EMPATHY ASSESSMENT IN DOCTOR OF NURSING PRACTICE CURRICULUM

by

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ABSTRACT

Nursing is a caring profession requiring empathetic care for positive patient outcomes. The doctor of nursing practice (DNP) degree has recently become the standard of educational preparation for advanced prepared registered nurses (APRNs). It is unknown how DNP programs currently incorporate empathy as a therapeutic communication skill imperative for today's APRNs. Limited literature exists related to affective learning activities within the DNP curriculum, and even less research exists regarding empathy. The purpose of this scholarly project was to perform a baseline assessment of an existing DNP curriculum for empathetic learning activities and to establish an understanding of DNP student and nurse faculty perceptions related to the importance of empathy as a skill set for APRNs. Kristen Swanson's *Theory of Caring* was utilized to provide a robust framework for curriculum assessment. The measurement of DNP student and nurse faculty perceptions regarding empathy was accomplished through the use of student-developed online surveys. Course materials, including Master Resource Outlines, were evaluated for affective learning content as defined by Bloom's Taxonomy of Educational Objectives and Graber et al. (2012) well as current literature recommendations. Limited affective learning activities existed in the evaluated DNP curriculum, paralleling the lack of literature related to empathy in DNP curriculum. Both DNP students and nurse faculty place value on the development of empathy as an essential skill set for APRNs. Additional research is needed regarding empathy development in DNP curriculum to obtain a more complete understanding of this essential attribute of a DNP-prepared-APRN. In addition, valid and reliable curriculum survey tools are needed to perform comprehensive, evidence-based curriculum assessments.

Keywords: empathy, caring, nursing, affective learning, patient outcomes, education

CHAPTER ONE – INTRODUCTION

Introduction

Nursing is a caring profession providing empathetic healing and connection with people. While caring is not unique to nursing, caring interactions are essential to therapeutic nurse-patient relationships. Highly-rated nurses are those who practice strong empathetic skills to convey caring to patients along with having strong technical skills and knowledge. Patients desire nurses who practice strong empathetic and technical skills coupled with knowledge (Williams & Stickley, 2010). Advanced practice registered nursing (APRN) students who desire to further their careers and knowledge are motivated to provide holistic care for patients, but it is unknown how preexisting empathy skills are reinforced and further developed within graduate curriculum.

Empathy is a core nursing skill (Maruca, Diaz, Kuhnly & Jeffries, 2015), but it is a vague and ambiguous concept that is difficult to measure. Mohammadreza Hojat (2009, p. 413) defined empathy as a "predominately cognitive attribute that involves the ability to understand experiences, concerns, and perspectives of the patient, combined with a capacity to communicate this understanding." While empathy is an ability to understand and reflect on any given phenomena, the definition needs expansion to include the affective domain of human behavior. Per Bloom's Taxonomy of Educational Objectives (University of North Carolina, [UNC], 2018), the affective domain includes how people emotionally acknowledge and act upon feelings, values, appreciations, motivation, and attitudes while interacting with others. Because nursing is a profession

of human interaction, the ability for a nurse to understand a patient's view and experience must be coupled with emotional acknowledgement for healing to occur. Therefore, this project utilizes Hojat's (2009) definition of empathy through the lens of the affective domain as described by Bloom's Taxonomy of Educational Objectives (UNC, 2018).

Academic research and discussion related to empathy within the nursing profession began in the 1960s (McKenna, Boyle, Brown, Williams, Molloy, Lewis, & Molloy, 2012) and continues to be relevant today. Current literature provides conflicting evidence as to whether or not advanced nursing curriculum changes empathy levels in students. Some researchers support an increase in empathy in undergraduate nurses (Murphy, Jones, Edwards, James, & Mayer, 2009) whereas other researchers believe empathy wanes (Ward, Cody, Schaal, & Hojat, 2010). Other researchers (Cucino, Sartori, Marognolli, & Menegini, 2016) found that the gender of the nurse mostly impacts the development of empathy, with female nurses having stronger empathetic skills and traits than their male colleagues. The lack of literature related to empathy in DNP curriculum necessitates further investigation into empathy as a curriculum component.

Background

Historical descriptions of nursing characteristics date back to the founder of modern nursing, Florence Nightingale (Nightingale, 2008). Ms. Nightingale's writings describe compassion fueled by imagination with empathy and intelligence as motivation for early nurses to enter the profession (Rafferty, 2011). The early body of nursing knowledge related to empathy and caring continued to grow as more nurses contributed

their observations and experiences in writing. In 1847, Florence Lees proposed nurse vocational training should include kindness and compassionate skills with technical competence (Bradshaw, 2011). The early nurses recognized caring characteristics as the foundation of nursing, and many people believe that empathy is an essential attribute and skill for today's nursing professionals.

Interest in empathy reemerged in nursing literature in the 1980s. La Monica, Wolf, Madea, and Oberst (1987) investigated how patient outcomes could be influenced when nurses receive affective training. These researchers utilized an experimental design and compared outcomes between a group of nurses who received empathy training and a control group that did not. Results from this study showed significantly decreased anxiety and hostility in patients who received care from empathy trained nurses. Both depression scores and satisfaction scores improved for the experimental group (patient rated score on empathy pre-intervention M= 189.2, SD 64.0 [-51 to 252], post-intervention M = 203.7, SD 59.2 [-33 to 252]). Anxiety, hostility, depression, and satisfaction scores did not improve within the control group.

Bennett (1995) stated that empiric research had not proven the relationship between nurse empathy and patient outcomes. At the time of her research publishing in 1995, she argued that nurse researchers had not explored nursing curriculum nor examined specific nursing curriculum components that could reinforce empathetic communication skills. She recommended future research should identify types of learning activities and program components that are most effective for teaching empathy in nursing curriculum.

Kristen Swanson (1999), developer of the *Theory of Caring* performed a meta-analysis of nursing literature related to patient outcomes influenced by nurse-caring practices. She discovered a plethora of published qualitative literature on nurse caring, but a lack of published quantitative data. Dr. Swanson advocated for researchers to explore empathy as an important phenomenon in nursing curriculum. She focused on utilizing theoretical frameworks to direct future nursing research and argued that frameworks would assist researchers in conceptualization of caring concepts. These concepts could lead to further exploration of whether or not caring can be taught in curriculum and enhanced with experience (Swanson, 1999). Through her research, Swanson developed her own theoretical framework to study the phenomenon of nurse caring. Her theory became integral to this scholarly project and was used as the theoretical underpinning.

Current Research

For the past two decades, researchers have focused on empathy development in students enrolled in schools of nursing and medicine. Conflicting findings exist on whether empathy levels decrease or remain constant for students as they progress through school. Complicating this issue is the lack of research on DNP-prepared-APRN student perceptions related to empathy, whether empathy can be reinforced through educational activities, and the effects of empathy on patient outcomes. Given the lack of literature related to empathy in DNP curriculum, research findings published from undergraduate nursing programs and medical schools were considered for this project as APRNs share

similarities with the physician's role of independent provider and the holistic caring role of the basic nurse.

Ward, Cody, Schaal, and Hojat (2010) state empathy levels decline as students progress through undergraduate nursing programs. Current programs of undergraduate nursing focus on increasingly technical and advanced skills but have decreased the emphasis on patient-provider relationships and interactions (Ward et al., 2010). Additional researchers (Cunico, Sartori, Marognolli, & Menegini, 2016) support the argument that empathy is diminishing throughout nursing curriculum. This decline may be a result of the emphasis for evidence-based practice outweighing therapeutic nurse-patient skills taught in nursing school.

In 2009, a quantitative, single cross-sectional survey of nursing students attending school in Wales, England revealed how caring behaviors significantly decline as education progresses (Murphy, Jones, Edwards, James, & Mayer, 2009) and that student age may influence empathy levels. Younger students in their study scored higher in empathy compared to students older than 26 years of age, p=0.001. Approximately 60% of students enrolled in graduate-level nursing programs are over the age of 30, compared to only 18% of enrolled students in Bachelor of Science nursing degrees (NLN, 2014). It is unknown whether age or previous nursing experience has more influence on empathetic communication levels in DNP students or if empathy wanes as a result of burnout, stress, and exhaustion due to experience rather than age.

Not all researchers agree that empathy declines during nursing education. Some researchers refute empathy decreases throughout educational preparation, but may

actually increase (Sheehan, Perrin, Potter, Kazanowki, & Bennet, 2013). Sheehan et al. (2013) measured levels of empathy in undergraduate nursing students who attended an elective nursing course on human suffering using the *Jefferson Scale of Empathy*, *Nursing Student Version R*. They found empathy levels actually increase if students are provided educational courses and exercises (pre-course empathy scores $M = 116.95$, $SD = 9.803$; post-course empathy scores $M = 123.97$, $SD = 7.782$).

The conflicting findings from researchers highlight the importance of looking at empathy through the lens of the DNP student and nurse faculty to study how much value is placed on empathy as a therapeutic communication skill for APRNs. Without individual program baseline measurements of affective learning activities aimed at nurturing and reinforcement of empathetic communication, changes cannot be proposed for program quality improvements.

Statement of the Problem

The skill of empathy is critical in the care of patients and a fundamental element of the affective caring domain of nursing education. The DNP degree is the newest educational preparation for APRNs. However, the extent of empathy and affective learning is unknown in the DNP curriculum. Empathy's contribution to positive patient outcomes and distinction of APRNs from other healthcare providers supports its relevance and priority for curricula identification and evaluation.

Purpose Statement

The purpose of this scholarly project is to identify and evaluate the inclusion of empathetic affective learning in one statewide doctor of nursing practice (DNP) program in the northwest.

Project Goals

The goals of this scholarly project were to:

1. Understand the perception of importance of empathetic skills within DNP students,
2. Assess an existing DNP curriculum for affective therapeutic communication activities,
3. Provide best-practice recommendations to incorporate activities into curriculum aimed at further refining affective behavioral skills, and
4. Fulfill the requirements of the DNP core essential for translating current evidence-based research into educational practice.

