FACILITATOR ETHNICITY AND CLINICAL JUDGEMENT AMONG SENIOR MINORITY STUDENTS USING UNFOLDING CASE STUDIES

by

Rachael Marie King

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy (Ph.D.)

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ABSTRACT

Unfolding case studies are a technique used in advancing critical thinking in order for nursing students to enhance their clinical judgement. The format at which they are delivered can influence the degree of learning, understanding, applying, analyzing, and evaluating for students, especially senior minority nursing students. This quasi-experimental posttest survey between-groups study involved implementing unfolding case studies with a randomly selected minority or non-minority facilitator video recording for senior minority nursing students. After completing the case study, all participants were given a posttest survey, the Clinical Decision Making in Nursing Scale (Jenkins, 1983). The survey evaluates students' self-perceived clinical judgement. A quasi-experimental, posttest survey between-groups design with an independent-samples *t*-test was used for data analysis when comparing scores of the group of students who viewed the minority facilitator to those who viewed the non-minority facilitator. The aim of this study was to identify if there was a difference in clinical judgement scores between a group of senior minority students ($n = 34$) completing an unfolding case study with a minority facilitator and a group of senior minority students ($n = 31$) completing an unfolding case study with a non-minority facilitator. The results of the independent-samples *t*-test determined there was not a statistically significant difference between clinical judgement scores with $F = 1.390$, $t\ (65) = 1.133$, $p = .131$. Though not statistically significant, the results inform nurse educators and administrators of additional teaching methods that can be used to assist senior minority nursing students to prepare to successfully pass the NCLEX-RN® (NCSBN, 2022) on the first attempt, as well as increase their readiness into practice.

Keywords: minority, faculty, facilitator, clinical judgement, mentor

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List of Abbreviations

Agency for Healthcare Research and Quality (AHRQ)

American Association of Colleges of Nursing (AACN)

Clinical Decision-Making in Nursing Scale (CDMNS)

Culture care theory (CCT)

Lasater Clinical Judgement Rubric (LCJR)

National Council of State Boards of Nursing (NCSBN)

National Council Licensure Examination for Registered Nurses (NCLEX_RN)

National League for Nursing (NLN)

National Student Nurses' Association (NSNA)

North Carolinas Board of Nursing (NCBON)

Office of Management and Budget (OMB)

CHAPTER ONE: INTRODUCTION

Overview

This chapter consists of background information surrounding the quasi-experimental posttest survey between-groups research study. It includes the background of the essential issues of clinical judgement in preparation for graduation and the first attempt of the NCLEX-RN® exam among senior minority nursing groups. The chapter includes the problem statement, purpose statement, significance of the study, research questions, and definitions.

Background

The National Council of State Boards of Nursing (NCSBN) and the Forum of State Nursing Workforce Centers conducted a survey revealing minority nurses represented only 19.2% of the registered nurse (RN) workforce (American Association of Colleges of Nursing [AACN], 2019). The AACN's (2019) fact sheet, *Enhancing Diversity in the Workforce*, points out with more minority nurses, minority patients are more likely to seek care earlier, leading to increased health promotion and closing the healthcare disparity gap between ethnic groups. According to the U.S. News & Report (2021), the United States ranked number one in higher education, yet, there are not enough professional minority registered nurses to address the significant healthcare disparity gap involving minority populations in the U.S. (King, 2022; Minority Nurse, 2021). Minority nurses are essential in the healthcare field because they speak patients' languages and relate to them on cultural and socioeconomic levels. Prior research has shown when healthcare providers are of the same race, language and have similar social behaviors, there are higher levels of trust and satisfaction in the healthcare settings (Alsan et al., 2019; Wilbur et al., 2020).

Minority nursing students often lack clinical judgement, which can hinder success at the completion of courses and upon attempting to take the NCLEX-RN® exam (Sommers, 2018). Cazzell and Anderson (2016) found ethnicity to be a significant predictor of clinical judgement using the scores on the Lasater Clinical Judgement Rubric (LCJR) during simulation with senior nursing students. For senior minority nursing students, inadequate clinical judgement may lead to poor test performances as well as unsafe clinical decisions.

Social Background

Nurse educators have had to adjust how they present critical thinking and clinical reasoning skills to enhance clinical judgement for the last three years due to COVID-19 (NCSBN, 2021; Seymour-Walsh et al., 2020). The pandemic has created challenging environments for nursing students and graduates to apply good, comprehensive clinical judgement while in school due to the decreased clinical experiences, the increased risks of exposures (NCSBN, 2021), and limited access to real-life situations for students to make real time clinical decisions. One option is implementing case studies throughout the curriculum, which has been shown to increase clinical judgement (Rischer & Pence, 2017; Salameh et al., 2021). The current challenge is how to implement unfolding case studies in the curriculum whether it is online, virtual, or in person. What is an effective format for senior minority students to optimally increase their clinical judgement from the unfolding case studies? A minority facilitator can support senior minority students by providing realistic culturally sensitive feedback that fosters good decision-making skills as they are preparing for the NCLEX-RN® (NCSBN, 2022) exam.

Theoretical Background

All nurse educators are essential in humanizing what is learned in the classroom. Transcultural self-efficacy is a personal quality that needs to be displayed in both the classroom

and clinical settings. This is especially true for minority students. Transcultural self-efficacy and awareness allow minority students to internally connect and comprehend when using clinical judgement to enhance patient care. Madeline Leininger's (1991) culture care theory (CCT) is used as a guide in this study to facilitate learning among diverse groups, while developing a commonality and mutual respect between educators and minority students.

When students begin their educational journey, they struggle with understanding the cultural and ethnic differences outside their individual experiences. Leininger's (1991) constructs of caring can help minority nursing students self-identify how their own cultural background and beliefs can impact the care they provide for their patients as they progress throughout the educational program. Minority nurse educators are in the unique position to help senior minority students not only recognize the cultural differences but also self-reflect on them to thoughtfully contemplate in real time, many times, life preserving decisions required in patient care.

Historical Background

Race, a social construct in the United States, should not play a role in nursing care. There should be no difference in the care provided by nurses of any ethnicity, nor should care be selective to the diverse patient receiving it. Effective clinical judgement should lead all nurses to provide any patient competent and safe care. Challenges still exist today and are evident by the disparity gaps in healthcare (Office of Health Equity, 2022), as well as the decreased number of minority graduate nurses when compared to their counterparts (AACN, 2020). These challenges can be traced throughout the history of nursing education. All nursing students should be given the opportunity to have learning experiences that promote self-confidence and self-efficacy that enhance the competence needed to create a learning environment. Such learning experiences promote critical thinking and clinical reasoning, which are necessary when making clinical decisions for patients.

According to an AACN (2021) national annual survey, only 19.2% of full-time nursing faculty come from minority backgrounds, leaving an overwhelming 80.2% of the full-time faculty non-minority. As minority populations grow, minority students are looking for academic role models (AACN, 2023). Higher education institutions have a responsibility to not only identify, but also remove barriers minorities may encounter, of which their counterparts may not, in pursuing faculty careers. The AACN (2023) has taken such steps by launching several initiatives aimed at increasing nursing faculty. This study can provide additional evidence as to why it is important to enhance diversity in the faculty and student pipeline, as well as the workforce.

Problem Statement

Minority students are graduating at a lower rate than their White counterparts (AACN, 2020), and higher education institutions and healthcare organizations need to address health disparities more than ever. The 2020 Annual New Graduate Survey conducted by the National Student Nurse Association (NSNA) provided information validating how COVID-19 impacted the job market for all new graduate nurses. Increasing clinical judgement among minority students leads to higher NCLEX-RN® success rates, resulting in more minority nurses in societies where population health can be improved.

According to the North Carolina Board of Nursing (NCBON, 2021) there are a total of 150,136 RNs in North Carolina, of which 117,813 are White and 32,323 are of other ethnicities. Based on these statistics, only 27% of registered nurses are minorities. Matthews et al. (2020) acknowledged that the lack of representation of under-represented faculty and students in health-related majors and careers may lead to social and professional isolation. They also suggested one

reason why there is not enough workforce diversity is due to maintaining a consistent flow of under-represented minority students entering the healthcare arena.

Recommended strategies to rethink the relevance of careers for minority faculty are: exploring the contributions of minority faculty, exploring theoretical approaches to understand racism and other social determinants on health disparities, and finally, research opportunities. Yet, Matthews (2020) noted how there is a lack of literature that focuses on minority scholars and their contributions. Higher education institutions have an opportunity to identify areas that can increase the number of minority nursing graduates (American Association of Colleges of Nursing [AACN], 2019) to yield more minority registered nurses (RNs) in the workforce. Researchers have revealed that minority students have positive experiences when educators are of the same race or ethnicity (Kraft, 2019; Luke, 2017). Tram et al. (2020) performed a study focusing on the importance of faculty mentoring and how it impacts students' program success. The authors suggested that congruency between ethnic and racial backgrounds of the student and mentor may contribute to success yet admits the lack of minority faculty mentors in the field of psychology.

According to the National Center for Education Statistics (2022) there was a total of 74% White (non-minority) full-time faculty, whereas only 26% were minorities in degree granting postsecondary education in the Unites States in 2020. In North Carolina, of the 6,252 enrolled pre-licensure ADN/Diploma RN students in 2018, only 1,929 students were minorities (NCBON, 2020). The NCBON (2022) reported 2,576 student graduates in 2020 from an ADN program in NC. There are no public data to support the number of confirmed minority graduates from ADN programs in NC from the reported 2,576 total in 2020 (AACN, 2019; Health Resources and Services Administration, 2021; NCBON, 2022; NCSBN, 2020).

Several authors have identified and implemented interventions to increase enrollment, retention, and graduation rates among minorities in nursing programs (e.g., Jeffreys et al., 2017; Gipson-Jones, 2017; McNalley et al, 2019; Tab, 2019; Vignato & Guinon, 2019). Few studies have focused on final semester clinical judgement interventions post pandemic era (e.g., Poston, 2021), which can directly influence graduation rates and NCLEX-RN® first time passing rates among senior minority nursing students in predominantly White colleges and universities. Poston (2021) provided suggestions to enhance all nursing students' clinical judgement for the Next Generation NCLEX-RN® by using the NCSBN Clinical Judgement Measurement Model to support strategies to develop clinical judgement, explore learning in activities and simulation experiences in current curricula, and use the activities or simulations across courses. Though these suggestions may be helpful to the general nursing student population, none are specific for minority students. Thus, the problem that needs to be better understood is to discover if there is a difference between clinical judgement scores as measured by the Clinical Decision Making in Nursing Scale (CDMNS) of senior minority nursing students who are presented unfolding case studies by a minority facilitator and the clinical judgement scores of minority nursing students who are presented unfolding case studies by a non-minority facilitator.

Purpose Statement

The purpose of this quantitative quasi-experimental posttest survey between-groups study was to examine if there is a difference between clinical judgement scores of senior minority nursing students who are presented unfolding case studies by a minority facilitator and the clinical judgement scores of senior minority nursing students who are presented unfolding case studies by a non-minority facilitator. The NCSBN (2021) recognized the importance of new nurses being ready to "hit the ground running" as soon as they enter practice. Therefore, nurse

educators have recognized the need to adjust how they present critical thinking and clinical reasoning skills to enhance clinical judgement. Factors have contributed to many students not being able to grasp the understanding and importance of clinical judgement. For instance, during the last three years the pandemic has created challenging environments for nursing students and graduates to apply good, comprehensive clinical judgement due to the decreased clinical experiences and the increased risks of exposures (NCSBN, 2021; Tolyat et al., 2022).

This study explored the clinical judgement scores based on the Clinical Decision Making in Nursing Scale (Jenkins, 1983) acquired by the students after viewing a minority or a non-minority facilitator. The population included adult minority nursing students enrolled in the senior level of a nursing program with the sample obtained from the National Student Nurses' Association membership database. Demographic characteristics (Table 4.1) and quantitative data were collected and analyzed. Survey data of the 65 eligible participants were used to decipher if there was a difference between clinical judgement scores of senior minority students who were presented unfolding case studies by a minority facilitator and the scores of those who were presented unfolding case studies by a non-minority facilitator.

Significance of the Study

Minority graduation and NCLEX-RN® passing rates are comparably lower than their majority counterparts in predominantly White institutions (AACN, 2020). This study can help to determine if using unfolding case studies with a minority facilitator is effective in affecting senior minority students' clinical judgement. The minority facilitator can apply cultural sensitivity to the diverse situations presented in the case study. Without the minority facilitator, students are less likely to hone in on the importance of making clinical decisions that are patient-centered. Without the minority facilitator, minority nursing students are also less likely to

consider realistic achievable outcomes, which can look different based on ethnic backgrounds. Henderson (2016) pointed out that minority students may be unfamiliar with cultural boundaries, which may then hinder student success. Minority facilitators can coordinate and guide minority students through the various stages of clinical judgement. These students will be able to advance their level of decision-making capabilities, leading to success on the NCLEX-RN® first attempt, as well as readiness into practice. Egalite and Kisida (2018) suggested diverse educators are in an optimal position to design coursework that is culturally sensitive, as would be the position of the minority facilitator in this study. Tram et al.'s (2020) and Neville et al.'s (2017) research studies align with the concept that diverse faculty can create an atmosphere of positive learning experiences.

Strategies have been implemented to increase and retain diverse students (Eather et al., 2022; Pedler et al., 2021). Eather et al. (2022) recognized the upward trend of student enrollment in higher education institutions, yet acknowledged that gaps still exist related to admissions, retention, and graduation rates among demographic groups. This quasi-experimental posttest between-groups approach builds upon what has been done and brings awareness to investing in innovative clinical judgement strategies to ensure minority student success while moving through the educational journey and beyond graduation. Using the strategy proposed in this paper may increase clinical judgement, leading to an increase in minority students' confidence, competency, and performance in the clinical setting. Higher education institutions can invest in seeking minority faculty who can fill the role of a facilitator in a didactic setting. With the increased number of nursing graduates, healthcare organizations who partner with these nursing programs can potentially hire a larger number of diverse graduate nurses to accommodate the diverse communities they serve. Clinical judgement is an internal, mental, and emotional process

involving external decision-making by students of which may improve if fostered correctly. This study offers an additional academic intervention that incorporates productive faculty, student, and patient outcomes.

Research Question

RQ1: Is there a difference between clinical judgement scores, as measured by the CDMNS, of senior minority nursing students who are presented unfolding case studies by a minority facilitator and the clinical judgement scores of senior minority nursing students who are presented unfolding case studies by a non-minority facilitator?

Definitions

1. *Minority*- an individual who is culturally, ethnically, or racially identified as non-White and/or are considered lesser to or is substandard to a more dominant group (Britannica, 2019; National Association of Counties, 2019).
2. *Coaching*- is a collaborative relationship between an academic coach and student(s), resulting in equipping students with the tools, knowledge and opportunity needed to develop themselves in order to be more effective in a particular area of interest (Capstick et al., 2019; National Academic Advising Association, 2017; Peterson & Hicks, 1996).
3. *Clinical Judgement*- is the guided healthcare conclusion resulting from critical thinking and decision-making and clinical reasoning. It requires nursing students to use learned nursing knowledge and experiences to observe and assess healthcare situations, identify and prioritize patient needs and patient data in order to generate the best possible evidence-based solutions to deliver safe and effective patient care. This also includes evaluating all participants' actions and reactions. Clinical judgement requires critical thinking in conjunction with clinical reasoning and decision-making leading to evidence-

based outcomes, which can be learned through active engagement of students in the classroom and clinical settings (Bussard, 2018; Rischer, 2017; Tanner, 2006).

4. *Construct Validity*- tests whether the tool measures the concept that it is intended to measure (Nikolopoulou, 2022).
5. *Content Validity*- evaluates how well an instrument or tool covers all parts of the construct or theoretical concept it aims to measure (Nikolopoulou, 2022).
6. *Criterion Validity*- evaluates how accurately a tool measures the outcome it is designed to measure (Nikolopoulou, 2022).
7. *Facilitator*- an individual, often faculty, who guides, coaches, mentors, and interacts with students in the classroom setting and/or online environment to increase students' knowledge environment. A facilitator helps to connect new knowledge with experiences in the group discussion. A facilitator builds on the knowledge base of the group of students to find the answers to questions through collaborating and engaging participants in creating, discovering, and applying learning insights (AHRQ, 2021; Clacey & Morris, 2020).

CHAPTER TWO: LITERATURE REVIEW

Overview

This chapter consists of the conceptual framework used for the study, the related literature reviewed, and a summary. The research topic involved implementing an unfolding case study using a minority facilitator in the senior terms of nursing school in order to increase clinical judgement among minority nursing students. This literature review discusses the conceptual framework for the study, specifically how Madeline Leininger's Cultural Care theory is woven throughout Tanner's Clinical Judgement Model, allowing for holistic perspectives within nursing education from the minority student, nurse educators, as well as higher education institutions. The chapter dives into current research literature and strategies pertaining to minority nursing students and clinical judgement as they attempt to relate to diverse patient populations during and after their educational journey. The intent of this literature review was to reveal the gap in senior minority students' clinical judgement when not provided with culturally specific faculty to increase the likelihood of success in the didactic and clinical settings.

Conceptual Framework

Leininger's Culture care theory (1991) is embedded in Tanner's (2006) Clinical Judgement Model in such a way that allows the minority facilitator to provide supportive and cultural relevance to the content being taught throughout this study. The culture care theory and Clinical Judgement Model provide the conceptual framework that encompasses all the components of nursing education necessary to advance clinical judgement with grace and compassion for minority student populations. Tanner's model exhibits Leininger's culture care theory, which helps to define nursing education as a learned scientific and humanistic profession. Tanner's model integrates caring activities to support, facilitate, and enable minority students in

culturally meaningful ways by incorporating all aspects of patients while personifying the importance of diversity. Leininger's culture care theory is threaded throughout this study, while Tanner's model projects the importance of diversity associated with cultural interpretation of illnesses from the minority perspective.

Leininger's Cultural Care Theory (1991) allows the minority facilitator to understand the demarcation among students yet acknowledge the individuality as well as the cultural similarities among minority nursing students. As educators, facilitators have a responsibility to support all students and consider cultural differences. Educators should be able to identify and connect to those differences in a way that students can understand. Students will begin to understand, while caring for individuals is important, the decisions being made impact the patients' health and well-being. While using unfolding case studies, facilitators may assist students in noticing cultural differences within patient populations, as well as expound on the importance of needing to know how to respond and make good decisions for ethnically diverse patients. This approach prepares students to reflect on the didactic learning while applying it to the clinical setting in real time.

Nurse educators, administrators, healthcare organizations, and most importantly, patients rely on nurses to use clinical judgement when providing care, regardless if the nurse is a new graduate of six months or a seasoned nurse of 15+ years. Many nurses lack the competence or level of clinical judgement to provide safe and effective care, sometimes well after a year (Norris et al., 2019). It is important to explain that critical thinking and clinical reasoning lead to clinical judgement, and though often used interchangeably (Hussein, 2022; Victor-Chmil, 2013), there is a distinction. Connecting Leininger's culture care theory (1991) to Tanner's (2006) four major concepts of noticing, interpreting, responding, and reflecting, the minority facilitator advances

students' levels of clinical judgement by helping students self-identify and interpret their strengths and weaknesses, as well as increase cultural awareness personally and professionally. As a framework, this model provides a guide to explain how senior minority nursing students should engage in complex situations that require thoughtful discernment. It also helps the minority facilitator to identify learning opportunities that require feedback and coaching to help develop student insight. The minority facilitator's life experiences in a variety of different professional healthcare settings allow him/her to elaborate on creating thoughtful and meaningful clinical decisions while using Tanner's framework through the constructs of transcultural nursing (Leininger, 1991). Using a minority facilitator to guide and collaborate with students through the use of unfolding case studies reiterates the importance of communication and professionalism throughout the critical thinking and clinical decision-making process, benefiting patients and their families.

Tanner (1998/2006) reviewed more than 200 articles pertaining to clinical judgement in nursing. The review resulted in five conclusions related to clinical judgement. According to Tanner (2006), clinical judgement is largely influenced by the nurse's experience in a situation, the degree of knowledge of the patient, the context of the situation, the reasoning patterns used by the nurse, as well as the nurse's reflection practices. These five assumptions are the basis for Tanner's (2006) model, of which there are four major components: noticing, interpreting, responding, and reflection. Tanner recognized the fluidity and dependency of each clinical judgement element that is associated with multiple factors surrounding the occurrence or patient situation, requiring clinical reasoning at each stage. Tanner understood that consistent experience improves clinical judgement. Educators should not wait until students are in the clinical setting to implement techniques of clinical decision-making. This researcher shows how using Tanner's

model in the didactic setting not only may expand students' clinical judgement prior to exposure to realistic healthcare situations but may also result in better healthcare outcomes for patients in real-time clinical settings.

Tanner's Clinical Judgement Model (2006) involves all components, yet is not a stepwise process, but rather fluctuates as needed for each situation. The minority/non-minority facilitator guides students throughout Tanner's four stages. During the Noticing state, the facilitator asks prompting questions such as, "What are some familiar experiences? Can you identify effective members of the patient's support team… his/her healthcare team?" The Interpreting stage allows the facilitator to talk through the case study with "noticeable" answers, whereas the facilitator is guiding students through the Responding stage by incorporating possible reactions. During the Reflecting stage, the facilitator helps to illustrate what self-reflection is and how to produce the best patient/family outcomes such as, "What important aspects were missed if anything? Who could have helped (Inter-disciplinary Collaboration)?" Without a facilitator, students do not know with certainty if the thought processes were accurate nor if the optimal responses were chosen. The facilitator can speak with factual confidence, incorporating personal experiences, especially the minority facilitator, as she recalls experiences with minority patients.

Benner defined critical thinking as a cognitive process used to examine what one observes in a clinical setting. Clinical reasoning begins once the evidence or observations are internalized and can be applied to patient situations (Benner, 1984; Jones, 1988),whereas clinical judgement involves all three learning domains: cognitive, psychomotor, and affective processes (Tanner, 2006). Senior minority nursing students effectively can increase their levels of clinical judgement using the Complex Clinical Reasoning Case Study Template (CCRCST) devised by Rischer (2016), which is rooted in Tanner's (2006) Model of Clinical Judgement. The CCRCST

incorporates all three learning domains through identifying pertinent data and interpreting what it means in a given situation. Understanding data allows for reasoning to occur and provides the groundwork for decision making, resulting in responses and actions grounded in science and evidence. Rischer's Complex Clinical Reasoning Case Study Template tool also incorporates the important aspect of professional reflection, evaluation of patients' responses, as well as the senior minority nursing student or new graduate response.

Bowles et al. (2000) evaluated the relationship between critical thinking and clinical judgement in baccalaureate nursing students of two nursing programs. Bowles et al. used the Clinical Decision Making in Nursing Scale (CDMNS) to assess clinical judgement and the California Critical Thinking Skills test (CCTST) to evaluate attributes of a critical thinker. While understanding there is a difference between the two, Bowles et al. also recognized that nursing education can have a positive impact on enhancing skills in both the didactic and clinical setting.

