal writings across the semester, the research process was examined to determine what might produce better results. The new dean at the DTLSC was asked to consider making the reflective writing a requirement for this semester but that request was denied. The researcher was able to obtain IRB approval for monetary gift cards from a local department store for participants.

In the spring 2015 semester, approximately half of the students in the class were assigned to preceptors. The other half of the students were assigned to one seasoned master's prepared adjunct clinical instructor and the course coordinator who also participated in clinical supervision this semester. The researcher met with the adjunct clinical instructor individually and presented the research study, as with previous semesters, using a brief PowerPoint. The course coordinator was present for the student orientation. The Guide for Reflection was also sent to the course coordinator for posting in the on-line environment, and clinical instructors received reminders

via phone of the guided reflective journal writing weeks. The researcher visited the class on the days the guided reflective writing was due.

Step 2A, Recruitment of students, fall 2014. The same procedure for recruitment of this group was followed as the comparison group but with the use of Tanner's Clinical Judgment Model, the Lasater Clinical Judgment Rubric (LCJR), and Nielsen et al.'s (2007) Guide for Reflection. Senior students in the traditional Adult Health III, NURS 2115 main campus were recruited for the intervention group in the classroom on the clinical orientation day at the beginning of the semester, just as the comparison group was recruited. The researcher met with the students and explained Tanner's Clinical Judgment Model, the Lasater Clinical Judgment Rubric (LCJR), and Nielsen et al.'s (2007) Guide for Reflection (see Appendix K) and answered questions about the model, rubric and reflective writing using the Guide for Reflection. The researcher then read the recruitment script (see Appendix I) asking for volunteers, answered questions, provided copies of the consent form, asked those who were willing to participate to sign a copy of the consent form and place a code number, the students' mother's eight-digit birth date, on the consent form, and place in a manila envelope. The researcher then provided a demographic survey and asked the study volunteers to complete the brief survey, place the code number on it, and place it in a separate manila envelope.

Step 2B, Recruitment of students, spring 2015. With only two students completing the three guided reflective journal writings across the semester in Fall 2014, the researcher simplified the 30-minute recruitment research orientation presentation and only discussed Tanner's Clinical Judgment Model and Nielsen et al.'s (2007) Guide for Reflection. Moreover, students were offered a monetary gift card from a local department store for participation in the study (\$5 for one guided reflective journal writing; \$10 for two guided reflective journal

writings; and \$25 for all three guided reflective journal writings) (see Appendix I2 and Appendix C2). All other aspects of the recruitment were the same as fall 2014.

Step 3, Recording of code numbers and demographic data. The same procedure for recording code numbers and demographic data was followed as for the comparison group (summer 2014) but with the letter “P” noted after the code number for study participants who had preceptorship clinical experiences.

Step 4, Guided reflective journaling using the Guide for Reflection. The procedure for the intervention group journaling was the same as for the comparison group; however, the intervention group used the *Guide for Reflection* to prompt reflection of the clinical experience. The days for the journaling experiences were varied again, as in the comparison group, due to instructors needing days off and/or instructors or students being out due to illness. Moreover, study participants who were involved in preceptorship experiences had variability in their schedules as they followed the preceptor’s work schedule. The clinical days that the guided reflective journaling was obtained was either the first, second, or third week for the beginning of the semester; the fourth or fifth week for the middle of the semester, and the seventh or eighth for the end of the semester of the acute care experience. Precepted students, assigned the same amount of clinical hours, though varied and dependent on their preceptor’s work schedule, also performed the guided reflective journaling at approximately the same times within the semester: the beginning, the middle, and the end of the clinical experience. Submission of journals was the same as in the comparison group.

Step 5, Scoring of the guided reflective journaling. The procedure for scoring the guided reflective journaling was the same as for the comparison group. The researcher scored each students’ guided reflective journaling writing for each of the 11 dimensions of the LCJR

resulting in scores for each of the four categories and a total score for clinical judgment as measured by the LCJR. The scores for each category of the LCJR and the total clinical judgment score were recorded in the researcher's notebook.

Step 6, Focus group recruitment and interview. The researcher chose to withhold recruitment for a focus group interview in the fall of 2014 considering only two students completed all three guided reflective journaling writings across the semester. For the spring of 2015, the researcher sent an email to the course coordinator with the code numbers of all of the students who had completed all three journal writings (six at the time) requesting the email be forwarded to all students in the class.

The focus group interview was held in a conference room in the nursing division and was approximately 45 minutes. The procedure for the focus group interview in the spring of 2015 was the same as the focus group interview of the comparison group. The purpose of the interview was explained and the consent was signed and each student received a copy of the consent. The students were willing to allow notes to be taken as well as the interview recorded. The interview took place after the students' *Senior Tea* where the junior class had prepared a meal for them. Six students attended; however, one of the six students was late and another had to leave early. The interview was guided by the focus guide developed for this purpose. The students were excited, happy to be at the end of their journey, and expressive. Two Caucasian males, three Caucasian females, and one African American female were the participants. Four of the students had been in the preceptorship program and two had not. All actively participated in the interview.

The researcher visited the class at the end of the semester and made an announcement requesting volunteers from the focus group to review the transcription after class. No participant

met the researcher to review the transcription. This was the last class day and final exam and the researcher did not have an opportunity to obtain information for following up after graduation.

Data Analysis

Data were analyzed to answer research questions beginning with the researcher assessing demographic data using descriptive statistics. The data for comparison of intervention and control group journaling were analyzed using inferential statistics. The researcher assigned numerical grades to each category of clinical judgment—*noticing*, *interpreting*, *responding*, and *reflecting*—and a total clinical judgment score for each study participant after reading the guided reflective journal notations using the LCJR. As previously noted, Lasater provided numerical grading to other researchers (Gubrud-Howe, 2008; Mann, 2010; Sideras, 2007) and to the researcher (personal communication January 31, 2014) as follows: *exemplary* (4); *accomplished* (3); *developing* (2); and *beginning* (1).

All demographic and journal data collected were entered into Statistical Package for the Social Sciences (SPSS), IBM Statistics 22, and descriptive analysis was obtained for the sample characteristics. Descriptive statistics describe data and provide information concerning the mean scores, range of scores, and standard deviations (Polit & Beck, 2008). Certain demographics may influence subjects' reflective levels (Padden, 2011), therefore, chi-square analysis was performed to compare select descriptors of the intervention group and the relationship to clinical judgment scores. The chi-square test makes it possible for the researcher to ascertain whether certain variables affect the dependent variable or is left to chance (Polit & Beck, 2008).

A repeated measures analysis of variance (RM-ANOVA) was conducted to answer the first three research questions. With a RM-ANOVA, the researcher can measure differences between two or more groups across time and within groups (Polit & Beck, 2008). With question

one, the researcher was interested in exploring the differences in clinical judgment between a group of associate degree nursing students using guided reflective journaling with the Guide for Reflection and reflective journaling using learning outcomes.

With question two and three the researcher wished to discern specifically whether using the Guide for Reflection affected a difference in clinical judgment scores over time. The comparison group's clinical judgment scores over three time intervals were examined to answer question two and evaluate whether there was a change in the scores at the beginning of the semester compared to the end of the semester after the group participated in reflective journaling using course learning outcomes. The clinical judgment scores were compared for a within-subjects effect for each phase of the LCJR – noticing, interpreting, responding, and reflecting – using a RM-ANOVA.

Clinical judgment scores for the intervention group were also compared for a within-subjects effect in an identical manner using a RM-ANOVA to answer question three. Question three asked if there was a difference in clinical judgment at the beginning of the semester compared to the same group's clinical judgment at the end of the semester after participating in guided reflective journaling using the Guide for Reflection.

With the fourth and fifth research questions, the investigator wished to explore associate degree nursing students' perceptions of reflective journaling and whether the student believed the reflective journaling with guidance led to increased development of clinical judgment. The researcher chose to answer these questions using a focus group guide developed specifically for a focus group interview, a qualitative research method, for this study. Qualitative research methods are most likely to identify subjective, holistic, and dynamic attributes of the research subject (Polit & Beck, 2008). A focus group interview, a qualitative method, provides an opportunity for

a researcher to present unstructured statements or questions to several participants all at once in order to evoke verbalization of perceptions, thoughts, and attitudes (Creswell, 2009).

With question four, with the comparison group, the researcher desired to identify the students' perceptions of reflective journaling and development of clinical judgment using course learning outcomes. And with question five, the intervention group, the researcher aimed to identify the students' perceptions of guided reflective journaling using the Guide for Reflection and whether this tool assisted in the development of clinical judgment. Data analysis for questions four and five followed an inductive process as suggested by Creswell (2009) and specific guidelines presented by Charmaz (2010) to develop theoretical coding from specific data and find meaning and understanding within the context of the data. Charmaz's qualitative analysis includes 1) coding, 2) focused coding, and 3) theoretical coding.

For question four, the comparison group, the qualitative analysis process was begun at the conclusion of the Summer 2014 semester. First, the researcher listened to the audiotape and transcribed the interview verbatim, then scanned the data for obvious errors. Next, the researcher removed most of the "you knows" and "ums" from the transcription to make the transcription more reader friendly (Kvale & Brinkmann, 2009) and perused the document to ensure no important words, thoughts, or attitudes had been altered. The researcher had a small time window; therefore, the researcher texted or emailed the three interview attendees asking for volunteers to review the transcription. Confidentiality of all information was stressed and names were not on the transcripts; however, the first letter of the student's names were noted. All three replied that they would review the transcripts for accuracy and two of the three replied that it was accurate; the other did not respond. This was done as quickly as possible after the interview because the students were graduating and would be preparing for the NCLEX-RN and job

interviews. The researcher had the school email addresses or phone numbers of these three from previous communication. The researcher did not have time to develop the themes prior to losing communication with the students; however, further member checking with student validation to verify researcher themes was not done as recommended by Creswell (2009).

The researcher then read the entire document multiple times, exploring the data to get a general sense of the data and to identify emerging themes (Creswell, 2009). The data indicated overall that the students felt the reflective journaling was a valuable experience and that although it was difficult to do, the resulting benefits outweighed the time requirements and arduousness. The participants articulated several positive attributes of the experience and also gave several suggestions that might enhance the reflective journaling experience in the nursing program. Some positive comments were that they “enjoyed it,” it was “helpful,” and it “pulled out good things within me.” Suggestions for future reflective journaling were that the reflective journaling should be mandatory and it should start earlier in the nursing program. Also, questions concerning the students’ feelings, what they did well and what they could have done differently, and their observation of other nurses’ skills, behaviors, and attitudes should be asked. The students also felt the instructors should have been more knowledgeable of the reflective journaling process.

Continuing the process of data analysis, line by line coding was initiated as recommended by Charmaz (2010). Attempting to avoid invoking bias and obtain fresh insights, the researcher stayed close to the data, and chose predominately action words to exemplify meanings of the statements made by study participants. After each line was coded, data was compared with data to identify multiple references of the same code and similar codes. Looking at the data critically and analytically using Tanner’s Clinical Judgment Model and the research question, the

researcher realized the students implicitly used some of the model processes (and dimensions elucidated by Lasater, 2007a) without stating the actual categorical names (noticing, interpreting, and responding) except for the reflection category or phase. Going forward to focused coding as recommended by Charmaz, the researcher used the model's categorical names and dimensions as category titles, in addition to others identified. Then, comparing data to data using the developed categories, the original transcript and coding, the researcher refined the categories and placed codes and statements under the refined category titles. Subcategories were developed to provide breadth and clarity to the overarching categories. Theoretical coding was accomplished next as relationships between the codes were evaluated and developed with the research question in mind. Theoretical coding allows the researcher the opportunity to bring the fragmented data codes back together again (Charmaz, 2010). Quotes were selected from the data to illustrate the meaning of the categories and subcategories describing the study participants' perception of reflective journaling using the course learning outcomes as related to development of clinical judgment.

Again, noting that the student's perceptions of the reflective journaling using the course learning outcomes as related to development of clinical judgment was overwhelmingly positive in enhancing clinical judgment, the data indicates that improvement in clinical judgment was due to reflective journaling rather than the course learning outcomes. Several times throughout the interview, the participants made statements such as "writing freely as in a personal journal was better than fact based questions." One student said "the questions on the course learning outcomes were fact based" and they needed questions about "how they felt" or "this is what I noted." Moreover, "fact questions make you write down answers – reflection causes you to consider much more," she said as she compared answering the questions to copying down

information out of the textbook or chart to complete their regular paperwork. Theoretical coding with explanation is found in Chapter IV.

Polit and Beck (2008) pointed to Lincoln and Guba's (1985) work to establish trustworthiness of a qualitative study that includes credibility, dependability, confirmability, and transferability. Although the researcher brings subjectivity and bias to the study and meaning of the data, the researcher has tried to focus on the learner's thoughts and statements rather than the researcher's, thus, providing truthful data and interpretations as best as possible. As stated previously, two of the three participants were clinical students of the researcher at some point in the nursing program (not during the research study). The third participant, however, was just as expressive and positive bringing forth excellent thoughts and ideas in the interview as the researcher's former students. The statements made by the participants were therefore not only those of the researcher's previous students.

The researcher believes the study is dependable in that if repeated with similar students, the same findings would be obtained. A second reviewer was obtained to assess and verify coding and interpretation to establish confirmability. Transferability, or generalization for a qualitative study, is dependent on the researcher providing enough thick description for the reader to make an educated evaluation of the applicability to other situations (Polit & Beck, 2008). The researcher has attempted to provide as much thick description as possible for the reader. Also, throughout the coding, the researcher went back and forth to the sidebar notes, initial coding, and back to the original transcription to ensure the accuracy and reliability of the themes (Creswell, 2009). Although the study size is small, the researcher believes the theoretical coding with subcategories identified from the data obtained provides representative perceptions of associate degree nursing students toward reflective journaling using course learning outcomes.

For question five concerning the intervention group, Charmaz's (2010) qualitative analysis process was performed at the conclusion of the spring 2015 semester. As with question four, the researcher listened to the audiotape and transcribed the interview verbatim, then read the transcribed interview. The researcher then removed most of the "you knows" and "ums" from the transcription to make the transcription more reader friendly and perused the document to ensure no important words, thoughts, or attitudes had been altered. The researcher did not have time to develop the data into themes prior to visiting the classroom at the end of the semester to ask for volunteers to meet with the researcher after class (their final exam) to view and verify the accuracy of the transcription. Unfortunately, no student met with the researcher to evaluate the transcription. After this time, the researcher had no means of getting in touch with the students as they have graduated and are preparing for the NCLEX-RN and employment.

Continuing the process of data analysis, the researcher read the entire document multiple times, exploring the data to get a general sense of the data and to identify emerging themes (Creswell, 2009). Line by line coding was initiated as recommended by Charmaz (2010). Again, attempting to avoid invoking bias and obtain fresh insights, the researcher stayed close to the data, and chose predominately action words to exemplify meanings of the statements made by study participants. After each line was coded, data was compared with data to identify multiple references of the same code and similar codes. Looking at the data critically and analytically using Tanner's Clinical Judgment Model and the research question, the researcher again identified that the students implicitly used the model processes (and dimensions elucidated by Lasater, 2007a) without stating the actual categorical names (noticing, interpreting, and responding) except for the reflection category or phase. Going forward to focused coding as recommended by Charmaz (2010), the researcher used the model's categorical names and

dimensions as category titles, in addition to others identified. Then, comparing data to data using the developed categories, the original transcript and coding, the researcher refined the categories and placed codes and statements under the refined category titles. Subcategories were developed to provide breadth and clarity to the overarching categories. Theoretical coding was accomplished next as relationships between the codes were evaluated and developed with the research question in mind (Charmaz). Quotes were selected from the data to illustrate the meaning of the categories and subcategories describing the study participants' perception of guided reflective journaling using the Guide for Reflection as related to development of clinical judgment.

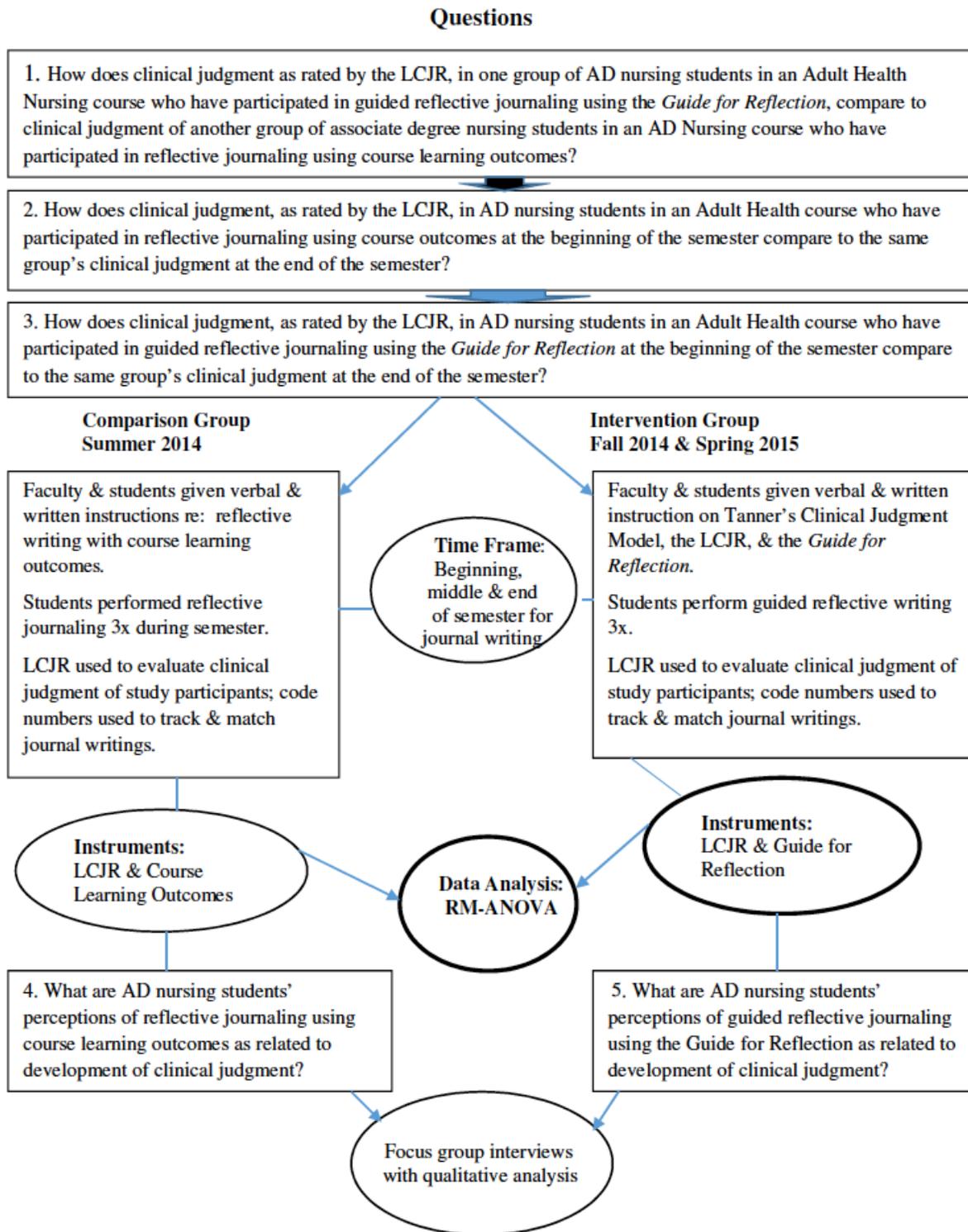
This data also indicated that overall the students felt the reflective journaling was a valuable experience and that although it was time consuming and sometimes repetitive, the resulting benefits outweighed the difficulty. One student even stated she felt "sorry" for the students who did not participate in the experience as she "grew from it." Suggestions for future reflective journaling were that the reflective journaling should start earlier in the nursing program and replace some of the paperwork. Reflecting after the clinical experience provided better learning, some participants felt.

Again, for question five, the researcher acknowledges she brings subjectivity and bias to the study in that the researcher feels the Guide for Reflection promotes clinical judgment; however, the focus has been on the learner's thoughts and statements rather than the researcher's thoughts, providing truthful data and interpretations as best as possible. The researcher was not a clinical instructor for any of these focus group participants throughout the nursing program. The researcher believes the study is dependable and confirmable. Thick description was provided as much as possible to give the reader a sense of the group and allow for generalization after an

educated evaluation of the applicability to other situations (Polit & Beck, 2008). Accuracy and reliability was assured as much as possible, also, as the researcher read through the data extensively and moved back and forth from the data to the research question, initial and revised themes, coding, and categories (Creswell, 2009). The detailed findings are described in Chapter IV. Also, see Table 1 for an overview of the research process.

Table 1

Research Process



Summary

The research design and methodology has been described in this section. A convenience sample of associate degree nursing students were asked to voluntarily participate in a research study measuring clinical judgment with a validated instrument (LCJR) as related to guided reflective journaling with the Guide for Reflection compared to reflective journaling with course outcomes. Both groups performed reflective journaling three times in the semester and were scored on clinical judgment for each of the four categories of the LCJR and a total clinical judgment score. The data was analyzed for between group and within group effects. Selected students with each group were asked to participate in a focus group to share their perceptions of the reflective journaling as related to clinical judgment. Data analysis included descriptive statistics and RM-ANOVA using SPSS, and categorical coding of qualitative data.