Significance of the Problem

Limited literature exists regarding educational activities within DNP curricula aimed at improving students' therapeutic communication skills. Williams and Stickley (2010) argue that substantial evidence in current nursing literature supports the importance of nursing empathy; however, patients often perceive empathy as lacking. It

is unknown whether patients perceive empathy as deficient during interactions with APRNs.

Medical researchers (Mahmoudian, Zamani, Tavokoli, Farajzadegan, & Fathollahi-Dehkordi, 2017) have published literature on how patients' perceptions of empathy can impact health outcomes. These researchers performed a randomized, cross-sectional survey of 300 patients with hypertension and found that patients who experienced lower empathy provided by their physicians had poorer adherence to medical treatment and lower satisfaction of care (satisfaction scores 95% CI [0.06 – 0.071], OR = 0.20; empathy scores [13- 0.80], OR 0.33). The study highlighted how patient-provider communication can be a key factor in patient behaviors. The way patients cope and accept their illness, rate their confidence in their providers, and adhere to physician instructions are all related to perceived communication and empathy received during patient-provider interactions (Mahmoudian, et al., 2017).

CHAPTER TWO – LITERATURE REVIEW

Literature Review

A comprehensive literature review was conducted through online university library database searches until saturation of themes and concepts occurred. Research librarians from the Renee Library at Montana State University and the Mansfield Library at the University of Montana assisted with literature searches. Databases searched included CINAHL, PubMed, Psych Info, ERIC, and Cochrane Review. No date limits were used to ensure capture of seminal work. The following search terms were utilized: empathy, caring, nursing, affective behavior, patient outcomes, and education. Research articles from nursing, education, psychology, and medicine were reviewed and selected for this project due to level of evidence and applicability for this project.

Limited literature was found specifically related to DNP curriculum; therefore, basic nursing and medical literature are included. APRNs and physicians share a common role of independent healthcare providers, albeit different in scope, but medical research pertaining to communication skills and patient outcomes are applicable to advanced practice nursing. This project includes best-practice empathetic educational activities taught in undergraduate nursing and medical school curricula.

Through the extensive literature search, articles were found and critiqued related to affective learning activities promoting empathy development in various healthcare provider curricula. The following studies were chosen due to their strength in evidence and project applicability and include the healthcare disciplines of nursing and medicine.

Medical education researchers Blasco and Moreto (2012) state that empathy can be a bridge between gaps in evidence-based medicine and patient-centered care. These researchers advocate for developing empathy in students through the use of post-event reflection or debriefing. Suggested affective learning activities include reflection on art, literature and/or cinema, and utilization of movies to explore and discuss difficult scenarios. These researchers provide a comprehensive list of movies in their article, organized by affective learning themes for use in the learning environment.

Bolkan (2015) discusses motivating student affective learning through intellectual stimulation. Affective learning activities can provoke self-motivated change in students' attitudes and emotions if students are provided with engaging learning activities. Bolkan (2015) states when students feel intellectually stimulated, they tend to work toward mastering course content (*intrinsic motivation*) instead of working toward a grade (*extrinsic motivation*). Per Bolkan (2015), nurse faculty can create affective learning activities to include three elements: 1) an interactive teaching style, 2) a challenge for students, and 3) encouragement for independent thought.

Fiske (2017), a nursing researcher, states that students can develop an awareness of their own thoughts and emotions through attending contemplative community activities. She suggests students attend controversial events (vigils against violence, race disparity, sexual discrimination, or crimes), followed by journaling or creating digital portfolios about the experience.

Graber et al. (2012) asked if caring and compassionate skills are taught in health professional curricula, and what educational programs ensure affective learning. These

authors stated that research pertaining to affective learning activities appropriate for health professional curriculum is meager. They identified six key elements that can be used throughout curriculum to assist in student development of caring and empathy. These elements have been incorporated into an interdisciplinary curriculum at the Medical University of South Carolina for the disciplines of nurse practitioner, physician assistant, physical therapy, and occupational therapy (Graber et al., 2012). These six elements include 1) experience through patient simulations; 2) reflection of student experiences; 3) problem solving difficult conversations; 4) role modeling through guest speakers, mentors, biographies, discussion of movies depicting positive and poor examples of provider communication; 5) active participation in small student teams; and 6) didactic skill building through lecture, active listening, and patient advocating assignments.

Hojat (2009), a nursing researcher, describes how empathetic engagement occurs when a nurse is able to recognize a patient's emotions, concerns, and inner experiences. Recognition occurs through the nurse's exploration and reflection of the patient's experience. The goal is for patients to feel understood by their providers. "Understanding is the key ingredient to empathy" (Hojat, 2009, p. 423). Suggested affective learning activities per Hojat (2009) include role modeling, student reflection, and writing. Role modeling with mentors is effective in assisting students to learn empathy and is exampled in playing the role of an elderly person with a sensory deficit to help the student develop an awareness and increase understanding of the patient experience. Student reflection of literature, art, movies, and music related to human

suffering via journaling can also assist students in developing the skill of recognition. Lastly, writing a narrative of a patient's illness from the patient perspective can lead students to better understand the patient's world and perspective.

Nursing researchers at Saint Anselm College in Manchester, New Hampshire explored the effect of an elective course provided to undergraduate nursing students aimed at measuring changes in empathy (Sheehan, Perrin, Potter, Kazanowksi, & Bennett, 2013). These researchers used the *Jefferson Scale of Empathy, Nursing Student Version R* questionnaire as a pre-test and post-test, repeated five times over the five-year program. The course activities included student exploration of patient suffering, the meaning of suffering for the patient, nursing interventions appropriate for comfort measures, and coping mechanisms nurses can employ when faced with patient suffering. Three affective learning activities were included in the coursework: 1) guided imagery exercises to assist students in being present and in the moment with the patient; 2) role playing and reflection of case studies where one student played a suffering patient, another played the nurse, and the class provided feedback on therapeutic communication interactions; and 3) reflection on suffering, including a paper describing their patient's perception of suffering coupled with a creative project. The study results proved that empathetic learning activities employed throughout class increased empathy scores significantly over baseline and that empathy naturally increases when students are provided opportunity to learn through affective learning activities.

A study performed by Wikström (2003) explored the promotion of empathy in nursing students by using art as a primer for reflecting on human suffering. The study

involving 144 students measured motivation and emotional investment through the use of the Wheel Questionnaire. Half of the students were randomized into a visual art group and half into a control group. The visual art group viewed a reproduction of Edward Munch's "The Sick Girl." Both groups attended a one-hour discussion session regarding the concepts of empathy and then described their perceptions of empathy included using the Wheel Questionnaire. Although the findings did not support a significant difference in motivating empathy between the intervention and control groups, the intervention group gleaned insight on how empathy can be used to better understand a patient's perception and feelings.

Derksen, Bensing, and Lagro-Janssen (2013) performed a systematic review of medical literature on the effectiveness of empathy from general practice physicians. They concluded that empathy as a soft skill can have positive impact on patient outcomes. Patients who perceive physician empathetic engagement are more apt to disclose psychological and social information. The level of empathy received from physicians is directly related to patients' willingness to discuss healthcare problems. With increased empathy comes increased patient-provider trust, and physicians who empathetically engage with patients may acquire more information as patient's feel more comfortable disclosing personal information. This sharing of information allows physicians to accurately diagnose and plan for care with higher patient adherence rates ultimately leading to better patient outcomes (Derksen, Bensing, & Largo-Janssen, 2013).

Additional learning activities proposed by researchers include focusing on provider-patient communication. This includes reflection and answering difficult

questions on potential patient scenarios, simulating how to deliver bad news to patients and family members, and role playing how to communicate with angry patients (Richardson, Percy, & Hughes, 2015; Rosenzweig, 2012; Rosenzweig, Hravnak, Magdic, Beach, Clifton, & Arnold, 2008).

Theoretical Underpinning

Kristen Swanson's *Theory of Caring* (1991) is the theoretical framework utilized to guide this scholarly project. Swanson's study of understanding and working with "people going through transitions of health, illness, and healing" led to the development of her theory (Swanson, 2010, p. 2). She identifies caring as a "nurturing way of relating to a valued 'other' toward whom one feels a personal sense of commitment and responsibility" (Swanson, 1991, p. 165). Her identification of caring reflects the American Nurses Association (ANA) *Nursing Scope and Standards of Practice* (2015) statement that empathy and compassion are foundational to the art of nursing and healing.

The *Theory of Caring* (Swanson, 1991, 1993) is a middle range theory, appropriate for studying the phenomenon of caring in relation to nursing (Zaccaginini & White, 2017). Middle range theories usually include a small manageable number of concepts thereby allowing ease of applicability to practice. The concepts in the *Theory of Caring* include *maintaining belief, knowing, being with, doing for*, and *enabling* (Swanson, 1991).

Maintaining belief is the nurse's confidence in the patient's capability to endure a health issue while looking forward to a meaningful future. *Knowing* is the ability of the

nurse to understand the patient's perception and meaning of their own health experience. This is accomplished when the nurse is cognizant of the patient's perception without the influence of the nurse's personal thoughts or bias. *Being with* is when the nurse is fully engaged and having an emotional connection with the patient. *Doing for* is the hands-on activities that the nurse performs for the patient that is normally performed at home. This concept includes providing comfort, dignity, and protection from harm coupled with technical nursing skills. Lastly, e*nabling* occurs when the nurse assists the patient's transition throughout the health experience. This includes helping the patient understand the health event through education, discussing options, expressing fears and uncertainties, identifying and processing feelings, and clarification (Swanson, 1991).

As a theoretical foundation for this scholarly project, Dr. Swanson's nursing care philosophy incorporates a person's biophysical and spiritual well-being into the foundation of nursing practice (Masters, 2015). The belief compliments this project's argument that highly exceptional APRNs are strong both technically and affectively.