The current study involved implementing a minority facilitator for the purpose of assisting students in advancing their cognitive processes by guiding them through Tanner's (2006) phases of clinical judgement with the use of an unfolding case study while advancing cultural self-awareness. Developing clinical knowledge in addition to providing solid scientific and evidence-based facts may increase clinical decision-making skills that may be used in classroom and clinical settings. The individuality of this study is such that the unfolding case study fits different ethnicities throughout one scenario with added situations that intertwine, requiring the student to continuously recognize, respond, and evaluate responses of all persons in the scenario. The minority facilitator can comfortably expand on disease processes of diverse patients when approaching clinical decisions based on Tanner's model and the concepts of the cultural care theory (Leininger, 1991). Through a cultural lens, the minority facilitator can guide

students through Tanner's process of clinical judgment by reiterating the importance of recognizing their cultural practices and patterns, as well as those of their patients. This self-awareness helps to provide culturally sensitive patient care that often promotes health and wellness. These concepts underline the cultural care theory and the three modes of guiding nursing judgement, actions, and decisions when providing care. Leininger's theory explains how one's worldview is influenced by cultural and social factors that weave and intersect each other.

The cultural care theory (1991) also describes the impact nurses have on both the professional and traditional/non-medical healthcare systems that often contribute to better health outcomes for individuals and communities. Senior minority nursing students can identify and confirm such practices. For example, a hypertensive crisis in a Black person would involve the facilitator and the students pointing out specific treatments and practices within this culture (Foster et al., 2019), or how Hispanics use herbal remedies for managing type 2 diabetes (Amirehsani et al., 2021), as well as expounding on the prevention and treatment of respiratory diseases among Asians (Zhao et al., 2021). Repeated guided clinical reasoning exercises during classroom experiences add to the repertoire of experiences nursing students have prior to sitting for the NCLEX-RN® (NCSBN, 2022), as well as being applicable while these students are in preceptorship.

Related Literature

The literature review shares relevant studies related to existing knowledge on minority nursing students' perceptions. It includes literature regarding clinical decision making and clinical judgement. This review also highlights studies involving facilitation, mentoring, and coaching of diverse faculty.

Minority Nursing Students

Smith (2018) noted the importance of cultural competence in nursing schools. Though many accrediting bodies and organizations recommend increasing cultural competence in a number of ways (AACN, 2017; NLN, 2018), such as increasing minority faculty, inserting diversity into curricula, or increasing minority student enrollment, many schools of nursing are lacking in this area. Smith pointed out that in order to understand diverse students, faculty need to understand influencing factors such as the students' perceptions of the learning environment, for example, the usefulness and appropriateness of the curriculum, the students' cultural identity and awareness, or the degree of interaction between students and faculty. Smith made suggestions regarding ways nurse educators can implement cultural competence into the educational setting: feedback, mentoring and support, curriculum development, and implementation. Sanchez (2021) noted that nurses can assume an active role in equity, diversity, and inclusion by using initiatives to improve outcomes. Nurse educators are are in a unique position to implement these suggestions because of the influence they have as role model and expert in the classroom and clinical setting. The current study incorporated many of Sanchez's recommendations. For example, feedback was provided throughout the recording. As the minority facilitator guided and facilitated students through the unfolding case study, she exhibited the professionalism required as a professional minority registered nurse when taking into account the cultural considerations of the patients and their families. Finally, the results of the current study support curriculum change in order to improve clinical judgement among senior minority nursing students.

Increasing the number of successful minority nurse graduates can lead to an increased number of potential prelicensure candidates taking the NCLEX-RN® (NCSBN, 2022). Yet, minority attrition and failure rates remain higher than their counterparts (NLN, 2018; AACN,

2020). As a response to this unfortunate fact, Jeffreys' et al. (2017) presented results of a pilot study in a historically Black institution, to determine the effectiveness of the Kaplan modules for NCLEX-RN® preparation, using a single-group pretest/posttest design. The sample consisted of 15 senior level nursing students of which 16% were White and the remaining 72% were minorities. At-risk students were identified based on the results of the pretest assessment, and the posttest predicted the likelihood of passing the NCLEX-RN® (NCSBN, 2022) exam. Paired *t*-tests were used in the data analysis, showing statistical significance between the tests. The results supported the use of the Kaplan modules in preparation for the NCLEX-RN® (NCSBN, 2022) exam with overall performance showing improvement in the fields of the decision-making process and content areas. The cohort had a 100% passing rate of the NCLEX-RN®. Although Jeffreys et al.'s did not specify faculty ethnicity, as noted by Samayoa and Gasman (2019), more than 50% of the faculty in historically Black institutions are minorities. Jeffreys et al.'s pilot study augments why the current study helps primarily White institutions recognize the importance of having minority faculty to help facilitate the advancement and success of minority students.

McNally et al. (2019) performed a comprehensive review of the literature to examine the experiences of nontraditional nursing students in undergraduate nursing programs and the interventions used by nursing programs to increase their success. The authors used Jeffreys et al.'s (2012) Nursing Universal Retention and Success (NURS) model for nontraditional undergraduate students to guide the review. The integrated review included articles from peer-reviewed journals published between the years 2016 to 2018. Inclusion and exclusion criteria were discussed, with 13 articles meeting the expectations. The results revealed four themes, which included Cultural Values and Beliefs, Academic Factors, Professional Integration, and

Environmental Factors. The authors concluded there is an ongoing need to support nontraditional students who are pursuing nursing education.

McNally et al. (2019) used the NURS model (Jeffreys et al., 2022) as a framework for positive solutions to identify factors facing minority students. Solutions included having culturally congruent mentors and professional integration strategies for nontraditional students. Dahan and Williams' (2022) study identified at-risk nursing students and underrepresented minorities (URM) early in their educational journey to make certain appropriate referrals were ascertained for academic success. Dahan and Williams also used the NURS model. The researchers considered eight factors that affected the retention of nursing students. After analyzing the pretest survey results, they identified four new subscales that were considered to be potential barriers for URM students. After resources, referrals, and services were implemented and tracked and the post survey was administered, the results suggested positive changes, concluding that early intervention is a necessity. Essential services included academic advising offered by the school of nursing, tutoring services, and success coaching. All these resources are similarly provided by a minority facilitator in senior level courses by assisting minority students achieve academic goals and allowing for relational connectivity for all participants.

Gipson-Jones (2017) conducted a qualitative descriptive study examining the challenges and interventions of program completion in a predominantly White institution. The study extended over a one-year period and the sample size consisted of 21 female, underrepresented minority nursing students. The participants included freshmen, sophomores, juniors, and seniors. Interviews, focus groups, and questionnaires were used to collect the data. The researchers used the Roy Adaptation Model and the Work-Family Conflict concept as guides to collect and

analyze data for the study. Three themes emerged from the study, and results indicated a perceived interconnection between work, school, and family roles among underrepresented minority BSN students attending a predominantly White university. The majority of the student participants felt adjusting to the demanding curriculum was challenging, compounded with feelings that faculty did not understand their cultural backgrounds. Hill and Albert (2021) elaborated on these facts as they explored African American student success in a predominantly White nursing program. Limitations as well as further recommendations were included in this article. Hill and Albert (2021) stressed the need to incorporate multiple institutional strategies to increase minority student relatability and interconnectedness to curricular content, and to the faculty.

A qualitative, phenomenological research study was also conducted by Hill and Albert (2021) to understand the experiences of African American students while progressing through a nursing program at a large midwestern university. The study also explored factors that related to the success and/or barriers encountered during their journey through the program. Four themes emerged from the study: resolve to succeed, ineffective education models, a need for support of the college experience, and finding African American mentors. Of the four themes that emerged, ineffective education models and finding African American mentors lend support to the role of a minority facilitator in the current research study. The student participants in Hill and Albert's study considered their current college education models challenging for effective learning. The participants were asked, "If you could change anything about your nursing school experience, what would it be?" (p. 152). The responses confirmed their desire for minority mentors, a role the minority facilitator in the current study could fulfill. Hill and Albert suggested that more research is needed to better understand African American learning styles and teaching methods

to optimize student success and expressed the need for nursing schools to employ more diverse faculty. Some limitations of Hill and Albert's study included the use of only one university, thus decreasing generalizability of the results, and also noting that participants were currently enrolled students; therefore, their responses may have been tempered for fear of others discovering their expressed feelings and thoughts.

Hill and Albert's (2021) study illustrates the importance of understanding the different learning styles of minority students and how minority faculty can adjust teaching methods to facilitate minority student success. As Grapin and Pereiras (2019) pointed out, administrators and faculty are charged to appreciate and uphold multiculturalism, diversity, and different perspectives, which should be standard in all areas of higher education. Taking this into account, the current quantitative study adds a culturally responsive teaching approach (as suggested by Grapin and Pereiras), as well as adding to the strategies primarily White institutions may use to increase the success of minority students.

Chavis (2017) examined the relationship between self-esteem, locus of control (LOC), and first-time passing rates of the NCLEX-RN® exam in two historically Black colleges and universities to explain inconsistent passing rates among Black nursing students. The aim of the quantitative relational study was to identify perceptions of self-esteem and LOC as predicators of first time NCLEX-RN® passing rates, thus impacting the national nursing supply. Chavis relied on Guinden's (2002) definition of self-esteem, "the evaluative component of the self; the affective judgement placed on self-concept consisting of worth and acceptance, developed and maintained as a consequence, sense of achievement and feedback from the external world" (p. 207). Chavis also distinguished between internal and external LOC. Internal LOC contributes to an individual taking responsibility for one's actions, whereas external LOC is the belief others

have control over one's outcomes and well-being. Surveys and archival data were used, and the study concluded no significance between self-esteem, LOC, and first-time passage, yet stated variables that were not included in the study such as number of working hours and marital status, may have affected first-time NCLEX-RN® passing rate. All participants in the study were found to have high levels of self-esteem and LOC; therefore, these factors contributed to no statistical significance in the results.

Zhao et al. (2021) defined self-esteem as an evaluation of an individual's value and importance. Zhao et al. considered how coursework and learning activities impacted student self-esteem. In their study, the Rosenberg's Self-Esteem Scale (1965) was used, revealing that self-esteem indirectly affected academic engagement of learning tasks through the influence of self-efficacy. Zhao et al. concluded that students with high self-esteem had higher self-recognition and academic self-efficacy. Unfolding case studies help students to take ownership of the clinical decisions made while in clinical settings. This is an important part of the reflection process, as described in Tanner's (2006) model.

Stegers-Jager (2017) discussed the importance of identifying causes of the ethnic disparities in undergraduate clinical performance. A two-fold perspective was explored: the academic environment ("us") and the students ("them"). She opens with recognizing the societal challenge of increasing the diversity in the healthcare workforce to improve access for minority patients and increase the quality of care they deserve. Stegers-Jager noted that studies have shown that minorities underperform on rater-based assessments, which then contributes to not transitioning to healthcare professionals in the workforce. She proposed to find out what leads to underperformance among minorities in order to develop interventions aimed at fair clinical grading.

Stegers-Jager (2017) therefore synthesized an experiment previously conducted by Yeates et al. (2017), which focused on racial stereotype bias on examiner's scores, feedback, and recollections in the undergraduate clinical exams. Yeates et al. performed a randomized double-blind control study and found evidence in examiners' thinking of active Asian stereotypes by creating videos for participants to view and score. After analyzing the data, the researchers found evidence that examiners activated mental stereotypes of students by either reflecting a general activation or activation induced by exposure to the Asian students in the stimuli presented. The results did not show bias in the examiners' scores, feedback, or recollections, yet there was evidence of stereotype activation. This implies that higher education is still responsible to ensure equality of opportunity for all minority groups (Yeates et al., 2017). Although Stegers-Jager's study was conducted in the United Kingdom, the same principles should apply in the United States in order to minimize the degree of any stereotyping, whether through activation or application. Stegers-Jager also pointed out that opinions regarding what is considered good patient-provider interaction differ between White examiners and ethnic minorities. Having a minority faculty member facilitates the guidance of students through unfolding case studies helps eliminate stereotypes and biases for the participants.

Facilitation, Mentoring, and Coaching

Snowden et al. (2018) evaluated a one-year mentoring program that supported minority nursing students in an accelerated BSN program. Mentors were required to meet biweekly with the assigned mentee during their first semester and then monthly for the remainder of the program. Mentors maintained logs recording the date, amount of time spent with the mentee, type of meeting, and whether any referrals were made. After program completion, scholars were emailed surveys. The post program survey allowed practicing nurses to reflect on their experiences while in the mentoring program. After collecting the data, five qualitative themes

were categorized: leadership, networking, mentorship, more time, and gratitude. When analyzing the emerging themes and the limitations for the study, the researchers suggested developing a more genuine connection with face-to-face or telephone meetings, as well as adjusting a faculty's workload to accommodate for the significant amount of time invested. Having a visual experience helps to establish the degree of congruence of values, beliefs, and goals between the minority facilitator and the students.

Grapin and Pereiras (2019) suggested a nonhierarchical approach to mentorship. Using a collaborative approach by encouraging thoughts, suggestions, and experiences throughout the recording can emphasize the minority facilitator's success in helping students gain clinical judgement as well as remain grounded in their cultural identity. Vignato and Guinon (2019) discussed a pilot model program implemented in a southern California community college in the nursing and allied health department. According to the article, 25-30% of the nursing students struggled with basic English language and math skills. The model was implemented to promote diversity in prelicensure nursing education using contextualized learning, the Puente Project outreach methods, and learning community strategies. This included introductory courses, student support services with advisors, tutors, and counselors, and a Latina bilingual coordinator. Thirty program participants completed two consecutive English courses, all students met with counselors during their first semester and used other counseling support services and resources. All but one student passed the introductory classes. The article did point out additional outcome measures would not be assessed for another four years as the students complete their degrees. The longitudinal design of the study allowed the researchers to track patterns and progress. It also informed readers of the importance of creating strategies for identifying and increasing the number of minority nursing students early in their pre-nursing educational journey. This research

solidifies the magnitude of the continuation of strategies to graduation and the success of passing the NCLEX-RN® on the first attempt.

Isik et al. (2017) performed a comparative cross-sectional study involving motivation and academic performance of minority and majority medical students. The authors opened with noting minorities score lower on knowledge and skills assessments than the majority ethnicity, which often leads to difficulties in procuring post-graduate medical education placement. Isik's study offers examiner bias, stereotyping, feelings of belongingness, and socioeconomic threats as possible partial rationales to this phenomenon based on documented research (Stegars-Jagar, 2017; Woolf et al., 2011). Woolf et al. performed a meta-analysis systematic review and used reliable data sources such as PubMed, Scopus, ERIC, and Google Scholar. The authors found 541 articles, yet only 23 studies comparing academic performance of medical students and doctors from different ethnic groups were eligible for the meta-analysis. Ultimately, the meta-analysis revealed doctors and non-White medical students underperformed compared with their White counterparts.

When synthesizing, Stegers-Jager (2017) provided two substantial reasons as to why there was no effect of stereotype bias: the raters in the study were able to resist stereotyping as well as differences in communication styles. Isik et al. (2017) offered motivation as an explanation for the differences between performance of minority and majority students, using the Self-Determination Theory (Kusurkar et al., 2011; Ryan, 2000) as a framework for this study. The researchers asked the following questions: (a) Do autonomous and controlled motivation and academic performance differ between ethnic majority and minority students in pre-clinical and clinical education? (b) What are the associations between autonomous motivation, controlled motivation, and academic performance of the majority and minority students in pre-clinical and

clinical education? The quantitative study was conducted in a medical school in the Netherlands, where all students enrolled in the medical school were invited to participate. Thirty percent of the school population was of ethnic minority at the time of the study. Data were obtained using the Academic Self-Regulation Questionnaire (SRQ-A), ethnic background questions, and administrative records. The Kruskal-Wallis and the Mann-Whitney U tests were performed to answer the first question, whereas linear regression analysis was used for the second question. Multiple regression analysis was conducted for each ethnic group.

Isik et al. (2017) concluded there was a significant difference in the type of motivation between the ethnic majority and minority groups, and the association of motivation with performance also differed between and within groups. Isik et al. defined autonomous motivation as intrinsic genuine interest with identified regulation, whereas controlled motivation involves introjected and external regulation. The authors listed the study's limitations, which included a low response rate of 947 out of 2,451, as well as possible response bias. They also suggested further qualitative investigation into the results' differences, as well as examining whether education impacted the differences. The researcher of the current study links the educational impact of a minority facilitator versus a non-minority facilitator, as it relates to the difference in clinical judgement scores among two groups of minority students.

The Agency for Healthcare Research and Quality [AHRQ] (2021) developed a practice facilitation program to focus on quality improvement in practices, universities, healthcare systems, and corporations. Practice facilitators (AHRQ, 2021) are individuals who engage and motivate people to try to improve work processes by implementing evidence-based strategies to meet the goals designed by those practices. This concept aligns with that of a minority facilitator for the current study. A minority facilitator improves the quality of education delivered to

nursing students, enhances the joy of working as a team among faculty, promotes teamwork among students, as well as achieves increased success among minority students' graduation rates and first time NCLEX-RN® passing rates.

Johnson et al. (2020) engaged in the MENTORS 2 project supported by a Health Resources and Services Administration (HRSA) Nursing Workforce Diversity grant. The mission was to empower students by providing several action plans leading to minority student success. One essential component was mentoring, which incorporated *courageous dialogue* sessions. The authors noted that the sessions were led by faculty facilitators, and student participation involved opportunities for open discussion and problem solving. After analysis, the authors concluded the mentoring sessions overwhelmingly had a positive impact on students professionally, academically, and personally. This supports Crisp et al.'s (2017) synthesis of undergraduate mentoring scholarship, noting that mentoring strategies support equitability for underrepresented and underserved groups, pointing out how mentoring can assist with student development and academic success.

Though Gruber et al. (2020) focused on best practices in research mentoring in clinical science, the authors noted these practices of mentoring are applicable to many disciplines. The article begins with a discussion about mentoring and its benefits: (a) Mentoring provides mentees with multiple types of support, (b) Mentees value certain behaviors in mentors, (c) There are differences between formal and informal mentoring, (d) Effective mentoring benefits the mentor and the mentee, (e) Multiple mentor models offer diverse perspectives, (f) The mentee's behaviors can increase the effectiveness of mentoring, (g) Everyone can benefit from mentoring. The benefits support the use of mentors, yet each benefit has nuances. For example, Brooms and Davis (2017) concluded mentoring programs for Black males have increased retention and

degree attainment in predominantly White institutions, especially when mentors are Black faculty. Gruber et al. offered an overview of mentoring tasks for those in clinical science. This writer concludes that tasks offered in the article are applicable to the minority facilitator's role, incorporating mentoring in the process of learning as well as presenting self as a role model to students, especially minority students. The minority facilitator in nursing education assists students in overcoming these same milestones for minority nursing students: personal development, professional development, emotional support, and skill building. The minority facilitator is the mentor, providing a perspective that is relatable as she/he guides students through this informal mentoring yet didactic experience.

Weber-Main et al. (2022) performed a group-randomized trial study, which involved comparing the effectiveness of variations of group coaching intervention in grant proposal writing to support early-career biomedical researchers. Four different coaching interventions were used, with coaching provided by experienced proposal writing investigators. Regardless of the intervention, the majority of participants reported learning gains in their knowledge, skills, and grant writing self-efficacy. The coaching variations included regular and extended doses of coaching with structured or unstructured engagement. All participants were given an agenda. The aim of the study was to determine the effectiveness of the group coaching intervention and the mode of engagement of the participants' advisors in the extended dose group. Weber-Main et al. hypothesized that the participants who received the extended dose intervention would have higher rates of grant funding. More exposure to coaching with any engagement, especially visual engagement, increased outcomes. Similarly, the current study evaluated if exposure to the coaching and guiding of a minority facilitator presenting in an unfolding case study could result in increased levels of clinical judgement among senior minority nursing students.

Capstick et al. (2019) conducted a study using archival data to determine the effectiveness of academic coaching at a southeastern state university. According to the National Academic Advising Association (2017), academic coaching is a collaboration between an academic coach and a student, with both focusing on the student's personal and professional goals. As Atkinson et al. (2020) pointed out, a coaching relationship, regardless of its duration, should be built on mutual trust and respect for all individuals. The participants of Capstick et al.'s study included academically at-risk and minority students. Results showed that all the students saw an increase in their grade point average. The participants who took part in multiple coaching sessions achieved a higher GPA, indicating that the number of attended coaching sessions helped to predict retention and success per semester. Academic coaching coupled with the expertise of an experienced nurse educator can help guide senior minority students through the rigorous process of clinical reasoning in preparation for clinical experiences where patients have optimal outcomes. A minority facilitator has the advantage at the first encounter by having common interests, concerns, and similar past life experiences. Coaching students through unfolding case studies can bolster student self-confidence and competence in decision-making while in autonomous situations when caring for complex patients in the clinical settings.

Jessee and Tanner (2016) pointed out that coaching has been used as a successful teaching strategy in areas of leadership, nursing practice, and education, and may include teaching, questioning, and feedback. Coaching has been used to develop positive learning dispositions (Dowd et al, 2019; Parsons et al, 2021; Peng & Wang, 2020). Parsons et al. (2021) presented a coaching program proposal for undergraduate medical students to foster professional identity formation, promote clinical competence, and build trust. Parsons et al. suggested that coaches build a trusting relationship by asking questions instead of telling or instructing students

in what to do in medical decision making. They also recommended promoting clinical competence through coach-learner meetings to discuss self-regulated learning processes. Fostering identity formation occurs when learners actively reflect on their progress and experiences (Parsons et al., 2021).

Peng and Wang (2020) performed a quasi-experimental intervention study, reporting that improving the learning disposition of mindful agency through coaching increased self-efficacy as well as meta-cognition. Dowd et al. (2019) described learning dispositions as students' personal dimensions, particularly motivation, self-efficacy, and epistemic beliefs, which can change in response to teaching strategies and can affect student learning processes. In the observational study by Dowd et al., the researchers suggested student learning dispositions are modifiable in response to pedagogical practices. The researcher of the current study suggests that learning dispositions may improve and broaden with the coaching strategies used by the minority facilitator. Some anticipated coaching strategies include active listening, collaboration, and constructive feedback through questioning and reflection.

Tram et al. (2020) performed a relational study that examined the impact of faculty mentoring, financial support, and incorporation of ethnic minority issues and the majority culture academic expectations on ethical and racial minority student (ERMS) program satisfaction. The authors confirmed that minority mentoring allows faculty to learn and assess the needs of ERM students and help them find ways to lessen stressors such as discrimination they may experience during their higher education journey. Tram et al. also noted that ERMS retention and success increased with diverse faculty and that the likelihood of ERM content being incorporated in class content increased as well. These results reconfirmed the findings of the phenomenological study conducted by Neville et al. (2017). Neville et al. performed observations and in-depth interviews

with 22 participants of all ethnicities, six minorities and 16 who identified as White, to obtain students' perceptions of interaction with African American faculty. The findings revealed that African American faculty positively influenced all the students, exhibiting qualities that allowed students to feel comfortable, respected, and valued. Both studies (i.e., Neville et al, 2017 and Tram et al., 2020) provide evidence of how minority faculty are essential in facilitating learning among minority students. Egalite and Kisida's (2018) study expounded on this concept as well.