CHAPTER IV: RESEARCH FINDINGS

In this study, the researcher primarily explored the impact of guided reflective journaling using the Guide for Reflection on clinical judgment in the acute care clinical setting compared to clinical judgment using reflective journaling with course learning outcomes in associate degree nursing students. Clinical judgment was measured using the Lasater Clinical Judgment Rubric (LCJR). The progression of clinical judgment and perceptions of reflective journaling were also evaluated in both groups. This chapter presents details of the sample and results of statistical analysis.

Sample Description

Students enrolled in the last semester course, Adult Health III, NURS 2015, of a five semester associate degree nursing program at a southeastern state college constituted the sample for this study. For the comparison group in the summer of 2014, 30 students consented to participate in the reflective journaling with course learning outcomes; however, only nine students (28%) completed all three reflective journal writings; seven (21.9%) performed reflective journaling twice; and six students (18.8%) journaled only once at some time point in the semester. For the intervention group, 48 students consented to perform guided reflective journaling using the Guide for Reflection in the study; however, only nine students (18.8%) completed all three guided reflective journal writings; one student (2.1%) performed two guided reflective journal writings; and although six students journaled once at some point in the semester, only five (10.4%) were legible and included code numbers (see Table 2).

Table 2

Number of Consenting Participants and Times of Reflective Journaling

Group	Number of Study Participants	Percent of Those Who consented
Comparison		
Reflective Journaling 3 x	9	28
Reflective Journaling 2 x	7	21.9
Reflective Journaling 1 x	6	18.8
Total	22/30	73.3/100
Intervention		
Guided Reflective Journaling 3 x	9	18.8
Guided Reflective Journaling 2 x	1	2.1
Guided Reflective Journaling 1 x	5	10.4
Total	15/48	31.3/100
Grand Total	37/78	47.4/100

The study explored the impact of guided reflective journaling on clinical judgment. Therefore, only those students who completed all three reflective journal writings were eligible to be included in the study statistics. Nine consenting participants completed all three guided reflective journal writings in each group providing a total of 18 participants (see Table 3).

Table 3

Number of Study Participants Completing All Three Reflective Journal Writings

Group	Number
Comparison	9
Intervention	9
Total	18

Demographic Data

The statistical analysis was completed with only those students who performed reflective journaling over the course of their respective semesters, thus constituting the study groups – nine students in the comparison group [hereafter called the course learning outcomes (CLO) group] and nine students in the intervention group [hereafter called the guide for reflection (GFR) group]. The groups, although small, are fairly homogenous (see Table 4). The CLO group consisted of all females whereas seven of the GFR group were female (77.8%) and two were male (22.8%). Eight of the students were below 39 years of age in both groups. In the CLO group, one was 18-20 years of age (11.1%), two (22.2%) were 21-24 years old and two (22.2%) were 25-29 years old, three (33.3%) were 30-39 years old and one (11.1%) was greater than or equal to 50. In the GFR group, four (44.4%) were 21-24 years of age with the same number in the 25-29 years of age range while one (11.1%) was in the 40-49 age range. In both groups the majority of students, six of nine (66.7%) in each group, were Caucasian. Two African American (22.2 %) and one (11.1%) Asian student were in the CLO group while three (33.3%) African American students constituted the rest of the GFR group. At least six (66.7%) students in each group were responsible for someone other than themselves: three (33.3%) in each group lived with a significant other, two (22.2%) in each group lived with a significant other and children, and one (11.1%) in each group had responsibility for children as a single parent.

Concerning employment in health care or previous health care experience, five participants in the CLO group had no experience and four in the GFR group had no experience. Of the remaining participants, one in each group was trained as a LPN (11.1%) and the others worked as either nurse assistants or in a similar role: two (22.2%) in the CLO group and four (44.4%) in the GRF group. Perhaps the largest difference between the groups was in the hours

worked per week. Six (66.7%) students in the GFR group were not presently employed while in the CLO group only three (33.3%) students were unemployed at this time. Five (55.6%) students in the CLO group worked anywhere between 25 and 36 hours per week whereas no GFR group participant worked that many hours per week. Three (33.3%) in the GFR group worked 12-24 hours per week and one (11.1%) student in the CLO group worked the same amount of hours. The nursing GPAs were almost identical with the exception of the one student who did not respond. Four (44.4%) in each group had a nursing GPA of 3.0-3.49; two (22.2%) in each category had a nursing GPA of 3.5-4.0; and two in the (22.2%) CLO group and three (33.3%) GRF group participants had a nursing GPA of 2.5-2.9.

Other questions asked of the participants were open-ended questions asking them to describe factors that have helped them and barriers or factors that have hindered them in their studies and progression in the nursing program. Responses from both groups concerning factors that were helpful included: family support; financial assistance from family, loans, or grants; household support; and studying with others. Other responses specific to the groups were CLO group—setting up a schedule for studying, being organized and prepared for class/clinical, time management, carpooling with fellow students, being able to study at work, dedication to studying specific hours, and studying many hours per day; GFR group—making nursing school the number one priority, studying with notecards, access to libraries, and day care on weekends.

Barriers to being successful for both groups included outside employment, financial stress, and caring for a baby or children in school. The CLO group also specified barriers as divorce, time management for family and school, family, multiple deaths in family, and extracurricular activities while the GRF group also specified stress and commuting to school (some with long commutes – three and one-half hours).

Table 4

Demographic Data for Study Participants who Completed All Three Reflective Journal Writings

	Comparison Group	Percent	Intervention Group	Percent
Gender				
Male	0		2	22.2
Female	9	100	7	77.8
Age				
18-20	1	11.1	0	0
21-24	2	22.2	4	44.4
25-29	2	22.2	4	44.4
30-39	3	33.3	0	0
40-49	0	0	1	11.1
50-59	1	11.1	0	0
>59	0	0	0	0
Ethnicity				
White/Caucasian	6	66.7	6	66.7
Asian	1	11.1	0	0
Black/African American	1	11.1	3	33.3
Other	1	11.1	0	0
Lives with...				
Significant Other	3	33.3	3	33.3
Children	1	11.1	1	11.1
Significant Other & Children	2	22.2	2	22.2
No One	2	22.2	1	11.1
Parents	1	11.1	1	11.1
Other	0	0	1	11.1
Employed or Previous Health Care Experience				
No	5	55.6	4	44.4
LPN	1	11.1	1	11.1
Nurse Assistant/Nurse Tech/Nurse extern	2	22.2	4	44.4
EMT/paramedic	0	0	0	0
Other Health related field	0	0	0	0
No response	1	11.1	0	0
Work hours per week				
None	3	33.3	6	66.7
12-24	1	11.1	3	33.3
25-36	5	55.6	0	0
Nursing GPA				
2.5-2.9	2	22.2	3	22.2
3.0-3.49	4	44.4	4	44.4
3.5-4.0	2	22.2	2	22.2
No response	1	11.1	0	0

Chi-square Analysis

Chi-square analysis was performed to compare select descriptors of the study groups and the relationship to clinical judgment scores using SPSS version 22. The CLO groups' and the GRF groups' clinical judgment scores for each time period (reflective journaling one, reflective journaling two, and reflective journaling three) were cross tabulated using Pearson Chi Square first to identify any significant relationship between the scores of each time period and each group. No statistically significant relationships were revealed in the three time periods. For reflective journaling at the beginning of the semester (reflective journaling one), the results were $\chi^2(11) = 9.33, p = 0.59$ (2-sided), For reflective journaling at the middle of the semester (reflective journaling two), results were $\chi^2(12) = 14.0; p = 0.30$ (2-sided). For reflective journaling at the end of the clinical rotation period (reflective journaling three), results were $\chi^2(11) = 12.0, p = 0.36$ (2-sided).

Employment was cross-tabulated with all students' reflective journaling one scores and produced no significance: $\chi^2(22) = 25.69, p = 0.27$ (2-sided), and with reflective journaling two scores without significance: $\chi^2(22) = 20.12, p = 0.58$ (2-sided). However, those not employed scored higher clinical judgment scores at the end of the semester (reflective journaling three) that was statistically significant: $\chi^2(20) = 34.0, p = .03$. When the number of hours worked per week were compared with the clinical judgment scores across the semester, the following statistically non-significant results were found: reflective journaling one: $\chi^2(22) = 22.2, p = 0.45$ (2-sided); reflective journaling two: $\chi^2(24) = 27.15, p = 0.30$; and reflective journaling three: $\chi^2(22) = 23.27, p = 0.39$. Next, nursing GPA was calculated to evaluate a relationship with reflective journaling across the semester and the following statistically non-significant

findings are: for reflective journaling one: $\chi^2(22) = 23.17, p = 0.39$; for reflective journaling two: $\chi^2(22) = 24.49, p = 0.32$; and for reflective journaling three: $\chi^2(20) = 18.15, p = 0.58$.

Analysis Results of Research Questions

The five questions explored in this study included the following:

- 1) How does clinical judgment, as rated by the Lasater Clinical Judgment Rubric, in one group of associate degree nursing students in an Adult Health Nursing course who have participated in guided reflective journaling using the Guide for Reflection, compare to clinical judgment of another group of associate degree nursing students in an Adult Health Nursing course who have participated in reflective journaling using course learning outcomes;
- 2) How does clinical judgment, as rated by the Lasater Clinical Judgment Rubric, in one group of associate degree nursing students in an Adult Health course who have participated in reflective journaling using course learning outcomes at the beginning of the semester compare to the same groups' clinical judgment at the end of the semester;
- 3) How does clinical judgment, as rated by the Lasater Clinical Judgment Rubric, in one group of associate degree nursing students in an Adult Health course who have participated in guided reflective journaling using the Guide for Reflection at the beginning of the semester compare to the same groups' clinical judgment at the end of the semester;
- 4) What are associate degree nursing student's perceptions of reflective journaling using course learning outcomes as related to development of clinical judgment; and

- 5) What are associate degree nursing students' perceptions of guided reflective journaling using the Guide for Reflection as related to development of clinical judgment?

Research Question One

How does clinical judgment, as rated by the Lasater Clinical Judgment Rubric, in one group of associate degree nursing students in an Adult Health Nursing course who have participated in guided reflective journaling using the Guide for Reflection, compare to clinical judgment of another group of associate degree nursing students in an Adult Health Nursing course who have participated in reflective journaling using course learning outcomes?

The total clinical judgment scores for each group member were entered in SPSS version 22 for each of the three time periods (reflective journaling one, reflective journaling two, and reflective journaling three). The possible total clinical judgment score was between 11 and 44. Descriptive statistics data reveal higher total means in the learning outcomes group over the guided reflection group (learning outcomes = 35.52; guided reflection mean = 32.48), as well as each individual time period (see Table 5).

Table 5

Descriptive Statistics of Clinical Judgment Scores of Both Groups over Three Time periods

Group	Mean	Std. Deviation	N
Total RJ_1			
Learning outcomes	36.33	4.58	9
Guided reflection	32.78	7.14	9
Total	34.56	6.10	18
Total RJ_2			
Learning outcomes	33.78	4.92	9
Guided reflection	31.89	8.81	9
Total	32.83	6.99	18
Total RJ_3			
Learning outcomes	36.44	5.81	9
Guided reflection	32.78	5.74	9
Total	34.61	5.91	18

A repeated measures analysis of variance (RM-ANOVA) was conducted to compare clinical judgment scores between students who participated in reflective journaling using course learning outcomes (CLO) versus another group of students who participated in guided reflective journaling using the Guide for Reflection (GFR) over three time periods. The significance level was established at $p < .05$. No statistical significance was demonstrated between the two groups: $F(1,16) = 2.34$, $p = .145$, $\alpha = .05$, $\eta^2 = .13$ (see Table 6).

Table 6

Tests of Between Subjects Effects Clinical Judgment Scores CLO and GFR Groups

Source	Type III Sum of Squares	df	Mean Square	F	Significance	Partial Eta Squared
Intercept	62424.00	1	62424.00	1173.92	.00	.99
Group	124.52	1	124.52	2.34	.15	.13
Error	850.82	16	53.18			

$\alpha = .05$

Group	Mean	Std. Deviation	95% Confidence Level	
			Lower Bound	Upper Bound
Learning outcomes	35.52	1.40	32.54	38.49
Guided reflection	32.48	1.40	29.51	35.46

Next, each dimension of the LCJR (noticing, interpreting, responding, and reflection) was evaluated for differences between the CLO group and the GFR group. For the *noticing* dimension, the minimum possible score was three and the highest possible score was 12. The mean scores were higher at each reflective journaling time period for the CLO group compared to the GFR group (see Table 7). However, there was no statistical differences between the groups: $F(1,16) = 1.50$, $p = .24$, $\alpha = .05$, $\eta^2 = .09$ (see Table 8).

Table 7

Descriptive Statistics for Noticing Dimension Between the Two Groups over Time

Group	Mean	Std. Deviation	N
Total RJ_1			
Learning outcomes	10.00	1.73	9
Guided reflection	8.67	2.40	9
Total	9.33	2.14	18
Total RJ_2			
Learning outcomes	9.56	1.59	9
Guided reflection	9.44	2.96	9
Total	9.50	2.31	18
Total RJ_3			
Learning outcomes	9.67	1.66	9
Guided reflection	9.00	1.87	9
Total	9.33	1.75	18

Table 8

Between Group Effects of the Dimension Noticing

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power
Intercept	4760.17	1	4760.17	1065.49	.00	.99	1065.49	1.0
Group	6.69	1	6.69	1.50	.24	.09	1.50	.21
Error	71.48	16	4.47					

$\alpha = .05$

Clinical judgment scores for the dimension *interpreting* was evaluated next for between group differences in the LCO group and GFR group. The minimum possible score for the interpreting dimension was two and the maximum score was eight. The mean was higher for the CLO group compared to the GFR group at each time interval again. See Table 9 for descriptive statistics.

Table 9

Descriptive Statistics for Interpreting Dimension Between the Two Groups over Time

Group	Mean	Std. Deviation	N
Total RJ_1			
Learning outcomes	6.56	1.51	9
Guided reflection	6.33	1.58	9
Total	6.44	1.50	18
Total RJ_2	6.56	1.24	9
Learning outcomes	6.22	1.79	9
Guided reflection	6.39	1.50	18
Total			
Total RJ_3	6.89	1.17	9
Learning outcomes	6.11	.93	9
Guided reflection	6.50	1.10	18
Total			

Using a RM-ANOVA, no significance was found between the two groups: $F(1,16) = 1.05$, $p = .32$, $\alpha = .05$, $\eta = .06$ (see Table 10).

Table 10

Between Group Effects of the Dimension of Interpreting

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power
Intercept	2242.67	1	2242.67	882.36	.00	.98	882.36	1.00
Group	2.67	1	2.67	1.05	.32	.06	1.05	.16
Error	40.67	16	40.67					

$\alpha = .05$

Responding, the third dimension in the LCJR was evaluated for differences in the two groups next. The minimum to maximum range of scores for the responding dimension was four to 16. The descriptive data scores reveal higher mean scores for the CLO group compared to the GFR group for each time interval (see Table 11).

Table 11

Descriptive Statistics for Responding Dimension Between the Two Groups over Time

Group	Mean	Std. Deviation	N
Total RJ_1			
Learning outcomes	14.22	1.48	9
Guided reflection	11.89	2.09	9
Total	13.06	2.13	18
Total RJ_2			
Learning outcomes	12.56	1.81	9
Guided reflection	11.00	3.08	9
Total	11.78	2.58	18
Total RJ_3			
Learning outcomes	12.00	2.06	9
Guided reflection	13.00	2.25	18
Total			

Using RM-ANOVA, A statistical significance was found in this dimension between the CLO group and the GFR group: $F(1,16), p = .01, \alpha = .05, \eta^2 = .34$ (see Table 12). Investigating this significance further, with reflective journaling one there is a mean difference of 2.33 between the groups; with reflective journaling two, a difference of 1.56; and with reflective journaling three, a difference of 2.0 between the groups. Thus, the CLO group scored higher on the responding aspect of clinical judgment at each time interval.

Table 12

Between Group Effects of the Dimension Responding

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power
Intercept	8588.17	1	8588.17	1381.27	.00	.99	1381.27	1.00
Group	52.02	1	52.02	8.37	.01	.34	8.37	.78
Error	99.48	16	6.22					

$\alpha = .05$

Group	Mean	Std. Error	95% Confidence Level	
			Lower Bound	Upper Bound
Learning outcomes	13.59	.48	12.58	14.61
Guided reflection	11.63	.48	10.61	12.65

And finally, for question 1, clinical judgment scores for the dimension of *Reflecting* was evaluated between the CLO group and the GFR group. The possible scores for this dimension ranged from two to eight. The means were not necessarily higher for the CLO group as they were in the other three dimensions of the LCJR (see Table 13).

Table 13

Descriptive Statistics for Reflecting Dimension Between the Two Groups over Time

Group	Mean	Std. Deviation	N
Total RJ_1			
Learning outcomes	5.56	1.42	9
Guided reflection	5.89	1.62	9
Total	5.72	1.49	18
Total RJ_2			
Learning outcomes	5.11	1.69	9
Guided reflection	5.22	1.79	9
Total	5.17	1.69	18
Total RJ_3			
Learning outcomes	5.89	2.03	9
Guided reflection	5.67	1.50	9
Total	5.78	1.73	18

A RM-ANOVA was performed. No significance was found between the groups: $F(1,16)$, $p = .90$, $\alpha = .05$, $\eta = .02$ (see Table 14).

Table 14

Between Group Effects of the Dimension Reflecting

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power
Intercept	1666.67	1	1666.67	357.50	.00	.96	357.50	1.00
Group	.07	1	.07	.02	.90	.00	.02	.05
Error	74.59	16	4.66					

$\alpha = .05$

Research Question Two

How does clinical judgment, as rated by the Lasater Clinical Judgment Rubric, in one group of associate degree nursing students in an Adult Health course who have participated in reflective journaling using course learning outcomes at the beginning of the semester compare to the same groups' clinical judgment at the end of the semester?

To answer this question, descriptive statistics in SPSS version 22 provided total clinical judgment score means for each reflective journaling time period for the comparison group, the course learning outcomes (CLO) group. As noted earlier, the minimum clinical judgment score was 11 and the maximum was 44. The second reflective journaling mean scores for this group are lower than the first (-2.55); and the third mean scores have rebounded and are slightly higher than the first mean scores (.11). See Table 15.

Table 15

Descriptive Statistics of Total Clinical Judgment Scores for CLO Group over Time

Group	Mean	Std. Deviation	N
Total RJ_1	36.33	4.58	9
Total RJ_2	33.78	4.92	9
Total RJ_3	36.44	5.81	9

Next, a repeated measures ANOVA was conducted to compare the means within the CLO group over the three time periods for any within subject effects. Mauchly's test of sphericity was not significant ($p = .22$); therefore, the Greenhouse-Geisser was used for evaluation of within-subjects effects indicating no statistical significance G-G: $F(1.48, 11.84) = 1.14$, $p = .33$, $\alpha = .05$ with effect size of .13 and observed power .19 (see Table 16).

Table 16

Within Subjects Effects of CLO Groups' Total Clinical Judgment Scores over Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power
Total								
Sphericity Assumed	40.96	2	20.48	1.14	.34	.13	2.28	.22
Greenhouse-Geisser	40.96	1.48	27.69	1.14	.34	.13	1.69	.19
Huynh-Feldt	40.96	1.74	23.61	1.14	.34	.13	1.98	.20
Lower-bound	40.96	1.00	40.96	1.14	.32	.13	1.14	.16
Error (total)								
Sphericity Assumed	287.04	16	17.94					
Greenhouse-Geisser	287.04	11.83	24.25					
Huynh-Feldt	287.04	13.88	20.68					
Lower-bound	287.04	8.00	35.88					

$\alpha = .05$

Next, clinical judgment scores of each dimension of the LCJR (noticing, interpreting, responding, and reflecting) were evaluated for differences within each time period. The minimum clinical judgement scores for the noticing dimension was three and the maximum was

12. Descriptive statistics reveal a higher mean in the first reflective journaling done by this group. There was a slight decrease in the second journaling and then a rebound for the third, but the third journaling was not greater than the first in this dimension within group (see Table 17).

Table 17

Descriptive Statistics for Noticing Dimension for CLO Group over Time

Group	Mean	Std. Deviation	N
Noticing RJ_1	10.00	1.73	9
Noticing RJ_2	9.56	1.59	9
Noticing RJ_3	9.67	1.66	9

RM-ANOVA was utilized. Mauchly's test of sphericity was not significant ($p = .12$), therefore the Greenhouse-Geisser statistic was used. There was no significance between the three time periods for the dimension noticing: G-G: $F(1.38, 2.88) = .24$, $p = .71$, $\alpha = .05$, $\eta = .03$ (see Table 18).