Swanson developed her theory from her experiences and observations that healing and attainment of well-being do not occur through expert clinical skills alone. Holistic nursing care is also required to improve health outcomes (Swanson, 2010). Through her observations, she discovered that nurses practice therapeutic caring with various levels of success. Novice nurses are task-focused and often lack empathetic communication skills. Over time, a lack of empathy can develop into habitual behavior, and this behavior may

become apparent when observing negative interactions between patients and nurses (Swanson, 2010).

DNP students reenter the novice role as practitioners but possess therapeutic communication skills developed through their previous nursing experience. These communication skills need further reinforcement and fostering throughout graduate-level curricula as research indicates competence in affective communication is not intuitive (Rosenzweig, Hravnak, Magdic, Beach, Clifton, & Arnold, 2008). In a graduate nursing program, students may revert back to task-focused acquisition of skills. By applying the *Theory of Caring* (Swanson, 1991; 2010) in curricula, graduate programs can enhance the DNP affective professional skill set.

Relationship

Both the review of literature and exploration of Swanson's *Theory of Caring* highlight the importance of practicing empathy in advanced practice nursing (Swanson, 1991). The need for strong affective behavioral skills continues to increase for APRNs as health care becomes more complex and technologically based. In addition, caring is the foundation of nursing which distinguishes the practice of the APRNs from the medical practitioner (ANA, 2015).

Empathy in APRN practice is important because it improves therapeutic patient-provider relationships, impacts patient outcomes, and reduces the risk of malpractice suits. All healthcare providers, including APRNs, are experiencing increased risk of litigation (Glower, 2011). Riess (2017) reported patient satisfaction, adherence to

treatment recommendations, and outcomes are significantly higher when empathy is received from providers. In addition, providers who practice higher levels of empathy during patient interactions experience fewer medical errors, fewer malpractice suits, and experience higher rates of job retention (Riess, 2017). The literature findings highlight the importance of therapeutic communication skills for APRNs; therefore, an assessment of a DNP program's baseline of affective skill building activities has merit.

CHAPTER THREE – METHODOLOGY

Steps of the Intervention

A mixed-methods project design was selected to assess an existing DNP program's baseline of empathetic learning activities, as well as student and nurse faculty perceptions of the importance of empathy. Per Polit and Beck (2017), mix-method study designs are appropriate and useful when gathering both qualitative and quantitative data. The assessment of affective learning activity frequency is best achieved through a quantitative approach, whereas the assessment of perceptions and preferences is best performed by a qualitative approach (Polit and Beck, 2017).

Mixed-methods, or multi-method component designs as described by Polit & Beck (2004), are useful when concepts are poorly understood, when definitions for a complex phenomenon are ambiguous, when qualitative and quantitative data synergistically strengthen each other, and when attempting to develop a structured measuring instrument. Mixed-method designs are intended to maintain discrete differences between quantitative and qualitative data during the collection phase of a study but are integrated and synthesized during analysis (Polit & Beck, 2004). As empathy is considered an ambiguous, complex nursing phenomenon, a mixed-method study design is appropriate for this scholarly project to gather distinct data through surveys. Subjective comparison and analysis of the data was performed and disseminated in aggregated form.

Approval for the ethical protection of human subjects was received for this project by the university IRB and the Dean of the College of Nursing. Student and faculty were provided with project information and consented through the voluntary completion of an online survey in Qualtrics.

Design

Collaboration with a statistician occurred during the development of the data collection coding tools, student and faculty surveys, and for the statistical analysis of data. The developed data collection tools provided an exploratory framework to record perceptions of activities related to the five caring concepts from the *Theory of Caring* (Swanson, 1991): *maintaining belief*, *knowing*, *being with*, *doing for*, and *enabling*. Data from the MROs and the *Curriculum Assessment of Teaching Domains* (GAAC, 2016) reports were collected and recorded in Microsoft Excel format. The article by Graber et al. (2012) was selected as the basis for the assessment of the curriculum for the following affective elements which have been successfully incorporated into curriculum at the Medical University of South Carolina: role playing, journaling, reflective writing, lectures, and simulation.

The mixed-method data collection techniques in this project were created in collaboration with committee members and a statistician due to lack of existing data collection tools for DNP curriculum in current literature. The development of data worksheets and student/faculty surveys ensured appropriate concurrent collection techniques for descriptive analysis. The project consisted of five different components,

described in the following sections, ensuring a comprehensive, robust curriculum assessment.

Curriculum Components

The first component included MROs containing course descriptions and objectives for all courses included in a selected DNP curriculum at a state university located in the northwest United States. All courses from both the family/individual and psych/mental health options were included, with the exception of the scholarly project course. Individual graduate scholarly projects vary widely in topic, and assessment of other projects was beyond the scope of this project.

The assessment of the MROs included two separate steps. The first step consisted of a subjective assessment of all MROS for the presence of the affective learning domain as defined by Bloom's Taxonomy of Educational Objectives (UNC, 2018) and comparing results to previous internal MRO assessment as published in the formal report, *Curriculum Assessment of Teaching Domains* (GAAC, 2016) for congruency. The second step was to further assess which MROs contained the following affective learning activities as suggested in current literature by Graber et al. (2012): role playing, journaling, reflective writing, lectures, and/or simulations. Syllabi were to undergo assessment similar to the MROs; however, few syllabi were volunteered by nurse faculty for project inclusion and will, therefore, be discussed in the discussion section.

Participants

This project utilized a voluntary convenience sample approach for participant recruitment. Nurse faculty and students were notified of the project through an email invitation explaining project objectives and the intent to assess the DNP program globally. All potential participants were provided a link to their respective surveys for voluntary participation. All students currently enrolled in both the three-year and four-year family/individual or psych/mental health DNP programs were eligible for participation. Exclusion criteria included any non-currently enrolled DNP students. Volunteers completed a one-time, online survey created in Qualtrics through collaboration of the graduate student, project committee members, and a statistician. Quantitative data were collected via a five-point Likert scale to measure student perception on the importance of empathy during APRN-patient communications based on the five concepts from the *Theory of Nursing* (Swanson, 1991). Qualitative data were gathered on student preference of affective learning activities per research by Graber et al. (2012). Demographics were obtained to ascertain if any differences exist between the two DNP clinical tracks or years of nursing experience.

Nurse faculty of record were invited to participate in a one-time, online survey created in Qualtrics, again through the collaboration of the graduate student, committee members, and statistician. This voluntary survey was completed by a voluntary convenience sample of lead nursing faculty responsible for writing course syllabi for both clinical tracks of the DNP program. Quantitative data collected via a five-point Likert scale measured nurse faculty perception related to the importance of empathy as a skill

for APRN-patient communication. These questions were similar to questions asked of student survey participants based on the five concepts from the *Theory of Caring* (Swanson, 1991). Quantitative data were also gathered on nurse faculty self-identified affective learning activities included in their coursework based on current literature (Graber et al., 2012). The voluntary online survey of nurse faculty served as syllabi consent for project inclusion.

Procedure

This project included an audit tool developed in collaboration with a statistician to perform a baseline assessment of empathy in an existing DNP curriculum. The frequency and type of activities that include or suggest empathy were recorded in a coding table. MROs were analyzed for the use and type of learning activities supporting the advanced development of empathetic communication skills commensurate of an APRN based on activities cited in the literature. The survey, co-developed by the author and statistician, measured student perceptions on empathy within practice based on the five concepts of caring as described in the *Theory of Caring* (Swanson, 1991; Masters, 2015). This survey assessed how much weight students place on the affective domain of advanced nursing practice.

The nurse faculty survey was also co-developed by the author and statistician to measure faculty perceptions related to the inclusion of empathetic learning activities that currently exist within their courses. The survey was used to quantify how many of the

five concepts of caring as described in Swanson's *Theory of Caring* (Swanson, 1991; Masters, 2015) are included in the current curriculum.

Surveys for both DNP students and nurse faculty were developed in Qualtrics. Surveys were tested by the graduate student, the project committee chair, and the statistician to ensure functionality and to modify as needed. An initial email was sent to all potential participants including project and IRB information on the first day of data collection. Collection began on a Monday via personal computer or smartphone access, and participants had three weeks to complete a survey. Two email reminders were sent out a week apart as a reminder to students and faculty. DNP students were incentivized through an opportunity to provide contact information through a secondary, non-related link to participate in a random drawing for a Visa gift card.

Relevant Elements of the Setting

The DNP distance program is taught primarily online, and the setting is primarily online access. Qualtrics was utilized for the voluntary student and nurse faculty data gathering.

Expected Outcomes and Why

The expected outcome of this project was to create awareness for empathy, or the lack thereof, in DNP curricula. It was anticipated that few affective learning activities exist throughout current curriculum. The baseline assessment findings and

recommendations, as discussed later, are intended for use by the assessed program faculty to ensure new DNP graduates are competent in both technical and affective skills.

The importance of therapeutic communication skills within DNP curricula will be presented at the conclusion of the project through public presentation. Findings of the project will be disseminated to the College of Nursing and nursing faculty. Best-practice evidence is provided to translate recommendations for enhancing empathy development activities within curriculum. In addition, this scholarly project will be submitted to professional nursing journals for publication consideration.

Ethical Issues

MROs and course syllabi were included in this project for evaluation. A voluntary student survey including basic demographics was used to gauge student perceptions of affective learning activities. A voluntary lead course faculty survey was used to gauge faculty perceptions and inclusion of affective learning activities in existing DNP courses. Informed consent was obtained from faculty and students, as well as approval from the Dean for Graduate Programs and Research.

Approval from the university's IRB was received for this project to ensure protection and confidentiality were maintained through de-identified, non-experimental, mixed-method data gathering. Additionally, syllabi are private documents written by nurse faculty, and permission from individual faculty was obtained before these documents were included in this project.