Clinical Judgement

Ignatavicius (2021) explained how the National Council of State Boards of Nursing (NCSBN) evaluates licensure exams every three years to determine the skills and competencies required for safe nursing practice, which are often gleaned from the nursing process. She described the evolution of the nursing process and how educators continue to use this approach today as a way to teach critical thinking and clinical decision-making. As nursing's scope of practice expands (NCBON, 2022; NCSBN, 2022) with advances in healthcare and the rising number of patient errors, Ignatavicius identified the need for schools to shift to a less linear approach. She suggested such models as Tanner's (2006) clinical judgement model and the National clinical judgement measurement model (NCJMM). The nursing process provides the groundwork to Tanner's model and the NCJMM, both of which require students to employ non-linear and dynamic cognitive skills. Tanner's model helps educators and students to assess metacognitive growth throughout a term and/or semester. The NCJMM helps to evaluate the effectiveness of Tanner's model and the ability of the educator to deliver content in a way that is learnable as evidenced by students' growth in clinical judgement, whereas Jenkins' (1983) CDMNS provides students with an accurate self-evaluation of their clinical judgement skills.

Munn et al. (2021) performed a mixed-methods study with a pre and postsurvey design. The authors assessed the impact of student-led and faculty-led simulation using unfolding case-

study scenarios with undergraduate nursing students' clinical judgement in pediatric nursing knowledge, skills, and clinical judgement/decision-making abilities. The researchers used Friedman's ANOVA to analyze the quantitative data and identified four emerging themes. The survey used was adapted from the Perceived Confidence in Pediatric Knowledge and Skills Questionnaire and, a 5-question open-ended survey was used with the post-simulation surveys, allowing students to elaborate on the experiences. The quantitative and qualitative data revealed positive feedback from both simulation experiences. The unfolding case studies with the instructor-led simulation revealed the most improvement in learning and comfort with nursing skills. The results of Munn et al.'s study solidified how unfolding case studies improved students' self-confidence and nursing skills in the simulation experience. Sherrill (2020) suggested a similar strategy using the National Council of State Boards of Nursing's Clinical Judgement Model in the classroom and clinical setting to improve critical thinking and decision-making.

The National Council State Boards of Nursing performed research that indicated the testing items on the licensure exam were not effective measures of clinical judgement for current nursing practice (Sherill, 2020). As a result, the Next Generation NCLEX-RN® (NGN) project (Brenton, 2018) was created to improve the summative assessment of a graduate nurse to ensure competency prior to entering nursing practice. Nursing schools need to identify and revise areas in their curriculum where new teaching strategies may be implemented to improve students' clinical judgement. Unfolding case studies in senior level courses provide the formative evaluation needed for students and educators to identify areas where clinical judgement may be improved.

Ma and Zhou (2022) conducted a study to examine if unfolding case-based learning was an effective learning technique for learning health assessment skills as compared to traditional learning methods in China. A quasi-experimental design was used. The intervention group used unfolding case-based learning, whereas the control group used traditional learning techniques. Critical thinking was assessed using the California Critical Thinking Disposition Inventory (CTDI) and the clinical judgement questionnaire was developed by a research team. Descriptive statistics were used and independent-samples *t*-tests and Chi-square tests to compare differences. There was statistical significance when comparing academic achievement, critical thinking, and self-confidence between and within groups. The total average critical thinking scores, (272.52), were higher than the control group (266.72) post intervention. As the article points out, the use of unfolding case-based learning is beneficial, but there were limitations to the study, such as non-random sampling, small sample size, and time frame and academic scope of the study (i.e., one semester and one subject area). The results of this study support the concept of pre-learning to equip students with knowledge and understanding in preparation for clinical experiences and summative assessments such as comprehensive exams and the NCLEX-RN® (NCSBN, 2022).

Padgett et al. (2020) implemented an evolving case study throughout an undergraduate curriculum and an advanced master's level course, which was also being considered for use as a comprehensive final exam. The study not only centered on one person's healthcare journey, but also incorporated the patient's entire family, thus involving family dynamics, which is a concept nurses must consider when caring for their patients yet is often overlooked by other disciplines. Unfolding case studies help to develop understanding of the patient and family unit as a whole, and not as a fragmented segment. Unfolding case studies can assist in student learning as they relate to how clinical decisions may affect more than just the patient.

Mann (2018) described Tanner's (2006) clinical judgement model and Benner's (1984) clinical competence stages to be essential underpinnings for professional reasoning in the development of academic advisors. She stated professional reasoning is analogous to Tanner's definition of clinical judgement, implying professional reasoning is a level of problem solving and critical thinking applied within the context of an advisor's role. She makes an important distinction between the two models: Tanner's model describes clinical judgement as being applied in real time by nurses, whereas Benner's model suggests a long-term developmental process. Tanner recognizes that clinical judgement relies on learned knowledge such as pathophysiology of a disease process, but it also requires immediate unscripted real-time evidence-based responses for intended outcomes. Benner and Tanner (1987) may consider this to be *intuition* for expert nurses. Mann realized the need for fluidity and noted that both short-term and long-term frameworks are necessary to provide advisors an understanding of potential decisions and adaptive behaviors. Mann provided a parallel for Tanner's four aspects clinical judgement to the academic advisor's professional reasoning process. She concluded that professional reasoning, as with clinical judgement, creates a leading, well-equipped advisor, and noted that intuition is not inborn, but may be developed. These implications are true in nursing as well. Using a systematic process of thinking and intellectual processing such as Tanner's model, aligns with advancement of clinical judgement in real-life situations for minority nursing students.

Sommers (2018) performed a review with relevant searches in PubMed, CINAHL, ERIC, PsychINFO and ProQuest databases to determine what tools were being used to evaluate critical thinking and clinical judgement among ethnically diverse nursing students. She pointed out that culture affects learning and therefore can affect the way a student develops clinical thinking,

reasoning, and judgement. She cautioned educators to find or adapt tools that are culturally applicable, which can influence critical thinking among the minority students utilizing the tool. Sommers found the most common tool used to measure clinical judgement was the Lasater Clinical Judgement Rubric (LCJR), most often used in studies in the United States. She noted there are two major challenges when using such tools; one being the translation may not reflect learning and teaching skills in the minority student's culture, and the other is the cost of the tool for nursing programs in different areas of the world. Sommers concluded that by acknowledging the need for tools used to measure critical thinking, clinical reasoning and clinical judgement should be culturally adapted to improve minority nursing students' success.

The LCJR has been used frequently with many studies in the past, yet Jenkins' (1983) Clinical Decision-Making Nursing Scale is used in this study to assess clinical judgement among senior minority students' post-intervention because of its effectiveness in relating questions to real clinical experiences. The self-evaluation contributes to the students' self-perception of their ability to apply clinical judgement when making real-time decisions for their patients. This is an effort to prepare students for the new NCLEX-RN® test format. The National Council of States Boards of Nursing's [NCSBN] (2022) decision to change the format of the NCLEX-RN® (NCSBN, 2022) was to parallel acute care settings as well as set the groundwork for better patient, nurse, and institution outcomes with a focus on critical thinking, clinical reasoning, and ultimately clinical judgement. The NCSBN clinical judgement measurement model (NCJMM) is a framework educators may use to measure clinical judgement in summative evaluations at the end of units, courses, and/or clinical rotations, whereas Tanner's (2006) model is a framework used in formative assessments throughout a course to guide students through learning activities such as unfolding case studies.

Smith (2020) performed a qualitative descriptive study using Tanner's (2006) clinical judgement model to examine perspectives of the benefits and challenges of guided reflective writing for clinical judgement development following clinical experiences among upper-level nursing students. Reflection is an effective tool in nursing education (Bagheri, 2019), especially when educators can provide students with situations to provoke the need to achieve desirable patient outcomes. Students and faculty may then analyze and evaluate student actions and patient responses through reflective activities such as writing, discussing, and or dialoguing experiences.

In Smith's (2020) study, students received an open-ended survey, whereas faculty participated in a focus group discussion. After the clinical experiences were completed, students performed a writing assignment using the elements of Tanner's (2006) model. Noticing involved the students recalling a patient description, whereas interpreting responses caused the students to rely on what was noticed. Responding involved the students recalling the goals set for the patient as well as the intervention performed, and reflection caused the students to think about other possible interventions that could have supported patient outcomes. Smith created a rubric based on the Lasater Clinical Judgement Rubric that focused on clinical expectations, which helped guide students in their written reflection. After data collection and analysis, themes and subthemes emerged. By using Tanner's Clinical Judgement Model as the framework for the open-ended questions, the results supported guided reflection and clinical judgement development. Critical thinking is not clinical judgement, yet is a cognitive process leading to clinical reasoning to arrive at a clinical decision, and it is at this point that reflection can occur (Smith, 2020). Smith acknowledged the limited generalizability of the study, as only one site was used, and only upper-level students participated. She also noted "groupthink" could have occurred among the focus group, thus minimizing the perspective of those who did not speak.

Uppor et al. (2022) performed a concept analysis of clinical judgement in nursing students using Walker and Avant's (2011) eight steps of analysis framework. Uppor et al. pointed out the impact of COVID-19 on nursing education and how new graduates and novice nurses' clinical judgement has been influenced. The article focused on defining the antecedents, attributes, and consequences of clinical judgement, all of which help to promote clarity among educators as well as nursing students. Klenke-Borgmann et al (2020) performed a sequential literature review to define clinical judgement and the current measurement tools being used to measure it. One repeated and key point the authors made was how clinical judgement is used interchangeably with critical thinking and clinical reasoning, and although the concepts overlap, there are differences. Uppor et al. (2022) provided a pictorial view of the listed antecedents → attributes→ consequences. The illustration closely corresponds with Tanner's (2006) Clinical Judgement Model, with the authors providing brief explanations of the attributes. The article concludes by emphasizing the importance of nursing curricula to promote students' clinical judgement to prepare them to respond to patients' needs. Uppor et al. recognized a clear understanding that clinical judgement is a necessity to adequately assess nursing students' learning in efforts to implement safe nursing practice nursing care quality and patient safety.

Flowers et al. (2022) expanded on 10 academic factors predicting NCLEX-RN® success among BSN minority students in a predominantly ethnically diverse university. Independent *t*-tests were conducted, and statistically significant differences were found between NCLEX-RN® passing and failing groups on four of the 10 predictor factors. Though the study results indicated the two best predictors of passing were science grade point average (GPA) and the Assessment Technology Institute (ATI) Capstone Assessment B, the authors asserted that the challenge is to find strong predictors of NCLEX-RN® failure, allowing for efforts at remediation to help

students pass the exam on their first attempt. In the cross-sectional study design conducted by Brown et al (2021), the authors used the Academic Success Inventory for College Students tool to measure 10 academic factors. They noted areas of remediation included higher levels of anxiety and fear with test taking and studying, as well as students' perceptions of faculty ability to teach. These areas of remediation found in both studies may be addressed when implementing unfolding case studies with a minority facilitator by introducing a student-centered approach to guide students in processing information in the classroom as well as in patient care settings.

Victor-Chmil (2013) explained the differences between critical thinking, clinical reasoning, and clinical judgement. She noted, as previously mentioned, that these phrases are often used interchangeably, and offered clarity among all three. Interestingly, she pointed out critical thinking crosses over into several disciplines and is not specific to nursing, and therefore the tools to measure critical thinking could be used outside of the nursing domain. Jin and Ji (2021) performed a quantitative cross-sectional study that compared and explored the metacognitive ability, self-directed learning, and critical thinking of nursing students in China. The authors defined critical thinking as an active thinking process that incorporates logical interpretation, reasoning, analysis, and evaluation in order to make accurate evidence-based judgements when faced with complicated patient situations. Victor-Chmil (2013) also noted that critical thinking is an essential component of clinical reasoning, as well as other authors (Tanner, 2006; Kuiper & Pesut, 2004, Rischer, 2017), and concluded that critical thinking occurs in a clinical environment involving scientific knowledge and experience. At the time of the study, Victor-Chmil did not find any valid and reliable tools to measure clinical reasoning, but suggested practices such as journaling and the use of decision trees. Victor-Chmil relied on Tanner's (2006, p. 204) definition of clinical judgement, "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 improve new ones as deem appropriate by the patient's response." Rischer (2017) noted that critical thinking in conjunction with clinical reasoning leads to clinical judgement outcomes that require active learning in the academic and clinical environments. Victor-Chmil noted the LCJR tool is valid and reliable but does have limitations.

Coram (2016) performed an experimental research study with a pretest/posttest design to determine the effect of pre-briefing strategy involving expert role modeling and clinical judgement scores in simulation. Dix et al. (2021) used semi-structured interviews and facilitated simulation debriefs to explore senior nursing students' clinical judgement skills following an immersive simulation. Coram used Bandura's (1991) social cognitive theory's constructs to support student modeling behavior adaptation if outcomes are favorable and the behaviors are valuable. She incorporated Tanner's (2006) model of clinical judgement concepts in a pre-briefing video and a written document analyzing the role model data to decide if the interventions were based on clinical judgement. Dix et al. also used Tanner's model to guide students through the phases of the debriefing discussion. The study's participants were of a convenience sample from a midsize university in the western United States, randomly assigned to clinical groups which were then randomly assigned to seminars. Interestingly, those participants assigned to the first set of seminars were part of the control group and the final set of seminars consisted of the treatment group, which viewed the additional role model video recording.

Coram (2016) used the Lasater Clinical Judgement Rubric (LCJR) as a communicative tool, as well as for formative guidance and feedback. The LCJR uses the same four constructs developed by Tanner (2006), thus is a sufficient tool for students to self-rate clinical judgement.

The results showed a lack of significance was found among students' clinical judgement scores in the treatment group, yet when external blinded faculty assessed clinical scores there was a significance. Coram concluded the lack of significance among student scoring may have been related to the students' inadequate training on how to use the rubric, resulting in measurement error. She also suggested further research be completed at more sites with random sampling.

Tesoro et al. (2020) performed an experimental pretest/posttest study involving second semester nursing students in two schools of nursing that evaluated the effects of written clinical reasoning prompts to guide students' clinical reasoning processes. The researchers used the Developing Nurses' Thinking (DNT) model as the framework for the prompts. The independent variable was the prompts, whereas the dependent variables were clinical judgement identification of the most accurate patient problem and the cues in the case study supporting the priority problem. Groups were randomized into control groups and intervention groups. All groups received pretest and posttest case studies; only the intervention groups received prompts to guide them through reasoning processes. Though there were improvements among the intervention groups using the prompts, there were no statistically significant findings. The researchers checked other confounding variables that could have impacted the study, but no statistically significant differences were found. A poststudy evaluation revealed that students in both groups felt more confident in identifying a patient's problem than the ability to identify pertinent cues to a patient's problem. After no significant differences were found, the researchers performed additional analysis, and of the students (approximately 30%) who did identify the most accurate patient problem, only 50% of these students identified respiratory rate as an important clue. The study did not use the fourth construct of the model, which involved repeated use of the DNT model. The one-time use of prompts could have contributed to the study's finding of no

statistical significance. Tesoro et al.) concluded that educators have a responsibility to make sure disease processes and all relevant assessment findings should be stressed throughout curricula. By doing so, students can link findings to the level of risks, which then leads to priority reasoning and decision making when implementing nursing interventions. Threading a clinical judgement model, such as Tanner's (2006) model of clinical judgement throughout a curriculum creates a familiarity with the nursing and medical language used in the healthcare setting, thus helping students to interpret clinical situations in order to determine effective interventions.

Pence (2022) performed a mixed-methods descriptive study that investigated nursing students' perceptions of learning with NGN-style case studies. Pence supplied possible reasons regarding nursing student's ability to transfer and apply learned knowledge to the clinical arena. Some contributing factors included limited clinical experiences and limited availability to clinical sites relative to the course content (National Council of State Bords of Nursing, 2021). Pence presented the students with revised traditional case studies that simulated the new NGN unfolding case studies. At the end of the term, students were given a survey and the data were collected and analyzed. The unfolding case studies included five of the six cognitive skills of the NCSBN clinical judgement measurement model (NCJMM), closely aligning with Tanner's (2006) model of clinical judgement (Ignatavicius & Silvestri, 2022). Quantitative results of Pence's study indicated a myriad of benefits the case studies provided: helpfulness in learning, the ability to apply course concepts, learning to use clinical judgement, promoting active learning, and other active learning strategies. The qualitative results identified three themes: critical thinking, real-life application, and a tool for learning. Pence's study helps to solidify the use of unfolding case studies throughout a term for a cohort of students rather than only for a make-up assignment for one or two students due to a missed clinical day.

Pence' (2022) findings help to explain the results of Bussard's (2018) study, which implemented high fidelity simulation (HFS). HFS is an experience using patient simulators providing a high level of interactivity and realism for the student nurse (National League of Nursing-Simulation Innovation Resource Center [SIRC], 2013,) usually in a higher education setting. Bussard performed a descriptive study to examine the differences in clinical judgement over time. Participants were given HFS scenarios every three to four weeks throughout one semester in a medical-surgical course that coincided with the classroom content. The briefing was completed by a facilitator. Bussard used the Lasater clinical judgement rubric (LCJR) as the instrument of measurement for each HFS provided. To remain consistent, the same facilitator completed the LCJR for each student after every HFS scenario was completed. The results of Bussard's study illustrated there was a progression of clinical judgement throughout the semester when analyzing, with each student having a positive ranking. The findings express the importance of tracking and evaluating the progression of clinical judgement to formatively assess teaching strategies in preparation for the NGN. Using Jenkins' (1983) Clinical Judgement tool in the current study after the implementation of unfolding case studies has provided such an assessment.

Duarte et al. (2021) pointed out when educators use innovative strategies to deliver information, students can use the learned knowledge and apply it to healthcare settings. Unfolding case studies allow students to experience potential scenarios prior to and in conjunction with clinical experiences; it is this knowledge that is then internalized and can take on new meaning, allowing students to organize and prioritize tasks and responsibilities. This critical thinking process helps students to reflect on clinical reasoning before and after decision-making occurs. Duarte et al. described decision-making as the final stage of clinical thinking in

the resolution of patient situations. Their study used the CDMNS, which was translated into Portuguese (CDMNS-PT), to establish an effective tool for measuring clinical judgement among Portuguese nursing students.

Summary

Clinical judgement is a relatable concept when experiences are identifiable. Nursing students often do not know how to answer the infamous "Why?" when asked by the nurse educator regarding the care of patients, especially ethnically diverse patients. Yet, educators are accountable to make sure students are equipped with knowledge to provide adequate and safe care based on sound critical thinking and clinical reasoning. A minority facilitator provides the recognizability minority students often search for in order to enhance their confidence in decision making. By implementing Tanner's (2006) model, a minority facilitator can engage students in activities of clinical reasoning and decision making; the essential components of clinical judgement while prioritizing care based on patients' cultural and social norms. Minority facilitators can emulate the essential proponents of Leininger's (1991) theory as role models in the classroom and clinical settings, assisting minority students as they build on their clinical experiences and professional values. The culture care theory (1991) provides educators and students with strategies that foster cultural care decision-making and reflection well beyond this study. Minority students gain a sense of community among peers and faculty. In addition, faculty ascertain understanding and compassion for diverse groups of students. As Dillon and Pritchard (2022) pointed out, multicultural work within learning spaces can help minority students relate to each other, understand one another, and grow and change together.

Clinical judgement refers to the student's ability to use learned nursing knowledge and experiences to assess healthcare situations and identify and prioritize patient issues and concerns

resulting in the best possible evidence-based solutions and decisions in order to deliver safe and effective patient care; and finally evaluate patient responses through self -reflection (Tanner, 2006; Rischer, 2016; Bussard, 2018). Clinical judgement can increase one's certainty of knowledge, leading to solid evidence-based decisions that benefit all patient populations. Clinical decisions become both patient and family centered. The current study adds a new layer to educational research regarding advancing clinical judgement among minority nursing students with the use of unfolding case studies. Research has augmented the need to find new ways to increase the number of minority nursing student graduates in an effort to combat the nursing shortage across the United States (AACN, 2019; Cary et al. 2020; NLN, 2016). The National League for Nursing's (2016) vision statement informs educators and learners of the importance to increase diversity in the workforce, which in turn may increase access to healthcare for all ethnicities, helping to close the healthcare disparity gap in the United States. One way to achieve this goal is for schools of nursing to use the culture care constructs of Leininger's theory (1991) when developing techniques that equip minority nursing students to answer the "why" and the "how" behind the "what."

Cary et al. (2020) pointed out how organizations and institutions have a responsibility to embrace diversity; to incorporate diversity in their expectations and philosophies, as well as include diversity in the institutions' values and experiences. Leininger's (1991) theory augments the rationale of diversity as a part of the organizational culture and curriculum in nursing schools; changing the learning environment to promote clinical reasoning in classrooms in preparation for healthcare and community settings. Advancing clinical judgement through unfolding case studies with diverse cultural themes can facilitate student success, producing more minority nursing student graduates to serve a very diverse population.

CHAPTER THREE: METHODS

Overview

The chapter consists of the methods used in this research study. This quasi-experimental posttest survey between-groups study examined the clinical judgement scores measured by the Clinical Decision Making in Nursing Scale (Jenkins, 1983), obtained between senior level minority students using unfolding case studies with a minority facilitator and those with a non-minority facilitator. It has been documented that case studies improve clinical judgement, yet little is known as to what degree among senior level minority nursing students when facilitated by a minority faculty member. Several authors (e.g., Benner, 2004; Jenkins, 1983; Rischer, 2017; Tanner, 2006) confirm that critical thinking and clinical reasoning are required aspects of clinical decision making and clinical judgement, which are mandatory to take care of patients effectively and safely in any healthcare setting. Leininger's (1991) theory proposes when nurses are genuinely familiar with the cultural and social practices of the people, there are better outcomes. The contents of this chapter include a description of the study's design, research questions, hypothesis, participants, setting, and the data analysis.

Design

This study was a quasi-experimental posttest survey between-groups design. This type of quasi-experimental design is recommended to compare differences between two or more groups (Creswell & Creswell, 2018). Patten and Newhart (2018) stated the essential characteristics of this type of design include the researcher's observations and descriptions of current conditions, as well as looking to the past to find potential causes of the condition. This study implemented unfolding case studies presented by two ethnically different facilitators with senior level nursing students, and then compared the clinical judgement scores from a posttest survey. The posttest

survey aspect of the study allowed the researcher to primarily assess if facilitator ethnicity effectively increased senior minority students' clinical judgement when comparing CDMNS scores of students who completed an unfolded case study with a minority facilitator to those scores of students who completed an unfolded case study with a non-minority facilitator.