Table 18

Within Subjects Effects of Noticing of CLO Group over Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power
Noticing								
Sphericity Assumed	.96	2	.48	.24	.79	.03	.49	.08
Greenhouse-Geisser	.96	1.38	.70	.24	.71	.03	.34	.08
Huynh-Feldt	.96	1.57	.61	.24	.74	.03	.38	.08
Lower-bound	.96	1.00	.96	.24	.64	.03	.24	.07
Error (noticing)								
Sphericity Assumed	31.70	16	1.98					
Greenhouse-Geisser	31.70	11.03	2.88					
Huynh-Feldt	31.70	12.57	2.52					
Lower-bound	31.70	8.00	3.96					

$\alpha = .05$

Descriptive statistics for the clinical judgment scores for *interpreting* was evaluated next in the CLO group. The minimum score in this dimension was two and the maximum score was eight. The groups' mean scores in this dimension show slight improvement from reflective journaling number one to reflective journaling number three (.33 difference). See Table 19.

Table 19

Descriptive Statistics for Interpreting Dimension for CLO Group over Time

Group	Mean	Std. Deviation	N
Interpreting RJ_1	6.56	1.51	9
Interpreting RJ_2	6.56	1.24	9
Interpreting RJ_3	6.89	1.17	9

Using RM-ANOVA statistics, Mauchly's test of sphericity was not statistically significant ($p = .31$); therefore, the Greenhouse-Geisser statistic was used $G-G: F(1.56, 12.47) = .22, p = .76, \alpha = .05, \eta = .03$ (see Table 20). There is no statistical significance within reflective journaling times for the interpreting dimension in the CLO group.

Table 20

Within Subjects Effects of Interpreting of CLO Group over Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power
Interpreting								
Sphericity Assumed	.67	2	.33	.22	.81	.03	.43	.08
Greenhouse-Geisser	.67	1.56	.43	.22	.76	.03	.34	.08
Huynh-Feldt	.67	1.87	.36	.22	.79	.03	.40	.08
Lower-bound	.67	1.00	.67	.22	.65	.03	.22	.07
Error (interpreting)								
Sphericity Assume	24.67	16	1.54					
Greenhouse-Geisser	24.67	12.47	1.98					
Huynh-Feldt	24.67	14.93	1.65					
Lower-bound	24.67	8.00	3.08					

Clinical judgment scores for the LCJR dimension *responding* was evaluated next for the CLO’s group. The minimum score for this dimension was four and the maximum score was 16. The mean for reflective journaling number one was higher than the other reflective journaling times (- 1.66 difference between reflective journaling number one and reflective journaling number 2; -.22 difference between reflective journaling 1 and reflective journaling number 3). See Table 21.

Table 21

Descriptive Statistics for Responding Dimension for CLO Group over Time

Group	Mean	Std. Deviation	N
Responding RJ_1	14.22	1.48	9
Responding RJ_2	12.56	1.81	9
Responding RJ_3	14.00	2.06	9

Using RM-ANOVA, Mauchly’s test of sphericity was not significant ($p = .59$), therefore the Greenhouse-Geisser statistic was used. No statistical difference was demonstrated from the beginning to the end of the reflective journaling with the CLO group: G-G: $F(1.75, 14.02) = 2.77, p = .10; \alpha = .05, \eta^2 = .26$ (Table 22).

Table 22

Within Subjects Effects of Responding of CLO Group over Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power
Responding								
Sphericity Assumed	14.74	2	7.37	2.77	.09	.26	5.54	.47
Greenhouse-Geisser	14.74	1.75	8.41	2.77	.10	.26	4.85	.43
Huynh-Feldt	14.74	2.00	7.37	2.77	.09	.26	5.54	.47
Lower-bound	14.74	1.00	14.74	2.77	.14	.26	2.77	.31
Error (responding)								
Sphericity Assumed	42.59	16	2.66					
Greenhouse-Geisser	42.59	14.02	3.04					
Huynh-Feldt	42.59	16.00	2.66					
Lower-bound	42.59	8.00	5.32					

Reflecting is the last dimension in the LCJR. The minimum possible score was two and the maximum possible score was eight. Clinical judgment scores for the CLO group revealed a slight increase in the means from reflecting journal one to reflective journal number three (.33). See Table 23.

Table 23

Descriptive Statistics for Reflecting Dimension for CLO Group over Time

Group	Mean	Std. Deviation	N
Reflecting RJ_1	5.56	1.45	9
Reflecting RJ_2	5.11	1.69	9
Reflecting RJ_3	5.89	2.03	9

Performing RM-ANOVA, Mauchly’s test of sphericity was not significant ($p = .74$); therefore, the Greenhouse-Geisser statistic was used to evaluate the within-subjects effect of the reflecting within the CLO group with no statistical significance found: G-G: $F(1.85, 14.80) = .73, \eta^2 = .08$ (see Table 24).

Table 24

Within Subjects Effects of Reflecting of CLO Group over Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power
Reflecting								
Sphericity Assumed	2.74	2	1.37	.73	.50	.08	1.47	.15
Greenhouse-Geisser	2.74	1.85	1.48	.73	.49	.08	1.36	.15
Huynh-Feldt	2.74	2.00	1.37	.73	.50	.08	1.47	.15
Lower-bound	2.74	1.00	2.74	.73	.42	.08	.73	.12
Error (reflecting)								
Sphericity Assumed	29.93	16	1.87					
Greenhouse-Geisser	29.93	14.80	2.02					
Huynh-Feldt	29.93	16.00	1.87					
Lower-bound	29.93	8.00	3.74					

Research Question Three

How does clinical judgment, as rated by the Lasater Clinical Judgment Rubric, in one group of associate degree nursing students in an Adult Health course who have participated in guided reflective journaling using the Guide for Reflection at the beginning of the semester compare to the same groups’ clinical judgment at the end of the semester?

To answer this question, descriptive statistics in SPSS version 22 provided total clinical judgment score means for each reflective journaling time period for the intervention group, the guide for reflection (GFR) group. As previously noted, the minimum clinical judgment score was 11 and the maximum was 44. The second reflective journaling mean scores for this group

are slightly lower than the first (-.89) but the third mean scores have rebounded and are equal to the first mean scores (see Table 25).

Table 25

Descriptive Statistics of Total Clinical Judgment Scores for GFR Group over Time

Group	Mean	Std. Deviation	N
Total RJ_1	32.78	7.14	9
Total RJ_2	31.89	8.81	9
Total RJ_3	32.78	5.74	9

Next, a repeated measures ANOVA was conducted to compare the means within the GFR group over three time periods for any within subject effects. Mauchly's test of sphericity was not significant ($p = .08$); therefore, the Greenhouse-Geisser was used for evaluation of within-subjects effects indicating no statistical significance G-G: $F(1.31, 10.52) = .05$, $p = .89$, $\alpha = .05$ with effect size of .01 and observed power .06 (see Table 26).

Table 26

Within Subjects Effects of GFR Groups' Total Clinical Judgment Scores over Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power
Total								
Sphericity Assumed	4.74	2	2.37	.05	.95	.01	.10	.06
Greenhouse-Geisser	4.74	1.31	3.61	.05	.89	.01	.06	.06
Huynh-Feldt	4.74	1.47	3.22	.05	.91	.01	.07	.06
Lower-bound	4.74	1.00	4.74	.05	.83	.01	.05	.05
Error (total)								
Sphericity Assumed	785.93	16	49.12					
Greenhouse-Geisser	785.93	10.52	74.74					
Huynh-Feldt	785.93	11.76	66.81					
Lower-bound	785.93	8.00	98.24					

Next, clinical judgment scores of each dimension of the LCJR (noticing, interpreting, responding, and reflecting) were evaluated for differences within each time period for the GFR group. The minimum clinical judgement scores for the noticing dimension was three and the maximum was 12. Descriptive statistics reveal a higher mean in the second reflective journaling done by this group (a difference of .77). On the third reflective journaling, the mean decreased (-.44) but was higher than the first journaling (a difference of .33 from the first to the last journaling). See Table 27.

Table 27

Descriptive Statistics for Noticing Dimension for GFR Group over Time

Group	Mean	Std. Deviation	N
Noticing RJ_1	8.67	2.40	9
Noticing RJ_2	9.44	2.96	9
Noticing RJ_3	9.00	1.87	9

RM-ANOVA was utilized. Mauchly's test of sphericity was not significant ($p = .43$); therefore, the Greenhouse-Geisser statistic was used. There was no significance over the three time periods for the dimension *noticing* in the GFR group: G-G: $F(1.27, 10.19) = .20$, $p = .72$, $\alpha = .05$, $\eta = .03$ (see Table 28).

Table 28

Within Subjects Effects of Noticing of GFR Group over Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power
Total								
Sphericity Assumed	2.74	2	1.37	.20	.82	.03	.41	.08
Greenhouse-Geisser	2.74	1.27	2.15	.20	.72	.03	.26	.07
Huynh-Feldt	2.74	1.41	1.95	.20	.74	.03	.29	.07
Lower-bound	2.74	1.00	2.74	.20	.66	.03	.20	.07
Error (total)								
Sphericity Assumed	107.26	16	6.70					
Greenhouse-Geisser	107.26	10.19	10.52					
Huynh-Feldt	107.26	11.26	9.53					
Lower-bound	107.26	8.00	13.11					

$\alpha = .05$

Descriptive statistics for the clinical judgment scores for *interpreting*, the second dimension of the LCJR was evaluated next in the GFR group. The minimum score in this dimension was two and the maximum score was eight. The GFR groups' mean scores in this dimension show slight decline from reflective journaling one to reflective journaling two (-.11) and to reflective journaling three (-.11). See Table 29.

Table 29

Descriptive Statistics for Interpreting Dimension for GFR Group over Time

Group	Mean	Std. Deviation	N
Interpreting RJ_1	6.33	1.58	9
Interpreting RJ_2	6.22	1.79	9
Interpreting RJ_3	6.11	.93	9

Using RM-ANOVA statistics, Mauchly's test of sphericity was not statistically significant ($p = .14$); therefore, the Greenhouse-Geisser statistic was used $G-G: F(1.40, 11.23) = .06, p = .88, \alpha = .05, \eta = .01$ (see Table 30). There is no statistical significance within the *interpreting* dimension of the LCJR for the GFR group.

Table 30

Within Subjects Effects of Interpreting of GFR Group over Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power
Total								
Sphericity Assumed	.22	2	.11	.06	.94	.01	.13	.06
Greenhouse-Geisser	.22	1.40	.16	.06	.88	.01	.09	.06
Huynh-Feldt	.22	1.61	.14	.06	.91	.01	.10	.06
Lower-bound	.22	1.00	.22	.06	.81	.01	.06	.06
Error (total)								
Sphericity Assumed	28.44	16	1.78					
Greenhouse-Geisser	28.44	11.23	2.53					
Huynh-Feldt	28.44	12.89	2.21					
Lower-bound	28.44	8.0	3.57					

$\alpha = .05$

Clinical judgment scores for the LCJR dimension *responding* was evaluated next for the GFR group. The minimum score for this dimension was four and the maximum score was 16. The mean for reflective journaling number three was the greatest mean, .11 greater than reflective journaling number one and 1.0 greater than reflective journaling number two. See Table 31.

Table 31

Descriptive Statistics for Responding Dimension for GFR Group over Time

Group	Mean	Std. Deviation	N
Responding RJ_1	11.89	2.09	9
Responding RJ_2	11.00	3.08	9
Responding RJ_3	12.00	2.06	9

Using RM-ANOVA statistics Mauchly's test of sphericity was significant at .04; therefore sphericity is assumed: $F(2,16) = .54$, $p = .60$, $\alpha = .05$, $\eta = .06$ (see Table 32). There is no statistical significance within the dimension of responding in the GFR group's reflective journaling over the three time intervals.

Table 32

Within Subjects Effects of Responding of GFR Group over Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power
Total								
Sphericity Assumed	5.41	2	2.70	.54	.60	.06	1.07	.12
Greenhouse-Geisser	5.41	1.25	4.33	.54	.52	.06	.67	.11
Huynh-Feldt	5.41	1.37	3.95	.54	.53	.06	.74	.11
Lower-bound	5.41	1.00	5.41	.54	.49	.06	.54	.10
Error (total)								
Sphericity Assumed	80.59	16	5.04					
Greenhouse-Geisser	80.59	10.00	8.06					
Huynh-Feldt	80.59	10.96	7.35					
Lower-bound	80.59	8.00	10.07					

$\alpha = .05$

Reflecting is the last dimension in the LCJR. The minimum possible score was two and the maximum possible score was eight. Clinical judgment scores for the GFR group revealed a decrease from reflective journaling one to reflective journaling two (-.67) and then a slight increase upward (.45) but not reaching the beginning reflection scores (see Table 33).

Table 33

Descriptive Statistics for Reflecting Dimension for GFR Group over Time

Group	Mean	Std. Deviation	N
Reflecting RJ_1	5.89	1.62	9
Reflecting RJ_2	5.22	1.79	9
Reflecting RJ_3	5.67	1.50	9

Performing RM-ANOVA, Mauchly's test of sphericity was not significant ($p = .68$); therefore, the Greenhouse-Geisser statistic was used to evaluate the within-subjects effect of the reflecting within the GFR group with no statistical significance found: G-G: $F(1.81, 14.17) = .59$, $\eta^2 = .06$, observed power = .12 (see Table 34).

Table 34

Within Subjects Effects of Reflecting for GFR Group over Time

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent Parameter	Observed Power
Total								
Sphericity Assumed	2.07	2	1.04	.52	.60	.06	1.04	.12
Greenhouse-Geisser	2.07	1.81	1.15	.52	.59	.06	.94	.12
Huynh-Feldt	2.07	2.00	1.04	.52	.60	.06	1.04	.12
Lower-bound	2.07	1.00	2.08	.52	.49	.06	.52	.10
Error (total)								
Sphericity Assumed	31.93	16	2.00					
Greenhouse-Geisser	31.93	14.17	2.20					
Huynh-Feldt	31.93	16.00	2.00					
Lower-bound	31.93	8.00	3.99					

Research Question Four

What are associate degree nursing student's perceptions of reflective journaling using course learning outcomes as related to development of clinical judgment?

A focus group interview was conducted after the reflective journaling with course learning outcomes had been concluded at the end of summer of 2014. At the end of the study in spring of 2015, the researcher again looked at the data in preparing for the written report. The goal of the interview was to identify the participants' thoughts and feelings about reflective journaling using course learning outcomes and whether clinical judgment was affected.

Six students who had completed all three reflective journal writings had been selected and invited to attend the focus group interview: three who had written expressively and three who had written a limited amount when journaling about their clinical experiences. Three students attended the focus group interview: two of whom had written a limited amount and one

who had written expressively. All three were Caucasian females. Two of the three had received clinical instruction from the researcher in the past (not during the research study). Two students had received instruction throughout the nursing program via the hybrid program and the other student received traditional instruction. Course content was delivered online with the hybrid program until this last semester of the nursing program. The students were between the ages of 21 and 39, one was an LPN, one a nurse assistant, and one had no previous health care experience. The two hybrid students had nursing GPA's of 3.0-3.49; all three received support from their family and two had children.

The interview was held in a nursing conference room and lasted approximately 45 minutes. The interview was informal with the researcher providing a lunch of sub sandwiches. (The students were busy trying to prepare for graduation and the researcher felt this was the only way to obtain participation, and it also provided an informal meeting). All participants signed the consent and agreed to the audiotaping. The students were happy to be at the end of their schooling and were communicative. The overall consensus was the reflective journaling was enjoyable and helpful and did improve clinical judgment. However, of particular import was statements made by the participants that the course learning outcomes were fact based and did not provoke thoughtful contemplation of the situation or nursing care they were providing. In addition to the comments concerning their perceptions of reflective journaling using course learning outcomes, the attendees offered suggestions. The suggestions were to add questions concerning how they felt about things, what they noticed, how they saw other nurses in their roles, what they could do better, and what they should have done better. They also suggested making reflective journaling a course requirement, adding reflective writing to earlier nursing courses, and making course instructors more knowledgeable.

Another notable point is that although the students were aware the research study was about clinical judgment, they were less familiar with the term clinical judgment and used the term critical thinking throughout the interview. The researcher read a prepared statement to be clear about the purpose of the interview that included the desire for the students to share their thoughts and feelings about the journaling, especially in relation to clinical judgment and that there were no right or wrong answers. When asking the first question to jumpstart the interview (because no one responded after the researcher stated the floor was open and asked who would like to begin sharing), the researcher was aware of the students limited working knowledge of the term clinical judgment and therefore included critical thinking in the question, “Did you feel it (reflective journaling) improved your clinical judgment and critical thinking skills?”

Clinical judgment per the researcher’s definition for this study and based on Tanner’s (2006) work is “the ability to reach a conclusion or decision concerning a patient’s needs through effective and mindful observation, efficient and prioritized elucidation of all data, appropriate and skillful response, and reflective analysis of patient response to actions, with further introspection for continued growth and improvement.” This includes noticing, interpreting, responding, and reflecting.

To analyze the data, the researcher used Charmaz’s (2010) qualitative analysis process involving coding, focused coding, and then theoretical coding. This groups’ perceptions of reflective journaling using course learning outcomes as related to clinical judgment as obtained from the data analysis indicates the participants feel reflective journaling did improve clinical judgment because it a) forces one to reflect, b) promotes alternative thinking processes, c) enhances caring, and d) promotes introspection and evaluation of others. Students described how the reflective journaling caused them to focus their observation and recognize deviations

from expected patterns, which are dimensions in the noticing category of Tanner's Clinical Judgment Model. Making sense of the data and prioritizing data, dimensions in the interpreting category were noted, also, as the students articulated "putting everything in the database together." Reflections concerning improvement of dimensions in the responding category were mostly noted where the students identified their thought processes of their response to the patient. Evaluating self and others and identifying areas for improvement, dimensions in the reflecting category, were also verbalized as the students discussed how the journaling developed deeper learning and even created new learning. The theoretical findings are presented in categories from the data analysis.

Forces one to reflect. The study participants described being tired after a day of clinical and wanting to nap or just not think about the day. Some students had class the day prior to the clinical and had to go to the hospital after class to get the clinical assignment and then prepare multiple pages of paperwork prior to the clinical experience. One student said "normally I definitely wouldn't think any more about it because I was so tired (and) it (the reflective journaling) made me do that" and "Normally, we would do that (reflect) because we're already done with our paperwork; we'd be done by the end of the clinical day. But that kinda helped because we had to go home and rethink about everything – that's what helped me out, I think, the most." The others agreed.

Promotes alternative thinking processes. The reflective journaling provided a different method of looking at the paperwork and patient care situations. Subcategories developed from the data are looking at the whole process, integrating theory/clinical experiences, deeper learning, and creation of learning.

Looking at the whole process. One student stated that previously she looked at the paperwork as just “copying things out of the chart” but when journaling reflectively, “we have to put everything in the database together...as a whole.” Another student said when reflecting back on the day “it made me see things a little bit differently having not been in that situation” and instead of “just going down and answering questions and looking it up...an actual reflection of my day is a whole different type of writing that...makes you look back on things you could’ve done differently.” Later, this same student also said the reflective journaling made “the thought process...more fluent” and she did not think she learned any “personal nursing skills” early in the program because of having to do “strictly paperwork.”

Integrating theory and the clinical experience. One student said that the reflective journaling helped bring the theoretical and clinical aspects of nursing together. Her statement was “... when I look back at my clinical (experience), it helped me to put the information that we learned in class to the situation I was in in clinical into a different perspective...” and “it helped bring the two together.” This same student went through the process of describing how she thought through the signs and symptoms she noticed how she interpreted what was happening with the patient, how the patient responded, and her reflection in action without using the clinical judgment model terms when reflecting afterwards.

Deeper learning. Reflective journaling helps the student remember information and takes learning to a deeper level. One of the students said of the reflective journaling, “it puts the experience, kind of ingrains it in your mind” and she further stated “when I go back and I go ‘I should’ve done this or I did that right or that was a good thing that I should’ve done,’ then I can draw on that for future references while I’m in my nursing career.” Another student agreed with this and said that “it makes you think more in-depth about (the) whole day.”

Creation of learning. The reflective journaling allowed the participants to create their own learning. As one student talked about using her brain and mind to think about what was going on with the patient, another student offered “use your own words” indicating that the student had to construct her own thoughts about what was happening with the patient. This same student also said that reflective journaling allowed her to develop her own perspective, “rather than a book’s perspective or an experienced nurses’ perspective or an instructor’s perspective.”

Promotes caring. One aspect of nursing care the participants felt limited in with their current method of paperwork was assessing the psychological aspect of patient care. The participants felt the reflective journaling with the course learning outcomes helped them in this area. One student said, “I learned to look more not just at the physical aspects of the patient, but it helped me get into the psychological...” Another student said that she found herself thinking about her patients after she had left clinical for the day even though she was not there building a relationship with them but the reflective writing made her relationship with her patient “more personal rather than just impersonal.”

Introspection and evaluation of others. Reflective journaling caused the study participants to look within themselves and note areas for improvement. Boosted self-esteem is included as a subcategory. One study participant said that reflective journaling “makes you look back on things you could’ve done differently, should’ve picked up (on)” while another student said, “I discovered things that maybe I should’ve (seen) or things that I could’ve done differently or what would happen if I did this or did that.” The journaling also made them evaluate others and their skills, behaviors, and attitudes toward patients. One student said, “[reflective journaling] makes you look back on things...like other nurses – they did things and how they should’ve done them and if it was a good way they did it.” She noted some nurses had great

technical skills but poor rapport with patients. Another student said she tried to pick out things from other nurses that she would like to incorporate into her nursing practice.