FERPA Protection Statement

Student demographics were collected via voluntary survey. All students who chose to participate provided consent after receipt of project goals and disclosure. Student data was protected in and stored in a locked cabinet. Upon completion of this project, student data was shredded.

CHAPTER FOUR – RESULTS

Results

The overall goal of this project was to perform an exploratory analysis of an existing DNP curriculum to better understand the role of empathy as a component of therapeutic nurse communication. Although the project design was a mixed-methods approach, the majority of data was analyzed through descriptive statistics, comparing findings between the program's analysis of the curriculum to the subjective analysis of the student researcher, and DNP lead nurse faculty and student perceptions. The qualitative data (student preferences for affective learning activities) were converted into quantitative data, or quantized. Per Polit & Beck (2017), quantizing data is accomplished when converting qualitative data into quantitative data. The benefit of quantizing this project's data is to make sense of the data by displaying the frequency or highest ranking of student selected affective learning activities, and then to identify gaps for program improvement.

As previously mentioned, descriptive statistical analyses were utilized for this project. Descriptive statistics are calculated when an overall summation and/or description of a phenomenon is appropriate (Polit & Beck, 2017). Results from DNP student and lead nurse faculty surveys, MRO analysis, and comparison to the formal report *Curriculum Assessment of Teaching Domains* are reported below. GAAC identification of courses containing affective learning activities were compared subjectively by the graduate student utilizing Bloom's Taxonomy of Educational

Objectives (UNC, 2018). These findings were then compared to suggested learning activities in current literature by Graber et al. (2012) with statistician assistance.

Student Surveys

Seventy-nine currently enrolled DNP students were invited to participate in the online survey, with 44 completed returned surveys for a 55% response rate. Respondent demographics consisted of 43 females, and 1 male (Table 1). Thirty respondents, 68%, had 11+ years of nursing experience, 5 respondents, 11%, had 6 to 10 years of experience, with the remaining 9, 21% having less than 6 years (Table 2).

Table 1. DNP student demographics

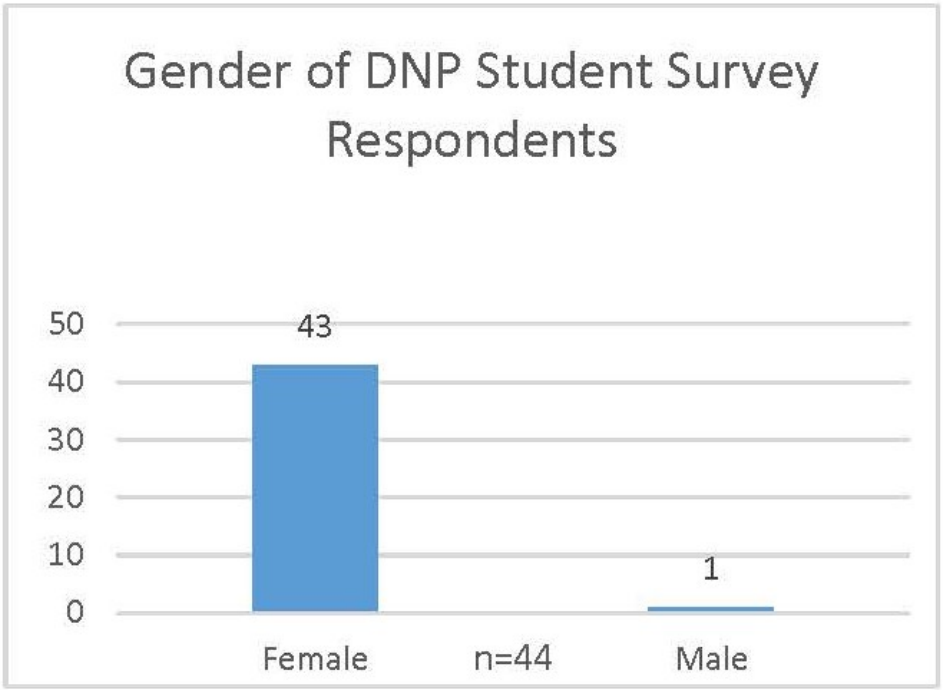


Table 2. Years of student nursing experience

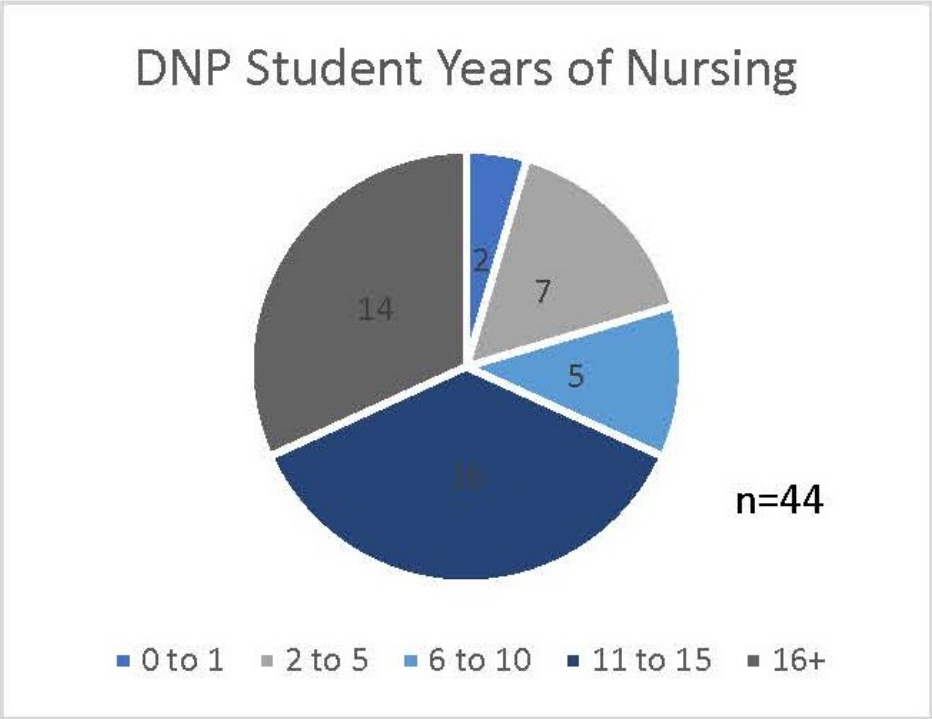


Table 3 provides a summary of student perception related to the importance of caring activities based on the *Theory of Caring* (Swanson, 1991, 1993).

Table 3. Summary by percentage of the perceived importance of affective activities identified by DNP students

	Not At All	Slightly	Moderately	Very	Extremely
Maintaining belief How important is it for the APRN to have confidence in their patient's ability to look forward to the future with meaning while experiencing a negative health issue?	20%	0%	14%	48%	36%
Knowing How important is it for the APRN to understand the patient's perception and meaning of a health experience?	0%	0%	2%	30%	68%
Being with How important is it for the APRN to be fully engaged and connected during patient interaction?	0%	0%	0%	25%	75%

Table 3 Continued

Doing for How important is it for the APRN to perform hands-on-tasks for the patient who would otherwise perform those tasks for themselves when free of current health issues?	2%	16%	54%	23%	5%
Enabling How important is it for the APRN to assist a patient's transition through their health experience? This includes education, discussion, expression of fears and uncertainties, clarification, identification, and processing of feelings, etc.	0%	0%	0%	36%	64%

Note. Caring activities (italicized) based on the *Theory of Caring* (Swanson, 1991, 1993).

Table 4 further evaluates student perceptions related to the importance of caring activities based on DNP focus. Four of the five caring concepts (Swanson, 1991, 1993) were rated as moderately to extremely important for APRNs to incorporate into their therapeutic provider-patient relationships.

Table 4. Summary by percentage of the perceived importance of affective activities identified by DNP students per DNP option

		Not At All	Slightly	Moderately	Very	Extremely
Maintaining belief How important is it for the APRN to have confidence in their patient's ability to look forward to the future with meaning while experiencing a negative health issue?	*Family*	3%	0%	11%	53%	33%
	Mental Health	0%	0%	25%	25%	50%
Knowing How important is it for the APRN to understand the patient's perception and meaning of a health experience?	*Family*	0%	0%	3%	28%	69%
	Mental Health	0%	0%	0%	38%	62%
Being with How important is it for the APRN to be fully engaged and connected during patient interaction?	*Family*	0%	0%	0%	25%	75%
	Mental Health	0%	0%	0%	25%	75%

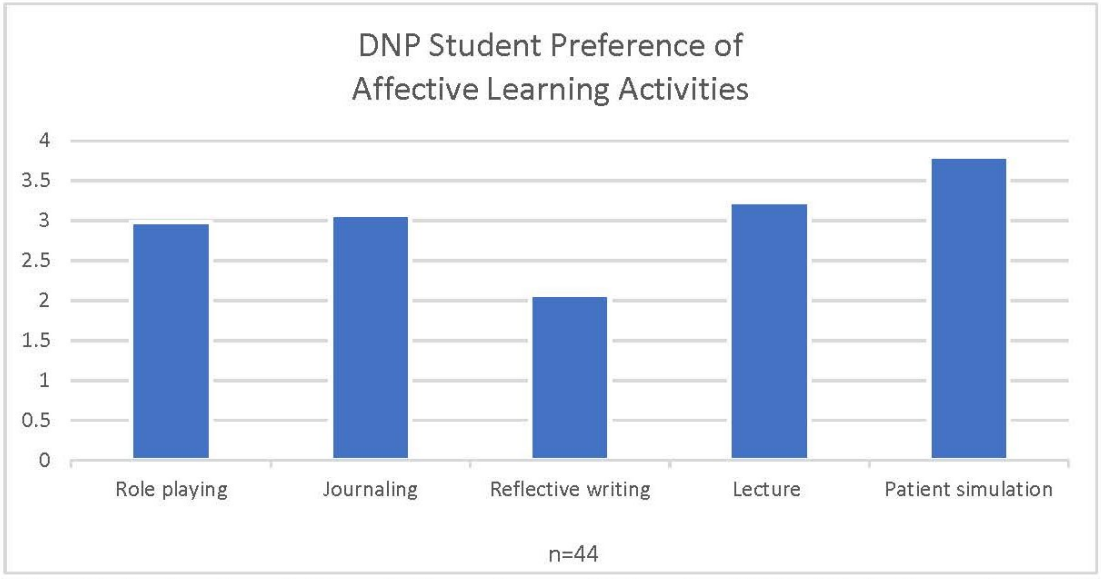
Table 4 Continued

Doing for How important is it for the APRN to perform hands-on-tasks for the patient who would otherwise perform those tasks for themselves when free of current health issues?	*Family*	3%	14%	55%	22%	6%
	Mental Health	0%	25%	50%	25%	0%
Enabling How important is it for the APRN to assist a patient's transition through their health experience? This includes education, discussion, expression of fears and uncertainties, clarification, identification and processing of feelings, etc.	*Family*	0%	0%	0%	42%	58%
	Mental Health	0%	0%	0%	12%	88%

Note. Caring activities (italicized) based on the *Theory of Caring* (Swanson, 1991, 1993).