There are several benefits of this type of design. Quasi-experimental studies are less expensive than true randomized experiments. They are generally less time-consuming, as substantial information may be obtained in relatively short time frames. There are disadvantages to using this design; Schweizer et al. (2016) pointed out there is no randomization, and collecting retrospective data can be challenging. Random sampling was not used, yet random assignment of the facilitator video recording was assigned using a randomization tool when the student accessed the link to the video. Random assignment improved the internal validity of the study (Bhandari, 2022) and therefore created more of a causal link between the facilitators' ethnicity and clinical judgement scores. The researcher recorded clinical judgement scores for all participants upon completion of the CDMNS and compared the results of those participants who viewed the recording presented by the minority facilitator to those who viewed the recording presented by the non-minority facilitator.

Research Question

The research question is:

RQ1: Is there a statistically significant difference between clinical judgement scores, as measured by the CDMNS, of senior minority nursing students who are presented unfolding case studies by a minority facilitator and the clinical judgement scores of senior minority nursing students who are presented unfolding case studies by a non-minority facilitator?

Null Hypothesis

$H_0$1: There is not a statistically significant difference between clinical judgement scores, as measured by the CDMNS, of senior minority students who are presented unfolding case studies by a minority facilitator and the clinical judgement scores of senior minority nursing students who are presented unfolding case studies by a non-minority facilitator.

Hypothesis

H1: There is a statistically significant difference between clinical judgement scores as measured by the CDMNS, of senior minority students who are presented unfolding case studies by a minority facilitator and the clinical judgement scores of senior minority nursing students who are presented unfolding case studies by a non-minority facilitator.

Participants and Setting

The population included adult minority nursing students enrolled in the senior level of a nursing program. The researcher received the Requirements for Request to Use the National Student Nurses' Association Membership Database (Appendix A), collecting data from minorities within this online population of the United States. A convenience sample was obtained. According to the results of an *a priori* analysis using the calculation tool developed by Faul et al. (2007) for an independent-samples *t*-test, the following parameters for the difference between two independent means with one-tail hypothesis using an effect size d of 0.8, α err prob of 0.05, and a power of 0.80 would require a total sample size of 42 with each group having 21 participants. The response quota was exceeded in five days for a total of 172 responses, 65 participant responses met the criteria. Thirty-one participants viewed the non-minority facilitator and 34 viewed the minority facilitator. There were no restrictions on the student's gender or grade point average. Minorities were the focus of this study; therefore, descriptive statistics

(Table 4.2) included ethnicity data from the participants. No Pacific Islanders data were obtained due to no participation, did not complete the survey, and/or did not meet the criteria.

Participation was voluntary, yet participants needed to meet pre-determined criteria: currently enrolled in an advanced level nursing course and considered self as a minority. Participants provided gender and ethnicity for the sample demographic characteristic (Table 4.1). Gender, ethnicity, and race options were based on the Office of Management and Budget (OMB) Standards (The Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity, 1997). The researcher requested IRB approval from Liberty University after defending the study's proposal (Appendix B) prior to the recruitment email (Appendix C) being sent to perspective participants with an embedded link to the informed consent (Appendix D). Once informed consent was accepted by the students, they were able to access the recording (Appendix E), the unfolding case study and answer key (Appendix F), as well as the CDMNS survey (Appendix G).

A minority facilitator and a non-minority facilitator recorded the same case study, which was distributed to the students via the survey (Appendix G). The researcher obtained verbal permission from the non-minority facilitator who holds a doctorate in nursing and is employed as nursing faculty by a School of Nursing in North Carolina. She willingly participated in this study as the non-minority facilitator. The researcher met with the non-minority facilitator and discussed expectations and the format of the case study recording. Distribution of the recorded case study occurred according to the timeline designated by the researcher and the organization's representative. Each recording from the respective facilitators was reviewed by the dissertation committee for accuracy and consistency.

Instrumentation

The correct research instrument is essential to provide accurate results for the purpose of the research performed. This study used the Clinical Decision Making in Nursing Scale (Jenkins, 1983). The purpose of the instrument was to measure student self-perception of clinical judgement.

Clinical Decision Making in Nursing Scale

Jenkins' (1983) Clinical Decision Making in Nursing Scale (CDMNS) is a 40-item survey with four subscales of the decision-making process (Appendix G). Each item is scored from 1 to 5 with participants potentially receiving a combined possible score range of 40 to 200 total points. Higher total scores indicate higher levels of clinical judgement. The four subscales are: Search for alternatives or options (14 items), Canvassing of objectives and values (8 items), Evaluation and re-evaluation of consequences (10 items), Search for information and unbiased assimilation of new information (8 items). The purpose of the tool is to examine students' self-perception of their decision-making skills based on the subscale areas within the survey, using a Likert scale of Always, Frequently, Occasionally, Seldom, Never for scoring (Jenkins, 1983). Responses were as follows: Always = 5, Frequently = 4, Occasionally = 3, Seldom = 2, Never = 1. Cronbach's alpha reliability coefficient was .765 for the 40 items in this study.

The tool was intended to evaluate clinical judgement from the perspective of its necessity in making sound decisions. Content validity of this tool was established during tool construction by performing a pretest of the tool, piloting testing among volunteers and nurse educators, who evaluated and critiqued the tool (Jenkins, 1983). Jenkins (1983) used the Statistical Package for the Social Sciences (SPSS) to assess reliability using Cronbach's alpha, resulting in a final Cronbach's alpha of 0.83. This is a 40-item survey divided into four categories that explores self-perception of one's clinical decision-making ability. Of the 40 items, 18 are negative statements (Duarte & Dixe, 2021).

This scale has been used in previous studies that evaluated clinical decision making among different levels of nursing and performance. Byrnes and West (2000) performed a study using the CDMNS to evaluate the perceptions of nursing students in clinical decision-making in Australia. In this study reliability and validity were not reported. Whereas, Girot (2000) used the CMDNS to determine the differences in decision making ability in practice among groups of Canadian graduate nurses and traditionally prepared practitioners, Cronbach's reliability was .78 and content validity was established for Girot's study. Baumberger-Henry's (2005) study involved measuring students' perceptions of their problem solving and decision-making skills when in cooperative learning environments using case studies. The Cronbach's alpha reliability coefficient was .82 for the 40 items. In Durmaz and Sarikaya's (2015) study the CMDNS was used to evaluate clinical decision making among undergraduate students in Turkey. Their study tested reliability with a Cronbach's alpha coefficient of .78 and construct validity with factor analysis. In addition, Durmaz and Sarikava had eight expert nurse educators evaluate the CDMNS tool for content validity. Linguistic validity was performed to ensure language and culture from English to Turkish were accurate. Finally, Canova et al. (2016) devised an Italian version of the CDMNS tool to assess changes in decision-making among Italian nurses and nursing students over a 15-year span. Though no specific validity was named in the article, the authors did state two Italian expert translators were used to translate the survey independently and then compared, discussed, and agreed upon by a panel of experts.

Demographic Information

After completing the posttest, three demographic survey questions (Appendix H) were added to obtain senior/advance level status, gender and ethnicity for descriptive statistics. Gender and ethnicity are obtained to note the inclusiveness of ethnic groups. Displayed ethnicity and race options were chosen based on the Office of Management and Budget (OMB) Standards

(The Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity, 1997).

Procedures

The researcher obtained preliminary permission to research study requirements from the National Student Nurses Association (Appendix A). Verbal permission of non-minority nurse educator has been obtained. The researcher was the minority nurse educator and was the minority facilitator. The researcher completed the requirements outlined by the NSNA (Appendix A).

This researcher has an annual membership to *Think Like A Nurse* (Rischer, 2022); therefore, the Complex Clinical Reasoning Case Study template (Rischer, 2016) was free to access and used with participants as the unfolding case study - facilitator and student copies. Permission was granted for the use of the case study answer key and student copy template (Appendices F and I). The template allowed students to work through all the steps of clinical judgement as defined by Tanner's (2006) Model of Clinical Judgement. Utilizing this tool also aided students to progress through Bloom's (1956) cognitive levels: knowledge, comprehension, application, analysis, synthesis, and evaluation.

Jenkins' (1983) Clinical Decision Making in Nursing Scale (CDMNS) tool (Appendix G) was found within the public domain and was duplicated with appropriate acknowledgment (Waltz & Jenkins, 2001). No formal permission letter to use this tool was required. The survey tool was distributed as the posttest once students had viewed the facilitator recording of the case study.

The recruitment email (Appendix C) provided a direct link to the informed consent. The researcher asked the organization to resend the recruitment email four weeks after the initial

email to ensure an adequate number of participants. Once the informed consent was signed, students were directed to the video recording, the Complex Clinical Reasoning Case Study Template, as well as the CDMNS. Participants who completed and submitted the CDMNS survey tool were compensated for their time in the form of $10 Amazon e-gift card if they voluntarily provided their email addresses at the end of the survey. There was a total of 109 participants who submitted their email address in a separate survey; three duplicate email addresses were found. Amazon e-gift cards were sent to eligible participants two weeks from the start date of the survey. The compensation was to offset the participants' opportunity costs, as well as serving as a thank you for their contribution to this educational research (Office for Human Research Protections, 2019). This was an anonymous study; however, only confidentiality was guaranteed to the participants who voluntarily their submitted email address.

An informational email and meeting were provided for the non-minority facilitator to introduce the elements of the study and provide instructional training to the role of the facilitator. The content of the case study was consistent in both video recordings (Appendix D), yet the minority facilitator was able to add the personal perspective as a minority (i.e., seasonings discussed in both video recordings, and minority facilitator referred to personal use of common seasonings used in minority households). The video was pre-approved by the dissertation committee prior to the IRB application process. The researcher communicated via email with primary members of the participating organization and Liberty University's dissertation committee.

Once informed consent was granted via the online recruitment email, participants were able to access the recording, the unfolding case study template (Appendix I), the answer key (Appendix F), and the posttest CDMNS survey (Appendix G). There were no restrictions on the

student's gender or grade point average (GPA). Minorities were the focus of this study; therefore, ethnicity demographics were obtained to note the inclusiveness of ethnic groups for descriptive statistics. The participant demographics included gender and race/ethnicities.

The procedures for this study were as follows: Consent and questionnaire (CDMNS) were sent to potential participants via the organization's website. (Week 1). Once consented, students clicked on a forward tab, which randomly assigned a video the same unfolding case study with a minority or the non-minority facilitator. During the 23-minute recording, the minority or non-minority facilitator asked prompting questions related to noticing, interpreting, responding, and reflecting (prompts were provided by researcher) to assist students to optionally complete the Student Copy case study template. Students did not have to submit the template. Time frames are outlined in the consent. After viewing the video, students were directed to the CDMNS posttest survey, which was eight minutes in duration. Upon completion of the CDMNS survey, there was an optional question to provide the participant's email address for a compensatory electronic $10 e-gift card. Data collection and analysis, interpretation, and reporting were conducted through SPSS. Written APA formatted reports were distributed to the dissertation committee.

Data Analysis

After data collection, the independent-samples *t*-test was conducted using SPSS to examine whether the difference in clinical judgement scores, as measured by the CDMNS, between senior minority nursing students who had viewed a minority facilitator and those who had viewed a non-minority facilitator was statistically significant. This analysis was chosen by the researcher to find out whether or not the independent variable (facilitator: minority, non-minority) affected the dependent variable (the clinical judgement scores).

Descriptive statistics were used to quantitatively evaluate results from the CDMNS survey using SPSS analysis. Cronbach's alpha was used to test reliability for this study. Cronbach's alpha measures internal consistency between items in a scale. Cronbach's alpha for the CDMNS in this study was 0.765. Descriptive statistics for the CDMNS survey tool included mean, *M*, standard deviation, standard error mean, and the number of participants, *N*. The independent-samples *t*-test was used to compare the means of the two groups. Cohen's *d* was used to denote effect size and sample size in the *a priori* analysis. Cohen's *d* is known as the difference of two samples means and it is divided by the standard deviation from the data. The significance level of 0.05 and the statistical power of 0.80 was chosen in the *a priori* analysis.

There were a total of six assumptions for the independent-samples *t*-test. Three main assumptions related to this study's design and the measurement tool used when considering the statistical test (Laerd Statistics, 2022). The three additional assumptions related to the actual collected data (Laerd Statistics, 2022).

Ethical Considerations

This study's goal was to gain insight into whether or not the ethnicity of a nurse educator as a facilitator made a difference in the clinical judgement among senior minority nursing students using unfolding case studies. Ethical considerations included obtaining ethical approval from the IRB of Liberty University prior to collecting data and getting permission letters from the NSNA, as well as Dr. Rischer, the creator of the unfolding case study (Appendix J). Participants were informed in the recruitment letter and informed consent that participation was voluntary, and individuals could opt out at any point of the study. The informed consent provided the purpose, benefits, and minimal risks of the study. Participation was voluntary, and results were anonymous and did not affect NSNA membership. Participants were protected from

harm. The researcher does not have membership in the NSNA organization, nor was there any student relationship, therefore no posed threats existed. Compensation in the form of a $10 e-gift card was offered for those who voluntarily submitted their email addresses upon completion of the study in a separate confidential survey. No names are associated with the results, which have been stored on a password protected computer.

Summary

Laerd Statistics (2022) provided a flowchart to carry out independent-samples *t*-test in SPSS Statistics. According to the findings, the researcher failed to reject the null hypothesis. The researcher used SPSS Statistics procedures to run the independent-samples *t*-test, as well as appropriate descriptive statistics (Laerd Statistics, 2022). The α defined the probability of Type I errors, whereas β defined Type II errors. Determining the effect size in *a priori* allowed the researcher to establish the minimum sample size needed for statistical power, yet the post hoc analysis produced a small effect size of $d = .281$. In *a priori* analysis, using the large effect size of 0.80 would have defined how strong the relationship may have been between the two groups of scores and the facilitator's ethnicity. Type II errors occur with large effect sizes. One way to decrease these errors is by increasing the statistical power and the sample size of the study (Bhandari, 2022). Therefore, the significance level of 0.05 was chosen and the statistical power of 0.80 was chosen in the *a priori* analysis.

After collecting the data, Laerd Statistics (2022) were used to guide and prepare the data for analysis and reporting for SPSS statistics. The researcher checked for outliers in SPSS. For normality, Shapiro-Wilk tests were performed for each category of the independent variable (i.e., non-minority facilitator and minority facilitator). The significance level for each variable was $p > .05$ noting normal distribution. SPSS statistics used 95% confidence intervals, which the

researcher maintained when computing output. The researcher then interpreted the independent-samples *t*-test output.

CHAPTER FOUR: FINDINGS

Overview

The data of this quantitative, quasi-experimental posttest survey between groups analyzed whether a nurse faculty's ethnicity increased the clinical judgement scores among senior minority nursing students after viewing a pre-recorded facilitated unfolding case study. The independent variable was the facilitators' ethnicity, and the dependent variable was the clinical judgment scores obtained by the CDMNS of the senior minority student. This chapter reviews the research question and hypothesis, explains how the data were collected, and provides an explanation of the descriptive statistics and findings of the study.

Research Question

RQ1: Is there a difference between clinical judgement scores, as measured by the CDMNS, of senior minority nursing students who are presented unfolding case studies by a minority facilitator, and the clinical judgement scores of senior minority nursing students who are presented unfolding case studies by a non-minority facilitator?

Null Hypothesis

$H_0$1: There is not a statistically significant difference between clinical judgement scores, as measured by the CDMNS, of senior minority students who are presented unfolding case studies by a minority facilitator and the clinical judgement scores of senior minority nursing students who are presented unfolding case studies by a non-minority facilitator.

Descriptive Statistics

The purpose of the descriptive statistics was to provide demographic data for this study. A total of 172 participants consented and 65 completed the survey; however, 51 did not complete the survey, 20 were not in advanced/senior level nursing courses, and 36 completed the survey in

less than 6 minutes and 50 seconds. The remaining participants, $N = 65$, completed the posttest survey and were included in the final data analysis. Of the 65 participants, $n = 31$ viewed the non-minority facilitator (group 1) and $n = 34$ viewed the minority facilitator (group 2). The CDMNS survey mean (M) for group 1 was 91.10 and the CDMNS survey mean (M) was 87.74 for group 2. The standard deviation (SD) was 13.262 for group 1 and 10.601 for group 2. The posttest survey data were used to determine if changes occurred after senior minority students viewed an unfolding case study presented by a facilitator. The alpha level used to determine the statistical significance of this study was $p = 0.05$.

The demographic characteristics (Table 4.1) of the participants included students who were in the senior level course of their nursing program, their ethnicity/race, as well as their gender. The participants of each group were offered the option of "Other" when answering ethnicity/race and gender. All participants of each group included in this study were enrolled in an advanced level nursing course.

Table 4. 1

Demographic Characteristics

Characteristics	Group 1: Viewed Non-Minority Facilitator Recording	Group 2: Viewed Minority Facilitator Recording
	n	*n*
Ethnicity/Race		
American Indian/Alaska Native	2	1
Asian	6	3
Black or African American	11	5
Pacific Islander	0	0
Hispanic or Latino	3	7
Other_____	9	18
Gender		
Female	25	29
Male	6	5
Other	0	0
Nursing Program		
Advanced/Senior level	31	34

Note. $N = 65$ ($n = 31$ for group 1, $n = 34$ for group 2) online minority participants within the NSNA membership database.

Gender, ethnicity and race options were based on the Office of Management and Budget (OMB) Standards (The Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity, 1997). Ethnicity was divided into the following groups: American Indian/Alaska native, Asian, Black or African American, Pacific Islander, Hispanic or Latino and Other. Gender was divided into the following groups: Female, Male and Other.

Descriptive statistics are listed in Table 4.2. The senior minority nursing students who were presented unfolding case studies by a minority facilitator and those, question 4 of the survey, (Q4) group 2 are ($M = 87.74$, $SE = 1.818$) and the scores of senior minority nursing students who are presented unfolding case studies by a non-minority facilitator, question 3 of the survey, (Q3) group 1 are ($M = 91.10$, $SE = 2.382$). The standard deviation (SD) was 13.262 for group 1 and 10.601 for group 2.

Table 4. 2

Descriptive Statistics

Facilitator Ethnicity			Statistic	Std. Error
Q3[a]	Mean		91.10	2.382
	95% Confidence Interval for Mean	Lower Bound	86.23	
		Upper Bound	95.96	
	5% Trimmed Mean		91.09	
	Median		94.00	
	Variance		175.890	
	Std Deviation		13.262	
	Minimum		66	
	Maximum		118	
	Range		52	
	Interquartile Range		16	
	Skewness		-.275	.421
	Kurtosis		-.130	.821
Q4[b]	Mean		87.74	1.818
	95% Confidence Interval for Mean	Lower Bound	84.04	
		Upper Bound	91.43	
	5% Trimmed Mean		87.40	
	Median		86.50	
	Variance		112.382	
	Std Deviation		10.601	
	Minimum		68	
	Maximum		116	
	Range		48	
	Interquartile Range		15	
	Skewness		.350	.403
	Kurtosis		.481	.788

Note: There are no valid cases for Clinical Judgement Scores when the Facilitator Ethnicity = .000;statistics cannot be computed for this level. Q3[a] = Group 1 viewed non-minority facilitator video recording, Q4[b] = Group 2 viewed minority facilitator video recording.

The purpose of the study's survey was to measure score differences between senior minority nursing students who viewed ethnically different facilitators. The CDMNS 40-item survey had an acceptable level of internal consistency, as determined by a Cronbach's alpha of 0.765 (Table 4.3). When assessing Cronbach's alpha, according to George and Mallery (2003), the closer value is to 1, the greater the internal consistency.

Table 4. 3

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	*N* of Items
.765	.782	40

Note: Acceptable Cronbach's Alpha > .700 (George & Mallery, 2003)

Assumption Tests

The independent-samples *t*-test established the difference between two independent means with a one-tail hypothesis. To use the independent-samples *t*-test, the required six assumptions had to be met:

Assumption #1

There is one dependent variable measured at the interval level. In this study, clinical judgement scores were measured at the ratio level, using the Clinical Decision Making in Nursing Scale (Appendix G). It consists of 40 items, with a potential score range of 40 to 200. Higher scores indicate higher perceived decision-making.

Assumption #2

There is one independent variable that consists of two categorically related groups. The study's independent variable was the facilitator ethnicity, consisting of two groups: one non-minority facilitator and one minority facilitator (Appendix E).

Assumption #3

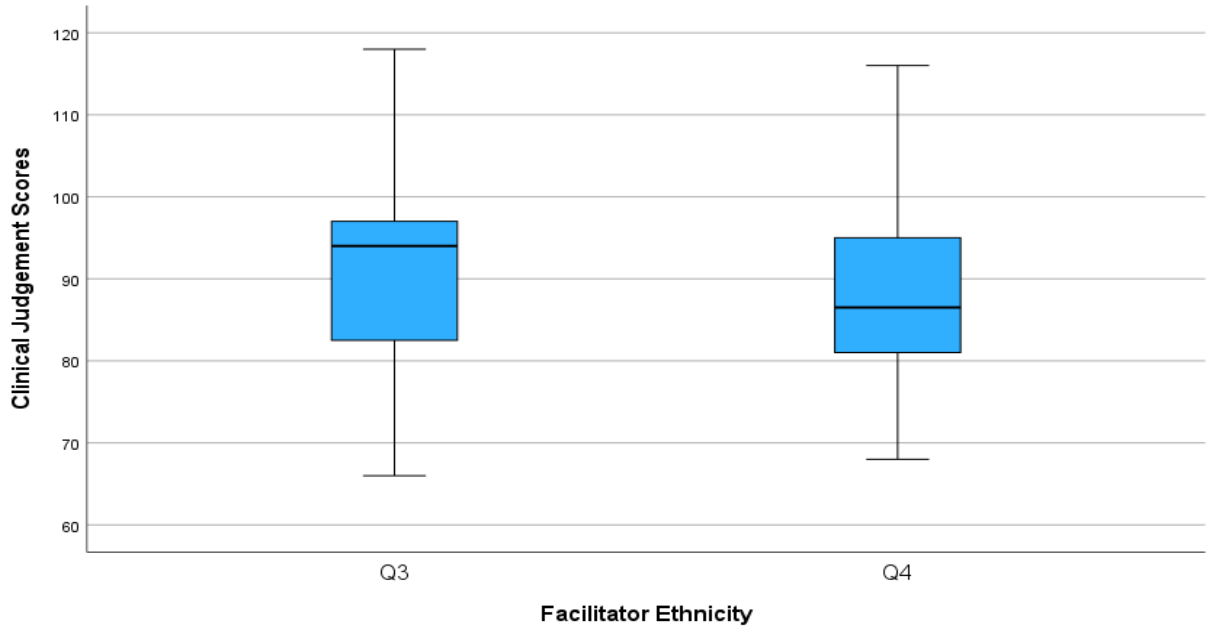
There is independence of the observations, in that neither group may influence each other. In this study each participant was randomly assigned the non-minority facilitator or the minority facilitator via a computer program (Appendix E).