Boosted self-esteem. The interview participants all seemed to have developed more self-confidence after the reflective journaling experience. One of the students said that even though the reflective journaling was difficult, “I think that (it) pulled out some good things within me” and she added that she had to think like a nurse. The reflective journaling also was credited with providing insight into what they did right, further building self-esteem and confidence.

Research Question Five

What are associate degree nursing students’ perceptions of guided reflective journaling using the Guide for Reflection as related to development of clinical judgment?

A focus group interview was conducted after the guided reflective journaling had been concluded at the end of the study in the spring of 2015. The goal of the interview was to identify the participants’ thoughts and feelings about reflective journaling using the Guide for Reflection and whether clinical judgment was affected.

All six students who had completed all three reflective journal writings had been invited to attend the focus group interview without deference to how expressively they had written. However, only one had written a limited amount whereas the others were expressive and wrote a good bit about their clinical experiences. Six students attended the focus group interview, however, one was late and one left early. Both the student leaving early and the one who was late participated actively in the interview, as did all in attendance. There were two Caucasian males, one African American female, and three Caucasian females in attendance. Five students were between 21 and 29 years of age and one student was in her 40s. One student was an LPN, three worked in jobs such as nurse assisting, and two had no health care experience. Two

students had nursing GPAs of 2.5-2.9, three had nursing GPAs of 3-3.49, and one noted a nursing GPA of 3.5-4.0. All but one student noted assistance from family. Two of the female students were not in the group chosen to precept and had regular weekly clinical schedules with the majority of the class whereas the other four students precepted in critical care areas, including the emergency department, in a large tertiary hospital. The students not precepted were under the direction of an experienced critical care clinical instructor responsible for up to ten students and were mainly providing care to critical care patients. The researcher did not identify any differences in the clinical judgment of those who were precepted versus those who were not. None of the students had received clinical instruction from the researcher in the past.

The interview was held in a nursing conference room and lasted approximately 45 minutes. The interview was informal. The students had been served lunch by the junior nursing students and all were happy, communicative and glad that they were about to graduate. All participants signed the consent and agreed to the audiotaping. The overall consensus was the reflective journaling was enjoyable and helpful and did improve clinical judgment. In addition to the comments concerning their perceptions of reflective journaling using the Guide for Reflection, the attendees offered suggestions. The suggestions were to start with reflective journaling earlier in the nursing program and replace some of the paperwork as some participants felt that reflecting after the clinical experience provided better learning. Some students commented that some of the questions in the guide were repetitive and the guide might need to be revised to remove repetitive questions or statements.

To analyze the data, the researcher used Charmaz's (2010) qualitative analysis process involving coding, focused coding, and then theoretical coding. This groups' perceptions of reflective journaling using the Guide for Reflection as related to clinical judgment as obtained

from the data analysis indicates the participants feel reflective journaling did improve clinical judgment because it a) provided an alternative thinking process, 2) facilitated knowing the patient, c) promoted introspection and evaluation of others, and d) evoked changes. Students explicitly or implicitly described focused observation and recognizing deviations from expected patterns, which are dimensions in the noticing category of Tanner's Clinical Judgment Model. Making sense of the data and prioritizing data, dimensions in the interpreting category were noted also. Reflections concerning improvement of dimensions in the responding category were mostly noted where they identified changes in interventions needed, and where the students felt they improved on communication and confidence. Evaluating self and identifying areas for improvement in the reflecting category was the area where most of the comments originated. The theoretical findings are presented in categories from the data analysis.

Provided an alternative thinking process. Reflective journaling using the Guide for Reflection provided a different means of looking at the patient and at the problem the patient is experiencing, according to the study participants. Subcategories developed from the data are looking at the whole process, zoning in, and integrating theory/clinical experiences.

Looking at the whole process. Multiple students stated the reflective journaling using the Guide for Reflection caused them to look at the whole process of caring for a patient. Comments were "you can see your assessment, what your interventions were, and what helped the outcome" and "it did a better job ...of looking at a problem and how you – what your intervention was and what... your evaluation (was) – the whole process." Another student said she felt the journaling provided an opportunity for them to see continuity of patient care and how they participated from the beginning to the end of care for a patient.

The students learned that there are different methods to evaluating their nursing care and “look at the way you think through things.” One student said the paperwork and care plans they used compared to the guided reflection were “very black and white” meaning they were scripted and not easily adaptable to the whole patient. Another student felt like the journaling provided an opportunity to write “real life interventions” rather than the nursing diagnosis and care plan language. One student indicated that it provided an organized manner of reflecting and she felt she would reflect in this same manner after graduation.

Zoning in. The students felt like the reflective journaling using the Guide for Reflection helped them “zone in” or focus on specific details of their nursing care. One student precepting in the emergency department said that by sitting down and focusing on one patient, he was able to see what he could’ve done better – and it made him learn. He described the symptoms of an asthmatic patient, how those symptoms correlated to what he had learned, and how he would recognize the symptoms immediately from then on. Another student stated that although at first she didn’t like the fact that she had “to zone in on a specific problem,” she realized there was nothing to dislike about the process because it made you “zone in and think about the simple yet potentially lifesaving events that you do.” This particular student, not a student who was precepting, discussed how she stopped a tube feeding on a patient who was undergoing a procedure in a supine position as she realized prevention of aspiration had to be a priority. When journaling, she realized how important that “simple” prioritized intervention was. She had intervened even while the registered nurse kept silent.

Integrated theory/clinical experiences. The student who assisted in the care of a patient with asthma said that the journaling brought out what they had learned in class as he described the scene and the integration of learning as he stated “it made you go back and look at what you

saw and you would tie it to what you were learning about.” Another student agreed that it was a lot more useful in this regard than care plans. The students also felt the situational reflection helped with their test taking abilities as one student said “there’s so many situational questions on tests and that was kinda a good way to think about – look at situations.”

Facilitated knowing the patient. Knowing the patient was a recurring theme obtained from the data. As previously stated, the students overwhelmingly felt the paperwork was just paperwork. One student said the journaling was “more relatable to a person” compared to the care plans they had previously done. One student said that journaling after clinical rather than having to fill out paperwork throughout the clinical gave her more time with and more of an opportunity to develop more of a relationship with the patient because previously “I didn’t really know my patient.”

Promoted introspection and evaluation of others. The reflective journaling using the Guide for Reflection was “thought provoking” and forced one to reflect according to the participants, which was a new experience for them. One student said what was done in the clinical setting was easily forgotten if they were not forced to remember. This student commented that she precepted in the emergency department and it was so fast paced that she didn’t have time to reflect on the actions while she was in the clinical setting. Another student said it forced her to consider what she would do differently if given the opportunity to do it again while another student said that the reflection made her think and “reflect back on the process,” specifically, “what meds were given, how you react in a given situation and looked at the way you thought through things.” “Yeah,” the female student who precepted in the emergency department said, “the reflecting part gave you the opportunity to say ‘you know – I can do this better.’”

Critically analyzing the data, it was obvious the study participants reflected over all phases of the clinical judgment process: noticing, interpreting, responding, and then reflection. Subcategories discussed here under promotion of introspection and evaluation of others include evaluation of self: skills and feelings, evaluation of others, and boosted self-confidence.

Skills and feelings. With introspection, you are forced to look at what you did wrong and would do differently in the future, one student said, which is a feature they enjoyed. One student stated that when she was thinking about what she would do differently when reflecting, she realized she could have stayed with a patient who was having a panic attack and focused on the psychosocial aspect of the situation instead of tending to the technical skills. Other students noted specific situations where they learned things by reflecting that they will not forget – one where the crash cart is upon entering a new area, and one about the importance of evaluating lab work prior to administering medications. Moreover, the students said the reflection helped prepare them for the next clinical day.

One male student precepting in the emergency department shared a lengthy comment about how the reflective journaling with the Guide for Reflection allowed him to “get everything off my chest.” He spoke about how different nurses have different experiences and students often don’t have experiences with tragic events, therefore, it’s good to be able to journal those feelings, that it provides “a catharsis.” He also discussed how the guide provided an opportunity to consider his patient’s feelings as well as his own and in so doing this “brought the humanity back into nursing.” Questions or statements concerning the patients’ feelings and/or the students’ feelings were not questions that they have been asked before, the students offered.

Evaluation of others. The reflective journaling with the Guide for Reflection also caused the students to focus on others' skills, abilities, and behaviors. One student described a situation where a nurse was not proactive in communicating with the physician about the patient's condition and felt the nurse should have been more assertive and should have acted as a patient advocate. Another student who cared for a COPD patient noted a common problem in healthcare, a lack of teamwork, which can be detrimental to the care of patients. She perceived that the nurses' lack of attention to the COPD patients' amount of oxygen being delivered and the subtle increasing respiratory distress of the patient as a feeling that the nurse thought it was the respiratory therapists' responsibility to care for the patients' respiratory status. The nurse did respond to the student's suggestion that the patient may be receiving too much oxygen, but although not overtly stated, the researcher sensed a lack of teamwork was common with the students as though they were not made to feel as part of the team. One student commented, "we have a say just like they do" and "we're in our last semester and we're about to be nurses." When describing how the journaling was beneficial, another student mentioned that he realized he did a better job than he thought he had done and implied he was not made to feel very smart. Students are team members and need to be made to feel as though they are important.

Boosted self-confidence. One student said that when he was writing about a situation and realized he did something right, it boosted his confidence and the others agreed with him. Clinical judgment and confidence go hand-in-hand according to one student as he stated "you won't stand by your clinical judgment and you'll question yourself if you don't have that confidence." The student caring for the COPD patient who was extubated shared how she was concerned about the patient's response to high levels of oxygen and spoke to the nurse about the possibility of the increasing respiratory distress being caused from the high oxygen levels the

patient was receiving. The nurse listened and acted on the student's suggestion and the patient's condition improved. The student received a considerable boost in confidence from that experience.

Evoked changes. Journaling using the Guide for Reflection allowed the students to see their mistakes and omissions and provide voice for areas of improvement. One student commented, "...the fact that I sat there and wrote about (noting a potassium level prior to giving a medication that morning) – I was like 'wow-ok-yeah' – I'm going to start looking at labs a little more closely." All students shared areas where they had reflected and realized areas they needed to improve on.

CHAPTER V:

DISCUSSION, IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSIONS

Poor patient outcomes continue to be a concern in the health care system (Chassin & Loeb, 2013). The health care environment is changing rapidly, becoming more complex and technologically oriented while simultaneously patients are becoming sicker with multiple and complex health issues and unprecedented social issues (Benner, Sutphen, Leonard, & Day, 2010). Many decisions once made by physicians are being delegated to nurses now, thus, placing more responsibility on the nurse who may be caring for multiple patients and dealing with other institutional or social issues. Nurses are uniquely positioned to influence patient outcomes as they spend more time with health care recipients than other health care professionals. Therefore, nurses need to possess solid and extensive foundational knowledge, proficient clinical skills, ethical comportment, and exceptional clinical judgment abilities (Benner et al., 2010).

Fortunately, nursing education has begun to respond to the current changes and expanded duties and roles of nurses by exploring various pedagogical tools and methods, as challenged by the NLN (2008) and Benner et al. (2010) to increase students' clinical judgments and therefore produce graduates that are able to respond to the current challenges. One such tool is reflective journaling, which has been used in many educational fields and more recently in nursing, but there is limited research connecting reflection specifically to clinical judgment (Tanner, 2006). Tanner developed a Clinical Judgment Model based on practicing novice and experienced nurses and Lasater developed the Lasater Clinical Judgment Rubric (2007a) (LCJR) based on Tanner's

model. Further, Nielsen, Stragnell, and Jester (2007) developed a guide based on both Tanner's Clinical Judgment Model and the LCJR. As Nielsen et al. asserted, reflection alone may not produce quality learning. Moreover, Glynn (2012) suggested that student reflection should be guided by a theoretical framework in order to link salient theoretical concepts with application and synthesis in the clinical environment, thus, producing increasing clinical reasoning and judgment skills.

The literature review revealed various frameworks and guides with reflective writing; however, no consistency was found. Moreover, mixed results were identified and few studies produced quantitative statistical analysis, the primary focus of the study.

Nielsen et al.'s (2007) Guide for Reflection was chosen for this study because it directs students' thinking and reflecting in association with Tanner's (2006) research based Clinical Judgment Model and the LCJR providing guidance for evaluating clinical judgment and providing feedback. According to Nielsen et al., guided reflection based on cues or prompts forces the student to examine the clinical experiences in a directed and focused manner and through each phase of the clinical judgment model. The Guide for Reflection has been used in the simulation lab setting but no studies have been found in the literature using the Guide for Reflection, as is, after a guided reflective journaling intervention in the acute care hospital setting.

The researcher wished to see if the Guide for Reflection would enhance student's clinical judgment in the acute care hospital setting. Therefore, the purpose of this study was to explore whether there was a difference in clinical judgment, as measured by the LCJR, of associate degree nursing students in the acute care setting who participated in guided reflective journaling utilizing the Guide for Reflection compared to clinical judgment, as measured by the LCJR, of

associate degree nursing students in the acute care setting who participated in reflective journaling using course learning outcomes. A secondary purpose was to examine whether there was a difference in each group's ending clinical judgment scores, as rated by the LCJR, compared to the same groups' clinical judgment scores at the beginning of the semester; and lastly, student perceptions as related to improvement of clinical judgment with reflective journaling throughout the semester was explored. A mixed methods study design with a comparison group and an intervention group was utilized. Phase one consisted of the comparison group performing reflective journaling utilizing course learning outcomes three times during the semester—beginning, middle, and end—with a focus group interview at the end of the semester in summer of 2014. Phase two consisted of the intervention group performing guided reflective journaling during the semester—beginning, middle, and end—utilizing the Guide for Reflection in the fall of 2014 and the spring of 2015 with a focus group interview at the end of the semester in the spring of 2015. This chapter presents the research findings with implications, limitations of the research, recommendations for future studies, and conclusions.

Research Findings and Implications

Quantitative statistical analysis was performed to compare clinical judgment scores between the comparison group and the intervention group, and also within each group throughout each of the reflective journaling experiences. Qualitative analysis was performed with the focus group interview data at the end of each phase and at the conclusion of the study.

For the quantitative analysis, the comparison groups' and the intervention groups' clinical judgment scores for each time period were cross tabulated using Pearson Chi Square first to identify any significant relationship between the scores of each time period and each group with no statistically significances found. Next, select student demographics (employment, hours

worked per week, and nursing GPA) were also cross-tabulated with students' clinical judgment scores at each time period and produced no statistically significant results except for reflective journaling three, the end of the semester, where those not employed scored statistically significantly higher clinical judgment scores at the end of the semester. Similarly, Padden (2011) did not find statistical significance when comparing select demographics and high reflective journaling scores except for gender and "using writing as a method to think through problems" (p. 144).

Statistical analysis using repeated measures ANOVA (RM-ANOVA) was used next to answer the first three research questions with findings noted in chapter four. Discussion of those findings for each research question with implications are presented.

Research Question One

How does clinical judgment, as rated by the Lasater Clinical Judgment Rubric (LCJR), in one group of associate degree nursing students in an Adult Health Nursing course who have participated in guided reflective journaling using the Guide for Reflection, compare to clinical judgment of another group of associate degree nursing students in an Adult Health Nursing course who have participated in reflective journaling using course learning outcomes?

No statistical significance was demonstrated between the two groups using a RM-ANOVA when evaluating total clinical judgment scores. Surprisingly, however, descriptive statistics data revealed higher total means in the learning outcomes group over the guided reflection group (learning outcomes mean = 35.52; guided reflection mean = 32.48) as well as each individual time period. The researcher expected the intervention group, the guided reflection group, to have higher means because of the specific thought-provoking statements in the Guide for Reflection rather than the fact based statements of the course learning outcomes.

Also, when evaluating each dimension of the LCJR (noticing, interpreting, responding, and reflection) between the two groups, the comparison (course learning outcomes) group scored higher on the responding aspect of clinical judgment at each time interval. Components of the responding category of the rubric used to score the participants were calm and confident manner, clear communication, well-planned intervention, and being skillful. Carefully examining the learning outcomes versus the provocative statements made in the Guide for Reflection, the researcher can understand how the study participants would describe communication and interventions more fully using the learning outcomes statements to respond. The learning outcomes statement asked the student to “describe how you effectively communicated with clients, their families and members of the health care team” and “describe how you functioned as a member of the health care team” whereas the Guide for Reflection asked the student “After considering the situation, what was your goal for the patient/family/staff? What was your nursing response or what nursing interventions did you do?” The learning outcomes statements in this regard are clear and succinct whereas the guide’s language is more consistent with nursing care planning language which, according to the focus group interviews, the students disliked greatly.

It is also possible that the lack of statistical significance is because of a potential deficiency with the rubric used for evaluating the journaling as there are only two dimensions for two of the four categories or subscales of the LCJR (J. Dantzler, personal communication July 23, 2015). Additional dimensions are needed in these two categories to provide greater sensitivity to subtle differences. Discrete differences in the groups with regard to statements made in the qualitative portion of the study relating to clinical judgment are discussed later in this chapter.

The non-statistically significant findings, however, are consistent with Murphy's (2004), Padden's (2011) and Kuiper's (2010) comparative studies. In Murphy's study between two groups (intervention group receiving instruction on reflective writing) of nursing students where reasoning skills were evaluated through reflection and exam items over two time periods, no statistically significant findings were identified except for Murphy's definition of clinical reasoning, the practice measure, that produced a statistically significant result.

Likewise, Padden (2011), comparing two groups, also found improvements in levels of reflection but no statistical significance in pre- and post-test measures of self-awareness and perceived clinical decision making skills in two groups of students. Padden's intervention group, performing guided reflective journaling using an adaptation of Nielsen et al.'s (2007) Guide for Reflection, also received feedback to the guided reflective journal entries (n = 33) at three different times in one semester compared to the control group who did not perform guided reflective journaling (n = 79). Improvements, though not statistically significant, were made from the lowest level of writing to the middle level of writing for the majority of students (as scored using an author developed rubric). Padden's intervention groups' mean scores were higher on self-awareness after the intervention than the control group but the control group had higher mean scores on perceived clinical decision making skills. Therefore, although more aware of self and actions, the process of making decisions did not improve in students performing reflective journaling. This finding is especially astounding because one would expect, as with the researcher's study, perceptions of being more self-aware would lead to improvement in decision making or clinical judgment, but it did not in either of these studies.

The third comparative study with similar findings is Kuiper et al. (2010). Kuiper et al., using the Self-Regulated Model, examined thinking strategies of two groups of last semester

BSN students using reflective journals with self-regulated learning prompt: the difference between the groups was the number of clinical hours each experienced. The prompts were similar to the Guide for Reflection in that they were open-ended statements that promoted reflection on the clinical experience, thinking processes, behaviors, and environmental influences. No statistically significant differences were seen between the two groups, although more self-evaluative metacognitive strategies were identified in the group who had a greater number of clinical hours. Again, these findings are contrary to what would be expected in last semester students. The responses offered for the 60-hour group were task and skill oriented. Students, soon to be registered nurses, should be able to articulate in writing critical thinking abilities and evidence of increasing self-confidence and self-efficacy in the last semester of the nursing program.

With regard to research, further comparative studies are needed as the literature thus far, including this study, indicate some improvement of self-awareness and perceived improved clinical judgment in nursing students, as will be discussed in more detail later; however, statistical evidence has not been provided to support these perceptions. In the researcher's study, both the comparison group who reflectively journaled with course learning outcomes and the intervention group who reflectively journaled with the Guide for Reflection had similar clinical judgment scores. As previously noted, it is possible that the lack of statistical significance is because of a possible deficiency with the rubric used for evaluating the journaling as there are only two dimensions for two of the four categories and a larger sample may have provided statistically significant results. Further research is recommended with this same research design with a larger sample and in various settings. An expanded LCJR may be needed to provide greater sensitivity.

For nursing education, the researcher concurs with others (Aaron, 2013; Glynn, 2012; Kuiper et al., 2010) who believe nurse educators need to embrace evidence based theoretical models to guide the thought processes and reflection of students. Murphy's (2004) research did not have a specific framework to guide the reflective writing whereas Kuiper et al. (2010) did base their study on social cognitive theory, and Padden (2011) utilized Boud et al. (1985) guided prompts and Tanner's (2006) Clinical Judgment Model. Only Tanner's model, however, was developed based on research with practicing nurses. The researcher believes nursing education would benefit the most using an evidence based theoretical model developed with novice and experienced nurses. Moreover, the researcher believes Tanner's Clinical Judgment Model, Lasater's (2007a) Clinical Judgment Rubric (although, expanded) and Nielsen et al. (2007) Guide for Reflection used in concert in nursing education programs would provide students with a comprehensive, nonlinear, holistic model to guide students' thought processes, a rubric to specify levels of clinical judgment development for students, and a guide to encourage student reflection and creation of new learning, all with consistent language to facilitate students' active learning.