Figure 1 shows preference of affective learning activities as ranked by the students using a Likert scale. A score of 1 equates to highest preference, where a score of 6 equates to lowest preference.

Figure 1. Student ranked preferred affective learning activities



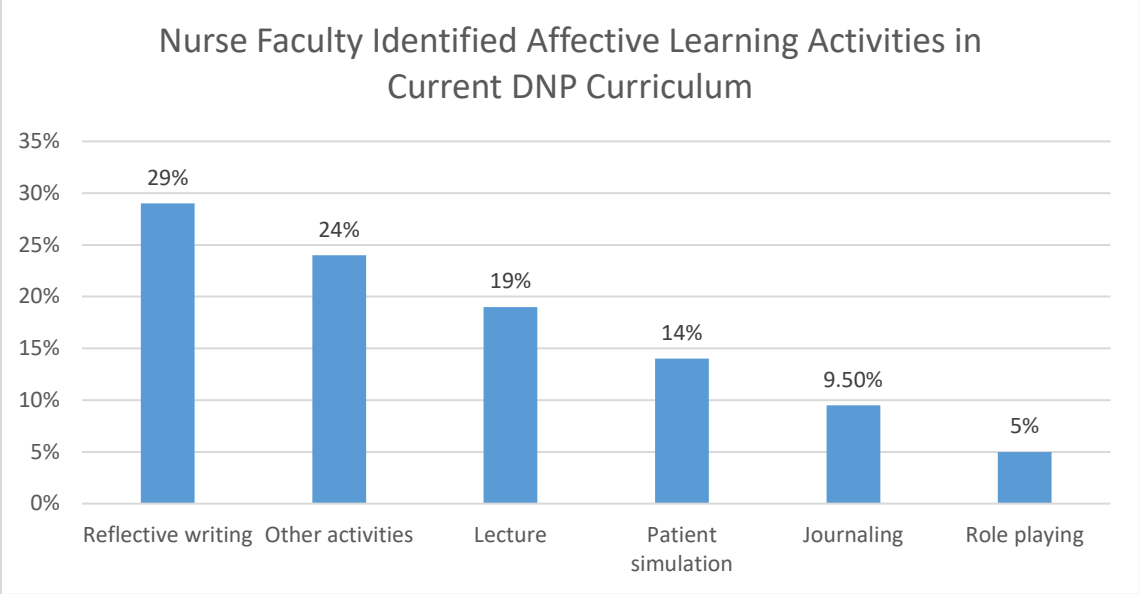
Note: Affective learning activities ranked by preference utilizing a 6-point Likert Scale (1 = most preferable to 6 = least preferable).

Nurse Faculty Surveys

Sixteen lead nurse faculty were invited to participate in the online survey, with 9 completed surveys returned for a 56% participation rate. Twenty-seven syllabi were eligible for project inclusion, and permission to assess 11 syllabi were granted (41% of all syllabi). Due to limited permission, syllabi assessment is under the discussion section.

Figure 2 illustrates percentage of affective learning activities that currently exist in DNP courses taught by the nurse faculty respondents.

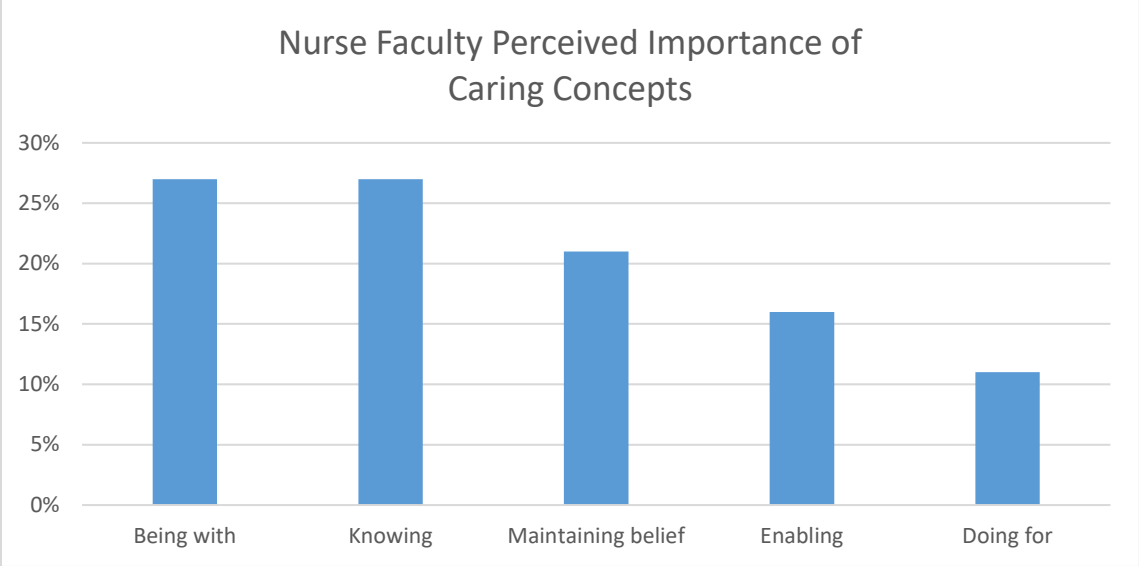
Figure 2. Percentage of nurse faculty reporting affective learning activities within current courses



Note: Affective learning activities based on Graber et al. (2012).

Figure 3 illustrates nurse faculty perception on the importance of the five caring concepts provided by APRNs.

Figure 3. Percentage of nurse faculty perceptions on importance of caring concepts



Note: Caring concepts based on the *Theory of Caring* (Swanson 1991, 1993).

Table 5. Percentage of perceived importance of caring activities identified by nurse faculty

	Not At All	Slightly	Moderately	Very	Extremely
How important is it for DNP students to learn the skill of empathetic communication?	0%	0%	0%	11%	89%
How important is the development of affective learning skills for DNP students?	0%	0%	12%	44%	44%

Note. Caring activities based on the *Theory of Caring* (Swanson, 1991, 1993).

Master Resource Outlines

Table 6 displays the percentage of core course MROs for both DNP options identified to contain affective learning activities based on Bloom's Taxonomy of Educational Objectives (UNC, 2018), internal program assessment, and the graduate student. These results are then further evaluated to ascertain the proportion of courses

that contain affective learning activities within the course descriptions as described by Graber et al. (2012).

Table 6. Percentage of MROs identified by internal program and project evaluation with affective content

	Affective Actions per Bloom identified by program	Affective Actions per Bloom identified by project	Affective Activities per Graber identified by project
No	30%	37%	52%
Yes	70%	63%	48%

Note. Summary of the percentages of courses with and without affective learning activities as identified by program and as identified by the graduate student subjectively.

Table 7 is a continuation of the findings displayed in Table 6 and further evaluates the percentage of affective learning activities identified by internal program and project described by both Bloom's Taxonomy of Educational Objectives (UNC, 2018) and Graber et al. (2012) of the specific clinical courses per DNP option.

Table 7. Percentage of MROs identified by internal program and project evaluation per DNP option

		Affective Actions per Bloom identified by program	Affective Actions per Bloom identified by project	Affective Activities per Graber identified by project
Family	No	0%	0%	0%
	Yes	100%	100%	100%
Mental Health	No	0%	20%	40%
	Yes	100%	80%	60%
Both	No	47%	53%	70%
	Yes	53%	47%	29%

Note. Summary of the percentage of courses with and without affective learning activities as identified by program evaluation and as identified subjectively by the project per DNP option.

Table 8 . Percentage of courses without affective actions per Graber et al. (2012)

Without affective activities per Graber identified by project	Affective Actions per Bloom identified by project		
		No	Yes
Affective actions per Bloom identified by program	No	29%	21%
	Yes	29%	21%

Note. Summary of the percentage of courses with and without affective learning actions per Bloom for courses without affective activities per Graber et al. (2012) as identified by the project.

Table 9. Percentage of courses with affective actions per Graber et al. (2012)

With affective activities per Graber identified by project	Affective Actions per Bloom identified by project		
		No	Yes
Affective actions per Bloom identified by program	No	8%	0%
	Yes	8%	85%

Note. Summary of the percentage of courses with and without affective learning activities per Bloom for courses with affective activities per Graber et al. (2012) as identified by the project.

CHAPTER FIVE – DISCUSSION

Analysis of Findings

Overall, variance exists in the assessment findings related to the quantity of affective learning activities identified by the internal program review compared to the project findings. Internal program review identified 8% of courses as containing affective learning activities based on the definition per Bloom (UNC, 2018). However, the student further evaluated the MROs and identified 85% of courses contain affective learning activities as described by Graber et al. (2012). The differences in findings support the need for further curriculum assessment to ascertain the true extent of baseline affective learning activities.