Assumption #4

There should be no significant outliers in the two groups of the independent variable in terms of the dependent variable because of random assignment of video, thus alternating the facilitator's ethnicity. Participant requirements are consistent across the research setting: each participant was a senior level nursing student and a minority. Yet, due to the small sample sizes of the groups, because of their impact, any outliers should be discovered when creating boxplots in SPSS. In this study there were no outliers (Figure 4.1); therefore, no further analysis was required.

Figure 4. 1

Boxplots



Note. Clinical judgement scores: Q3 = Group 1, Non-minority facilitator recording viewed by participants; Q4 = Group 2, Minority facilitator recording viewed by participants.

Assumption #5

The dependent variable should be approximately normally distributed for each group of the independent variable. Video randomization occurred when participants tapped on the link to view the facilitator, which created an equal number of participants to complete the CDMNS survey. The Shapiro-Wilk test ($p > .05$) for normality (Table 4.4) was used to test this assumption and it was met, with $p > .215$ for group 1 and $p > .603$ for group 2. The Shapiro-Wilk test determines if the collected data are normally distributed for each group of the independent variable (Laerd Statistics, 2022), and is often recommended for smaller sample sizes. Clinical judgement scores were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$).

Table 4. 4

Normality

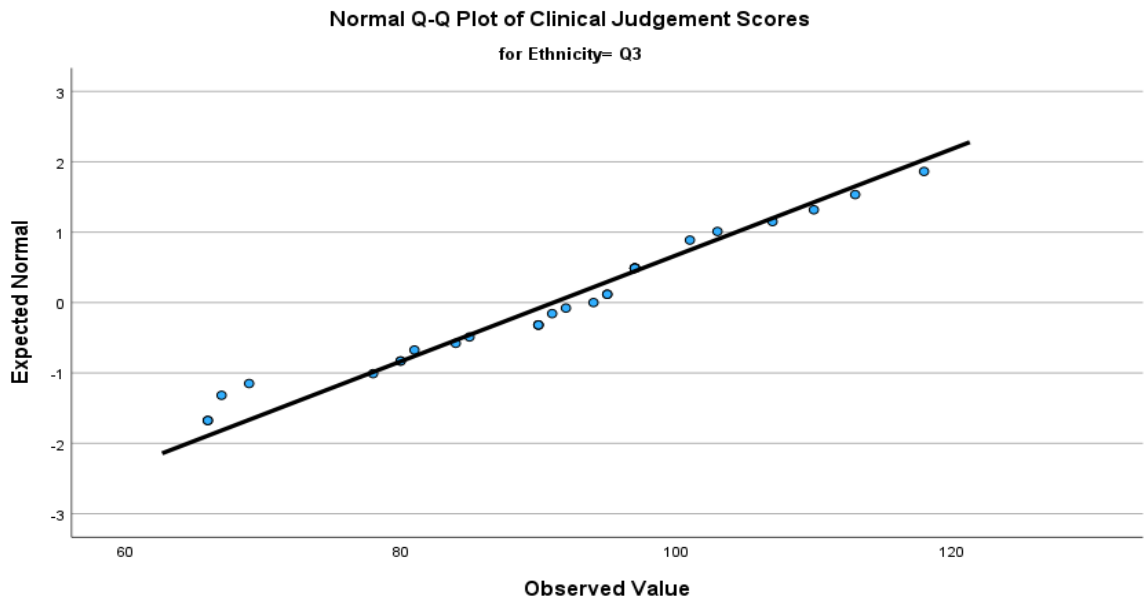
	Facilitator Ethnicity	Kolmogorov-Smirnov[b]			Shapiro-Wilk		
		Statistic	*df*	Sig	Statistic	*df*	Sig
Clinical Judgement Scores	Q3	.144	31	.098	.955	31	.215
	Q4	.104	34	.200*	.975	34	.603

Note. * This is a lower bound of the true significance.
a. There are no valid cases for Clinical Judgement Scores when Facilitator Ethnicity= .000;tatistics cannot be computed for this level.
b. Lilliefors Significance Correction

Shown in the following figures are the normal Q-Q plot of clinical judgement scores for the facilitator ethnicity video recordings (Figures 4.2 and 4.3). Each graph displays a quantile-quantile plot of the data, which determines that the data sets come from a population with a normal distribution.

Figure 4. 2

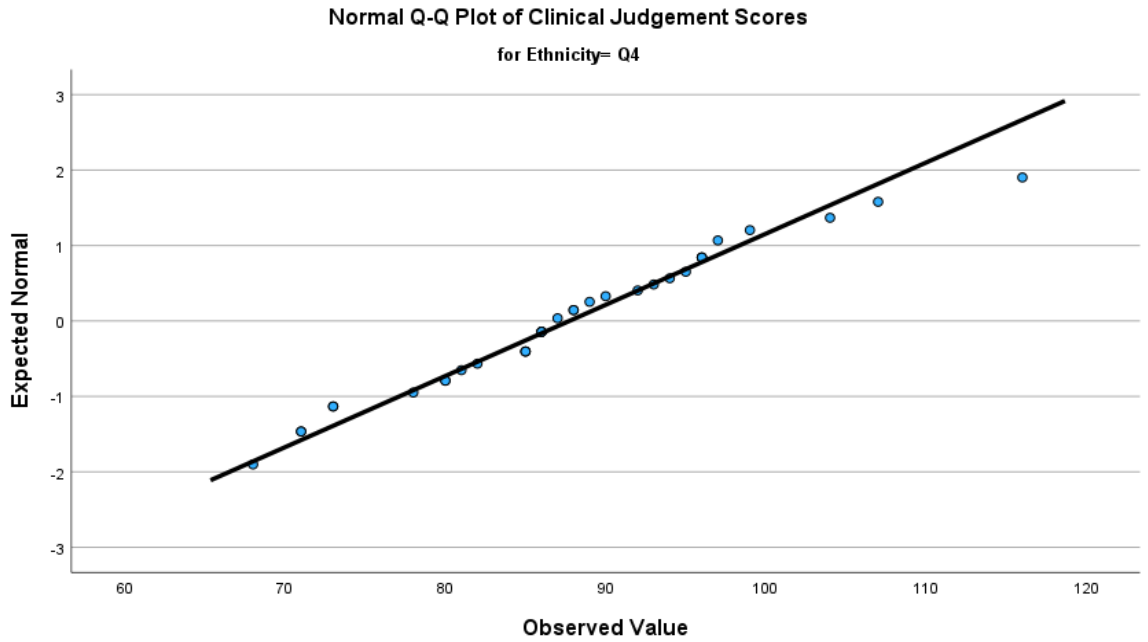
Q-Q Plot for the Non-Minority Facilitator



Note. Q3 = Group 1, Non-Minority Facilitator recording.

Figure 4. 3

Q-Q Plot for the Minority Facilitator



Note. Q4 = Group 2, Minority Facilitator recording.

Assumption #6

There is homogeneity of variances. The Levene's test for equality of variances (Table 4.5) was used, with $F = 1.390$ and significance of $p = .243$. Therefore, the assumption of homogeneity of variance was met.

Table 4. 5

Homogeneity

CDMNS Clinical Judgement Scores	Levene's Test for Equality of Variances		*t*-test Equality of Means						
	F	*p*	*t*	*df*	*p*	Mean Difference	Std Error Difference	95% CI	
								LL	UL
Equal variances assumed	1.390	.243	1.133	63	.131	3.361	2.966	-2.565	9.288
Equal variances not assumed			1.122	57.420	.133	3.361	2.997	-2.638	9.361

Note. Total $N = 65$ ($n = 31$ for group 1, $n = 34$ for group 2) online minority. CI= confidence level; LL = lower limit; UL = upper limit

Results

Hypothesis

The null hypothesis of this study stated there was not a statistically significant difference between clinical judgement scores as measured by the CDMNS, of senior minority students who are presented unfolding case studies by a minority facilitator and the clinical judgement scores of senior minority nursing students who are presented unfolding case studies by a non-minority facilitator. The researcher tested the null hypothesis by analyzing the posttest survey scores.

Based on the results of the independent-samples *t*-test, the researcher failed to reject the null hypothesis.

The results of the one-tailed *p* independent-samples *t*-test revealed there was not a statistically significant difference between clinical judgement scores (Table 4.6), as measured by the CDMNS, of senior minority students who viewed a minority facilitator and the senior minority nursing students who viewed a non-minority facilitator. No statistically significant difference was found, $F = 1.390$, $t\ (65) = 1.133$, $p = .131$.

Table 4. 6

Results of Clinical Judgement Scores as Measured by Clinical Decision-Making Scale in Nursing

CDMNS	Group 1-Viewed Non-Minority Facilitator		Group 2-Viewed Minority Facilitator				
	M	*SD*	*M*	*SD*	*t*	*p*	Cohen's *d*
Total Score	91.10	13.26	87.74	10.60	1.133	.131	.281

Note. N = 65. Group 1 (*n* = 31); group 2 (*n* = 34).

The CDMNS survey was completed by 65 participants and was employed to measure the difference in scores between groups of senior minority students viewing ethnically different facilitators. The survey consisted of 40 items and the value for Cronbach's alpha for the CDMNS in this study was $\alpha = 0.765$. This measure of internal consistency is considered high, and therefore reliable (Laerd Statistics, 2022). Cohen's *d* measured the difference between the two group means. A Cohen's *d* of .281 indicated a small effect size, indicating the difference between-groups was insignificant; therefore, the hypothesis for this study was rejected and the null hypothesis was accepted. This effect size indicated there may have not been enough power to detect a statistically significant result; also limiting the practical significance. Power is the

probability of rejecting the null hypothesis when it is false, suggesting a difference between the study's groups exist. Low power, as indicated in this study, suggests the sample size was too small, therefore allowing for only a small chance of detecting a true effect or the results were distorted by random or systematic error (Bhandari, 2023). The researcher believes random error may have been a contributing factor. Potential unpredictable random errors in this study included participants' mood at the time of completing the survey, the varied environments, and the time of day at which the survey was taken. These chance factors could have altered the instrument's measurement, thus affecting the power of this study.

Summary

The research question for this study asked, "Is there a difference between clinical judgement scores, as measured by the CDMNS, of senior minority nursing students who are presented unfolding case studies by a minority facilitator and the clinical judgement scores of senior minority nursing students who are presented unfolding case studies by a non-minority facilitator?" The null hypothesis stated, "There is not a statistically significant difference between clinical judgement scores, as measured by the CDMNS, of senior minority students who are presented unfolding case studies by a minority facilitator and the clinical judgement scores of senior minority nursing students who are presented unfolding case studies by a non-minority facilitator." After all assumptions were met for the independent-samples *t*-test, the results of the analysis on the posttest survey scores failed to reject the null hypothesis, $t\ (65) = 1.133$, $p = .131$. The next chapter will discuss the implications of the results and the limitations of this research, as well as recommendations for future research.

CHAPTER FIVE: CONCLUSIONS

Overview

This chapter discusses the findings of a posttest survey between-groups design and independent-samples *t*-test analysis to consider if a facilitator's ethnicity increases the clinical judgment of senior minority students after having viewed a facilitator presenting an unfolding case study. Although no statistical significance was found, this chapter explores a practical way to apply Leininger's culture care theory (1991) in a didactic setting while actively engaging minority students in a relatable activity that enhances clinical judgment using Tanner's (2006) model. Limitations of this study are discussed, in addition to recommendations for further research.

Discussion

A convenience sample of 65 senior minority students completed the Clinical Decision Making in Nursing Scale survey after viewing a recording with a minority or a non-minority facilitator presenting an unfolding case study. The unfolding case study involved a minority male. The data were collected, manually and digitally checked for errors, and then uploaded to SPSS prior to independent-samples *t*-test analysis (Laerd Statistics, 2022). All assumptions were met, and the analysis was conducted using IBM SPSS (Version 29). The null hypothesis was, "There is not a statistically significant difference between clinical judgement scores, as measured by the CDMNS, of senior minority students who are presented unfolding case studies by a minority facilitator and the clinical judgement scores of senior minority nursing students who are presented unfolding case studies by a non-minority facilitator." There was no statistically significant difference between the two groups of senior minority students' clinical judgement scores; therefore, the researcher failed to reject the null hypothesis based on the findings. Though

not statistically significant, the findings do not refute there are disproportionate numbers of minority nursing students in the United States when compared to their counterparts (AACN, 2020).

Evidence of the increased number of minorities in the United States is supported by data provided by several sources (United States Bureau of Labor Statistics, 2021; United States Census Bureau, 2022), and all minorities deserve to receive appropriate and adequate healthcare relative to their cultural needs. This reinforces the importance of Leininger's theory of cultural competence. This study used a case study that exhibited self-awareness for the minority student completing the survey. Embedding minority figures and culturally relevant practices and material, minority students could align their beliefs and healthcare practices with those exhibited in the case study. Students can gain a deeper understanding of health promotion and illness prevention among culturally diverse populations, especially when identifying relatable practices pointed out by the minority facilitator.

Healthcare organizations and nursing leaders have identified that there is a strong relationship between a culturally diverse workforce and providing culturally competent healthcare. Gomez and Bernet (2019) performed a meta-analysis and a large-scale studies umbrella review, which confirmed that diversity within organizations improves patients' quality of care, increases innovation, and produces positive financial performance. This must begin at the cornerstone of healthcare, in nursing schools. Nursing school administrators recognize the need to recruit, enroll, and graduate nursing populations that mirror the U.S. population in order to address societal health in communities across the U.S. How can nursing schools increase the number of minority graduates to advance the health of communities as well as deal with the disparities found in healthcare? Academic requirements for nursing schools are already rigorous.

Nursing students from minority backgrounds represent 40.8% of the student population in entry level baccalaureate programs (AACN, 2021), yet, minority nurses represent only 19.4% of the RN workforce (Forum of State Nursing Workforce Centers, 2020). The AACN (2021) points to recruiting more diverse faculty as a way to attract, retain, and graduate more minority students. The intent of this study was to determine if a facilitator's ethnicity was effective with increasing clinical judgement scores using Tanner's (2006) model among groups of senior minority students who viewed two ethnically different facilitators; thus, emphasizing the importance of Leininger's (1991) culture care theory.

The study examined the relationship of connectivity and relatability of minority nursing students and faculty while teaching relative content to increase perceived clinical judgement. The patient-centered content intricately involved the actions and reactions of the minority nursing student when caring for a minority patient. Tanner's (2006) model required reflection throughout the case study, therefore students had to consider if every decision was not only reasonable but optimal for the patient, while bearing in mind patient specific cultural practices. Leininger's culture care theory (1991) provided a guide to explain how senior minority student nurses should engage in complex situations that require thoughtful discernment with diverse populations. Leininger's concept of Culture Care Preservation or Maintenance refers to the nursing activities that help people from different cultures retain and use their cultural values to relate to healthcare issues (McFarland & Wehbe-Alamah, 2019). Minority students can tap into such values in a way that provides a mutual understanding and respect for their patients. This theory, in conjunction with Tanner's (2006) Clinical Judgement Model provided a pathway to understanding and reflecting on the decisions, outcomes, and results of the decisions made when caring for minority

populations. The facilitator identified learning opportunities that could further develop student insight when caring for individuals of different cultures and beliefs other than their own.

The hypothesis in this study predicted there was a statistically significant difference between clinical judgement scores as measured by the CDMNS, of senior minority students who were presented unfolding case studies by a minority facilitator and the clinical judgement scores of senior minority nursing students who are presented unfolding case studies by a non-minority facilitator. The results of this study did not support the findings of higher clinical judgement scores among senior minority students who viewed the intervention with the minority facilitator compared to those who viewed it with a non-minority facilitator, t (65) = 1.133, p = .131. The results implies the data of group 2, SD = 10.60, has fewer extreme values, thus indicating a more reliable mean than that of group 1, SD = 13.26.

The online platform in which content was delivered may have impacted the breadth and depth of student awareness, comprehension, and connectivity between the minority students and the minority facilitator. Photopoulos et al. (2023) performed a study comparing face to face and remote teaching. The results indicated that the majority of participants preferred face-to-face teaching. The study also examined how these groups of students felt about learning engagement, understanding, concentration, and effective communication with a tutor, and the face-to-face group exceeded in all categories listed.

The results of this study contradicted the qualitative studies, literature, and reports discussed throughout this dissertation. For instance, Smith (2018) suggested educators should pursue tangible diversity and inclusion recommendations for minority student success and cultural competence, such as increasing the minority nursing fulltime faculty. The results also suggest facilitator ethnicity did not influence the clinical judgment scores among senior minority

nursing students. The minority students' resolve to succeed could have been a contributing factor to the current study's results, as indicated by Hill and Albert's research (2021).

The scores were not significantly different among the two groups; however, after debriefing with the non-minority facilitator she verbalized that participation in the study allowed for self-reflection of her personal cultural competence when considering the diverse cultural lifestyles of minorities. Leininger passionately encouraged nurses to become self-aware of patients', clients', and their own cultural values and beliefs to help others improve their health (Leininger & McFarland, 2010). Leininger recognized, as pointed out in the assumptions of her theory, there are often differences as well as similarities between nurses and their patients, just as there are between nurse educators and their students. When the differences become unreasonable, signs of conflict and stress may occur. Such tension and strain may be minimized when minority faculty are engaging and educating minority students.

The reflection stage within Tanner's model (2006) encourages students to ponder the implications of their decisions already made as well as the decisions they are considering in real time. Minority nursing faculty can rely on relevant patient experiences and outcomes directly associated with similar identities and cultural practices, creating an environment of mutual respect between one another. Burnett et al. (2020) recommended increasing the visibility and influence of minority faculty in academia and leadership. The AACN (2017) and the NLN (2018) concluded that diversity in nursing education contributes to the success of minority nursing students. Iheduru-Anderson et al. (2022) performed a qualitative study to examine the lived experiences of Black academic nurse leaders. The authors (Iheduru-Anderson et al., 2022) noted that only 8.8% of nursing faculty in the United States are Black.

Although there was not statistical significance when comparing the means of the two groups in the current study, the results indicated the data were more closely clustered around the mean of group 2 (minority students who viewed the video with the minority facilitator) than those of the mean of group 1 (minority students who viewed the video with the non-minority facilitator). This, in combination with the SD = 10.60 of group 2, when compared to the SD = 13.26 of group 1 suggests a more reliable mean than the mean of group 1. Higher reliability indicates each time the study is replicated, the minority group viewing the minority facilitator are likely to have consistent results, whereas the scores of the students who viewed the non-minority facilitator are less likely to be as consistent and study replication could have different results across time, different participants, and/or parts of the survey itself (Middleton, 2019). Such reliability and the previously mentioned literature support increasing faculty diversity to sustain ethnic equity to achieve equivalent success across diverse student populations.

Implications

This study did not exhibit a statistically significant difference between the two groups of minority nursing students viewing two ethnically different facilitators. This could imply that practical significance may have a larger role in advancing clinical judgement, especially if implementing the aspects of Tanner's (2006) model in brick and mortar and /or synchronous settings in which students can actively interact with the minority facilitator in real time. Statistical significance is relevant when considering if the research results are due to chance of sampling variability, whereas practical significance involves the usefulness of the results in the real world (Kirk, 1996). Though the effect size of this study was small, which helps to determine the degree of practical significance, this does not refute the fact that face to face experiences create a connectivity that Leininger (1991) expounds on in her theory when nurses care for all

patients; as nurse educators should care for all students. Leininger believes a comprehensive overview of a person's assessment provides a holistic synopsis of his/her background. This assessment addresses language, gender and sexual orientation, ability, age, socioeconomic status, interpersonal relationships, dress, use of space, and foods. These aspects of life should be considered by nurse educators who are already experts in patient care; therefore, should be able to provide the same culturally congruent care for the students they educate.

A theme from the descriptive study by Gipson-Jones (2017) was that minority students felt faculty did not understand their cultural background, which added to the demanding curriculum. Although the practical significance in this study was limited, the real-world inference is pertinent to the social and institutional climate in higher education and to the success of minorities in the healthcare arena. Students are academically successful when supported by faculty who individualize students for who they are, recognizing there are nuances differentiating people from one another (Sanger, 2020). As in the current study, the case study intentionally depicted a minority and his health/illness journey in the acute care setting. When faculty embrace diversity, this assists students with achieving learning outcomes as well as contributes to predicting overall program success. Leininger captures this rationale with her concepts of Culture Care Preservation or Maintenance (Petiprin, 2016). She believes nursing care activities, when delivered by culturally competent nurses, help people from different cultures retain and use values related to concerns or conditions (Petiprin, 2016). Although the results of the current study did not support this, the literature review and theoretical framework do.

Leininger's anthropological nursing research supports and enlightens faculty to see a perspective from a student's worldview, exposing non-minority educators to the experiences and perceptions of minority faculty and students. As indicated by Atkinson et al (2020), a coaching

relationship, as the one between a facilitator and minority students, should be built on mutual trust and respect. This realm of reflection can create a spirit of inquiry, respect, and understanding within not only higher education but also healthcare organizations.

This study adds another option to the educational platform when considering ways to advance clinical judgement among minorities. This study used an unfolding case study with a culturally relevant image, centered around a minority patient's health issues that involved pertinent cultural practices. There was no pretest to compare posttest results. The creator of the survey (Jenkins, 1983) determined that higher scores indicated higher levels of self-perceived levels of decision making in nursing and subsequently higher levels of clinical judgement. Each group's mean score implies a level of increased knowledge by a seasoned nursing student.

Increasing the faculty diversity can have a multifocal effect in academia (Bartlebaugh & Abraham, 2021). It helps minorities feel comfortable with learning as well as creating a desire to participate in activities that promote positive student outcomes throughout their educational journey. This is the same paradigm woven throughout the culture care theory (Leininger, 1991). The assumptions of Leininger's theory (1991) help to establish the importance of nursing education embracing a transcultural perspective. The researcher used ethnically diverse facilitators who empowered both groups of senior minority nursing students to learn how to apply significant information in ways that enhance optimal minority patient outcomes. Culture is at the core of caring for individuals within a community, especially when so many ethnicities exist in the United States. Leininger pointed out values, beliefs, and practices are influenced by the culture in which they are rooted. These are embedded in one's worldview, language, spirituality, kinship, politics and economics, education, technology, and environment (Leininger, 1991).

Increasing diverse faculty aligns with the mission and values of several nursing programs and accrediting bodies (AACN, 2017; Carolinas College of Health Sciences, 2023 NLN, 2021). Educators may gain insight from research completed by Tram et al. (2020). Tram et al. acknowledged that when conveying vital content in didactic settings in innovative ways, faculty can enhance minority students' learning through intentional and attentive assessment of minority students' concerns, issues, and needs. State and federal policymakers can also position themselves to prioritize funding for educational programs that serve larger minority populations in order to create sustainable strategic plans that enhance faculty and student diversity (Bitar et al., 2022). Bitar et al. suggested that higher education should prioritize state and federal funding strategies for faculty diversity initiatives and the institutions that serve most Black and Latino institutions. Adverse effects in population healthcare can be reduced with an increase in diverse workforce that knows how to build inclusive environments (Institute of Medicine, 2004). Integrating culturally diverse nursing faculty can lead to more minority graduates entering the nursing profession who are compassionate about the needs of our diverse populations.