Findings from this study have implications for the practice environment. Specifically, proficient clinical judgment skills of nurses are needed to provide a safe environment for patients. The responsibility of providing beginning practitioners who are able to provide safe patient care belongs to nurse educators (Etheridge, 2007). In a phenomenological study, Etheridge interviewed new BSN graduates and found that the graduates did not realize the extent to which clinical judgment would be needed and, instead, some graduates thought that nursing was "taking care of people" and using flow sheets to guide their actions. The graduates also reported to Etheridge not feeling as confident, not realizing all of the small things they needed to

correlate, the independent thinking they would need, and the level of responsibility that would be required of them.

Although findings from the researcher's study were not statistically significant, the researcher believes using a guide for reflection and a rubric based on an evidence based theoretical model of practicing nurses and integrated throughout the nursing education program would provide a consistent method of thinking and reflecting that would enhance clinical judgment and prepare graduates more appropriately for real world practice. The practice environment depends on nurse educators to provide new graduates with proficient clinical judgment and research needs to be conducted in this manner.

Research Question Two

How does clinical judgment, as rated by the LCJR, in one group of associate degree nursing students in an Adult Health course who have participated in reflective journaling using course learning outcomes at the beginning of the semester compare to the same groups' clinical judgment at the end of the semester?

No statistical significance was demonstrated with total clinical judgment scores from the beginning of the semester to the end of the semester in the comparison group although the mean scores were slightly higher than the beginning mean scores. Of particular interest, however, is that the second total clinical judgment mean scores for this group are lower than the first but did rebound to become slightly higher than the first mean scores for the third reflective journaling. The researcher is not aware of any reason for this occurrence. When each dimension of the LCJR was evaluated within each time period, the noticing dimension and the responding dimension scores also decreased for the second journaling and although slightly increased, did not rise above the first reflective journaling. The groups' mean scores in the dimension of interpreting

and the dimension of reflecting show some improvement from reflective journaling number one to reflective journaling number three. Hence, this groups' ability to notice and respond decreased from the first to the third journaling but their abilities to interpret and reflect improved during the same time interval.

The outcomes of this study is inconsistent with Ip et al. (2012) who identified statistically significant findings using a pre-posttest design in their study of one group of students who reflectively journaled using non-reflector, reflector, or critical reflector definitions with a time series design (two times during a clinical practicum). Prior to the three-hour reflective skills interactive workshop intervention the students' journaling focused on basic tasks but after the intervention the students' journaling related how they performed and solved problems, made associations and included feelings in their reflections. Padden (2011), on the other hand, as previously mentioned, with her time series design (three time intervals in one semester), found improvements in levels of reflection but no statistical significance.

Implications for nursing education and nursing research includes nurse educators using course outcomes to replicate this portion of the study using a time series design. Writing or rewriting course learning outcomes for clarity and conciseness with students instructions to "describe how you"... followed by the course learning outcomes listed to elicit student reflection, as the researcher did in this study, would be a worthy research study. Although there were slight improvements in the clinical judgment scores from reflective journaling one to reflective journaling three in this study, statistically significant findings is the goal in choosing strategies to adopt and implement in the nursing curriculum. A larger study size was needed, and, also, a full 15-16 week semester is recommended for research purposes. The comparison group participated in the study in the summer semester, which does not allow as much time for

students to learn the theory content, and possibly, take as much time to reflect. Also, some authors (Cato et al., 2009; Lasater & Nielsen, 2009; Nielsen, 2009) have recommended, and the researcher concurs, that instructor feedback may have promoted deeper thought processes and greater integration of theory and the clinical experiences. Padden (2011) did provide students with feedback and saw some improvement although not statistically significant in the researcher defined levels of reflection.

Another implication for nursing education from this study is that reflective journaling should be a course requirement. Although the statistics are conflicting and will be discussed later in this chapter, student perceptions are that reflective journaling does improve clinical judgment. A larger sample size would have been possible if the reflective journaling had been a course requirement.

Implications for nursing practice would include using the LCJR to score clinical judgment of new graduates over several time intervals as Etheridge (2007) did. As previously noted, it is imperative that nurses are proficient in clinical judgment and although it is the goal and responsibility of nursing education to graduate nursing students with excellent clinical judgment, practice environments should also develop the clinical judgment capabilities of their nurses.

Research Question Three

How does clinical judgment, as rated by the LCJR, in one group of associate degree nursing students in an Adult Health course who have participated in guided reflective journaling using the Guide for Reflection at the beginning of the semester compare to the same groups' clinical judgment at the end of the semester?

No statistical significance was demonstrated from the beginning of the semester to the end of the semester with total clinical judgment scores with the intervention group. The first and third total clinical judgment scores were the same although there was a slight dip in the total mean scores in the second reflective journaling. The researcher is not aware of any reason for this occurrence. Because it happened in the control group also, the researcher wonders if there is a particular test the students are spending extra time on and maybe devoting less time to reflection.

When clinical judgment scores for each dimension of the LCJR was evaluated within each time period for this intervention group, no statistical significance was found for any dimension. However, with the noticing dimension, higher mean scores were noted in reflective journaling three over reflective journaling one, but the highest scores were noted in reflective journaling two. The mean scores for the interpreting dimension show a decline in each consecutive journaling throughout the three intervals whereas the mean scores for the responding dimension show an increase for each consecutive journaling. The ending mean scores for reflecting, the last dimension in the LCJR, indicated a decrease from the first reflective journaling to the last reflective journaling. Hence, noticing and responding abilities improved from reflective journaling one to three whereas interpreting and reflecting abilities decreased. The only conclusion the researcher can draw from decreased interpreting and reflecting scores are the students not putting forth the effort to complete the guided reflective journaling toward the end of the journaling experience.

There are no studies using the Guide for Reflection, as is, in the current literature. Padden (2011), as previously noted, used an adaptation of Nielsen et al.'s (2007) Guide for Reflection and evaluated student reflections based on the LORAA, an author developed instrument based on

Boud et al.'s (1985) guided prompts and Tanner's (2006) Clinical Judgment Model with no statistically significant results found. The findings of this research support Padden's findings.

Implications for nursing education are that nurse educators expect student's clinical judgment to improve over the course of a semester, and, especially when presented with thoughtful statements to focus their attention on what they noticed, how they interpreted the situation, their response to what was happening, and statements encouraging them to identify a specific number of things they might do differently in the same or similar situation as the Guide for Reflection does. Therefore, although the findings in this research were not statistically significant, student perceptions, as noted with the next two questions were favorable and the researcher recommends utilizing Tanner's Clinical Judgment Model, an expanded version of the LCJR, and Nielsen et al. (2007) Guide for Reflection in the classroom and clinical setting.

For nursing research, implementing guided reflective journaling as a clinical course requirement several times throughout the clinical semester in a time series design with a quantitative analysis of clinical judgment scores for each guided reflective journaling would provide greater numbers of participants, and possibly, statistical significance. Of note, however, is Padden's (2011) study using a modified and lengthier version of the Guide for Reflection that did not identify statistically significant improvement of the author's six levels of reflection, although her sample size was larger ($n = 33$).

Implications for nursing practice is that organizations might consider using reflective journaling during the orientation period for new nurses. Considering that the Guide for Reflection is based on Tanner's (2006) Clinical Judgment Model developed with practicing nurses, guiding and evaluating their thought processes using Tanner's model may prove to be a valuable investment in positive patient outcomes.

Research Question Four

What are associate degree nursing student's perceptions of reflective journaling using course learning outcomes as related to development of clinical judgment?

The data indicates that the participants in the comparison group enjoyed the reflective journaling and found it helpful. The perceptions of those attending were that reflective journaling a) forced one to reflect, b) promoted alternative thinking methods, c) enhanced caring, and d) promoted introspection and evaluation of others. These findings are consistent with Murphy (2004) and Kuiper et al (2010).

The comparison group participants specifically described being physically exhausted after the clinical days and returning home not thinking about or wanting to think about their day. The participants felt the paperwork took a large amount of time in the evening before the clinical experience, and, for some students, the nursing class was held on the day before the clinical experience thus contributing to the physical exhaustion after the two clinical days were completed. Hence, the students reported reflective journaling using the course learning outcomes forced them to reflect on their clinical experiences. Although not in relation to fatigue, in Murphy's (2004) study, examples are provided of statements made by participants who were considered high scorers on clinical reasoning describing how the reflection made them focus.

The comparison group participants felt the reflective journaling promoted alternative thinking processes and expressed how the journaling made them view the whole process of managing the care of the patient, integrated theory and clinical experiences, developed deeper learning, and created learning. According to one student, instead of just "copying things out of the chart... we have to put everything in the database together... as a whole" when journaling reflectively. Reflectively journaling "helped me put the information that we learned in class to

the situation I was in in clinical into a different perspective... it helped bring the two together” commented one student. One of the students said the reflective journaling “kind of ingrains (the experience) in your mind” and that she would draw on that for future reference throughout her nursing career. Another student said the journaling caused her to develop her own perspective “rather than a book’s perspective or an experienced nurses’ perspective or an instructor’s perspective” indicating she constructed her own learning. These findings support the work of Murphy (2004) who found participants who had high clinical reasoning scores also described how the journaling encouraged in-depth thinking, gave fuller and richer descriptions of the clinical experiences (compared to the participants who had lower clinical reasoning scores who were more step and skill oriented), and related the experiences to the theoretical content in class.

Participants in the course learning outcomes focus group interview described how the reflective journaling benefited them through each aspect of Tanner’s Clinical Judgment Model – how/what they noticed or did not notice, how they interpreted or did not interpret, and how they responded or should have responded. These participants also described caring thoughts and behaviors even after the clinical day was over leading the researcher to believe the reflective journaling actually promoted caring. One student stated she learned “to look more not at the physical aspects of the patient, but it helped me get into the psychological...” while another student felt the reflective journaling made her relationship with her patient “more personal rather than impersonal.”

Introspection and evaluation of others was another aspect of clinical judgment promoted by reflection with the comparison group although there was no specific question or statement about either of these in the course learning outcomes. The participants described how they looked within themselves, looking to see what they did right, what they did wrong and needed to

improve on, and, also how they evaluated others. In fact, the comparison group participants stated that questions evoking introspection and evaluation of others were questions that needed to be asked. Feelings of increased self-esteem and self-confidence were student perceptions verbalized, also. One student stated that although the reflective journaling was difficult “I think (it) pulled out some good things within me” and she added that she had to think like a nurse. These findings support the work of Murphy (2004) and Kuiper et al. (2010). Murphy described how students with high reasoning scores spoke of self-initiated learning, were enthusiastic and intrinsically motivated and Kuiper et al. found that students who performed reflective journaling using self-regulated prompts felt more clinically competent and possessed greater self-efficacy.

Implications for nursing education and nursing research are that more research is needed exploring the perceptions of undergraduate nursing students concerning reflective writing as supported by Epp (2008) in her literature review. Epp asserted that reflection improves personal attributes and one who self-reflects provides better patient care. She implored nurse educators to examine perceptions of nursing students and reflective writing.

Since Epp’s (2008) literature review, further study has been done concerning students’ perceptions of reflective journaling, including this study. In this study, the three focus group interview participants in the comparison group gave overwhelmingly positive comments about reflective journaling. These findings are consistent with Ip et al. (2012), Khan et al. (2012) and Cato et al (2009). Ip et al., using a student opinion scale, found that the participants reported the reflective journaling experiences useful in developing their self-reflection skills, the journaling was applicable to clinical practice, understanding of clinical practice was enhanced, and expression of feelings were promoted.

Khan et al. (2012) also found positive student perceptions of reflective writing. Of 74 second, third, and fourth year nursing students who used reflective writing weekly in clinical practice 83.7% felt reflection improved their knowledge, 74.3% felt reflection improved their skills, and 81.1% felt reflection improved their attitudes. Evaluation of strengths and weaknesses (including feelings and attitudes), and identifying areas for improvement were positives cited by the students.

Cato et al. (2009) shared how students newly introduced to the Lasater Clinical Judgment Rubric in the simulation lab rated themselves with the rubric then reflectively journaled about their experience and provided specific examples of how beneficial they perceived the reflection to be through each phase of the LCJR. Cato et al. provided specific student statements for each phase of the LCJR. One student described her focused observation, recognizing deviations from expected patterns and how she neglected to perform information seeking. Making sense of the data and learning about setting priorities was described by another student. Another described the response and what was learned. Areas of reflection and how they needed to improve was described by another. Still, further research is needed on nursing student perceptions of reflective journaling.

For nursing practice, the researcher concurs with Epp (2008) who asserted that students who self-reflect are more confident and better nurses. The students in the researcher's study stated they were more confident, and they also learned how to reflect and evaluate themselves and others. Nurse administrators would be happy to hire new graduates who are used to reflecting on their skills, attitudes, and behaviors and who are able to identify areas of improvement that are needed to improve clinical judgment. Those who are in the habit of self-reflecting should make continual improvement in all areas of nursing throughout their career.

Moreover, graduates who are in the habit of reflecting should be able to accept constructive criticism from others more easily. One would anticipate such improvements, specifically of clinical judgment, therefore, to produce improved patient outcomes.

Research Question Five

What are associate degree nursing students' perceptions of guided reflective journaling using the Guide for Reflection as related to development of clinical judgment?

The data indicates that the participants enjoyed the reflective journaling and found it helpful, forcing them to reflect. The perceptions of those attending the focus group interview were that guided reflective journaling using the Guide for Reflection a) provided an alternative thinking process, b) facilitated knowing the patient, c) promoted introspection and evaluation of others, and d) evoked changes. These perceptions are similar to those already noted under question four with the comparison group. However, one can argue that the findings from the qualitative portion of the study, the focus group interview, indicate significant improvements of clinical judgment with this intervention group as evidenced by the explicit comments and examples given in the interview as students' described their focused observation, abilities to recognize deviations from expected patterns, interpretation of data, communication abilities, and introspection of various situations. Further, this group's comments concentrated heavily on knowing the patient, which is salient to clinical judgment (Tanner, 2006).

Subcategories noted under providing an alternative thinking process with this group include looking at the whole process, zoning in, and integrating theory/ clinical experiences. Multiple students stated that reflectively journaling using the Guide for Reflection caused them to view the whole process, from the beginning to the end of care for a patient summed up by the statements "you can see your assessment, what your interventions were, and what helped the

outcome” and “it did a better job of looking at a problem and how you – what your intervention was and what your evaluation (was) – the whole person.” The students learned there are different methods of looking at a situation and one student realized how the reflection using the guide helped her see her participation in the continuity of patient care, which she stated was very rewarding. These comments are consistent with Nielsen’s (2009) description of how the model that the guide is based on is not a linear model of isolated components but is nonlinear, holistic, and comprehensive in its’ scope of the care of the patient compared to the traditional care plans and paperwork that one student described as “very black and white.” Moreover, these findings support Lasater and Nielsen’s (2009) statements from students who used the guide reporting it was more user friendly than the nursing process.

The guide for reflection group spoke more about the guided reflective journaling helping them to focus, or zone in, on particular problems and the action taken. Zoning in, though initially associated with negative connotations became a positive experience according to one student because she realized that when she zoned in, she thought deeper about, and noted the importance of, the simpler things she did for patients indicating to the researcher a tacit ability of this student to perform and prioritize what was essential to the care of the patient. All students, precepted students and those who were not precepted, described how, when reflecting, they focused on symptoms they would identify in similar patient situations in the future, and how focused interventions, although seemingly minor at the time, were salient and potentially life-saving.

Study participants also described how the guided reflective journaling helped them integrate theory and the clinical experiences, which is essential for educating nurses (Benner et al., 2010). Specific examples were given from each participant about how they utilized aspects of

each phase of Tanner's Clinical Judgment Model (noticing, interpreting, responding, and reflecting) without the students being aware that they were describing the dimensions of the model. The student who cared for a patient with asthma (see Chapter IV) explained how the journaling "made you go back and look at what you saw and you would tie it to what you were learning about" in discussing the symptoms the patient exhibited, the treatment, and then the outcomes. Another student agreed that this method of reflecting was more useful than care plans. The student who described not wanting to zone in on a problem initially articulated a situation when she turned off a tube feeding of a patient who was placed in a supine position for a procedure, thus integrating theory and clinical learning as she realized the patient was at risk for aspiration. The patient had been in this supine position for approximately five minutes, she said, and the registered nurse had not made any attempt to turn the feeding tube off. This action was astute and indicated exceptional clinical judgment for students. This same student applied her knowledge of carbon dioxide retention and potential over-oxygenation of COPD patients when she intervened by discussing the patients' deterioration with the primary nurse in the clinical setting. Reflecting using the guide helped these students make these important connections between theory and the clinical situation.

The guide for reflection group also described how the reflective journaling facilitated them knowing the patient as the Guide for Reflection was "more relatable to a person." Understanding patients' feelings and having time to develop relationships with the patient were positive perceptions expressed and is essential to clinical judgment (Tanner, 2006). According to Tanner, knowing the patient allows the caregiver to identify priorities of care for that patient and changes in the usual behavior or condition of the patient, and respond in a manner specific for the patient. One student said that journaling after clinical rather than having to fill out

paperwork throughout the clinical day gave her more time with her patient and more of an opportunity to develop a deeper relationship with the patient because previously “I didn’t really know my patient.”

The reflective journaling using the Guide for Reflection promoted introspection and evaluation of self and others even more so with this group. The participants described how they looked within themselves, looking to see what they did right, what they did wrong and needed to improve on. This introspection promotes learning for future situations (Tanner, 2006). Moreover, learning to set priorities is essential in developing clinical judgment (Benner et al., 2010). One student articulated how she realized how important it was to check patients’ lab values closely first thing as she almost gave potassium to a patient with a high potassium level. Another student commented how she learned to always identify where the crash cart is when entering a patient care area based on a situation where she was alone with another nurse who called out to her needing the crash cart immediately for a patient but she did not know where it was located.

In addition to describing improvements in judgment and skills, ethical and caring components that Benner (2010) asserted are essential for nurses were verbalized. One student said the guided reflective journaling “brought back the humanity back into nursing” as it made him think about his patients’ feelings. Moreover, the questions from the guide caused him to realize the importance of expressing his own feelings. He described how after a particularly tragic night in the emergency department, he was inimicable with his family but after reflectively writing about the situation and his feelings, his mood changed, that the guided reflection promoted “a catharsis.”

Nurses are role models whether intentionally or non-intentionally. The intervention group students stated the guided reflective journaling caused them to evaluate others. One

student articulated an example where she felt the nurse was not assertive enough or didn't act as a patient advocate and another student commented about a couple of situations where the nurse did not adequately intervene without the students' suggestions or actions. A lack of teamwork may have been a contributing factor in the latter situation. Benner et al. (2010) stressed that every part of a nursing student's educational experience molds the development of their behaviors and attitudes. Lack of patient advocacy may be from a lack of the nurse's confidence. Lack of responsibility and teamwork are concerns that may need to be addressed to a greater extent in nursing education and nursing practice.

The guided reflective writing increased the student's self-confidence. The student who cared for the tube feeding and COPD patients specifically received boosts in self-confidence, she said. The male student who articulated how the writing allowed him to think about his patient's feelings stated that when he was writing he realized that he performed a lot better in the clinical setting than he thought he had done, also, thus improving his confidence level.

Examples of mistakes and omissions were stated. Each participant was committed to making positive changes in their management of care of patients. One student precepting in the emergency department shared how she wished she had attended to a patient's psychological needs rather than being concerned about the physical needs and indicated this was an area of growth and change for future situations. Described previously are the statements by the students concerning the potassium level and the importance of assessing lab values first from now on and the student who stated she would identify where the crash cart is immediately when entering a patient care area. One of these students also learned from actually being in a situation the importance of being a patient advocate. Another student learned the importance of taking responsibility for the care of a patient and that teamwork is essential.

Implications for nursing education include nurse educators re-examining the benefits of the present method of clinical learning with nursing care plans and nursing diagnoses. Is the traditional way of doing things the best for integrative learning for students? This researcher suggests integrating Tanner's Clinical Judgment Model, an expanded version of the LCJR, and the Guide for Reflection into the nursing education curriculum and doing so early, as Lasater and Nielsen (2009) do, so students can improve and note their own improvement in clinical judgment throughout the nursing program. Lasater and Nielsen reported positive statements from students using the Guide for Reflection. Statements included how the guide provided insights for improvement, how the guide is more user friendly than the nursing process, and how the guide promotes integration of theory and real life clinical situations. Students also commented how the feedback from instructors helped them to delve deeper into the pathophysiology of the situation. The NLN (2008) has called for change in nursing education, specifically the clinical arena, and this is an area where improvements may be made.

As with question four, implications for nursing practice are that graduates who are comfortable with reflecting on their actions should make better nurses, as asserted by Epp (2008). Many new graduates are lacking clinical judgment abilities. Kanter (2012), in a study of nurse preceptors of new nurse graduates in hospitals in Lebanon, using the literature and Tanner's (2006) Clinical Judgment Model to formulate questions for interviews found deficits in new graduates in all four of Tanner's dimensions: noticing, interpreting, responding, and reflecting. Specifically, new graduates lacked knowledge in collecting data, depended on cues taught in the curriculum, and sought data from anyone other than the patient in the noticing dimension. In the qualitative portion of the researcher's study, when closely evaluated, the Guide for Reflection group, although not statistically significant quantitatively, exhibited subtle

improvements over the learning outcomes group, in their noticing abilities. Nielsen et al.'s (2007) Guide for Reflection forces the student to describe a situation that was encountered during the clinical experience and then focus on what they noticed about the situation. To reflect in this manner, the student had to think about any signs and symptoms the patient exhibited, how that compared to what they learned, and how they arrived at their thought process. As noted previously, the guide for reflection group spoke more about the guided reflective journaling helping them to focus, or zone in, on particular problems and the action taken in the focus group interview.