Student Perceptions

The majority of student respondents were female, and this could have potentially introduced bias to project results and skewed data. In addition, the majority of respondents had 11+ years of previous nursing experience. Caution must be utilized with generalization, as the results may not accurately capture perceptions of male DNP students, or those with fewer years of experience.

In Table 3, most of the five caring categories were ranked as very or extremely important caring concepts from the survey participants. The most variance occurred in the *doing for* concept. Per Swanson (1991, 1993) this concept consists of the APRN performing hands-on activities for their patients experiencing adverse health issues that require assistance. This finding is surprising, as hands-on skills and tasks are paramount

to general nursing care. These findings suggest perhaps APRN students view the provider role separate from general nursing and do not value hands-on nursing skills and tasks of the generalist nurse.

Table 4 data show consistency with the aggregated data, as both the family and mental health students ranked the *doing for* category as the least important. The family option students ranked the *doing for* category slightly more important than students in the mental health option. A larger sample of DNP students enrolled in different options of DNP programs would assist in clarifying if a true difference of perceived importance does exist in the *doing for* caring category between APRN specialties.

Figure 1 reveals reflective writing as the highest ranked preferred affective learning activity identified by DNP student survey participants, followed by role playing, journaling, and lecture. Patient simulation was the least preferred learning activity.

Faculty Perceptions

Lead nurse faculty identified reflective writing and lecture as the two most frequent course activities (Figure 2). The highest ranked concepts were *being with*, *knowing*, and *maintaining belief* as important for APRNs to demonstrate (Figure 4).

In Table 5, faculty rated the importance of DNP students to learn empathetic communication as very to extremely important. However, an unexpected discrepancy occurred in the data when faculty were asked to rate their perception on how important it is for DNP students to develop affective skills. The majority, 89%, of nurse faculty participants reported learning empathetic communication is extremely important for DNP students, yet only 44% reported the development of empathetic communication skills as

extremely important. This discrepancy could be related to confusing or ambiguous wording of the questions asked of nurse faculty. Rephrasing the questions in addition to a larger faculty survey population would assist in clarifying this disconnection.

Congruency between DNP Student and Faculty Perceptions

Both DNP students and nurse faculty rated *enabling* and *doing for* as the least important caring concepts for an APRN to demonstrate. In addition, students identified reflective writing as their preferred affective learning activity. Nurse faculty identified reflective writing as an affective learning skill included in current coursework, therefore providing learning activities valued by current students.

Curriculum Findings

Table 6 displays the percentage of courses with affective learning activities identified by both the internal program report and the project assessment based on affective learning activities identified in Bloom's Taxonomy of Educational Objectives (UNC, 2018). However, a variance occurred upon further evaluation of the aforementioned identified courses when the graduate student further assessed for Graber et al's (2012) learning activities. Per the graduate student, there are 22% fewer courses containing affective learning activities containing both Bloom's Taxonomy of Educational Objectives (UNC, 2018) and the Graber et al. (2012) criteria. It is speculated that the internal program based course assessment on more knowledge and descriptors of courses than just MROs.

In Table 7, the internal program identification of courses containing affective learning activities within the clinical courses of the family practice option is congruent with the graduate student's curriculum evaluation at 100% identification. Surprisingly, the clinical courses of the mental health option contained variance in the proportion of courses identified by the internal program report and the graduate student containing affective learning activities. Out of the courses identified in the internal program report, the graduate student identified 80% of courses containing affective learning activities as identified by Bloom's Taxonomy of Educational Objectives (UNC, 2018). This variance widened to 60% when the courses were further evaluated with the Graber et al. (2012) activities. Therefore, when reviewing all the clinical course MROs in the mental health option, congruency of internal program report and project assessment occurred for 60% of the courses.

Table 8 reveals that both the internal program report and the graduate student did not identify affective activities based on Bloom's Taxonomy of Educational Objectives (UNC, 2018) criteria in 29% of the MROs. Yet, when the MROs were evaluated by the graduate student for affective learning activities listed by Graber et al. (2012), the student only agreed with the internal program report that 21% of courses do not contain these activities.

Lastly, Table 9 reveals that 8% of courses were missing affective learning activities per the internal program report based on Bloom's Taxonomy of Educational Objectives (UNC, 2018). When the graduate student evaluated the same courses for

activities listed in Graber et al.'s (2012), the student agreed 85% with internal program report assessment that affective learning activities were indeed missing.

Limitations

The validity and reliability of project findings are based on the overall design developed in collaboration with a statistician. As no preexisting, valid, and tested curriculum assessment tool exists for use, the project was based on Swanson's *Theory of Caring* (1991, 1993), research by Graber et al. (2012), and Bloom's Taxonomy of Educational Objectives (UNC, 2018). Due to the current limitation in research related to the development of empathy within DNP curricula, this was a novel project.

Current medical literature and undergraduate nursing literature contain minimal research aimed at understanding the effects of empathetic communication provided by physicians and nurses in relation to patient adherence to treatment recommendations and, ultimately, patient outcomes. As healthcare competition and reimbursement continues to be tied to patient outcomes and healthcare utilization, the development and proficiency of "soft skills" such as empathy will continue to emerge within healthcare provider curricula.

Bias

All currently enrolled DNP students in both the family practice and mental health options were invited to participate in the online survey. A $50 gift card drawing incentive was offered for student participation. It is unknown whether this was too generous an incentive or not for participation. Four male students participated in the

online survey, but three did not complete the survey; therefore, they were excluded from the data analysis. Survey results may have bias as the participants were mostly female, and it is unknown what empathetic differences may exist between female and male nurses. The majority of survey respondents had 5+ years of nursing experience, and no statistically significant findings were found between years of experience and participant perceptions regarding the importance of empathetic communication skills for APRNs.

A potential for bias was the nurse faculty survey. All of the current lead nurse faculty of the DNP courses were invited to participate in the online survey. Only 9 out of 16 lead faculty participated. Two of the lead DNP nurse faculty who were eligible for survey participation were on the project committee. One of the faculty co-taught a course with a faculty colleague. The faculty colleague was invited to participate in the online survey in attempt to limit survey response bias. The second faculty committee member did complete the online survey as she was the sole instructor for the course.

Some faculty who participated in the online survey provided permission to utilize their syllabi in the project, but upon review of the syllabi, these instructors were not listed as faculty on the current syllabi. Therefore, these syllabi were omitted. Some courses listed two lead nurse faculty as instructors, each with their own syllabi. The correct syllabi were matched to the nurse faculty who gave permission for use, and the additional syllabi were not included.

Syllabi

The initial project design to include syllabi was to provide a further, in-depth look into each of the DNP courses separately. Due to the limited response and permission

granted to utilize individual course syllabi, it was decided to provide a brief discussion of findings only. Although none of the syllabi given permission for project inclusion pertained empathy specifically, 8 out of the 9 syllabi included affective learning activities. Group discussions, reflective posts on course readings, reflective essays, and peer collaboration and communication were the few listed course activities that fall within affective learning criteria based on Bloom's Taxonomy for Educational Objectives (UNC, 2018) and Graber et al. (2012). These findings are consistent with DNP student participant identified preferences for learning activities including reflective writing/journaling and discussion. However, per the literature, there is room for developing and incorporating more creative affective learning activities for both tracks of the DNP program.

Contribution to Nursing Practice

This project provides a baseline subjective assessment of one DNP program. As very little information exists on the evaluation of nursing curricula nationwide, this project can serve as a starting point to build additional comprehensive curriculum assessment of ambiguous, difficult to measure concepts important to the profession of nursing. This project could be used as a platform or starting point for other programs or for the assessed program to further develop/refine current curriculum.

Empathy was chosen for the phenomenon of interest for this scholarly project. Although empathy is a difficult, often ambiguous concept to define and measure, it is possible to create a formalized assessment of curriculum concepts. This project started

with Hojat's (2009) definition of empathy defined as a cognitive domain. Throughout the evolution of this project, the focus changed from assessing the cognitive domain to affective domain due to the availability of affective domain research in the current literature and because affective activities best represent the *Theory of Caring's* concepts (Swanson, 1991). In hindsight, the utilization of Hojat's (2009) definition of empathy should have been revisited earlier in project development to ensure that it was appropriate and reflective of this project's intent. Therefore, all future curriculum assessments should begin after finalized concept definition to ensure accuracy and validity.

The development of a valid, reliable and tested curriculum assessment tool for use in DNP program evaluations would greatly benefit the nursing profession. The DNP degree is relatively new; therefore, the current literature lacks curriculum assessment tools. As assessment tools are developed and tested, the dissemination and sharing of tools throughout the professional nursing literature would be valued by researchers and instructional institutions/programs by providing consistent frameworks to guide accreditation.

Impressions

The project findings show congruency between nurse faculty and DNP student recognition of the importance of empathy for the profession of APRNs. Both the faculty and students identified the provision of hands-on tasks for patients, or *doing for* as described in the *Theory of Caring* (Swanson, 1991, 1993), as the least important of the

caring concepts. This is a surprising finding, as caring is one of the foundational pillars of the nursing profession.

It is speculated that perhaps students enrolled in graduate-level curriculum preparing to become APRNs may shift their views from the role of a general nurse to the role of a provider. Perhaps this lack of identifying with *doing for* is related to the removal of most advanced practice nurses from the bedside, and more emphasis is placed on the diagnostic and treatment tasks of a provider.

The findings of this project are not appropriate for comparison to other DNP curricula as no current national benchmarks exist for the appropriate frequency of affective learning activities in curricula. Power analysis was not required to determine participation significance as this project was to determine a baseline of perceptions and a quantitative baseline of existing affective learning activities. This project's design did not intend for generalizable outcomes but was designed to thoroughly assess one existing DNP curriculum.

Nursing faculty identified the development of empathetic skills in DNP prepared APRNs as important, which was an anticipated perception. What was not anticipated was the lower rating of the importance of the development of empathy for DNP students. This variance may be related to the phrasing of the survey questions and may have confused survey participants. Future measurements of nurse faculty perceptions would benefit from clearly articulated questions to reduce the risk of ambiguity.