Limitations

Some limitations were identified in this study. The sample size of 65 was sufficient according to the *a priori* analysis for the independent-samples *t*-test; however, a larger sample size allows for a more precise estimate of the treatment/intervention effect, also increasing the study's power. As suggested by Andrade (2020), a larger sample size would help to minimize "statistical noise" such as variations in environment, and non-specific treatment/intervention characteristics and variations in participant characteristics. In addition, the survey was closed due to reaching the response quota based on the *a priori* analysis, therefore limiting potential participants and ultimately the sample size. The *a priori* analysis required a total of 42

participants to effectively run the independent-samples *t*-test. From the day the study was open to the day it was closed, 172 consented responses were obtained. Consideration was given to the length of time the study was to remain open. After referring to the communications with the executive director of the NSNA and the *a priori* analysis, the decision was made to close the study. With careful inspection and preparation of the data, the researcher realized only 65 survey responses were completed correctly and were eligible for the study.

When considering the internal validity of this study, the researcher examined the extent to which systemic errors such as potential selection, performance and attrition bias; and random errors, such as observational and environmental, may have been involved (Andrade, 2020). The comprehension component could have a potential impact on minority students' clinical judgement scores and is worth exploring. The data in this study included survey duration times starting at 6 minutes and 50 seconds, which could impact the degree of student comprehension of content, as well as relational connectivity and synergy between the student and the minority facilitator. Murphy et al. (2022) investigated how watching educational videos at varied speeds affected learning comprehension, and found learners had comprehension deficits when watching recorded lectures at 2.5x speed compared with watching lectures at 1x speed. In the current study, the short time participants devoted to viewing the facilitator video may have negatively impacted the clinical judgement scores, potentially resulting in lower scores due to decreased comprehension. Surveys with duration times of less than 6 minutes and 50 seconds were not included in the study and therefore scores of these participants were not included in the data analysis. Random errors potentially included participants' mood when completing the survey, the varied environments, and the time of day in which the survey was taken. These factors could have altered the instrument's measurement, thus affecting the power of this study.

The findings of this study limit generalizability due to the inclusion criteria and the timeframe in which data were collected. Though the population size of the NSNA membership was 60,000 at the time the research was conducted, only minorities as defined by the Office of Management and Budget (OMB) Standards (The Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity, 1997), were included. The timeframe in which the survey was available was only five days because the response quota had been reached and exceeded within that period of time.

The study's small effect size, $d = .281$, indicates there may have not been enough power to detect a statistically significant result. The degree of power helps to determine the probability of rejecting the null hypothesis when it is false. Low power, as indicated in this study, suggests the sample size was too small, therefore allowing for only a small chance of detecting a true effect or the results were altered by random or systematic error (Bhandari, 2023).

Upon running the analysis using IBM SPSS (Version 29), Cronbach's alpha, $\alpha = 0.765$, was used to establish the reliability, specifically the internal consistency of the CDMNS. A score of 0.765 is considered high, indicating the CDMNS items are measuring the same construct, clinical judgement. Content validity of the CDMNS was established through item analysis. Each item was valued from 1 to 5 with participants having the opportunity to score up to 200. A higher score indicated a higher level of perceived clinical judgement.

Finally, this study involved examining the difference between groups of overall clinical judgement scores, yet did not target the differences within the subscales of the CDMNS survey between the two groups. The CDMNS consists of four subscales of which potential significance could be indicated within one of the four areas upon further analysis. Further research and

analysis into the data is needed to reveal if there is a significance between any of the four subscales.

Recommendations for Future Research

Some considerations for future research include increasing the sample size and extending the timeframe. A larger sample size would permit for different analyses, such as MANOVA or linear regression. These types of analyses accommodate a larger number of participants from substantial organizational platforms such as the NSNA, as well as comparing multiple dependent variables at the same time. MANOVA analysis allows for one or more independent variable, as well as the added benefit of having more than one single dependent variable at the same time (Denis, 2019). MANOVA determines whether multiple levels of independent variables have an effect on dependent variables in a study after controlling for covariates. This type of analysis would allow for the researcher to test the statistical significance of the effect of the facilitator's ethnicity on each of the four subscales in the CDMNS, as well as find out if there are any interactions among them. Simple linear regression helps to describe relationships between quantitative variables using a straight line (Bevans, 2023). When data points are clustered around the straight line there is a strong linear relationship between the variables. Using simple linear regression for this study would help determine how strong the relationship is between ethnicity and clinical judgement scores, thus establishing whether there is statistical significance between the two variables. Such analysis allows for the four subscales: Search for alternatives or options, Canvassing of objectives and values, Evaluation and re-evaluation of consequences, and Search for information and unbiased assimilation of new information to then be evaluated and analyzed for correlations and differences between and/or within groups. A longitudinal aspect would allow for more robust data collection.

Future research could include a comprehension component, which would enhance the personal connections between the minority students and minority facilitator. When students establish a rapport or commonality with educators and facilitators, they can better understand information because students draw on prior knowledge to connect with to the data and facts being taught. This can be accomplished by having the study's setting in a virtual synchronous session, as well as an in-class presentation in real time. Further quantitative research is needed to augment the qualitative literature discussed in this study. Additional studies using the theoretical framework and model of Leininger (1991) and Tanner (2006) should be performed to ensure minority students can thrive and reach their full potential in an educational environment that embodies diverse faculty; thus, furthering the research of the phenomenon of ethnicity and clinical judgment among minority students, administrators, as well as staff.

Summary

This chapter provided a deliberate dialog of the study results, and its plausible implications in education, healthcare, and society. This study exhibited the potential impact faculty can have when facilitating senior minority students through didactic activities in the classroom, as well as in acute care settings. It also provides encouragement for higher education and organizations to consider the importance of increasing diversity among nursing faculty, as well as empower nurses to pursue a career in nursing education. The conclusions also elaborated on the limitations encountered and identified in the study. Though the researcher failed to reject the null hypothesis, there is still opportunity to explore the data for other potential findings. Finally, the researcher provided possible solutions as evidenced by Leininger's research in transcultural nursing, especially with Tanner's aspect of reflection, in preparation for replication or to add to potential research.

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APPENDIX A: NSNA Research Study Requirements

National Student Nurses' Association, Inc.
45 Main Street, Suite 606, Brooklyn, NY 11201

Requirements for Requests to Use
NSNA Membership Database for Dissertation Research*

The following are required prior to approval to send a dissertation research survey to NSNA's email list for members. Note that NSNA does not release email addresses: NSNA will send the survey for you via an email with the link to the survey. The survey will go to all NSNA members for whom we have email addresses (approximately 60,000 email addresses). NSNA members are primarily pre-RN-licensure students in associate degree, diploma, baccalaureate and generic master's programs. A small percentage of members are enrolled in RN to BSN completion students. The database can be broken down by type of nursing school enrollment and by anticipated graduation year (winter and spring).

1. IRB signed approval letter (scan and attach to an email message).
2. Contact information for dissertation committee chairperson (name, title, phone number and email address).
3. Documentation that proposal has been approved by dissertation committee (attach signed letter from the chairperson of dissertation committee).
4. Overview of research study.
5. Type of subjects needed (associate/diploma/BSN etc.).
6. The actual link to the survey and short introduction that will be used to explain the survey, confidentiality, including the link to the survey.
7. Upon approval by NSNA, a check for $350.00 is required.
8. The broadcast is sent to entire NSNA membership list; it automatically gets resent to those who did not open it 4-5 days after the initial broadcast. If you want the broadcast resent, it is an additional $250 for a total of $600 for two broadcasts. Payment is required prior to survey going out to all members.

Once 1-6 of above are completed, send all items to [redacted] The study must be approved by the NSNA Executive Director for dissemination to NSNA members. Once approved, payment is required prior to the survey being sent. There could be a wait of up to 3 months depending on the number of dissertation surveys in the queue.

NSNA does not permit the use of its social media for the purpose of recruiting research subjects.

Contact Dr. Diane Mancino if you have any questions: [redacted]

*NSNA accepts requests only from students fulfilling the requirements for research doctorates (i.e. PhD, EdD). Please note that there is a queue for dissertation studies to be sent to NSNA members as we have several requests and do not send out more than one every two weeks (to avoid survey fatigue and improve response rate).

Revised 1/2023

APPENDIX B: IRB Approval Letter

Date: 6-5-2023

IRB #: IRB-FY22-23-1523
Title: ROLE OF FACILITATOR ETHNICITY IN INCREASING CLINICAL JUDGEMENT AMONG SENIOR MINORITY STUDENTS USING UNFOLDING CASE STUDIES: A QUASI-EXPERIMENTAL STUDY
Creation Date: 5-6-2023
End Date:
Status: Approved
Principal Investigator: Rachael King
Review Board: Research Ethics Office
Sponsor:

Study History

Submission Type Initial	Review Type Exempt	Decision Exempt

Key Study Contacts

Member Shelley Blackwood	Role Co-Principal Investigator	Contact [redacted]
Member Rachael King	Role Principal Investigator	Contact [redacted]
Member Rachael King	Role Primary Contact	Contact [redacted]

APPENDIX C: Recruitment Letter

06/19/2023
Dr. Diane Mancino
Executive Director
National Student Nurses' Association

Dear Students:

As a student in the Graduate School of Nursing at Liberty University, I am conducting research to better understand if ethnicity plays a role in the way minority students learn to enhance their clinical judgement. The purpose of my research is to discover if there a difference between clinical judgement scores of minority students who are presented unfolding case studies by a minority or non-minority facilitator, and I am writing to invite eligible participants to join my study.

Students must be a minority enrolled in senior level nursing course. Participants, if willing, will be asked to complete:

- Consent and complete a survey (demographic survey and Clinical Decision Making in Nursing Scale) sent via email and the organization's website.
- Once consented, students will be randomly assigned an unfolding case study with a minority or the non-minority facilitator and associated paperwork (25 minutes)
- After viewing the video students will be directed to complete the CDMNS posttest survey (10 minutes)
- Participants who voluntarily submit email addresses at the end of the survey can receive compensatory electronic $10 egift card
- Data will be collected via survey submissions

The consent is signed and considered submitted as soon as students click on the arrow tab on the bottom right-hand corner of the screen. The case study template and answer key links will also be provided within the survey. At the end of the recording of the facilitator, the survey will resume to the online survey. Please complete and submit the survey. Email addresses may voluntarily be submitted and are not a part of this study, maintaining anonymity.

The consent document contains additional information about my research. After you have read the consent form, please click 'I do consent' to proceed to the video recording. Doing so will indicate that you have read the consent information and would like to take part in this research study. A consent document is provided and is attached to this email below. To participate, please click the link below:
https://liberty.co1.qualtrics.com/jfe/preview/previewId/d2e7895e-596f-42cf-9255-c24584fccb42/SV_39FDdb4Nu1A4Maa?Q_CHL=preview&Q_SurveyVersionID=current

Participants who voluntarily submit their email addresses at the end of the survey will receive one $10 egift card upon submission of the completed survey.

Sincerely,

Rachael King
PhD (c), MSN, RN
704-277-xxxx, [redacted]

APPENDIX D: Research Consent

Informed Consent

Title of the Project: ROLE OF FACILITATOR ETHNICITY IN INCREASING CLINICAL JUDGEMENT AMONG SENIOR MINORITY STUDENTS USING UNFOLDING CASE STUDIES: A QUASI-EXPERIMENTAL STUDY

Principal Investigator: Rachael Marie King, Principal Investigator, Doctoral Candidate, School of Nursing, Liberty University

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must be a minority college student who is enrolled in a senior nursing course. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to assess and compare clinical judgement levels among minority nursing students by introducing original unfolding case studies using a randomly assigned minority or a non-minority faculty facilitator.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following:

1. After consenting to this study you will be directed to a video recording of a nurse facilitator presenting an unfolding case study and links to case study student template and answer key which can be optionally completed during and/or after viewing the 25 minute recording. A randomly assigned minority or a non-minority nurse facilitator will present the unfolding case study.
2. After viewing the case study recording, you will be asked to complete a self-perceived clinical judgement nursing scale, Clinical Decision Making in Nursing Scale, by advancing to the next screen. This survey will take approximately 8-10 minutes.
3. The submission of the nursing scale survey allows for a compensatory $10 egift card if an email address is voluntarily provided.

How could you or others benefit from this study?

The direct benefits participants should expect to receive from taking part in this study relates to self- recognition and self-understanding of one's clinical decision-making abilities.

Benefits to society include recognizing the nursing facilitator's ethnicity as it relates to educational influences among minority nursing students.

What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Research records will be stored securely, and only the researcher will have access to the records.

- Participant responses to the online survey will be anonymous.
- Data collected from you may be used in future research studies. If data collected from you is reused or shared, any information that could identify you, if applicable, will be removed beforehand.
- Data will be stored on a password-locked computer. After five years, all electronic records will be deleted.

How will you be compensated for being part of the study?

Participants have the potential to be compensated for participating in this study. Participants can voluntarily submit an email address submission to receive one $10 egift card. Any participant who chooses to withdraw from the study after beginning but before completing all study procedures will not receive this compensatory gift. At the conclusion of the survey participants will receive a $10 Amazon gift card. Email addresses will be requested for compensation purposes; however, they will be pulled and separated from your responses by the survey software to maintain your anonymity.

Is the researcher in a position of authority over participants, or does the researcher have a financial conflict of interest?

The researcher serves as a part time clinical instructor at Carolinas College of Health Sciences in the first fundamental nursing course in the School of Nursing. To limit potential or perceived conflicts, data collection will be anonymous, so the researcher will not know who participated. This disclosure is made so that you can decide if this relationship will affect your willingness to participate in this study. No action will be taken against an individual based on his or her decision to participate or not participate in this study.

This researcher has no financial conflict of interest in the outcome of this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University or the National Student Nurses Association. If

you decide to participate, you are free to not answer any question or withdraw at any time prior to submitting the survey without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please exit the survey and close your internet browser. Your responses will not be recorded or included in the study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Rachael Marie King. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [redacted]

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone you may contact Rachael Marie King. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [redacted]. other than the researcher, **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

Before agreeing to be part of the research, please be sure that you understand what the study is about. You can print a copy of the document for your records. If you have any questions about the study later, you can contact the researcher using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

By answering the question below, you have read and understood the information above.

APPENDIX E: Unfolding Case Study Recordings

https://youtu.be/cZYaOp-LC9g (minority facilitator)

https://youtu.be/8w3KxXXxKLI (non-minority facilitator)

The unfolding case study recordings consist of a nurse educator, one minority and one non-minority, facilitating and guiding the participants through the same case study. The case study has been created by Dr. Keith Rischer (2016) and permission has been granted (Appendix K) to modify as needed with optional pdf distribution. Both audio/video recordings have been viewed, checked for any possible confounding factors by the dissertation committee and re-recorded as needed.

APPENDIX F: Unfolding Case Study-Answer Key

Hypertension

(Free pic from https://www.flickr.com/photos/68716695@N06/29095571713)

Answer Key

Primary Concept
Perfusion
Interrelated Concepts (In order of emphasis)
1. Glucose Regulation 2. Pain 3. Clinical Judgment 4. Patient Education 5. Communication 6. Collaboration

Hypertension

History of Present Problem:

Mike Wilson is a 51-year-old Black male who is 6 feet tall and weighs 275 pounds (BMI 37.3) with an abnormal distribution of weight around his abdomen. He does not regularly exercise, does not like to cook, and eats fast food three to five times during the week. He has smoked one pack per day since the age of 20 (31 pack years). He has a history of hyperlipidemia but is unable to afford his medication (atorvastatin) and has not taken since he was diagnosed 5 years ago. He has no current diagnosed medical problems. He became concerned and came to the emergency department because he is more easily fatigued and has had a headache the past three days that has not improved.

Personal/Social History:

Mike is self-employed and owns his own auto mechanic business. He has no health insurance. His father had hypertension and died of a myocardial infarction (MI) at the age of 50. Angela, his wife, came with him to urgent care. She shares that he is usually stoic about health problems, so this must really bother him. He took Excedrin and Motrin for pain, and it didn't help.

What data from the histories are RELEVANT and have clinical significance for the nurse?

RELEVANT Data from Present Problem:	**Clinical Significance:**
BMI 37.3–with an abnormal distribution of weight around his abdomen. He does not regularly exercise, does not like to cook, and eats fast food three to five during the week. He has smoked one pack per day since the age of 20 (31 pack years).	*Though the nurse does not yet know what the primary problem is, the data in this cluster must be recognized as risk factors for cardiovascular (CV) disease. Though there is no "smoking gun" yet, the nurse must keep this possibility on the radar as additional data is collected.* ***Metabolic syndrome*** *is a cluster of conditions — increased blood pressure, high blood sugar, excess body fat around the waist, and abnormal cholesterol or triglyceride levels — that occur together, increasing risk of heart disease, stroke and*

	diabetes. This syndrome will have relevance as further relevant data becomes available.
He has a history of hyperlipidemia but is unable to afford his medication (Simvastatin) and has not taken since he was diagnosed 5 years ago.	*Untreated hyperlipidemia can cause numerous cardiovascular complications including hypertension and then "domino" consequences we will discuss later in this case study.*
He is more easily fatigued and has had a headache for the past three days that has not improved.	*These are vague complaints that could have multiple causes. Any NEW complaint is a clinical RED FLAG in the clinical setting. In this scenario, the nurse must situate his/her knowledge of hypertension and be suspicious that a NEW headache in an otherwise "healthy" male with CV risk factors could be due to hypertension.*
RELEVANT Data from Social History:	**Clinical Significance:**
His father had hypertension and died of a myocardial infarction (MI) at the age of 50.	*His family history is relevant in the context of hos present CV risk factors. The fact that his father died young at 50, and Mike is 45 is another clinical RED FLAG for the potential presentation of CV disease.*
He took over the counter (OTC) meds/alternative therapy without success.	*The nurse needs to recognize that the wife and Mike use OTC products and might inquire what else they have tries to alleviate the headache. It is important for nurses to ask patients about alternative medicines and the timing and dosing of OTC meds. This*

	information is frequently missed at intake and can provide valuable assessment data.

Patient Care Begins:

Current VS:	**P-Q-R-S-T Pain Assessment (5th VS):**	
T: 98.9F/37.2 C (oral)	**P**rovoking/Palliative:	Nothing/Nothing
P: 90	**Q**uality:	Ache
R: 20	**R**egion/Radiation:	Global headache (HA)
BP: 220/118	**S**everity:	8/10
O2 sat: 95% room air	**T**iming:	Continuous

What VS data are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT VS Data:	**Clinical Significance:**
BP: 220/118 Global headache: 8/10, continuous	*The clinical symptoms in his initial presentation are beginning to make sense! We now have a "smoking gun" driving his presentation.* *The nurse must step back and must think like a nurse and apply A&P to this scenario. If his blood pressure has been elevated and ongoing for some time, how will this affect the body? What are some possible physiologic effects?* *Increased BP increases afterload that requires the heart to increase contractility to overcome this additional resistance in the vascular system. This can cause ventricular hypertrophy and be a cause of heart failure.* *How does elevated BP impact the glomeruli of the nephrons in the kidney?* *This fragile network of capillaries can be permanently damaged and can result in irreversible renal failure.* *His headache (HA) must be noted as a vague complaint that is likely present with hypertensive urgency. The degree of BP elevation is the primary problem and the most likely cause of his HA. As BP drops to target parameters, the nurse must assess to see if his HA begins to resolve, which would be expected.* *Much more common, however, is the relatively asymptomatic patient with a blood pressure in the "severe" range (i.e., ≥180/≥120 mmHg), often a mild headache, but no signs or symptoms of acute end-organ damage. This entity of severe asymptomatic hypertension is called "hypertensive urgency".*

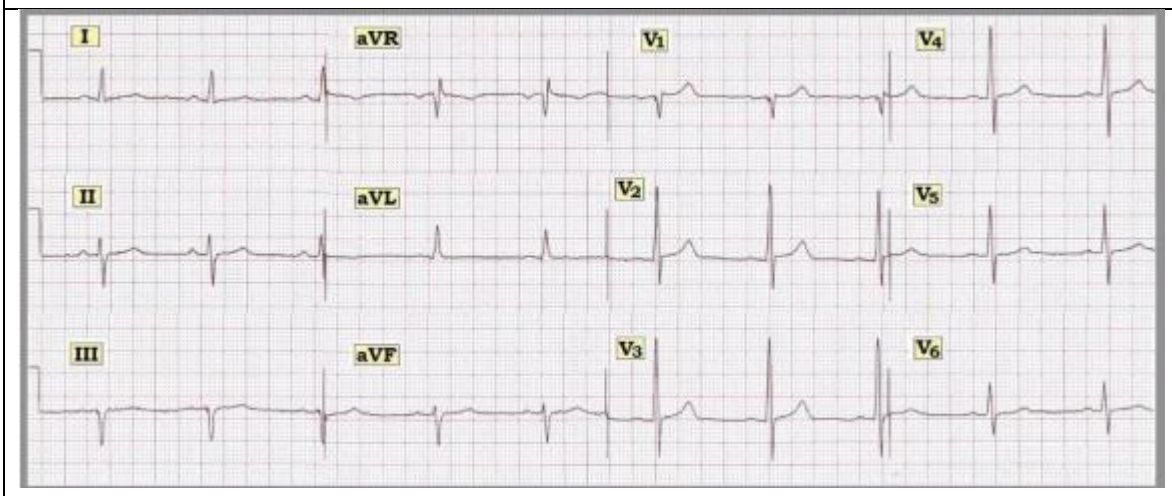
Current Assessment:	
GENERAL APPEARANCE:	Appears uncomfortable, body tense with occasional grimacing
RESP:	Breath sounds clear with equal aeration bilaterally ant/post, non-labored respiratory effort
CARDIAC:	Pink, warm and dry, no edema, heart sounds regular-S1S2. Pulses bounding, equal with palpation at radial/pedal/post-tibial landmarks
NEURO:	Alert and orientated to person, place, time and situation (x4)

GI:	Abdomen soft/non-tender, bowel sounds audible per auscultation in all 4 quadrants
GU:	Voiding without difficulty urine yellow/clear
SKIN:	Skin integrity intact, skin turgor elastic with no tenting, skin color

What assessment data are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Assessment Data:	**Clinical Significance:**
CARDIAC: Pulses bounding, equal with palpation at radial/pedal/post-tibial landmarks	*Though there is a significant hypertensive crisis, it is NOT unusual to have a relatively normal physical assessment.* *The RELATIONSHIP of a significantly elevated BP and bounding pulses is worth noting. The higher the BP, the more intense peripheral pulses will be. The opposite is also true, If a patient has a low BP or is sliding into shock with hypotension, peripheral pulses will be more difficult to palpate.*

12-Lead EKG:



Interpretation:

Normal sinus rhythm (NSR) with no Q-waves or ST/T wave changes or signs of enlarged QRS complexes in leads V1-V4

Clinical Significance:

Despite CV risk factors, patient does show any evidence of prior myocardial infarction (Q-waves) or any other clinical concerns

Radiology Reports: Chest x-ray

What diagnostic results are RELEVANT and must be recognized as clinically significant to the nurse?