In Kanter's (2012) study, with the interpreting dimension, the new graduates had difficulty relating the doctor's orders to changes in the patient's condition, were less attentive to changes in the clinical status of the patient, and depended on others to understand the changes. The new graduates were also ineffective at communication, were concerned with skill acquisition, needed guidance to respond, and emphasized procedures and techniques in the responding dimension. With the guide for reflection group in the researcher's study, in the focus group interview, one student shared how she noticed a COPD patient was having difficulty breathing after being extubated. She realized the patient was receiving too much oxygen, and even though nervous about speaking up, shared her concerns with the primary nurse. The primary nurse agreed with the students' interpretation of the situation, decreased the oxygen, and the patient improved. This example, along with many others noted in the findings (see Chapter IV), is an example of an excellent interpretation and response to a situation. Although no statistical significant difference was seen in the researcher's two groups, the manner of students' situational responses in this group provide qualitative evidence of significance for the Guide for Reflection.

For the reflecting dimension, in Kanter's (2012) study, the new graduates lacked self-evaluative techniques and depended on informal feedback. All of the dimensions in Tanner's Clinical Judgment Model are representative of clinical judgment that is needed in the current clinical environment. It is the researcher's thoughts that use of Nielsen et al.'s (2007) Guide for Reflection, based on this model, during the nursing education program would force students to consider these dimensions and thought processes because of the questions and statements provided to evoke reflection, thus, improving clinical judgment prior to graduation. Therefore, the researcher's study should be replicated with a larger sample to see if any quantitative statistical significance is obtained. Furthermore, Kanter's study should be replicated in the U.S.

Limitations

Although the researcher attempted to address as many variables as possible prior to initiation of the study, there were still relevant threats to internal and external validity, and limitations to this study. Threats to internal validity included external events outside of the researcher's control and diffusion of treatment (Creswell, 2009). External events outside of the researcher's control were many. The initial plan agreed upon was to have the reflective writing as part of the clinical requirements. Also, due to miscommunication, the researcher was not aware of there being a clinical coordinator and the clinical coordinator was not aware of the research study. The course instructor also decided she did not want all students to have to perform reflective journaling. The beginning of the study was delayed a semester while these issues were resolved.

The comparison group was initiated in the summer semester, which the researcher had wished to avoid because of the shorter duration and the fast pace of summer semester. However, many of the students were familiar with the researcher and consented to participate. Based on the participants' comments in the focus group interview, there was diffusion of treatment as the

participants did discuss between themselves about how to perform the reflective journaling. Also, the planned reflective journaling clinical days were changed by the clinical instructor without communicating with the researcher.

In the fall, the clinical coordinator had resigned and the course coordinator/instructor was the only instructor for the regular sized class. A preceptorship program was initiated this fall semester, and a few students were assigned to preceptorship. At the conclusion of the clinical period, only two students had completed all three guided reflective journal writings that fall semester.

The following semester (spring), a new dean was in place. The researcher asked the new dean to allow for reflective journaling using the Guide for Reflection to be a clinical course requirement because of the low number of participants in the fall semester, but that request was denied. Seven students completed the guided reflective journaling in the spring semester.

Threats to external validity included the small sample size in one associate degree nursing program in the southeastern United States with only nine students completing the reflective journaling in the comparison group and nine completing the guided reflective journaling in the intervention group. The study plan included a minimum of 17 participants in each group with an alpha of .05, power of .80 and moderate effect size of $F = .24$. With the small sample, power was an issue so the effect size was increased enabling the data analysis (J. Dantzler, personal communication, July 23, 2015). Only three students participated in the comparison group's focus group interview and six participated in the intervention group's focus group interview. These factors diminished the generalizability of the study (Creswell, 2009). A larger sample size from more than one nursing program and from different types of nursing programs in other areas of the US might be more representative of nursing students.

A limitation includes the fact that Tanner's Clinical Judgment Model has not been implemented in the nursing program's course syllabi, and, students, not being familiar with the terminology, may not have fully understood the model, the LCJR and the questions on the Guide for Reflection. The researcher believes this was part of the reason there were no more participants in the fall 2014 semester. The information may have been overwhelming and the researcher may not have presented the information as clearly as needed, also. Dillard et al. (2009) recommended incorporating the clinical judgment language into each course syllabus, and this may be a consideration for the faculty at the college after the research study is completed. Another consideration along these same lines is that the faculty were busy with the course and clinical experiences and had limited time to deal with the aspects of the study. Course faculty encouragement may have added to the participation numbers. The researcher, not being a full-time member of the faculty, had less clout, also.

Epp (2008), in her literature review, found that the skill of writing reflectively in itself required learning and experience. Epp also said that students may experience feelings of distress when writing about their clinical experiences. It is very possible that many of the students did not feel comfortable writing about their experiences. Additionally, students may not have trusted the researcher and may not have been willing to divulge personal thoughts (Nielsen et al., 2007).

Another limitation may have been that the researcher did not provide feedback for the students. Feedback may have encouraged those who started the guided reflection and they might have continued throughout the research project.

Students in both groups exhibited clinical judgment behaviors at the accomplished level as indicated by the mean total clinical judgment mean scores and the mean scores for each of the four categories on the Lasater Clinical Judgment Model. An instrument providing more

variability may have been needed to demonstrate significant differences between the groups.

Two dimensions in a category or subscale is not sufficient to provide adequate sensitivity and is a limitation of the study (J. Dantzler, personal communication, July 23, 2015).

Student fatigue, the time reflective journaling requires, other course requirements such as NCLEX-RN questions as homework, and preparing for pinning and graduation are other factors that may have affected participation and completion of the reflective journaling.

Recommendations for Future Studies

Nursing education has begun to see guided reflective journaling as an important pedagogical method to improve nursing student's clinical judgment although more evidence-based research is needed. Integration of theory and clinical practice is a research priority of the NLN (2012). The following are recommendations for further research:

1. Replication of this study with a larger sample, in other parts of the U. S. and in different types of nursing programs, such as BSN programs and diploma programs. Requirement of reflective journaling as part of the clinical paperwork is recommended to increase sample size;
2. Replication of this study with a larger sample exploring the relationship of various demographic variables might also provide evidence of factors that benefit clinical judgment or that hinder it;
3. Replication of this study beginning with the second Adult Health course and concluding in the capstone course to provide a longer time period of journaling might provide statistically significant results and may also provide additional qualitative data concerning the benefit of journaling with a guide based on a particular model and theoretical framework;

4. Development of an expanded version of the LCJR (with permission of the author) to provide additional dimensions to the two categories that consist of only two dimensions (interpreting and reflecting) and performance of a pilot study with the instrument to establish psychometric properties of this expanded tool;
5. A study using Tanner's Clinical Judgment Model as the theoretical framework, the Lasater Clinical Judgment Rubric, and the Guide for Reflection in the acute care setting with feedback to the students in a time series design would be pertinent to nursing education. Implementing the model in a nursing program, using the rubric and the guide and providing feedback with a large sample should provide evidence to support these tools for nurse educators; and
6. A study evaluating nurse's clinical judgment in the practice environment one year after graduation comparing graduates who were taught using Tanner's Clinical Judgment Model, the LCJR, and the Guide for Reflection throughout the nursing program and graduates who were not prepared with the same model, rubric, and guide would also provide evidence based data concerning the benefit of the model, rubric, and guide.

Conclusions

As the health care environment continues to evolve, so must nursing education, focusing on what students need to learn for the present rather than how nursing education is delivered (NLN, 2008). Because we believe having nurses who are knowledgeable, skilled, ethical, and possessing good clinical judgment skills will promote increased favorable patient outcomes (Benner, 2010), we, as nurse educators, must provide the evidence to support pedagogical practices that provide these types of graduates.

This study was guided by five questions: 1) how does clinical judgment, as rated by the Lasater Clinical Judgment Rubric, in one group of associate degree nursing students in an Adult Health Nursing course who have participated in guided reflective journaling using the Guide for Reflection, compare to clinical judgment of another group of associate degree nursing students in an Adult Health Nursing course who have participated in reflective journaling using course learning outcomes; 2) how does clinical judgment, as rated by the Lasater Clinical Judgment Rubric, in one group of associate degree nursing students in an Adult Health course who have participated in reflective journaling using course learning outcomes at the beginning of the semester compare to the same group's clinical judgment at the end of the semester; 3) how does clinical judgment, as rated by the Lasater Clinical Judgment Rubric, in one group of associate degree nursing students in an Adult Health course who have participated in guided reflective journaling using the Guide for Reflection at the beginning of the semester compare to the same group's clinical judgment at the end of the semester; 4) what are associate degree nursing students' perceptions of reflective journaling using course learning outcomes as related to development of clinical judgment; and 5) what are associate degree nursing students' perceptions of guided reflective journaling using the Guide for Reflection as related to development of clinical judgment?

Although no statistically significant findings were revealed with the quantitative portion of the study, a larger sample size, and perhaps, an expanded version of the LCJR with additional dimensions would have provided statistical significance. The qualitative data from the focus group interviews revealed that students in the intervention group, the guide for reflection group, provided richer, deeper, situational learning experiences and indeed articulated examples of what they noticed, how they interpreted, responded, and then reflected. The reflection and

introspection in a situational manner promotes learning, thus clinical judgment (Benner et al., 2010). Knowing the patient, a repeated theme with the intervention group, is another salient aspect of clinical judgment (Benner et al., 2009) and indicates this group's advancement over the comparison group. Of import, however, is the fact that the comparison group's perceptions were of improved clinical judgment using merely course learning outcomes as a guide. It would be preferable to use course learning outcomes to have students perform reflective journaling than have no reflective journaling experience within a nursing course.

Some important questions can be raised for nursing pedagogy from this research:

1. Should the nursing process with formation of nursing diagnoses and its' structured format be the cornerstone of nursing education? Students find the process restrictive, "black and white," as one student stated in the intervention group in this research. Moreover, Tanner (2006) explained that there is much more involved in interpreting a situation than assessment alone. Noticing, Tanner's first step in Tanner's Clinical Judgment Model involves the context of the situation – the setting and the culture of the environment; the nurses', experience, education, values and beliefs; the nurses' relationship with, and knowledge of, the patient; and, the nurses' knowledge of normal versus abnormal for this situation. Teaching students to use solely subjective and objective assessment data, cues they were taught to observe for, may not be sufficient for the nurse in today's evolving health care environment;
2. Tanner's (2006) second phase is interpreting. Tanner's research indicated that new nurses mostly interpret a situation using the analytic process, some use narrative thinking, but more experienced nurses use intuition (although not all

nurses develop intuition). Is there a way to expedite intuition development?

Although beyond the scope of this research, high fidelity simulation may prove useful in this area. Also, as Benner (2010) noted, unfolding case studies can be used to promote clinical imagination among students;

3. Although reflective journal writing was the focus of this study, other methods of reflecting might should be considered. Some students might prefer to blog. One method to possibly overcome fatigue with writing would be for students to record into a microphone their thoughts and responses. Still, another, would be to have a group discussion in a post conference type meeting after the clinical experience. What are other methods that would stimulate reflection yet decrease the workload of students;
4. Planned reflective opportunities with faculty feedback is essential for experiential learning according to Benner et al. (2010). An important question for nurse educator administrators is what are the barriers to faculty providing feedback to students? Is teacher overload a possibility?

This study has added to the body of research concerning reflective journaling and clinical judgment and further questions have been posed. Obviously, further research is needed concerning the use of this important pedagogical tool as nurse educators strive to improve the clinical judgment of nursing students prior to their graduation.

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APPENDIX A

Student Instruction: Reflective Writing

Spring 2014

Prior to Clinical #2 – Tentatively Feb 1, 2014

Dear Student:

Reflective journal writing is believed to promote learning between what is experienced in the clinical setting and what is learned in the classroom, thus preparing you even more for real life nursing practice. For purposes of this assignment, you are to describe how you met the course objectives for one patient/client. Please describe how you met each objective. Your writing needs to be legible!! Numbering the objectives is recommended but not mandatory. There are no right or wrong answers. You will not be graded; however, if you do not perform the reflective writing, you will receive an unsatisfactory or “1” for the day.

This assignment takes the place of your regular paperwork so it must be thorough!!

Turn this assignment into your clinical instructor prior to leaving the clinical setting on the 2nd consecutive clinical day of weeks 2, 5, & 8.

Describe how you:

1. Analyzed the pathophysiological response of one client in crisis, as they adapted to multiple stressors.
2. Utilized the nursing process to meet the needs of a client in crisis.
3. Performed independent, interdependent, and dependent nursing skills, in a safe and effective manner, with minimum supervision in a structured environment.
4. Functioned as a member of the health care team.
5. Effectively communicated with clients, their families and members of the health care team.
6. Assumed responsibility for your own actions within the realm of the ethical and legal framework of nursing.
7. Utilized available opportunities for continued personal and professional growth.
8. Analyzed client values, beliefs, and cultural factors and their implications for providing care to the patient.
9. Created a teaching plan based on the clients’ biopsychosocial need.

If you are participating in the research study, you may contact the researcher at any time: researcher: Sheree Dickenson at sodickenson@crimson.ua.edu or shdicken@windstream.net or 229-224-9387.

APPENDIX B

Individual's Consent: Comparison Group

You are being asked to be in a research study. The study is called “The Impact of Guided Reflection on Clinical Judgment of Associate Degree Nursing Students”. This study is being done by Sheree Dickenson, a doctoral student at The University of Alabama.

What is this study about? What is the investigator trying to learn?

Guided reflective journaling is writing about an experience in a clinical setting in response to specific questions, such as “What did you notice about the patient?” This type of journaling, or writing responses, is being done on many nursing campuses but nursing education still lacks enough information to know if journaling improves clinical judgment.

Why is this study important or useful?

Nurses, even new graduates, have a lot of responsibility. According to some research, many new graduates are not able to think critically, or exhibit high levels of clinical judgment upon initial employment. Nurse educators want to facilitate higher level thinking in students to better prepare graduates for real world practice and are researching ways to make that happen.

Why have I been asked to be in this study?

You are being asked to participate in this study because you are enrolled in Adult Health III, NURS 2115 at Darton State College, Main campus.

How many people will be in the study?

All students in NURS 2115 are being invited to participate in the study.

What will I be asked to do in this study?

If you agree to be in this study, you will first complete a demographic survey to tell the researcher some information about you. Then, you will reflect in writing about your clinical encounter with one patient three times this semester and give your reflective writing to your clinical instructor on the second clinical day, as usual. By participating in this study, you will allow the researcher to evaluate your reflective journal writings and paperwork on three occasions after your instructor has assessed the assignment for completion: date (beginning of clinical rotations of the semester); date (mid of clinical rotations); and date (end of clinical rotations). The researcher will not divulge any information expressed unless it poses a safety or ethical breach and you have been contacted first.

The demographic survey will be completed today and you will write a code number, your mother's eight-digit birth date, on the survey. This same code number, your mother's eight digit birth date, will need to be put on the reflective writing each time in order to maintain confidentiality.

At the end of the semester you may be asked to participate in a focus group to share your thoughts on whether you feel that reflecting about a clinical encounter helped improve your clinical judgment. A new consent form will be provided, however, and you will be able to decide at that time if you wish to volunteer for that group interview.

How much time will I spend being in this study?

No extra time is required for the study. The purpose of reflective journaling, however, is to stimulate you to think more deeply about your clinical experiences. The journaling will be completed in the clinical setting on the second day of the clinical experience week, however, it may be started on the first clinical day. Journaling may take up to a couple of hours – it depends on how much time you desire and are able to put into it.

Will being in this study cost me anything?

There is no cost for your participation.

Will I be compensated for being in this study?

There is no compensation for participation in the study.

What are the risks (dangers or harms) to me if I am in this study?

The risks are minimal. It is possible that writing about your experiences may be uncomfortable and cause feelings of distress. Your clinical or course grade will not be affected.

What are the benefits (good things) that may happen if I am in this study?

The benefits of participating in this study are that you may improve your clinical judgment skills. By participating and allowing permission to use the information for educational purposes, you will have contributed to nursing education.

How will my privacy be protected?

Your name will appear only on this informed consent. The consent forms will be collected and placed in a sealed envelope by the researcher, and locked in a file cabinet at the researcher's home. Students will not be linked to code numbers unless a student forgets his/her code number and the number has to be retrieved to maintain integrity of the study or unless there is a perceived safety or ethical breach where the researcher needs to contact you to discuss. Researcher concerns about a study participants' expression of grief or discomfort may also result in the researcher identifying the student to suggest additional counseling through a written notice. Each participating student will place the demographic survey form in a manila folder and the researcher will seal the folder after all students have completed the survey completion process. The surveys will be stored in the researcher's home in a locked cabinet.

How will my confidentiality be protected?

The researcher will collect all journal writings with code numbers and clinical paperwork from the clinical instructors and place in a sealed envelope each of the three times the reflective journaling is carried out.

What are the alternatives to being in this study?

All students in Adult Health III, NURS 2115 will perform the guided reflective journaling at the designated three times this semester. If you do not wish to participate in the study, you will submit your journaling to your clinical instructor and the researcher will not have access to it.

What are my rights as a participant in this study?

Taking part in this study is voluntary. You do not have to participate in the study if you do not want to and you can stop participating in the study at any time over the duration of the study, however, you do have to perform reflective journaling as a course requirement for the clinical day. Participating or not participating in the study will not affect your clinical or course grade. There will also be no effect on your relationship with The University of Alabama if you choose to not participate in this study.

The University of Alabama Institutional Review Board (“the IRB”) is the committee that safeguards the rights of people in research studies. It is possible that the IRB may review the records in this study to make sure that the research participants are being treated in a proper manner and that the study is being conducted as planned.

Who do I call if I have questions or problems?

Please ask if you have any questions or concerns. You may ask questions now of Sheree Dickenson, the researcher, or any time during the study at 229-224-9387 or sodickenson@crimson.ua.edu. You may also reach Dr. Roy Ann Sherrod, the dissertation chairperson at The University of Alabama at 205-348-1033 if you have any questions or concerns.

If you have questions about your rights as a person in a research study, you may call Ms. Tanta Myles, the Research Compliance Officer at The University of Alabama at 205-348-8461 or toll-free at 1-877-820-3066. The IRB also has an Outreach Website you may use to ask questions, make suggestions, or file complaints and concerns at http://osp.ua.edu/site/PRCO_Welcome.html. After you participate, please also complete the online survey for research participants, or you may ask Mrs. Dickenson for a copy of the IRB’s survey. You may also email the IRB at The University of Alabama at participantoutreach@bama.ua.edu.

I have read this consent form. I have had a chance to ask questions.

Signature of Research Participant

APPENDIX C1

Individual's Consent: Intervention group

You are being asked to be in a research study. The study is called “The Impact of Guided Reflection on Clinical Judgment of Associate Degree Nursing Students”. This study is being done by Sheree Dickenson, a doctoral student at The University of Alabama.

What is this study about? What is the investigator trying to learn?

Guided reflective journaling is writing about an experience in a clinical setting in response to specific questions, such as “What did you notice about the patient?” This type of journaling, or writing responses, is being done on many nursing campuses but nursing education still lacks enough information to know if journaling improves clinical judgment.

Why is this study important or useful?

Nurses, even new graduates, have a lot of responsibility. According to some research, many new graduates are not able to think critically, or exhibit high levels of clinical judgment upon initial employment. Nurse educators want to facilitate higher level thinking in students to better prepare graduates for real world practice and are researching ways to make that happen.

Why have I been asked to be in this study?

You are being asked to participate in this study because you are enrolled in Adult Health III, NURS 2115 at Darton State College, Main campus.

How many people will be in the study?

All students in NURS 2115 are being invited to participate in the study.

What will I be asked to do in this study?

If you agree to be in this study, you will first complete a demographic survey to tell the researcher some information about you. Then, you will reflect in writing using the *Guide for Reflection* describing your clinical encounter with one patient, in place of the usual clinical paperwork, three times in the semester, and give your guided reflective journaling to your clinical instructor who will assess for completion of the assignment, place in a manila envelope and seal. By participating in this study, you will allow the researcher to evaluate your guided reflective journal writings on three occasions: date (beginning of semester); date (mid-term); and date (end of semester) after your instructor has had a chance to evaluate it.

The demographic survey will be completed today and you will write a code number, your mother's eight-digit birth date, on the survey. This code number, your mother's eight-digit birth date, will need to be written on your guided reflective writing each time in order to match each writing and maintain confidentiality.

At the end of the semester you may be asked to participate in a focus group to share your thoughts on whether you feel that that the guided reflective writing about a clinical encounter, using the *Guide for Reflection*, helped improve your clinical judgment. A new consent form will

be provided, however, and you will be able to decide at that time if you wish to volunteer for that group interview.

How much time will I spend being in this study?

No extra time is required for the study. The purpose of guided reflective journaling, however, is to stimulate you to think more deeply about your clinical experiences. The tool you will be using was designed based on research from practicing Registered Nurses. The journaling will be completed in the clinical setting on the second day of the clinical experience week; however, it may be started on the first clinical day. Journaling may take up to a couple of hours – it depends on how much time you desire and are able to put into it.