Currently, this assessed program could incorporate more affective learning activities in the existing curriculum. The mental health track would benefit from

incorporating empathetic affective learning activities into the already designed courses. It is surprising that the mental health track had fewer affective learning activities within the clinical courses. This was counterintuitive to what one would expect because mental health professionals delve deeper into the psychosocial/affective domain of interpersonal issues than general practitioners.

Due to the scarcity of literature pertaining to empathetic affective learning activities within DNP curricula, this project provides a template for evaluation of perceptions and inclusion of affective learning activities. While this program's MROs and syllabi do not specifically include empathy within the course content, affective learning activities are apparent upon assessment of individual courses. Current literature supports the learning and development of affective communication skills, including empathy as an important skill set for all healthcare providers. It is important for DNP programs to produce advance practice nursing graduates who are well rounded in both the affective and technical skills required to provide holistic and comprehensive healthcare for positive patient health outcomes.

Recommendations and Future Improvements

Several improvements would strengthen this project if repeated. The first would be the inclusion of all DNP program syllabi. If the program were to be assessed globally, an IRB approval would not be necessary and a complete assessment of the entire program would be available to identify gaps in curriculum and areas of improvement. The below

assumptions and recommendations are made on the MROs, survey results, and limited syllabi.

The undergraduate course syllabi are more robust and in-depth than the graduate level syllabi. The current College of Nursing could review the undergraduate and graduate level syllabi to determine whether or not the graduate syllabi should change to reflect the depth of undergraduate syllabi to lessen ambiguity.

MROs serve as documentation of faculty intent for teaching strategies and learning content. These documents also serve as a historical account of the overall DNP curriculum. The nursing program should continue to reflect on changes and consistently evaluate the MROs ensuring that the program continues to meet accreditation standards and includes the most recent, best-practice DNP essentials within the existing curriculum.

Affective Learning Activities

Per the literature review, a wide variety of techniques and activities can be utilized by nurse faculty for the further development of student empathetic communication skills. Nurse faculty can exercise creativity when developing affective learning assignments leading to more intrinsic motivation for student learning. As Bolkan (2015) suggests, challenging and promoting intellectual stimulation motivates students to learn.

Based on the critique and strength of evidence in best-practice literature there are multiple creative and stimulation affective activities for curriculum incorporation. The activities by Graber et al. (2012) have been successfully implemented with evidence that empathy can be learned and reinforced throughout healthcare education. Congruent to

the student ranked learning preference, reflection of student experiences through journaling and discussion should continue as affective learning activities. In addition, problem solving difficult conversations, advocacy assignments, and didactic lectures are stimulating and interactive activities for students.

Art can be utilized as a media for learning and developing empathetic communication skills (Blasco & Mareto, 2012; Hojat, 2009; Wickström, 2003). Utilizing short movie clips that portray difficult human experiences and suffering coupled with reflective discussion and writing are suggested thought provoking activities. Likewise, reflecting on art or literature that depicts difficult human issues can spark student interest.

Although simulation was rated as the least favorite modality to learn empathy by DNP students, creative simulation can promote intrinsic development of empathy among students. Scenarios of receiving an ostomy (Maruca et al., 2015), or invasive nursing procedures with student reflection and discussion can assist students to explore their own perceptions. Students can reflect on what these experiences would mean to them, what they would want communicated to them, how they would wish to be treated by healthcare providers, and what they would want their providers to know (Richardson, 2015).

Lastly, role modeling empathetic communication by nurse faculty cannot be understated. Per Hojat (2009) role models and mentors are pivotal in assisting students learn empathetic skills. Role modeling can be incorporated into nurse faculty led group discussions, clinical group interactions and meetings, simulations and lab, clinical experiences and site visits, and post-clinical debriefings.

DNP Core Essentials

Scientific Underpinnings for Practice

The scholarly project utilized a nursing theorist, Dr. Kristen Swanson's *Theory of Caring* (1991; 1993) for the foundation and guidance of this project. Swanson focuses on caring, and specifically how caring is a foundational pillar of the profession of nursing. Although empathy is not specifically detailed in the theory, caring is closely related to the art of empathetic communication. The *Theory of Caring* (Swanson 1991, 1993) provided necessary framework to guide scholarly inquiry.

Organizational and Systems Leadership for Quality Improvement

The graduate student assumed the leadership role for this project. As one of the DNP core essentials, leadership is paramount to ongoing scholarly inquiry through the identification of an issue important to the profession of nursing and through the development and implementation of a successful project. Committee members provided guidance, assistance, and support when required by the student.

Clinical Scholarship and Analytical Models for Evidence-Based Practice

Collaboration with two research librarians from two different universities provided the graduate student with a robust literature search to ascertain what previous nursing knowledge existed on the subject of empathy within nursing curriculum. The search for evidence-based research included the development of appropriate search

criteria, the identification of appropriate search engines and databases, and the critique required to assess literature for project inclusion.

Information Systems/Technology for the Improvement and Transformation of Health Care

Multiple information systems and technology were utilized throughout this project. The utilization of internet-based libraries for literature searches occurred early on in this project. The use of an internet-based survey platform, Qualtrics, assisted the graduate student and statistician in data gathering from two different project populations and performing analysis. Microsoft Excel was primarily used as a data workbook to accurately record and analyze the subjective data recording of the MROs.

Health Care Policy for Advocacy in Health Care

At the conclusion of this project, results will be disseminated to nursing faculty with recommendations for curriculum change including the inclusion of empathetic learning activities into the existing program. Advocating for change to include and increase empathetic learning activities in an existing DNP curriculum is based on best-practice literature.

Interprofessional Collaboration

Interprofessional collaboration occurred throughout this entire project. The Dean of Nursing, as well as two campus directors, were involved during the project development to ensure the school of nursing's interest in the proposed project, and compliance with university policy. Collaboration with committee members was ongoing

from concept development through conclusion. As mentioned, two research librarians were vital to performing a robust, comprehensive search of literature. Statistical assistance was provided by a statistician, including the development, dissemination, and analysis of the surveys and MRO assessment. A technical writer was also helpful and provided editing and writing assistance when needed.

Clinical Prevention and Population Health for Improving the Nation's Health

This project supports population health and prevention as supported by the literature. By increasing the importance and awareness of empathy as an effective communication skill for APRNs, patient and population health outcomes can be greatly influenced and improved. Patient adherence to provider recommendations, including care plans and medications, can lead to decreased morbidities and litigation, ultimately leading to improved patient satisfaction and health outcomes.

Advanced Nursing Practice

Communicating empathetically with patients assists the APRN during assessment of patient concerns and ailments, in the development of a mutually acceptable care plan, and provides holistic nursing care to patients interacting with healthcare. Empathy has been shown to be instrumental in building relationships between providers and patients and between interdisciplinary care team members. Empathy is the affective skill that sets APRNs apart from medical doctor colleagues.

CHAPTER SIX – CONCLUSION

Conclusion

This project serves as a comprehensive example of a DNP scholarly project and assisted the graduate student in the application and further development of the DNP core essentials for translating evidence-based literature into practice recommendations. While the topic of empathy is a difficult and ambiguous concept, the process of this project is applicable to assist a DNP-prepared-APRN in the research and assessment of evidence for quality improvement in any professional setting.

Because nursing is a profession of human interaction, exploring empathy through the DNP lens requires a blend of both Hojat's (2009) definition and Bloom's Taxonomy of Educational Objectives for affective learning (UNC, 2018). Hojat (2009) defines empathy as the ability to *understand* another person's experiences and perspectives from a cognitive aspect, but Bloom's Taxonomy of Educational Objectives for affective learning includes *acknowledgement* and actions while interacting with others (UNC, 2018). Therefore, it is important for nurses to *understand and acknowledge* a patient's perceptions and experiences for positive outcomes.

As an essential affective nursing skill (Maruca et al., 2015) the development and refinement of empathy throughout nursing curriculum should occur in all curricula. The most compelling evidence reveals that empathetic communication has been shown to improve patient adherence to treatment recommendations resulting in improved patient satisfaction, decreased litigation, and improved health outcomes (Derksen et al., 2013). It

is imperative for DNP graduates to use empathetic communication as they transition from basic nursing to provider roles due to the impact on patient outcomes and practice. As empathy is gaining recognition as an imperative skill for medical providers and undergraduate nurses to master, it would behoove the APRN profession to adopt this skill set as well.

Due to the limited research related to empathy, there is minimal understanding of current affective learning activities within DNP curricula. The study of empathy in DNP curriculum is difficult at best, but without the initial baseline assessment, areas for improvement cannot be identified. It is important to assess DNP curriculum for content as these programs are relatively new and need to evolve to meet the future needs of the communities and patients who will receive care from the graduates of these programs. The assessment, identification of gaps in curriculum, and the translation of best-practice evidence into current DNP courses will provide nurse faculty administrators the basic template to make programmatic changes.

Multiple modalities exist to assist nurse faculty in fostering and reinforcing empathetic communication skills in DNP students. Creatively challenging students to recognize and reflect upon a patient's experience can be incorporated into preexisting learning activities such as reflective writing, group discussion, and simulations. The utilization of activities aimed at developing empathy can greatly assist student recognition and development of this important interpersonal skill (Fiske, 2017).

As new assessment tools are developed, published findings will contribute to the limited, yet growing, body of nursing literature related to curriculum assessment and

improvement. As accreditation requirements begin to evolve, the use of valid and reliable curriculum assessment tools will be paramount for nursing programs to access and utilize to ensure DNP programs are based on the most current, evidenced-based literature. These assessments will allow program administrators to identify gaps in curriculum amenable for change to ensure future DNP prepared APRNs are equipped with the most recent, best-practice education and skills needed for the future healthcare environment.