RELEVANT Results:	**Clinical Significance:**
The cardiac size is enlarged. There are no focal infiltrates or consolidations or pleural effusions. IMPRESSION: 1. No acute disease in the chest 2. Moderate to severe cardiomegaly	*The enlarged cardiac silhouette reflects left ventricular (LV) hypertrophy. This enlargement is due to the increased workload of the heart (afterload) that has likely been present for some time. This is caused by increased arterial pressure that the heart must overcome by ejecting the blood in the LV through the aortic valve and into system arterial circulation.*

Lab Results:

Complete Blood Count (CBC):	**Current:**	**High/Low/WNL?**
WBC (4.5–11.0 mm 3)	10.5	WNL
Hgb (12–16 g/dL)	15.3	WNL
Platelets (150–450x 103/µl)	422	WNL
Neutrophil % (42–72)	68	WNL

What lab results are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Lab(s):	**Clinical Significance:**
These labs are ALWAYS RELEVANT, therefore they must be intentionally noted by the nurse! *WBC:*	*ALWAYS RELEVANT based on its correlation to the presence of inflammation or infection. Will usually increase*

Neutrophil %: *Hgb:* *Platelets:*	*if infection is present, though it may be decrease in the elderly or peds* *ALWAYS RELEVANT for same reason as WBCs. They are the most common leukocyte and their role is as a FIRST RESPONDER to any bacterial infection within several hours or when the inflammatory response is activated.* *ALWAYS RELEVANT to determine anemia or acute/chronic blood loss.* *Relevant whenever there is a concern for anemia or blood loss or a patient is on heparin. If platelets are low, it will obviously be significant and must be noted. Any patient on heparin products must also have this noted because of the clinical possibility of heparin-induced thrombocytopenia (HIT), which develops when the immune system forms antibodies against heparin that cause small clots and lower platelet levels.* *Immature neutrophils are elevated in sepsis as the body attempts to fight infection and releases these prematurely. If elevated, it's a clinical RED FLAG in the context of sepsis. If elevated to >8, it is considered a "shift to the left," which indicates impending sepsis.*

Basic Metabolic Panel (BMP):	**Current:**	**High/Low/WNL?**
Sodium (135–145 mEq/L)	136	WNL
Potassium (3.5–5.0 mEq/L)	4.0	WNL
Glucose (70–110 mg/dL)	188	HIGH
BUN (7–25 mg/dl)	32	HIGH
Creatinine (0.6–1.2 mg/dL)	1.5	HIGH

What lab results are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Lab(s):	**Clinical Significance:**
Though Na+ and K+ are ALWAYS relevant if present, these labs are WNL and no concerns are present.	
Glucose: 188	*Why would his blood glucose be this elevated? Though there is no history of diabetes, because of his CV risk factors, Mike is at risk for this progression and glucose may be elevated as a result. It would be helpful to determine when he ate his last meal. It could be another reason why elevated glucose shows up in this lab.*
BUN: 32	*Though a BUN is not always relevant, in this context of an elevated creatinine, the nurse must recognize the need to cluster this result that is also rising and the reason why. In this scenario, it is a worsening of his renal status. WHY? The clinical relationship of poorly-controlled diabetes and renal damage to the nephrons must be recognized by the nurse.*
Creatinine: 1.5	*GOLD STANDARD for kidney function and adequacy of renal perfusion. The functioning of the renal system affects every body system; therefore, it is ALWAYS relevant! The creatinine is elevated. With his presentation of untreated hypertension and possible damage to the glomeruli, this is a clinical RED FLAG.*

Cardiac Labs:	**Current:**	**High/Low/WNL?**
BNP (B-natriuretic Peptide) (<100ng/L)	758	HIGH

What lab results are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Lab(s):	**Clinical Significance:**
BNP: 758	*B-Natriuretic Peptide is a hormone produced by heart muscle. When the left ventricle is stretched or stressed with volume overload, the secretion of this hormone will increase. Though >100 is elevated, most cardiologists are concerned if >500; this is a clinical RED FLAG of heart failure/fluid overload.* *BNP reflects the degree and progression of heart failure. BNP physiologically promotes venous and arterial vasodilation; it is the body's own attempt to compensate for heart failure through PRELOAD and AFTERLOAD REDUCTION. BNP also promotes diuresis by increasing glomerular filtration rate (GFR). This influences and decreases PRELOAD and the workload of the heart. Amazing!*

Lipid Panel:	**Current:**	**High/Low/WNL?**
Low density lipoprotein–LDL (<130 mg/dL)	260	HIGH
High density lipoprotein-HDL (>40 mg/dL)	28	LOW
Total cholesterol (<200 mg/dL)	290	HIGH
Triglycerides (30-149 mg/dl)	484	HIGH

What lab results are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Lab(s):	**Clinical Significance:**
Low density lipoprotein–LDL: 260	It is clear that all aspects are elevated or abnormal and place him at risk for progression of atherosclerosis/PAD. He will likely

	need to be started on a statin. Mike will also need reinforcement of dietary education before discharge.
High density lipoprotein–HDL: 28	HDL is the “good” or “H”appy cholesterol that can best be raised through regular physical exercise/activity. It is so important to emphasize this with any patient with cardiac disease!
Total cholesterol: 290	Though the total reflects the overall scope of the problem, it is not specific. Much more accurate information is obtained by assessing the LDL, HDL, and triglycerides.
Triglycerides: 484	Triglycerides are influenced by dietary fat as well as high sugar intake. This is why the high amount of refined sugar intake in the U.S. contributes to increasing the risk of vascular disease and diabetes.

Urine Analysis (UA):	**Current:**	**High/Low/WNL?**
Color (yellow)	Yellow	WNL
Clarity (clear)	Clear	WNL
Specific gravity (1.015-1.030)	1.018	WNL
Protein (neg)	Moderate	High/Abnormal
Glucose (neg)	Moderate	High/Abnormal
Ketones (neg)	Negative	WNL
Bilirubin (neg)	Negative	WNL
Blood (neg)	Positive	WNL
Nitrate (neg)	Negative	WNL
LET (Leukocyte Esterase) (neg)	Negative	WNL
MICRO:		
RBCs	3	WNL

WBCs	2	WNL
Bacteria (neg)	Negative	WNL
Epithelail (neg)	Negative	WNL

What lab results are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Lab(s):	**Clinical Significance:**
Though WBC, LET, and nitrites are ALWAYS relevant if present to rule out a urinary tract infection (UTI), these labs are WNL and no concerns are present.	
Protein: Moderate	*WHY is this elevated? This is an excellent example of how important it is for the nurse to APPLY his/her knowledge of A&P to the clinical setting. Since protein is a large molecule, what does this tell us about the ability of the glomeruli of the nephron to filter? It is obviously impaired. This information, when clustered with the clinical data of poorly controlled HTN, present hypertensive crisis, and elevated creatinine, provides a context that irreversible damage to the kidneys may be present. This finding is a clinical RED FLAG.*
Glucose: Moderate	*WHY is this elevated? Mike had a slightly elevated blood glucose, which may represent the development of diabetes because glucose is spilling into his urine. The RELATIONSHIP of his elevated serum glucose and this finding is common in clinical practice.*

Blood: positive	*Blood and protein are commonly found if there is renal end-organ damage in a hypertensive crisis.*

Lab Planning: Creating a Plan of Care with a PRIORITY Lab:

Lab:	**Normal Value:**	**Why Relevant?**	**Nursing Assessment/Interventions Required:**
BNP (B-natriuretic Peptide) **Value: 758**	**<100** **Critical Value:**	BNP is the most concerning of these cardiac enzymes. It is >500 and notably elevated in comparison to last finding, which was barely elevated above normal. This confirms presence of significant acute heart failure. B-Natriuretic Peptide is a hormone produced by heart muscle. When the left ventricle is stretched or stressed as in volume overload, this will increase the secretion of this hormone. Though >100 is elevated, most cardiologists are concerned if >500. It is a concerning clinical RED FLAG of heart failure/fluid overload.	***THINK CARDIAC–Heart Failure*** **If the primary care provider has not been notified of this abnormal result, be sure to do so!* **Assess respiratory status for tachypnea and breath sounds. Listen closely for basilar or scattered crackles.* **Assess HR and SBP carefully to promote decreased cardiac workload (heart rate < 80 and SBP ,140 goals for most patients).* **Closely assess tolerance to activity* **Closely assess I&O* *(Van Leeuwen & Bladh, 2015)*

		BNP reflects the degree and progression of heart failure. BNP physiologically promotes venous and arterial vasodilation. It is the body's own attempt to compensate for heart failure through both PRELOAD and AFTERLOAD REDUCTION. BNP also promotes diuresis by increasing the glomerular filtration rate (GFR). This influences and decreases PRELOAD.	

Clinical Reasoning Begins…

1. What is the primary problem that your patient is most likely presenting with?

Hypertensive urgency that may be a hypertensive crisis. More data is needed to confirm a hypertensive crisis, including renal dysfunction that is most commonly seen with persistent uncontrolled hypertension.

2. What is the underlying cause/pathophysiology of this primary problem?

Essential HTN has no known cause and is multifactorial, usually caused by an increase in vascular peripheral resistance that can be influenced by increased sympathetic nervous system stimulation, increased activity of the renin-angiotensin-aldosterone system, and decreased vasodilation of arterioles related to vascular dysfunction. Primary hypertension is associated with risk factors such as genetic predisposition, stress, obesity, and a high-sodium diet (Sommers & Fannin, 2015).

Collaborative Care: Medical Management

Care Provider Orders:	**Rationale:**
Basic metabolic panel (BMP)	***ALWAYS relevant labs in this panel that must be noted by the nurse include: sodium, potassium, and creatinine****. Routinely ordered to establish clinical baseline; must be TRENDED in the clinical setting by both the nurse and primary care provider. In the context of this scenario, the creatinine will be very RELEVANT because renal damage can occur with sustained elevated BP!*
Complete cell count (CBC)	***ALWAYS relevant labs in this panel that must be noted by the nurse include WBC, neutrophil %, and bands, if patient is at risk for sepsis.*** *Routinely ordered to establish clinical baseline. Data must be TRENDED in the clinical setting by both the nurse and primary care provider.*
BNP (B-natriuretic Peptide)	*B-Natreutic Peptide is a hormone produced by heart muscle. When the left ventricle is stretched or stressed with persistent elevated BP (afterload), this will increase the secretion of this hormone if this is occurring.*
Lipid profile	*Determine current lipid levels that will likely be elevated and the medication required to more effectively manage them after discharge.*
Urine analysis (UA)	*Routinely done by many care providers, but in the context of hypertensive crisis, the nurse must recognize the significance of + protein (large molecule) that should be filtered by the glomeruli, as well as hematuria.*

12-lead EKG	*Standard of care in this presentation. Will often see significantly enlarged QRS complexes in the anterior leads (V1–V4) due to left ventricular (LV) hypertrophy because these leads look directly at the LV. If patient is having an infarction, the EKG may show ST or T-wave changes*
Chest X-ray	*Will identify LV enlargement and any other abnormalities that may be present because of severe HTN. An enlarged cardiac silhouette will show on the X-ray.*
Labetalol 20 mg IV push every 10". Maximum 300 mg dose. Goal-BP: 160/100	*Alpha and beta blockers will lower SBP/afterload and decrease the workload of the heart.*

Collaborative Care: Nursing

3. What nursing priority(ies) will guide your plan of care? (if more than one-list in order of PRIORITY)

- Need to slowly and steadily lower BP
  - Textbook goal for normal BP is 120/80. The primary care provider will write orders with a goal range for BP that may be higher than textbook norms. This is an excellent example of how a NANDA nursing diagnostic priority does not readily "fit" the current priority. Simply stating the obvious priority is how a nurse thinks in practice!
- Assess for end-organ damage including renal dysfunction
- Knowledge deficit o Though this is not a pressing nursing priority, the nurse must plan and prepare accordingly, based on what is known to this point.

4. What interventions will you initiate based on this priority?

Nursing Interventions:	**Rationale:**	**Expected Outcome:**

Frequently assess BP (every 15–30 minutes) and TREND closely	*THINKING like a nurse requires clinical reasoning–the ability to recognize and note the direction of clinical TRENDS. This allows the nurse to evaluate the plan of care as labetalol IV is administered.*	*BP will decrease*
Administer labetalol as ordered and assess response to BP as well as to HR	*Alpha and beta blocker that will lower BP– afterload as well as HR*	*BP will decrease*
Assess frequently for any changes in current HA	*As BP decreases, would expect to see the level of pain decrease. This is another TREND that must be closely monitored by the nurse.*	*HA decreases as BP decreases*
Assess for complications of hypertensive emergencies: cardiac impairment, neurological deficit, and/or renal impairment	*Sustained hypertension can damage numerous organs over time and this damage needs to be determined.*	*Kidney dysfunction may be present. Most common due to damage to fragile capillary membrane of glomeruli*
Inform and educate the patient about the current plan of care.	*In addition to being a courtesy to the patient, knowledge has the power to DECREASE ANXIETY, which will lower BP. Though Mike has not appeared anxious, this must be assumed in someone who has not been in the hospital recently.*	*Decreased anxiety– resting comfortably*

5. What body system(s) will you most thoroughly assess based on the primary/priority concern?

- CARDIAC, with close attention to his current BP trends as well as 12-lead EKG. Assess presence of chest pain.
- RENAL system. Assess urine output as well as creatinine.
- NEURO system must be on the radar if the blood pressure does not come down readily because of the current complaint of HA and possibility of a stroke.

6. What is the worst possible/most likely complication to anticipate?

Acute neuro changes that may be from a cerebral vascular accident (CVA) if his BP remains elevated, as well as chest pain due to increased risk of acute coronary syndrome.

7. What nursing assessments will identify this complication EARLY if it develops?

- Frequent neuro assessments for any changes in HA, orientation, confusion or level of consciousness (LOC)
- Assess for any complaint of chest pain or referred pain to neck, back, arms, jaw
- What will be the consequences of uncontrolled hypertension to the rest of Mike's body if it remains out of control? List body systems and potential permanent injury:

- Coronary artery disease (CAD)
- Heart failure (HF) secondary to ventricular hypertrophy
- Cerebral vascular accident (CVA)
- Peripheral vascular disease (PVD)
- Nephrosclerosis-end-stage renal disease (ESRD)
- Retinal damage that could lead due to visual deficits

8. What nursing interventions will you initiate if this complication develops?

- Initiate a Rapid Response if this is available in the institution. Mike would likely be transferred to ICU.
- Contact the primary care provider using SBAR with any new or developing neurological changes

9. What psychosocial needs will this patient and/or family likely have that will need to be addressed?

- Knowledge and education about what is taking place and the care priorities for the days ahead
- Emotional support

10. How can the nurse address these psychosocial needs?

• Knowledge and education regarding illness and plan of care o The nurse can integrate patient/family education naturally while providing care by simply explaining at their level everything that the nurse/physician has ordered and WHY it needs to be done. This is why it is essential for the nurse to know and DEEPLY understand the rationale for both the physician and nursing plan of care.

• Emotional support o BE PRESENT and AVAILABLE to your patient. See the section on caring at the end of this case study for more information

Medication Dosage Calculation:

Medication/Dose:	**Mechanism of Action:**	**Volume/time frame to Safely Administer:**	**Nursing Assessment/Considerations:**
Labetalol 20 mg IV push 5 mg/mL vial	*This is why the nurse must UNDERSTAND pathophysiology and the contextualization of mechanism of action. This description of the mechanism of action is taken straight from Micromedex. Do you understand it?* ***"Labetalol is a selective alpha-blocking and nonselective beta-adrenergic blocking agent with weak intrinsic***	**4 mL** **IV Push: Volume every 15 sec?** *Over 2 minutes so would be 0.5 mL every 15 seconds*	**Obtain BP and HR before administering–hold typically if SBP<90, HR <60* **Change position slowly – especially with elderly – to prevent orthostatic changes.* **Contraindicated in worsening heart failure, bradycardia, or heart block…use with caution in diabetes, liver disease, and COPD patients.*

	sympathomimetic activity. Labetalol blocks beta-1 and beta-2 adrenoceptors to a similar degree". *This is an excellent opportunity to situate A&P and discuss the physiologic effects of alpha blocking (arterial vasodilation), beta-1 blocking (lowered BP) and beta-2 blocking (bronchiole constriction). THEREFORE knowing that labetalol is also a beta-2 blocker, what type of patient must it be used cautiously in? Those with COPD and diabetes.* (Vallerand, Sanoski, & Deglin, 2014).		

Evaluation:

Evaluate your patient's response to nursing and medical interventions during your shift. All physician orders listed under medical management have been implemented.

Two hours later…

Mike has received a third dose of labetalol 20 mg IV push and you obtain the following clinical data when he is re-assessed:

Current VS:	**Most Recent:**	**Current PQRST:**	**Previous:**
T: 98.6 (oral)	**T:** 98.9 (oral)	**P**rovoking/Palliative: Nothing/Nothing	Nothing/Nothing
P: 82 (regular)	**P:** 78 (regular)	**Q**uality: Ache	Ache
R: 16	**R:** 20	**R**egion/Radiation: global HA	Global HA
BP: 176/104	**BP:** 188/102	**S**everity: 3/10	8/10
O2 sat: 96% (RA)	**O2 sat:** 95% (RA)	**T**iming: Continuous	Continuous

Current Assessment:	
GENERAL APPEARANCE:	Resting comfortably, appears relaxed and in no acute distress
RESP:	Breath sounds clear with equal aeration bilaterally ant/post, non-labored respiratory effort
CARDIAC:	Pink, warm and dry, no edema, heart sounds regular with no abnormal beats, pulses strong, equal with palpation at radial/pedal/post-tibial landmarks
NEURO:	Alert and oriented to person, place, time, and situation (x4)
GI:	Abdomen soft/non-tender, bowel sounds audible per auscultation in all 4 quadrants
GU:	Voiding without difficulty, urine clear/yellow
SKIN:	Skin integrity intact, skin color

1. ***What clinical data are RELEVANT that must be recognized as clinically significant?***

RELEVANT VS Data:	**Clinical Significance:**
BP: 176/104	By closely TRENDING all RELEVANT clinical data, a key component of CLINICAL

Global HA: 3/10	REASONING, we see his BP is trending in the right direction, but Mike is not yet at goal. This level of pain is also TRENDING in the right direction, but is not yet eliminated
RELEVANT Assessment Data:	**Clinical Significance:**
All assessment data is WNL	Status improving

2. Has the status improved or not as expected to this point?

His status has clearly improved, reflected in the decreased BP, and level of pain in HA, but he is still not at goal.

3. Does your nursing priority or plan of care need to be modified in any way after this evaluation assessment?

No, the previous priority of lowering BP is still needed and relevant. Mike is not at goal of BP 160/100 but is getting closer.

4. Based on your current evaluation, what are your nursing priorities and plan of care?

Will remain the same as previously identified. The ED primary care provider decides to admit Mike to the hospital. The admitting primary care provider assesses Mike and writes the following orders:

Collaborative Care: Medical Management

Care Provider Orders:	**Rationale:**	**Expected Outcome:**
Heart echocardiogram in the morning	*Gold standard to identify any wall motion abnormalities and ejection fraction %, which identifies the percentage of the LV contents that are ejected with contraction. Normal is 55–65%*	*Determine degree of impaired LV function, if present*
Hydrocodone 5 mg/acetaminophen 325 mg 1–2 tabs PO every 4 hours prn–HA	*Narcotic (schedule 3)/Tylenol combination analgesic*	*HA pain decreased*

Hydrochlorothiazide 25mg PO daily	*Thiazide diuretic-inhibits sodium reabsorption in the distal tubule. Intermediate in diuretic potency.*	*Increase urine output– decrease BP*
Lisinopril 10 mg PO daily	*Angiotensin-converting enzyme (ACE) inhibitors block the conversion of angiotensin I to the vasoconstrictor angiotensin II. ACE inhibitors also prevent the degradation of bradykinin and other vasodilatory prostaglandins. ACE inhibitors also increase plasma renin levels and lower aldosterone levels. The net result is systemic vasodilation. Therapeutic Effects: Lowering of BP in patients with hypertension. Increased survival and reduction of symptoms in patients with symptomatic heart failure. Decreased development of overt heart failure. Assess closely for ACE cough, angioedema, and hyperkalemia since this is a new medication.*	*Decrease BP*
Simvastatin 20 mg PO daily	*Inhibits an enzyme responsible for early synthesis of cholesterol in the liver. Decreases LDL and increases HDL. Assess for myopathies since this is a new medication.*	*Decrease LDL, increase HDL*
Aspirin 81 mg PO daily	*Inhibits platelet aggregation and decreases the likelihood of blood clot formation that could cause an acute event with those who have vascular disease.*	*Prevent thrombus formation*
Cardiac diet	*Low fat/low cholesterol diet will decrease risk of progression of vascular disease. Will need to educate Mike on this for home as well!*	*Decrease cholesterol levels, minimize atherosclerotic progression*
Hgb A1c	*Hgb A1c or glycosylated Hgb is a strong predicator of how well blood glucose has been controlled the*	

	previous 2–3 months. The higher the value, the poorer the control has been. When clustered with other clinical data such as the glucose of 188 and glucose in the urine, it's apparent Mike also has type II diabetes.	*If elevated blood glucose has been present over time, will be >7*

Effective and concise handoffs are essential to excellent care and if not done well can adversely impact the care of this patient. You have done an excellent job to this point, now finish strong and give the following SBAR report to the nurse who will be caring for this patient who is being admitted on the telemetry floor:

Situation:
Name/age: Mike Kelly is a 51-year-old Black male. BRIEF summary of primary problem: He came to the ED today because he was more easily fatigued and has had a headache that he rates 8/10 for the past 3 days that has not improved. Initial BP 220/118 Day of admission/post-op #: Being admitted
Background:
Primary problem/diagnosis: Uncontrolled HTN RELEVANT past medical history: He previously had no diagnosed medical problems, but has been diagnosed with hypertension. Clinical data suggest heart enlargement, acute renal failure, and possibly type II diabetes.
Assessment:
Most recent vital signs: *T: 98.6 (oral) P: 82 (regular) R: 16 BP: 176/104 O2 sat: 96% RA* **RELEVANT body system nursing assessment data:** *Head to toe assessment unremarkable HA decreased from 8/10 to 3/10 as BP has decreased* **RELEVANT lab values:** • *Creatinine: 1.5* • *BNP: 758* • *CXR: enlarged heart*

• *Lipid panel: abnormal with significant elevations* • *Blood glucose: 188* • *Hgb A1c: pending* **TREND of any abnormal clinical data (stable-increasing/decreasing):** *BP decreasing after labetalol* **How have you advanced the plan of care?** *Has received labetalol 20 mg IV push x 3* **Patient response:** *Last BP: 176/104* **INTERPRETATION of current clinical status (stable/unstable/worsening):** *Stable and improving but requires close assessment*
Recommendations:
Suggestions to advance plan of care: • *Closely assess trend of BP to obtain goal of 160/100.* • *Follow up Hgb A1c results and contact primary care provider if elevated.*

Education Priorities/Discharge Planning

1. What will be the most important discharge/education priorities you will reinforce with Mike's medical condition to prevent future readmission with the same problem?