Will being in this study cost me anything?

There is no cost for your participation.

Will I be compensated for being in this study?

There is no compensation for participation in the study.

What are the risks (dangers or harms) to me if I am in this study?

The risks are minimal. It is possible that writing about your experiences may be uncomfortable and cause feelings of distress. Your clinical or course grade will not be affected.

What are the benefits (good things) that may happen if I am in this study?

The benefits of participating in this study are that you may improve your clinical judgment skills. By participating and allowing permission to use the information for educational purposes, you will have contributed to nursing education.

How will my privacy be protected?

Your name will appear only on this informed consent. The consent forms will be collected and placed in a sealed envelope by the researcher, and locked in a file cabinet at the researcher's home. Students will not be linked to code numbers unless a student forgets his/her code number and the number has to be retrieved to maintain integrity of the study or unless there is a perceived safety or ethical breach where the researcher needs to contact you to discuss. Researcher concerns about a study participants' expression of grief or discomfort may also result in the researcher identifying the student to suggest additional counseling through a written notice. Each participating student will place the demographic survey form in a manila folder and the researcher will seal the folder after all students have completed the survey completion process. The surveys will be stored in the researcher's home in a locked cabinet.

How will my confidentiality be protected?

The researcher will collect all journal writings with code numbers from the clinical instructors and place in a sealed envelope each of the three times the reflective journal writing is carried out.

What are the alternatives to being in this study?

All students in Adult Health III, NURS 2115 will perform the guided reflective journaling at the designated three times this semester. If you do not wish to participate in the study, you will submit your journaling to your clinical instructor and the researcher will not have access to it.

What are my rights as a participant in this study?

Taking part in this study is voluntary. You do not have to participate in the study if you do not want to and you can stop participating in the study at any time over the duration of the study. There will be no effect on your clinical or course grade if you do not participate in the study. There will also be no effect on your relationship with The University of Alabama if you choose to not participate in this study.

The University of Alabama Institutional Review Board (“the IRB”) is the committee that safeguards the rights of people in research studies. It is possible that the IRB may review the records in this study to make sure that the research participants are being treated in a proper manner and that the study is being conducted as planned.

Who do I call if I have questions or problems?

Please ask if you have any questions or concerns. You may ask questions now of Sheree Dickenson, the researcher, or any time during the study at 229-224-9387 or sodickenson@crimson.ua.edu. You may also reach Dr. Roy Ann Sherrod, the dissertation chairperson at The University of Alabama at 205-348-1033 if you have any questions or concerns.

If you have questions about your rights as a person in a research study, you may call Ms. Tanta Myles, the Research Compliance Officer at The University of Alabama at 205-348-8461 or toll-free at 1-877-820-3066. The IRB also has an Outreach Website you may use to ask questions, make suggestions, or file complaints and concerns at http://osp.ua.edu/site/PRCO_Welcome.html. After you participate, please also complete the online survey for research participants, or you may ask Mrs. Dickenson for a copy of the IRB’s survey. You may also email the IRB at The University of Alabama at participantoutreach@bama.ua.edu.

I have read this consent form. I have had a chance to ask questions.

Signature of Research Participant

APPENDIX C2

Individual's Consent: Intervention Group

You are being asked to be in a research study. The study is called “The Impact of Guided Reflection on Clinical Judgment of Associate Degree Nursing Students”. This study is being done by Sheree Dickenson, a doctoral student at The University of Alabama.

What is this study about? What is the investigator trying to learn?

Guided reflective journaling is writing about an experience in a clinical setting in response to specific questions, such as “What did you notice about the patient?” This type of journaling, or writing responses, is being done on many nursing campuses but nursing education still lacks enough information to know if journaling improves clinical judgment.

Why is this study important or useful?

Nurses, even new graduates, have a lot of responsibility. According to some research, many new graduates are not able to think critically, or exhibit high levels of clinical judgment upon initial employment. Nurse educators want to facilitate higher level thinking in students to better prepare graduates for real world practice and are researching ways to make that happen.

Why have I been asked to be in this study?

You are being asked to participate in this study because you are enrolled in Adult Health III, NURS 2115 at Darton State College, Main campus.

How many people will be in the study?

All students in NURS 2115 are being invited to participate in the study.

What will I be asked to do in this study?

If you agree to be in this study, you will first complete a demographic survey to tell the researcher some information about you. Then, you will reflect in writing using the *Guide for Reflection* describing your clinical encounter with one patient three times in the semester and bring your guided reflective journaling to class the following class day to be given to the researcher or your instructor who will place in a manila envelope and seal. By participating in this study, you will allow the researcher to evaluate your guided reflective journal writings on three occasions: date (beginning of clinical rotations); date (middle of clinical rotations); and date (end of clinical rotations).

The demographic survey will be completed today and you will write a code number, your mother's eight-digit birth date, on the survey. This code number, your mother's eight-digit birth date, will need to be written on your guided reflective writing each time in order to match each writing and maintain confidentiality.

At the end of the semester you may be asked to participate in a focus group to share your thoughts on whether you feel that that the guided reflective writing about a clinical encounter, using the *Guide for Reflection*, helped improve your clinical judgment. A new consent form will

be provided, however, and you will be able to decide at that time if you wish to volunteer for that group interview.

How much time will I spend being in this study?

Journaling may take up to a couple of hours – it depends on how much time you desire and are able to put into it, however. The purpose of the guided reflective journaling is to stimulate you to think more deeply about your clinical experiences. The tool you will be using was designed based on research from practicing Registered Nurses. Ideally, the journaling will be completed in the clinical setting on the second day of the clinical experience week but it may be completed at home. The journaling should be brought to class the following scheduled class day.

Will being in this study cost me anything?

There is no cost for your participation.

Will I be compensated for being in this study?

In appreciation for your time and effort, you will receive a \$25 gift certificate from Walmart if you are able to provide the researcher with three guided reflective journal writings at the designated times; a \$10 gift certificate from Walmart if two are provided; and a \$5 gift certificate from Walmart if one is provided. The researcher understands this is little remuneration for your valuable time.

What are the risks (dangers or harms) to me if I am in this study?

The risks are minimal. It is possible that writing about your experiences may be uncomfortable and cause feelings of distress. Your clinical or course grade will not be affected.

What are the benefits (good things) that may happen if I am in this study?

The benefits of participating in this study are that you may improve your clinical judgment skills. By participating and allowing permission to use the information for educational purposes, you will have contributed to nursing education.

How will my privacy be protected?

Your name will appear only on this informed consent. The consent forms will be collected and placed in a sealed envelope by the researcher, and locked in a file cabinet at the researcher's home. Students will not be linked to code numbers unless a student forgets his/her code number and the number has to be retrieved to maintain integrity of the study or unless there is a perceived safety or ethical breach where the researcher needs to contact you to discuss. Researcher concerns about a study participants' expression of grief or discomfort may also result in the researcher identifying the student to suggest additional counseling through a written notice. Each participating student will place the demographic survey form in a manila folder and the researcher will seal the folder after all students have completed the survey completion process. The surveys will be stored in the researcher's home in a locked cabinet.

How will my confidentiality be protected?

The researcher will collect all journal writings with code numbers from the participants or class instructor and place in a sealed envelope each of the three times the reflective journal writing is carried out.

What are the alternatives to being in this study?

If you do not wish to participate in the study, you will complete your usual paperwork and submit to your clinical instructor and the researcher will not have access to it.

What are my rights as a participant in this study?

Taking part in this study is voluntary. You do not have to participate in the study if you do not want to and you can stop participating in the study at any time over the duration of the study. There will be no effect on your clinical or course grade if you do not participate in the study. There will also be no effect on your relationship with The University of Alabama if you choose to not participate in this study.

The University of Alabama Institutional Review Board (“the IRB”) is the committee that safeguards the rights of people in research studies. It is possible that the IRB may review the records in this study to make sure that the research participants are being treated in a proper manner and that the study is being conducted as planned.

Who do I call if I have questions or problems?

Please ask if you have any questions or concerns. You may ask questions now of Sheree Dickenson, the researcher, or any time during the study at 229-224-9387 or sodickenson@crimson.ua.edu. You may also reach Dr. Roy Ann Sherrod, the dissertation chairperson at The University of Alabama at 205-348-1033 if you have any questions or concerns.

If you have questions about your rights as a person in a research study, you may call Ms. Tanta Myles, the Research Compliance Officer at The University of Alabama at 205-348-8461 or toll-free at 1-877-820-3066. The IRB also has an Outreach Website you may use to ask questions, make suggestions, or file complaints and concerns at http://osp.ua.edu/site/PRCO_Welcome.html. After you participate, please also complete the online survey for research participants, or you may ask Mrs. Dickenson for a copy of the IRB’s survey. You may also email the IRB at The University of Alabama at participantoutreach@bama.ua.edu.

I have read this consent form. I have had a chance to ask questions.

_____ Signature of Research Participant

Code-number _____

APPENDIX D

Individual's Consent: Focus Group

You are being asked to participate in the second part of a research study. The study is called “The Impact of Guided Reflection on Clinical Judgment of Associate Degree Nursing Students”. This study is being done by Sheree Dickenson, a doctoral student at The University of Alabama.

What is this study about? What is the investigator trying to learn?

Guided reflective journaling is writing about an experience in a clinical setting in response to specific questions, such as “What did you notice about the patient?” This type of journaling, or writing responses, is being done on many nursing campuses but nursing education still lacks enough information to know if journaling improves clinical judgment.

Why is this study important or useful?

Nurses, even new graduates, have a lot of responsibility. According to some research, many new graduates are not able to think critically, or exhibit high levels of clinical judgment upon initial employment. Nurse educators want to facilitate higher level thinking in students to better prepare graduates for real world practice and are researching ways to make that happen.

Why have I been asked to be in this study?

You are being asked to participate in this study because you are enrolled in Adult Health III, NURS 2115 at Darton State College, Main campus, and have participated in the journaling. Your name was randomly selected to participate in the focus group.

How many people will be in the study?

All students in NURS 2115 who completed the first part of the study were potential participants for this second part of the study. Not being feasible to ask all participants to be in the focus group because of the number of participants, your code number was randomly selected to be asked. Twenty persons have been asked.

What will I be asked to do in this study?

If you agree to be in this part of the study, you will meet with other study participants for approximately 60 minutes. If you agree to participate in the focus group, you will be giving the researcher permission to audio record your statements using a tape recorder, take brief notes in a research notebook, and use the information for educational purposes.

Also, if you are available, you may be asked to meet one more time after class, date to be determined, to read the transcription for accuracy of what was said at the meeting.

How much time will I spend being in this study?

Participating in the focus group will take approximately 60 minutes of your time. If you asked and are available to read the transcript at a later date, that would take another approximate 60 minutes.

Will being in this study cost me anything?

There is no cost for your participation.

Will I be compensated for being in this study?

There is no compensation for participation in the study.

What are the risks (dangers or harms) to me if I am in this study?

The risks are minimal. It is possible that sharing about your experiences may be uncomfortable and cause feelings of distress. Your clinical or course grade will not be affected.

What are the benefits (good things) that may happen if I am in this study?

The benefit of participating in this part of the study is that you may improve nursing education teaching methods. By participating and allowing permission to use the information for educational purposes, you will have contributed to nursing education.

How will my privacy be protected?

Your name will appear only on this informed consent. The consent forms will be collected and placed in a sealed envelope by the researcher, and locked in a file cabinet at the researcher's home.

How will my confidentiality be protected?

For confidentiality purposes, the recording and the research notebook will be kept in a locked cabinet in the researcher's home when the researcher is not working with transcribing the data. For purposes of research, the information will be categorized. Confidentiality will be maintained; if the researcher feels certain comments need to be noted as direct quotations, a pseudonym for the participant will be assigned.

What are the alternatives to being in this study?

If you do not wish to participate in the study, you do not have to and there will be no untoward effects.

What are my rights as a participant in this study?

Taking part in this study is voluntary. You do not have to participate in the study if you do not want to and you can stop participating in the study at any time. Participating or not participating in the study will not affect your clinical or course grade. There will also be no effect on your relationship with The University of Alabama if you choose to not participate in this study. The University of Alabama Institutional Review Board ("the IRB") is the committee that safeguards the rights of people in research studies. It is possible that the IRB may review the records in this study to make sure that the research participants are being treated in a proper manner and that the study is being conducted as planned.

Who do I call if I have questions or problems?

Please ask if you have any questions or concerns. You may ask questions now of Sheree Dickenson, the researcher, or any time during the study at 229-224-9387 or sodickenson@crimson.ua.edu. You may also reach Dr. Roy Ann Sherrod, the dissertation chairperson at The University of Alabama at 205-348-1033 if you have any questions or concerns.

If you have questions about your rights as a person in a research study, you may call Ms. Tanta Myles, the Research Compliance Officer at The University of Alabama at 205-348-8461 or toll-free at 1-877-820-3066. The IRB also has an Outreach Website you may use to ask questions, make suggestions, or file complaints and concerns at http://osp.ua.edu/site/PRCO_Welcome.html. After you participate, please also complete the online survey for research participants, or you may ask Mrs. Dickenson for a copy of the IRB's survey. You may also email the IRB at The University of Alabama at participantoutreach@bama.ua.edu.

I have read this consent form. I have had a chance to ask questions.

Signature of Research Participant

APPENDIX E

Recruitment Script: Comparison Group

Hello, my name is Sheree Dickenson. I am a graduate student at The University of Alabama under the direction of Dr. Roy Ann Sherrod. I am also a part-time clinical instructor here at Darton State College. As part of my doctoral studies at The University of Alabama, I am conducting a research study to see if guided reflective journaling makes a difference in clinical judgment.

You have been asked to be in this study because you are a last semester nursing student. All students will be reflecting about their clinical experience in writing at three different times this semester. If you agree to participate in this study, you will be giving the researcher permission to evaluate your reflective journaling on three occasions this semester after your instructor has had an opportunity to ensure you have completed the weekly assignment. You are not required to participate in this study, as participation in this study is strictly voluntary; however, all students will be performing reflective journaling. There are no changes to the type of reflection you submit, but I do need for you to place a code number, your mothers' eight-digit birth date, on the reflective journaling prior to submitting to your clinical instructor. I will be responsible for getting the reflective journaling from the clinical instructor. If you do not wish to participate, you will give your reflection journaling to your clinical instructor as usual and Mrs. Dickenson will not have access to it.

There is no cost to you and no tangible benefits to you for being in this study, however, your clinical judgment may improve from the reflective journaling, and you will contribute to nursing education.

Again, your participation in this research study is voluntary. Thank you for your consideration. If you have any questions concerning this research study, please contact me at 229-224-9387 or my dissertation chair, Dr. Roy Ann Sherrod at 205-348-1033. Thank you.

APPENDIX F

Demographic Survey: Research Participants

Your Code-Number _____

Please complete the information on this survey by placing a check mark or x by the appropriate box or boxes.

1. What is your gender? Male _____ Female _____
2. What is your age? 18-20 __ 21-24 __ 25-29 __ 30-39 __ 40-49 __ 50-59 __ >59 __
3. What is your ethnicity? Asian or Asian American ____ Black or African American ____
White or Caucasian ____ Hispanic or Latino ____
Other, please explain _____
4. Who lives in the home with you? No one _____ Spouse or significant other _____

Children _____ Other _____

5. Are you presently employed in healthcare or have you had previous healthcare experience?
No ____ Yes ____ If yes, what capacity? LPN ____ EMT/Paramedic ____

Nurse Assistant ____ Other, please explain _____

6. How many hours do you work outside of the home per week? _____
7. What is your Nursing GPA? 3.5-4.0 ____ 3.0-3.49 ____ 2.5-2.99 ____ < 2.5 ____

8. Please describe any factors that have helped you be successful in school (e.g. family, assistance with finances, studying a certain amount of hours each day, etc.).

8. Please describe any factors that have caused barriers to your success in school or made it more difficult to succeed (e.g. family, finances, outside employment). _____

APPENDIX G

Email to Student about Participation in Focus Group

Thank you for participating in the first part of this research study. A few students have been selected to be asked to volunteer to talk with me in a group format about your reflective journaling experience and how you feel it affected your clinical judgment or “thinking like a nurse” ability or development, what you liked about it, didn’t like, and anything you would like to share that would be beneficial to nurse educators and future nursing students. If you are willing to participate, please email me at sodickenson@crimson.ua.edu or shdicken@windstream.net with your name and/or code number.

I will email the date, time, and location. This will be a small group and should last no longer than 60 minutes. The tentative plan is to meet immediately after class one day. Confidentiality is paramount.

You are not required to participate in this study; there is no cost to you and no tangible benefits to you for being in this study; however, your comments will contribute to nursing education.

Again, your participation in this research study is voluntary. Thank you for your consideration. If you have any questions concerning this research study, please contact me at 229-224-9387 or my dissertation chair, Dr. Roy Ann Sherrod at 205-348-1033. Thank you.

APPENDIX H1

Recruitment Script: Intervention Group

Hello, my name is Sheree Dickenson. I am a graduate student at The University of Alabama under the direction of Dr. Roy Ann Sherrod. I am also a part-time clinical instructor here at Darton State College. As part of my doctoral studies at The University of Alabama, I am conducting a research study to see if guided reflective journaling using the *Guide for Reflection* makes a difference in clinical judgment. Guided reflective journaling is writing about your experiences in clinical in response to questions given to you to promote a connection between what you are learning in class and what you have experienced in the clinical setting. It is similar to what you have experienced in the simulation lab when the instructor asked you questions about the scenario you participated in and you may have answered the instructor verbally or written down responses. This type of journaling, or writing responses, is being done on many nursing campuses but nursing education still lacks enough information to know if journaling improves clinical judgment.

I am recruiting volunteers from this class to understand more about guided reflective journaling. You have been asked to be in this study because you are a last semester nursing student in NURS 2115 on main campus and previous research has shown that some students benefit from this experience. Participation in this study is voluntary. If you agree to participate in this study, there are three times in the semester where you will respond to the guided questions. The dates are: to be determined, at beginning of clinical rotations in the semester; date, to be determined, in the middle of clinical rotations; and date, to be determined, in the last part of the clinical rotations. The questions were developed by three nursing instructors in Ohio – Ann Nielsen, Susan Stragnell, and Priscilla Jester in 2007 and are called the *Guide for Reflection*. The *Guide for Reflection* will be posted in your course on-line and you will download the questions and use these to respond about your clinical encounter with a patient. You may write or questions and respond in the same manner, and you will turn your guided reflective journaling into your clinical instructor but the researcher will not have access to it.

There is no cost to you and no tangible benefits to you from being in this study but you will contribute to nursing education, and may possibly benefit professionally from the guided reflective journaling.

Again, your participation in this research study is voluntary. Thank you for your consideration. If you have any questions concerning this research study, please contact me at 229-224-9387 or my dissertation chair, Dr. Roy Ann Sherrod at 205-348-1033. Thank you. type the answers and place a code number that you will use each time, your mother's eight digit birth date, on the form, in order to maintain confidentiality. You will give the responses to the *Guide for Reflection* to your clinical instructor. After your clinical instructor has had an opportunity to evaluate completion of the assignment, if you give me permission, I will get the guided reflective journaling from your instructor.

If you do not wish to participate in the study you will still be required to download the

APPENDIX H2

Recruitment Script: Intervention Group

Hello, my name is Sheree Dickenson. I am a graduate student at The University of Alabama under the direction of Dr. Roy Ann Sherrod. I am also a part-time clinical instructor here at Darton State College. As part of my doctoral studies at The University of Alabama, I am conducting a research study to see if guided reflective journaling using the *Guide for Reflection* makes a difference in clinical judgment. Guided reflective journaling is writing about your experiences in clinical in response to questions given to you to promote a connection between what you are learning in class and what you have experienced in the clinical setting. It is similar to what you have experienced in the simulation lab when the instructor asked you questions about the scenario you participated in and you may have answered the instructor verbally or written down responses. This type of journaling, or writing responses, is being done on many nursing campuses but nursing education still lacks enough information to know if journaling improves clinical judgment.

I am recruiting volunteers from this class to understand more about guided reflective journaling.

You have been asked to be in this study because you are a last semester nursing student in NURS 2115 on main campus and previous research has shown that some students benefit from this experience. Participation in this study is voluntary. If you agree to participate in this study, there are three times in the semester where you will respond to the guided questions. The dates are: to be determined. The questions were developed by three nursing instructors in Ohio – Ann Nielsen, Susan Stragnell, and Priscilla Jester in 2007 and are called the *Guide for Reflection*. The *Guide for Reflection* will be posted in your course on-line and you will download the questions and use these to respond about your clinical encounter with a patient. You may write or type the answers and place a code number that you will use each time, your mother's eight digit birth date, on the form, in order to maintain confidentiality. You will give the responses to the *Guide for Reflection* to the researcher or your course instructor the following class day.

If you do not wish to participate in the study you will turn all regular clinical paperwork into your clinical instructor and the researcher will not have access to it.

There is no cost to you. There is a small remuneration for your valuable time and effort – a \$5 gift card from Walmart for participating in one guided reflective journal writing; a \$10 gift card from Walmart for participating in two; and a \$25 gift card from Walmart for participating in three. You will also contribute to nursing education and may possibly benefit professionally from the guided reflective journaling.