Recognize that you can't teach everything to Mike at the first session. If he is diagnosed with diabetes, this will be your first education priority. Talk with wife present if ok with Mike. Talk about how to make lifestyle changes. Can't do everything at one time, need for support, and new medication regimen. All of this could be overwhelming for Mike. How do you as the nurse plan to break it down?

Examine what Mike is motivated to hear about now. Hypertension is the current problem. Don't forget to assess what he knows first about diabetes and HTN. Don't forget the affective domain influences how much a patient can learn. Priority setting in teaching is very important. Make it conversational and listen to the patient. Some additional relevant educational topics include:

- Decrease and then attempt to eliminate tobacco
- Restrict sodium…<2.4 gm daily. Most Americans consume 15 gm salt per day. Low fat diet.
- Likely will need diabetic teaching for type II
- Increase physical activity: 30 minutes 4–5x/week

2. What are some practical ways you as the nurse can assess the effectiveness of your teaching with this patient?

After any education has been completed with the patient or family, assess the effectiveness of your teaching by having them restate the essence or most important points. . Repeat later in the shift to ensure retention.

Caring and the "Art" of Nursing

1. What is the patient likely experiencing/feeling right now in this situation?

Mike is likely overwhelmed. "How am I going to make these changes? Afford meds? Eat differently? Make time to exercise, stop smoking, follow-up with MD appointments? I have no insurance." Lots to consider, how can the nurse break it down so the patient is not overwhelmed? Be sure to listen to his concerns. The nurse must also be very sensitive to the dynamics between Mike and his wife. Is there obvious friction or are caring and concern readily demonstrated?

The nurse needs to put her/himself in the place of the patient to identify what is being experienced in this situation. The patient is likely aware of the seriousness of the current change

in status and may be fearful and anxious. Support both the patient and family intentionally by giving them as much information about her current status and explain the plan of care from both a nursing and medical perspective. KNOWLEDGE is POWER from a patient's perspective, and when the nurse provides this information, it will DECREASE anxiety and fear and make a real difference in Mike's well-being.

Nurse must use available resources and understand the different services that ancillary staff provide. Social services, case management, respiratory therapy, dietician, spiritual care. Even in the context of a patient who is critically ill, when you simply and matter-of-factly share what you are doing and why, it demonstrates the caring and support that is needed.

2. What can you do to engage yourself with this patient's experience and show that he matters to you as a person?

Regardless of the clinical setting, remember the importance of touch and your presence as you provide care. If you are using Swanson's Caring framework (which I encourage you to do–see my "Teaching Caring" tab on KeithRN.com), the following practical caring interventions can be "tools" in your caring toolbox to use depending on the circumstance and the patient needs (Swanson, 1991).

o Comforting

- Little things to comfort–whatever it may be–are needed and appreciated! i.e., hand or foot massage for pain control

o Anticipating their needs

- Staying one step ahead and not behind, especially in a crisis is essential! Is everything where the patient can reach it before you leave the room?

o Performing competently/skillfully

- Remember that when a nurse or student nurse does their job well and competently, this demonstrates caring to the patient!

o Preserving dignity

- Maintaining privacy at all times is essential and is all too easily forgotten due to pressing physical needs. Pulling the curtain and covering exposed genitalia are all that is needed. They are little things, but so important to preserve human dignity. Accomplishing bodily functions which are disrupted with someone else present is significant. Be respectful of privacy issues.

o Informing/explaining–patient education

- Even in a crisis, simply explain all that you are doing. If your patient is not able to respond but family are present, do not forget to explain to them all that you are doing and why. This is truly the "art" of nursing and makes such a difference when done in practice!

Use Reflection to THINK Like a Nurse

Reflection-IN-action (Tanner, 2006) is the nurse's ability to accurately interpret the patient's response to an intervention in the moment as the events are unfolding to make a correct clinical judgement.

1. ***What did I learn from this scenario?***

   Have students share and reflect

2. ***How can I use what has been learned from this scenario to improve patient care in the future?***

   Have students share and reflect

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APPENDIX G: Clinical Decision Making in Nursing Scale (CDMNS)

Circle whether you would likely behave in the described way:

A — Always: What you consistently do every time.

F — Frequently: What you usually do most of the time.

O — Occasionally: What you sometimes do on occasion.

S — Seldom: What you rarely do.

N — Never: What you never do at any time.

Sample statement: I mentally list options before making a decision.

Key: A (F) O S N

The circle around response F means that you usually mentally list options before making a decision.

Note: Be sure you respond in terms of what you are doing in the clinical setting at the present time.

1. If the clinical decision is vital and there is time, I conduct a thorough search for alternatives.

A F O S N

2. When a person is ill, his or her cultural values and beliefs are secondary to the implementation of health services.

A F O S N

3. The situational factors at the time determine the number of options that I explore before making a decision.

A F O S N

4. Looking for new information in making a decision is more trouble than it's worth.

A F O S N

5. I use books or professional literature to look up things I don't understand.

A F O S N

6. A random approach for looking at options works best for me.

A F O S N

7. Brainstorming is a method I use when thinking of ideas for options.

A F O S N

8. I go out of my way to get as much information as possible to make decisions.

A F O S N

9. I assist clients in exercising their rights to make decisions about their own care.

A F O S N

10. When my values conflict with those of the client, I am objective enough to handle the decision making required for the situation.

A F O S N

11. I listen to or consider expert advice or judgement, even though it may not be the choice I would make.

A F O S N

12. I solve a problem or make a decision without consulting anyone, using information available to me at the time.

A F O S N

13. I don't always take time to examine all the possible consequences of a decision I must make.

A F O S N

14. I consider the future welfare of the family when I make a clinical decision which involves the individual.

A F O S N

15. I have little time or energy available to search for information.

A F O S N

16. I mentally list options before making a decision.

A F O S N

17. When examining consequences of options I might choose, I generally think through "If I did this, then. . .".

A F O S N

18. I consider even the remotest consequences before making a choice.

A F O S N

19. Consensus among my peer group is important to me in making a decision.

A F O S N

20. I include clients as sources of information.

A F O S N

21. I consider what my peers will say when I think about possible choices I could make.

A F O S N

22. If an instructor recommends an option to a clinical decision making situation, I adopt it rather than searching for other options.

A F O S N

23. If a benefit is really great, I will favor it without looking at all the risks.

A F O S N

24. I search for new information randomly.

A F O S N

25. My past experiences have little to do with how actively I look at risks and benefits for decisions about clients.

A F O S N

26. When examining consequences of options I might choose, I am aware of the positive outcomes for my client.

A F O S N

27. I select options that I have used successfully in similar circumstances in the past.

A F O S N

28. If the risks are serious enough to cause problems, I reject the option.

A F O S N

29. I write out a list of positive and negative consequences when I am evaluating an important clinical decision.

A F O S N

30. I do not ask my peers to suggest options for my clinical decisions.

A F O S N

31. My professional values are inconsistent with my personal values.

A F O S N

32. My finding of alternatives seems to be largely a matter of luck.

A F O S N

33. In the clinical setting I keep in mind the course objectives for the day's experience.

A F O S N

34. The risks and benefits are the farthest thing from my mind when I have to make a decision.

A F O S N

35. When I have a clinical decision to make, I consider the institutional priorities and standards.

A F O S N

36. I involve others in my decision making only if the situation calls for it.

A F O S N

37. In my search for options, I include even those that might be thought of as "far out" or not feasible.

A F O S N

38. Finding out about the client's objectives is a regular part of my clinical decision making.

A F O S N

39. I examine the risks and benefits only for consequences that have serious implications.

A F O S N

40. The client's values have to be consistent with my own in order for me to make a good decision.

A F O S N

Thank you for being a participant in this study. Do you have any ideas about decision making in nursing that were not covered by the scale that you would like to share? You can speak to specific items or give any general comments you would like to. Feel free to use this last page or the back of the answer sheet.

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APPENDIX H: Demographic Survey

1. Are you enrolled in an advanced/senior level nursing course in an accredited nursing program?

__Yes

__No

2. What is your ethnicity/race?

__Indian/Alaska Native

__Asian

__Black or African American

__Pacific Islander

__Hispanic or Latino

__Other

3. What is your Gender Identity?

__Male

__Female

__Non-binary/third gender

__Other

APPENDIX I: Unfolding Case Study-Student Template

Hypertension

(Free pic from https://www.flickr.com/photos/68716695@N06/29095571713)

Primary Concept
Perfusion
Interrelated Concepts (In order of emphasis)
1. Glucose Regulation 2. Pain 3. Clinical Judgment 4. Patient Education 5. Communication 6. Collaboration

Hypertension

History of Present Problem:

Mike Wilson is a 51-year-old Black male who is 6 feet tall and weighs 275 pounds (BMI 37.3) with an abnormal distribution of weight around his abdomen. He does not regularly exercise,

does not like to cook, and eats fast food three to five times during the week. He has smoked one pack per day since the age of 20 (31 pack years). He has a history of hyperlipidemia but is unable to afford his medication (atorvastatin) and has not taken since he was diagnosed 5 years ago. He has no current diagnosed medical problems. He became concerned and came to the emergency department because he is more easily fatigued and has had a headache the past three days that has not improved.

Personal/Social History:

Mike is self-employed and owns his own auto mechanic business. He has no health insurance. His father had hypertension and died of a myocardial infarction (MI) at the age of 50. Angela, his wife, came with him to urgent care. She shares that he is usually stoic about health problems, so this must really bother him. He took Excedrin and Motrin for pain, and it didn't help.

What data from the histories are RELEVANT and have clinical significance for the nurse?

RELEVANT Data from Present Problem:	**Clinical Significance:**
RELEVANT Data from Social History:	**Clinical Significance:**

Patient Care Begins:

Current VS:	**P-Q-R-S-T Pain Assessment (5th VS):**	
T: 98.9F/37.2 C (oral)	**P**rovoking/Palliative:	Nothing/Nothing
P: 90	**Q**uality:	Ache
R: 20	**R**egion/Radiation:	Global headache (HA)
BP: 220/118	**S**everity:	8/10
O2 sat: 95% room air	**T**iming:	Continuous

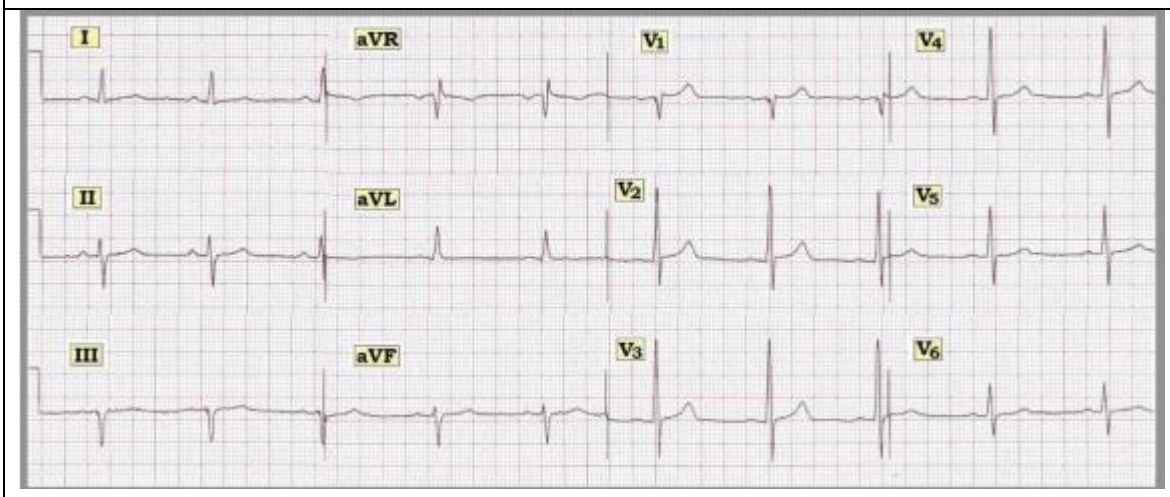
What VS data are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT VS Data:	**Clinical Significance:**

Current Assessment:	
GENERAL APPEARANCE:	Appears uncomfortable, body tense with occasional grimacing
RESP:	Breath sounds clear with equal aeration bilaterally ant/post, non-labored respiratory effort
CARDIAC:	Pink, warm and dry, no edema, heart sounds regular-S1S2. Pulses bounding, equal with palpation at radial/pedal/post-tibial landmarks
NEURO:	Alert and orientated to person, place, time and situation (x4)
GI:	Abdomen soft/non-tender, bowel sounds audible per auscultation in all 4 quadrants
GU:	Voiding without difficulty urine yellow/clear
SKIN:	Skin integrity intact, skin turgor elastic with no tenting, skin color

What assessment data are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Assessment Data:	**Clinical Significance:**

12-Lead EKG:

Interpretation:
Clinical Significance:

Radiology Reports: Chest x-ray

What diagnostic results are RELEVANT and must be recognized as clinically significant to the nurse?

RELEVANT Results:	**Clinical Significance:**
The cardiac size is enlarged. There are no focal infiltrates or consolidations or pleural effusions. IMPRESSION: 3. No acute disease in the chest 4. Moderate to severe cardiomegaly	

Lab Results:

Complete Blood Count (CBC):	**Current:**	**High/Low/WNL?**
WBC (4.5–11.0 mm 3)	10.5	
Hgb (12–16 g/dL)	15.3	
Platelets (150–450x 103/µl)	422	
Neutrophil % (42–72)	68	

What lab results are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Lab(s):	**Clinical Significance:**

Basic Metabolic Panel (BMP):	**Current:**	**High/Low/WNL?**
Sodium (135–145 mEq/L)	136	
Potassium (3.5–5.0 mEq/L)	4.0	
Glucose (70–110 mg/dL)	188	
BUN (7–25 mg/dl)	32	
Creatinine (0.6–1.2 mg/dL)	1.5	

What lab results are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Lab(s):	**Clinical Significance:**

Cardiac Labs:	**Current:**	**High/Low/WNL?**
BNP (B-natriuretic Peptide) (<100ng/L)	758	HIGH

What lab results are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Lab(s):	**Clinical Significance:**

Lipid Panel:	**Current:**	**High/Low/WNL?**
Low density lipoprotein–LDL (<130 mg/dL)	260	
High density lipoprotein-HDL (>40 mg/dL)	28	
Total cholesterol (<200 mg/dL)	290	
Triglycerides (30-149 mg/dl)	484	

What lab results are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Lab(s):	**Clinical Significance:**

Urine Analysis (UA):	**Current:**	**High/Low/WNL?**
Color (yellow)	Yellow	
Clarity (clear)	Clear	
Specific gravity (1.015-1.030)	1.018	
Protein (neg)	Moderate	
Glucose (neg)	Moderate	
Ketones (neg)	Negative	
Bilirubin (neg)	Negative	
Blood (neg)	Positive	
Nitrate (neg)	Negative	
LET (Leukocyte Esterase) (neg)	Negative	
MICRO:		
RBCs	3	
WBCs	2	
Bacteria (neg)	Negative	
Epithelail (neg)	Negative	

What lab results are RELEVANT and must be recognized as clinically significant by the nurse?

RELEVANT Lab(s):	**Clinical Significance:**

Lab Planning: Creating a Plan of Care with a PRIORITY Lab:

Lab:	**Normal Value:**	**Why Relevant?**	**Nursing Assessment/Interventions Required:**
BNP (B-natriuretic Peptide) **Value: 758**	**Critical Value:**		

Clinical Reasoning Begins…

1. What is the primary problem that your patient is most likely presenting with?

2. What is the underlying cause/pathophysiology of this primary problem?

Collaborative Care: Medical Management

Care Provider Orders:	**Rationale:**
Basic metabolic panel (BMP)	

Complete cell count (CBC)	
BNP (B-natriuretic Peptide)	
Lipid profile	
Urine analysis (UA)	
12-lead EKG	

Chest X-ray Labetalol 20 mg IV push every 10". Maximum 300 mg dose. Goal-BP: 160/100	

Collaborative Care: Nursing

3. What nursing priority(ies) will guide your plan of care? (if more than one-list in order of PRIORITY)

4. What interventions will you initiate based on this priority?

Nursing Interventions:	**Rationale:**	**Expected Outcome:**

5. What body system(s) will you most thoroughly assess based on the primary/priority concern?

6. What is the worst possible/most likely complication to anticipate?

7. What nursing assessments will identify this complication EARLY if it develops?

8. What nursing interventions will you initiate if this complication develops?

9. What psychosocial needs will this patient and/or family likely have that will need to be addressed?

10. How can the nurse address these psychosocial needs?

Medication Dosage Calculation:

Medication/Dose:	**Mechanism of Action:**	**Volume/time frame to Safely Administer:**	**Nursing Assessment/Considerations:**
Labetalol 20 mg IV push 5 mg/mL vial		**4 mL** **IV Push: Volume every 15 sec?**	

Evaluation:

Evaluate your patient's response to nursing and medical interventions during your shift. All physician orders listed under medical management have been implemented.

Two hours later…

Mike has received a third dose of labetalol 20 mg IV push and you obtain the following clinical data when he is re-assessed:

Current VS:	**Most Recent:**	**Current PQRST:**	**Previous:**
T: 98.6 (oral)	**T:** 98.9 (oral)	**P**rovoking/Palliative: Nothing/Nothing	Nothing/Nothing
P: 82 (regular)	**P:** 78 (regular)	**Q**uality: Ache	Ache
R: 16	**R:** 20	**R**egion/Radiation: global HA	Global HA
BP: 176/104	**BP:** 188/102	**S**everity: 3/10	8/10

O2 sat: 96% (RA)	**O2 sat:** 95% (RA)	**T**iming: Continuous	Continuous

Current Assessment:	
GENERAL APPEARANCE:	Resting comfortably, appears relaxed and in no acute distress
RESP:	Breath sounds clear with equal aeration bilaterally ant/post, non-labored respiratory effort
CARDIAC:	Pink, warm and dry, no edema, heart sounds regular with no abnormal beats, pulses strong, equal with palpation at radial/pedal/post-tibial landmarks
NEURO:	Alert and oriented to person, place, time, and situation (x4)
GI:	Abdomen soft/non-tender, bowel sounds audible per auscultation in all 4 quadrants
GU:	Voiding without difficulty, urine clear/yellow
SKIN:	Skin integrity intact

2. What clinical data are RELEVANT that must be recognized as clinically significant?

RELEVANT VS Data:	**Clinical Significance:**
RELEVANT Assessment Data:	**Clinical Significance:**

2. Has the status improved or not as expected to this point?

3. Does your nursing priority or plan of care need to be modified in any way after this evaluation assessment?

4. Based on your current evaluation, what are your nursing priorities and plan of care?

The ED primary care provider decides to admit Mike to the hospital. The admitting primary care provider assesses Mike and writes the following orders:

Collaborative Care: Medical Management

Care Provider Orders:	Rationale:	Expected Outcome:
Heart echocardiogram in the morning		
Hydrocodone 5 mg/acetaminophen 325 mg 1–2 tabs PO every 4 hours prn–HA		
Hydrochlorothiazide 25mg PO daily		
Lisinopril 10 mg PO daily		
Simvastatin 20 mg PO daily		
Aspirin 81 mg PO daily		

Cardiac diet Hgb A1c		

Effective and concise handoffs are essential to excellent care and if not done well can adversely impact the care of this patient. You have done an excellent job to this point, now finish strong and give the following SBAR report to the nurse who will be caring for this patient who is being admitted on the telemetry floor:

Situation:
Name/age: **BRIEF summary of primary problem:** **Day of admission/post-op #:**
Background:
Primary problem/diagnosis: **RELEVANT past medical history:**
Assessment:
Most recent vital signs: **RELEVANT body system nursing assessment data:** **RELEVANT lab values:** **TREND of any abnormal clinical data (stable-increasing/decreasing):**

How have you advanced the plan of care? **Patient response:** **INTERPRETATION of current clinical status (stable/unstable/worsening):**
Recommendations:
Suggestions to advance plan of care:

Education Priorities/Discharge Planning

1. What will be the most important discharge/education priorities you will reinforce with Mike's medical condition to prevent future readmission with the same problem?

2. What are some practical ways you as the nurse can assess the effectiveness of your teaching with this patient?

Caring and the "Art" of Nursing

1. What is the patient likely experiencing/feeling right now in this situation?

2. What can you do to engage yourself with this patient's experience and show that he matters to you as a person?

Use Reflection to THINK Like a Nurse

Reflection-IN-action (Tanner, 2006) is the nurse's ability to accurately interpret the patient's response to an intervention in the moment as the events are unfolding to make a correct clinical judgement.

3. ***What did I learn from this scenario?***

4. ***How can I use what has been learned from this scenario to improve patient care in the future?***

Author

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- Julie A. Hogue, RN, MSN, Nursing Instructor, Illinois Valley Community College, Oglesby, Illinois
- Sarah R. Pierce, DNP, AGACNP-BC, CCRN, PLNC, Freed-Hardeman University, Henderson, Tennessee

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APPENDIX J: Permission Request to Use Tool

Good evening Keith,

I really enjoyed collaborating with you and Dr. Blackwood. I just wanted to follow up with my request regarding your unfolding case study (Hypertension, 2016). As discussed, I am asking for your permission to use this unfolding case study in my research. The title of my research is the Role of Facilitator Ethnicity in Increasing Clinical Judgment Among Nursing Students Using Unfolding Case Studies: A Quasi-Experimental Study.

If permitted the facilitators will audio/video record selves guiding and facilitating students through the case study, students would complete the case study using the pdf student template. I am also requesting that students have the option to print out a pdf version of the student template and answer key to validate their answers.

I will use it only for my research study and will not sell or use it for any other purposes. I will include a statement of attribution and copyright within the research publication. If you have a specific statement of attribution that you would like me to include, please provide it in your response.

Attached you will find the **Response letter** to save time and effort in preparing a response.

I have added my Dissertation Committee Chair, Dr. Blackwood, to keep her abreast of my request/correspondence. Thank you in advance for your time and consideration.

Rachael King PhD(c), MSN, RN
Liberty University, Graduate School of Nursing
[redacted]

APPENDIX K: Permission Response to Use Tool

February 17, 2023
Keith Rischer
KeithRN©

Dear Rachael King:

After careful review of your research proposal entitled the *Role of Facilitator Ethnicity in Increasing Clinical Judgment Among Nursing Students Using Unfolding Case Studies: A Quasi-Experimental Study*. I have decided to grant you permission to conduct your study using the Hypertension (KeithRN, 2016) unfolding case study.

Check the following boxes, as applicable:

☒ I grant permission for Rachael King to have the facilitators audio/video record selves using the Hypertension (2016) unfolding case study and can adapt the original photograph and name.

☒ The participants have the option to print out a pdf version of the student template and the answer key of the 2016 Hypertension case study.

☒ I am requesting a copy of the results upon study completion and/or publication.

Sincerely,

Dr. Keith Rischer

[redacted]

2/18/2023