Again, your participation in this research study is voluntary. Thank you for your consideration. If you have any questions concerning this research study, please contact me at 229-224-9387 or my dissertation chair, Dr. Roy Ann Sherrod at 205-348-1033. Thank you.

APPENDIX I

Student Instruction: Guided Reflective Journaling using the Guide for Reflection

Fall 2014

Dear Student:

Guided reflective journal writing is believed to promote learning between what is experienced in the clinical setting and what is learned in the classroom, thus preparing you even more for real life nursing practice. For purposes of this assignment, you are to respond to the questions or statements in Nielsen, Stragnell, and Jester's (2007) *Guide for Reflection* as best you can **for one patient**. (Will be posted on-line.) There are no right or wrong answers but your writing does need to be legible, *please*. The guided reflective writing will not be part of your graded assignment. Your instructors have allowed this guided reflective writing to **take the place of the database in your usual clinical paperwork**.

Turn this assignment in to your clinical instructor prior to leaving the clinical setting on the 2nd consecutive clinical day of the following specified weeks, or, on the following class day (Monday) if your clinical instructor allows:

- Ms. Heyer's group & Mr. Seago's group: 9/9, 9/23, & 10/14
- Mrs. Wheeler's group: 9/10, 9/24, & 10/15

If you are participating in the research study, you may call, **text** or email the researcher at any time: researcher: Sheree Dickenson at sodickenson@crimson.ua.edu or shdicken@windstream.net or 229-224-9387.

APPENDIX J

Lasater Clinical Judgment Rubric

Noticing and Interpreting

Effective NOTICING involves:	Exemplary	Accomplished	Developing	Beginning
Focused Observation	Focuses observation appropriately; regularly observes and monitors a wide variety of objective and subjective data to uncover any useful information	Regularly observes/monitors a variety of data, including both subjective and objective; most useful information is noticed, may miss the most subtle signs	Attempts to monitor a variety of subjective and objective data, but is overwhelmed by the array of data; focuses on the most obvious data, missing some important information	Confused by the clinical situation and the amount/type of data; observation is not organized and important data is missed, and/or assessment errors are made
Recognizing Deviations from Expected Patterns	Recognizes subtle patterns and deviations from expected patterns in data and uses these to guide the assessment	Recognizes most obvious patterns and deviations in data and uses these to continually assess	Identifies obvious patterns and deviations, missing some important information; unsure how to continue the assessment	Focuses on one thing at a time and misses most patterns/deviations from expectations; misses opportunities to refine the assessment
Information Seeking	Assertively seeks information to plan intervention: carefully collects useful subjective data from observing the client and from interacting with the client and family	Actively seeks subjective information about the client's situation from the client and family to support planning interventions; occasionally does not pursue important leads	Makes limited efforts to seek additional information from the client/family; often seems not to know what information to seek and/or pursues unrelated information	Is ineffective in seeking information; relies mostly on objective data; has difficulty interacting with the client and family and fails to collect important subjective data
Effective INTERPRETING involves:	Exemplary	Accomplished	Developing	Beginning
Prioritizing Data	Focuses on the most relevant and important data useful for explaining the client's condition	Generally focuses on the most important data and seeks further relevant information, but also may try to attend to less pertinent data	Makes an effort to prioritize data and focus on the most important, but also attends to less relevant/useful data	Has difficulty focusing and appears not to know which data are most important to the diagnosis; attempts to attend to all available data

Making Sense of Data	Even when facing complex, conflicting or confusing data, is able to (1) note and make sense of patterns in the client's data, (2) compare these with known patterns (from the nursing knowledge base, research, personal experience, and intuition), and (3) develop plans for interventions that can be justified in terms of their likelihood of success	In most situations, interprets the client's data patterns and compares with known patterns to develop an intervention plan and accompanying rationale; the exceptions are rare or complicated cases where it is appropriate to seek the guidance of a specialist or more experienced nurse	In simple or common/familiar situations, is able to compare the client's data patterns with those known and to develop/explain intervention plans; has difficulty, however, with even moderately difficult data/situations that are within the expectations for students, inappropriately requires advice or assistance	Even in simple of familiar/common situations has difficulty interpreting or making sense of data; has trouble distinguishing among competing explanations and appropriate interventions, requiring assistance both in diagnosing the problem and in developing an intervention
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© Developed by Kathie Lasater, Ed.D. (2007). Clinical judgment development: Using simulation to create a rubric. *Journal of Nursing Education*, 46, 496-503.

Responding and Reflecting

Effective RESPONDING involves:	Exemplary	Accomplished	Developing	Beginning
Calm, Confident Manner	Assumes responsibility: delegates team assignments, assess the client and reassures them and their families	Generally displays leadership and confidence, and is able to control/calm most situations; may show stress in particularly difficult or complex situations	Is tentative in the leader's role; reassures clients/families in routine and relatively simple situations, but becomes stressed and disorganized easily	Except in simple and routine situations, is stressed and disorganized, lacks control, making clients and families anxious/less able to cooperate
Clear Communication	Communicates effectively; explains interventions; calms/reassures clients and families; directs and involves team members, explaining and giving directions; checks for understanding	Generally communicates well; explains carefully to clients, gives clear directions to team; could be more effective in establishing rapport	Shows some communication ability (e.g., giving directions); communication with clients/families/team members is only partly successful; displays caring but not competence	Has difficulty communicating; explanations are confusing, directions are unclear or contradictory, and clients/families are made confused/anxious, not reassured

Well-Planned Intervention/Flexibility	Interventions are tailored for the individual client; monitors client progress closely and is able to adjust treatment as indicated by the client response	Develops interventions based on relevant patient data; monitors progress regularly but does not expect to have to change treatments	Develops interventions based on the most obvious data; monitors progress, but is unable to make adjustments based on the patient response	Focuses on developing a single intervention addressing a likely solution, but it may be vague, confusing, and/or incomplete; some monitoring may occur
Being Skillful	Shows mastery of necessary nursing skills	Displays proficiency in the use of most nursing skills; could improve speed or accuracy	Is hesitant or ineffective in utilizing nursing skills	Is unable to select and/or perform the nursing skills
Effective REFLECTING involves:	Exemplary	Accomplished	Developing	Beginning
Evaluation/Self-Analysis	Independently evaluates/ analyzes personal clinical performance, noting decision points, elaborating alternatives and accurately evaluating choices against alternatives	Evaluates/analyzes personal clinical performance with minimal prompting, primarily major events/decisions; key decision points are identified and alternatives are considered	Even when prompted, briefly verbalizes the most obvious evaluations; has difficulty imagining alternative choices; is self-protective in evaluating personal choices	Even prompted evaluations are brief, cursory, and not used to improve performance; justifies personal decisions/choices without evaluating them
Commitment to Improvement	Demonstrates commitment to ongoing improvement: reflects on and critically evaluates nursing experiences; accurately identifies strengths/weaknesses and develops specific plans to eliminate weaknesses	Demonstrates a desire to improve nursing performance: reflects on and evaluates experiences; identifies strengths/weaknesses; could be more systematic in evaluating weaknesses	Demonstrates awareness of the need for ongoing improvement and makes some effort to learn from experience and improve performance but tends to state the obvious, and needs external evaluation	Appears uninterested in improving performance or unable to do so; rarely reflects; is uncritical of him/herself, or overly critical (given level of development); is unable to see flaws or need for improvement

© Developed by Kathie Lasater, Ed.D. (2007). Clinical judgment development: Using simulation to create a rubric. *Journal of Nursing Education*, 46, 496-503.

APPENDIX K

Guide for Reflection

Guide for Reflection Using Clinical Judgment Model

The Guide for Reflection is intended to help you to think about a given clinical situation that you have encountered in the past week and your nursing response to that situation. The situation can be a specific physiologic patient problem, such as an elevation in temperature, respiratory difficulty, or electrolyte imbalance. You may choose to describe a situation involving a patient's family. The situation can be a description of your role in interdisciplinary problem solving. The reflection situation may describe an ethical issue that you encountered in practice. Use the guide for reflection as a way to help you tell the story of the situation you encountered.

The guide provides you with a way of thinking about care that supports development of your clinical judgment. While there are many ways of organizing your thinking about patient care and professional nursing practice, Tanner's Clinical Judgment Model provides the framework for the questions in this study guide (Tanner, 2006). Your professional development is further supported with feedback from faculty. Feedback about your reflections will be provided using the rubric which is based on Lasater's work describing the development of clinical judgment (Lasater, 2007).

1. Situation.

Describe a nursing situation that you encountered this week (see comments above).

2. Background.

Describe your relationship to the patient at the time that you *noticed* the situation—previous contact with patient and/or family, the quality of your relationship, etc.

Consider experiences you have had that helped you provide nursing care in this situation.

Describe your formal knowledge (physiology, psychology, and communication skills), previous nursing experience with a similar problem, and/or personal experiences helped guide you as you worked with the patient.

Make sure to describe your understanding of underlying theory and evidence involved in your thinking about and action in the situation. Please include pathophysiology, care approaches, therapeutic communication, family process theory, developmental theory in the background section and cite your references.

Describe your beliefs about your role as the nurse in working on the situation.

Describe any emotions you had about the situation.

2. Noticing.

What did you notice about the situation initially?

Describe what you noticed as you spent more time with the patient/family.

3. Interpreting.

Describe what you thought about the situation—its cause, potential resolutions, patterns you noticed.

Describe any similar situations you have encountered in practice before. Describe any similarities and differences you observed compared to the current situation. What other information (assessment data, evidence) did you decide you needed as you considered the situation? How did you obtain this information? What help with problem-solving did you get from your preceptor/CTA?

Your conclusion: What do your observations and data interpretation lead you to believe? How do you support your response to the situation? Include pertinent pathophysiology and/or psychopathology.

4. Responding.

After considering the situation, what was your goal for the patient/family/staff? What was your nursing response or what interventions did you do? List all actions that you took.

Describe stresses you experienced as you responded to the patient or other involved in the situation.

5. Reflection-in-action.

What happened? How did the patient/family/staff respond? What did you do next?

6. Reflection-on-action and clinical learning.

Describe three ways your nursing care skills expanded during this experience.

Identify three things you might do differently if you encounter this situation again.

What additional knowledge, information, and skills do you need when encountering this type of situation or similar situation in the future?

Describe any changes in your values or feelings as a result of this experience.

From “Guide for Reflection Using the Clinical Judgment Model,” by A. Nielsen, S. Stragnell, & P. Jester, 2007, *Journal of Nursing Education*, 46(11), 513-516. Used with permission from SLACK, Inc.

APPENDIX L

Focus Group Guide

Thank you for volunteering to participate in the focus group. You have been journaling about your clinical experiences this semester. I am hoping that you will share your thoughts and feelings about the experience, especially in relation to clinical judgment. There are no right or wrong answers. I will be taking a few notes as well as audio-recording our discussion. Your names will not be connected to any information.

Possible questions or statements to facilitate discussion:

1. The floor is open.... Who would like to begin sharing...
2. Describe your feelings about reflective writing...(use topics below if prompting needed)
 - a. Enjoyment
 - b. As compared to helping you to see areas where you lacked knowledge; or areas where you could be confident
 - c. Connecting classroom lectures/ information to clinical
 - d. Developing clinical judgment or “thinking like a nurse”
 - e. The type of statements or questions (helpful, not focused enough, confusing)
 - f. Uncomfortable feelings
 - g. Time requirement/ effort
 - h. Ease of writing as the semester progressed
 - i. Use in other classes

APPENDIX M

Permission: Lasater for Use of LCJR

Kathie Lasater <lasaterk@ohsu.edu>

10/31/13

Hi Sheree,

I'm including Ann Nielsen in this email so she can see how you're planning to use the LCJR and guide for reflection. Thank you for your interest in the Lasater Clinical Judgment Rubric (LCJR). You have my permission to use the tool for your project. I ask that you (1) cite it correctly, and (2) send me a paragraph or two to let me know a bit about your project when you've completed it, including how you used the LCJR. In this way, I can help guide others who may wish to use it. Please let me know if it would be helpful to have an electronic copy.

You should also be aware that the LCJR describes four aspects of the Tanner Model of Clinical Judgment—Noticing, Interpreting, Responding, and Reflecting—and as such, does not measure clinical judgment because clinical judgment involves much of what the individual student/nurse brings to the unique patient situation (see Tanner, 2006 article). We know there are many other factors that impact clinical judgment in the moment, many of which are impacted by the context of care and the needs of the particular patient.

The LCJR was designed as an instrument to describe the trajectory of students' clinical judgment development over the length of their program. The purposes were to offer a common language between students, faculty, and preceptors in order to talk about students' thinking and to serve as a help for offering formative guidance and feedback (See Lasater, 2007; Lasater, 2011). For measurement purposes, the rubric appears to be most useful with multiple opportunities for clinical judgment vs. one point/patient in time.

Please let me know if I can be of further help—best wishes with your project,
Kathie

Kathie Lasater, EdD, RN, ANEF
Associate Professor
OHSU School of Nursing, SN-4S
3455 SW Veterans' Hospital Rd.
Portland, OR 97239
[503-494-8325](tel:503-494-8325)

APPENDIX N

Permission: SLACK, Inc. to Use the Guide for Reflection

November 18, 2013

Sheree Dickenson
Doctoral Student
The University of Alabama
332 Southshore Dr.
Ochlocknee, GA 31773

Reference #: J16986037

Material Requested: Table

Usage Requested: Posted in student's materials for course, Adult Health III; Instructor: Jennifer Heyer; No. of students: 64. Also to be used in dissertation for EdD.

Citation: Nielsen, A., Stragnell, S., & Jester, P. (2007). Guide for Reflection using the Clinical Judgment Model. *Journal of Nursing Education*, 46(11), 513-516.

Dear Ms. Dickenson:

Permission is granted for the requested materials and usage listed above, subject to the following conditions:

- Permission is granted for **one-time use** only. The materials must not be modified.
- At no time may the materials appear on a general website and must appear **only** on a password-protected site.
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- Payment is non-refundable. Payment can be made via credit card or check. Checks are payable to SLACK Incorporated, 6900 Grove Rd, Thorofare, NJ 08086, USA. Fill in credit card information below (we accept AmEx, Visa, or MC):

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Name on the card: _____ SVC Code: _____

Please sign and date below, keep a copy for your records, and fax to Attn: Permissions Department. Please include your reference number on all correspondence and payment information. A copy of this form **MUST** accompany payment.

Requestor accepts conditions above:

Signature: _____ **Date:** _____

Sincerely,
SLACK Incorporated
Permissions Department

publishingpermissions	12/12/13
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Hi, Sheree. I apologize for the delay in responding.

It is okay for you to wait until 2014 to use the requested material.

Permission to use the table in your dissertation also has been included. Please find the amended permissions letter attached.

Unfortunately SLACK Incorporated generally does not provide the material requested. You may reproduce it, but please be sure to include the citation at the bottom of the page and “Reprinted with permission from SLACK Incorporated.”

Please let me know if you have any questions. Thank you.

Best regards,

Betti

APPENDIX O

Orientation for Clinical Faculty of Comparison Group Spring 2014

1. Research Purpose and Plan
 - a. Compare clinical judgment of 2 groups of students: a) Control group in Spring 2014, and b) Intervention group in Fall 2014.
 - b. Tools this semester
 - i. NURS 2115 Course Learning Outcomes for Control Group
2. Control Group's Reflective Journal Writing
 - a. What the students are to journal/write:
 - i. Use NURS 2115 Course Outcomes; can be handwritten or typed on any paper.
 - b. When are the students expected to reflectively journal?
 - i. At the end of the 2nd consecutive clinical day on weeks 2, 5, and 8.
 - c. The journaling needs:
 - i. to have the student's code number which is the student's mother's eight digit birth date on it. Please tell students to hand you their reflective journal writing w/o putting their name on it if they are participating in the study. Place the study participants' reflective journaling in the provided manila envelope and seal the envelope.
 - d. Does the clinical instructor need to grade the reflection?
 - i. No, not if the student is in the research study. Please note that the student has completed the assignment, however.
 - e. What if there are safety concerns?
 - i. If there are any safety concerns and the clinical instructor deems it is necessary to read the reflection, the clinical instructor should discuss the concerns and the breach in confidentiality w/ the student. The clinical instructor and student can decide if the student should continue in the study. If the researcher identifies any safety concerns when evaluating for clinical judgment, the researcher will first identify who the student is by opening the envelope w/ the code numbers and names and contacting the student. The researcher may then contact the clinical instructor depending on the result of the conversation w/ the student.
 - f. How is the reflective journaling to be obtained:
 - g. The researcher will pick up the reflective journal writing on the mutually agreed designated day and location.
 - h. What to do if student needs guidance:
 - i. You may refer the student to what the course outcome states they are expected to be able to do or you can refer the student to the researcher.

APPENDIX P

IRB Approval Information

Office for Research
Institutional Review Board for the
Protection of Human Subjects



March 12, 2015

Sheree Dickenson
ELPTS
College of Education
The University of Alabama
Box 870302

Re: IRB # 14-OR-069-ME-R1 "The Impact of Guided Reflection on
Clinical Judgment of Associate Degree Nursing Students"

Dear Ms. Dickenson:

The University of Alabama Institutional Review Board has granted your
renewal application approval.

Your renewal application has been given expedited approval according to 45
CFR part 46. Approval has been given under expedited review category 7 as
outlined below:

*(7) Research on individual or group characteristics or behavior (including, but not limited
to, research on perception, cognition, motivation, identity, language, communication, cultural
beliefs or practices, and social behavior) or research employing survey, interview, oral
history, focus group, program evaluation, human factors evaluation, or quality assurance
methodologies.*

Your application will expire on March 11, 2016. If your research will
continue beyond this date, complete the relevant portions of the IRB
Renewal Application. If you wish to modify the application, complete the
Modification of an Approved Protocol Form. Changes in this study cannot
be initiated without IRB approval, except when necessary to eliminate
apparent immediate hazards to participants. When the study closes,
complete the appropriate portions of the IRB Study Closure Form.

Please use reproductions of the IRB approved stamped consent form to
obtain consent from your participants.

Should you need to submit any further correspondence regarding this
proposal, please include the above application number.

Good luck with your research.



358 Rose Administration Building
Box 870127
Tuscaloosa, Alabama 35487-0127
(205) 348-8461
FAX (205) 348-7189
TOLL FREE (877) 820-3066


Carpantato T. Myles, MSM, CMM, CIP
Director & Research Compliance Officer
Office for Research Compliance

Office for Research
Institutional Review Board for the
Protection of Human Subjects



May 20, 2014

Sheree Dickenson
ELPTS
College of Education
Box 870302

Re: IRB#: 14-OR-069-ME (Rev) "The Impact of Guided Reflection on Clinical Judgment of Associate Degree Nursing Students"

Dear Ms. Dickenson:

The University of Alabama Institutional Review Board has reviewed the revision to your previously approved expedited protocol. The board has approved the change in your protocol.

Please remember that your approval period expires one year from the date of your original approval, 3/10/2014 not the date of this revision approval.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number.

Good luck with your research.

Sincerely,

A large black rectangular redaction box covering the signature of the sender.

Carpantato T. Myles, MSM, CIM, CIP
Director & Research Compliance Officer
Office of Research Compliance
The University of Alabama



Office for Research

Institutional Review Board for the
Protection of Human Subjects

THE UNIVERSITY OF
ALABAMA
R E S E A R C H

March 10, 2014

Sheree Dickenson
ELPTS
College of Education
Box 870302

Re: IRB#: 14-OR-069 "The Impact of Guided Reflection on Clinical Judgment of Associate Degree Nursing Students"

Dear Ms. Dickenson:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies

Your application will expire on March 9, 2015. If your research will continue beyond this date, complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, complete the Modification of an Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, complete the appropriate portions of the IRB Request for Study Closure Form.

Please use reproductions of the IRB approved stamped consent forms to obtain consent from your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

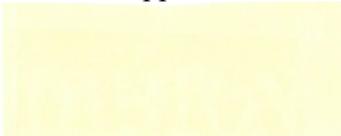

Carpanta O. T. Myles, MSM, CJM, CIP
Director & Research Compliance Officer
Office of Research Compliance
The University of Alabama



358 Rose Administration Building
Box 870127
Tuscaloosa, Alabama 35487-0127
(205) 348-8461

APPENDIX Q

Site Approval



STATE COLLEGE
INSTITUTIONAL RESEARCH

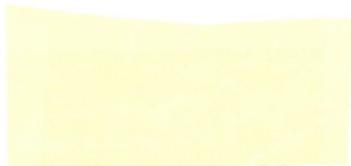
February 14, 2014

Researcher: Sheree Dickenson

Title of Proposed Study: The Impact of Guided Reflection on Clinical Judgment of Associate Degree Nursing Students

Your proposed study has been approved by my office, the President, and the Vice President of Academic Affairs at [REDACTED]. We need to be made aware of any major changes to the proposal.

Best wishes on your research!



Coordinator of Institutional Research

Research Review Chair

[REDACTED] * TELEPHONE: [REDACTED]
[REDACTED] AFFIRMATIVE ACTION/EQUAL OPPORTUNITY INSTITUTION