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APPENDICES

APPENDIX A

IRB APPROVAL

MONTANA STATE UNIVERSITY

INSTITUTIONAL REVIEW BOARD
For the Protection of Human Subjects
FWA 00000165

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Chair: Mark Quinn
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MEMORANDUM

TO: Kimberly Hardwick and Susan Wallace Raph

FROM: Mark Quinn Mark Quinn CTJ
Chair, Institutional Review Board for the Protection of Human Subjects

DATE: November 6, 2017

RE: *"Empathy Assessment in Doctorate of Nursing Practice Curriculum"* [KH110617-EX]

The above research, described in your submission of November 6, 2017, is exempt from the requirement of review by the Institutional Review Board in accordance with the Code of Federal regulations, Part 46, section 101. The specific paragraph which applies to your research is:

____ (b) (1) Research conducted in established or commonly accepted educational settings, involving normal educational practices such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

_X_ (b) (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

___ (b) (3) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under paragraph (b)(2) of this section, if: (i) the human subjects are elected or appointed public officials or candidates for public office; or (ii) federal statute(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.

____ (b) (4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available, or if the information is recorded by the investigator in such a manner that the subjects cannot be identified, directly or through identifiers linked to the subjects.

____ (b) (5) Research and demonstration projects, which are conducted by or subject to the approval of department or agency heads, and which are designed to study, evaluate, or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in or alternatives to those programs or procedures; or (iv) possible changes in methods or levels of payment for benefits or services under those programs.

_____ (b) (6) Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed, or (ii) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the FDA, or approved by the EPA, or the Food Safety and Inspection Service of the USDA.

Although review by the Institutional Review Board is not required for the above research, the Committee will be glad to review it. If you wish a review and committee approval, please submit 3 copies of the usual application form and it will be processed by expedited review.

APPENDIX B

PROGRAM CONSENT

Associate Dean for Research and Graduate Studies for assessment of affective learning activities. In addition, this scholarly project will assess Master Resource Outlines and compare data outcomes to the Formal Assessments of Learning Domains from the College of Nursing Graduate Academic Affairs Committee.

Risks and Benefits:
The benefits of participating in this assessment include obtaining a baseline understanding of existing empathetic learning activities within the DNP curriculum, receipt of best practice recommendations for future course development supporting the American Nurses Association Scope and Standards of Practice for the Doctorate of Nurse Practice profession.

The potential risks include nurse faculty fear of coercion or negative performance evaluation related to sharing personal syllabi information as well as survey answers. Student risk involves the sharing of personal demographic information and perceptions. All data will be de-identified and reported on an aggregated level.

Confidentiality:
Efforts will be made to keep questionnaire answers confidential. Documents will be stored in a locked file cabinet, or in electronic format stored via security through Montana State University Statistical Department with access by the investigating graduate student and shredded upon completion of this project. This project will evaluate the DNP program globally, and data obtained from individual syllabi will compiled in a code book and de-identified.

Participant Rights:
The Institutional Review Board at Montana State University responsible for human subject research has found this project to be acceptable according to applicable state and federal regulations and University policy. IRB approval protects the rights and welfare of this study's participants.

Contact and Questions:
For questions, concerns or complaints about the project, please contact Kimberly Hardwick, primary investigator at Kimberly.hardwick@student.montana.edu, or Dr. Susan Raph, committee chair at sraph@montana.edu. If you have additional questions about the rights of human subjects, you can contact the Chair of the Institutional Review Board, Mark Quinn, 406-994-4707, mquinn@montana.edu.

AUTHORIZATION: I have read the above and understand the discomforts, inconvenience and risk of this study. I MSU CON DNP Program agree to participate in this research. I understand that I may refuse to later participate and may withdraw from the study at any time. I have received a copy of this consent form for my own records.

Signed: Sarah E. [illegible]

APPROVED
MSU IRB
11/06/2017
Date approved

APPENDIX C

FACULTY CONSENT

DNP FACULTY CONSENT

IRB Protocol Number:
IRB Approval Date:

SUBJECT CONSENT FORM FOR PARTICIPATION IN HUMAN RESEARCH AT MONTANA STATE UNIVERSITY

Project Title: Empathy Assessment in Doctorate of Nursing Practice Curriculum

Researchers: Kimberly M. Hardwick, RN, BSN, OCN, DNP student

This is a consent form for DNP scholarly project participation.

Please consider the information carefully. Feel free to email questions to Kimberly Hardwick at Kimberly.hardwick@student.montana.edu if you have questions on whether or not to participate.

Purpose:
The purpose of this scholarly project is to identify and evaluate the inclusion of empathetic affective learning in the doctorate of nursing program at Montana State University, College of Nursing.

Procedure/Task:
All nurse faculty of record who teach either the Family/Individual and Mental Health tracts of the DNP program are invited to participate. Participation is voluntary, and you can choose to not participate at any time. Participation or non-participation will not affect employment.

If you agree to participate, you will consent via participation in a one-time, on-line questionnaire pertaining to your perceptions of existing affective learning activity included in your course. Participation in the questionnaire provides consent for your syllabi to be obtained by the College of Nursing Associate Dean for Research and Graduate Programs.

Volunteered course syllabi and questionnaires will be included in a non-experimental, mixed methods, descriptive baseline analysis of the DNP curriculum. Completion of this project will include dissemination of baseline curriculum assessment of the DNP program on a global level to College of Nursing faculty as well as best practice recommendations to enhance empathy development activities within curriculum.

Risks and Benefits:
The benefits of participating in this assessment include obtaining a baseline understanding of existing empathetic learning activities within the DNP curriculum, receipt of best practice recommendations for future course development supporting the American Nurses Association Scope and Standards of Practice for the Doctorate of Nurse Practice profession.

The potential risks include fear of coercion or negative performance evaluation related to sharing personal syllabi information as well as survey answers.

Confidentiality:
Efforts will be made to keep your questionnaire answers confidential. Although your name will be included on both questionnaire and your syllabi, both documents will be stored in a locked file cabinet, accessed only by the investigating graduate student and shredded upon completion of this project. Assessment of faculty perceptions of affective learning activities will be reported on an aggregated level, and your perception data will remain anonymous and separated from curriculum assessment. This project will evaluate the DNP program globally, and data obtained from individual syllabi will compiled in a code book and de-identified.

Incentive:
To compensate for your time, participants will be invited to complete a separate survey to provide contact information for the receipt of executive summary of project findings, as well as the receipt of a $10 coffee gift card. Your contact information will not be linked to your questionnaire.

Participant Rights:
The Institutional Review Board at Montana State University responsible for human subject research has found this project to be acceptable according to applicable state and federal regulations and University policy. IRB approval protects the rights and welfare of this study's participants.

Contact and Questions:
For questions, concerns or complaints about the project, please contact Kimberly Hardwick, primary investigator at Kimberly.hardwick@student.montana.edu. If you have additional questions about the rights of human subjects, you can contact the Chair of the Institutional Review Board, Mark Quinn, 406-994-4707, mquinn@montana.edu.

AUTHORIZATION: I have read the above and understand the discomforts, inconvenience and risk of this study. I _____, agree to participate in this research. I understand that I may refuse to later participate and may withdraw from the study at any time. I have received a copy of this consent form for my own records.

Signed: _____

Investigator: _____

Date: _____

APPENDIX D

STUDENT CONSENT

DNP STUDENT CONSENT

IRB Protocol Number:
IRB Approval Date:

SUBJECT CONSENT FORM FOR PARTICIPATION IN HUMAN RESEARCH AT MONTANA STATE UNIVERSITY

Project Title: Empathy Assessment in Doctorate of Nursing Practice Curriculum

Researchers: Kimberly M. Hardwick, RN, BSN, OCN, DNP student

This is a consent form for scholarly project participation. You are being asked to participate in a voluntary, anonymous, one-time on-line survey to ascertain DNP student nurse perceptions of empathy within the advanced nurse practice profession and educational preparation.

Please consider the information carefully. Feel free to email questions to Kimberly Hardwick at kimberly.hardwick@student.montana.edu if you have questions on whether or not to participate. If you decide to participate, you will be providing your consent by completing the online survey.

Purpose:
The purpose of this scholarly project is to identify and evaluate the inclusion of empathetic affective learning in the doctorate of nursing program at Montana State University, College of Nursing. In addition, a baseline measurement of student perception of empathy within advanced practice nursing will add to the limited body of nursing knowledge related to DNP student perception.

Procedure/Task:
All students currently enrolled in the Spring 2018 semester in both the Family/Individual and Mental Health tracts of the DNP program are invited to participate. Participation is voluntary, and you can choose to not answer any questions that you do not want to answer, you may also stop at any time. Participation or non-participation will not affect student grades or class standing.

If you agree to participate, you will consent via participation in an on-line survey with basic demographic information, 5 Likert type questions, and a rating of learning activities by preference.

Risks and Benefits:
The benefits of participating in the survey include obtaining a baseline understanding of student nurse perceptions related to empathy within the advanced practice nurse practice and educational preparation. The potential risks include sharing personal demographic information and sharing information on your perceptions in the online survey.

There is no cost to participate, and confidentiality of survey responses will be maintained.

Confidentiality:
Efforts will be made to keep your survey answers confidential utilizing an online survey platform. Your name will not be included in the survey, and all printed survey results will be stored in a locked file cabinet and shredded upon completion of this project.

Incentive:
To compensate you for participating in this study, each participant will be given opportunity to participate in a separate submission of their name for the receipt of the executive summary of project findings and to be entered into a drawing of one of two $50 VISA gift cards. The list of participants who choose to participate in the drawing will be separate from survey results.

Participant Rights:
The Institutional Review Board at Montana State University responsible for human subject research has found this project to be acceptable according to applicable state and federal regulations and University policy. IRB approval protects the rights and welfare of this study's participants.

Contact and Questions:
For questions, concerns or complaints about the project, please contact Kimberly Hardwick, primary investigator at kimberly.hardwick@student.montana.edu, or Dr. Susan Raph at sraph@montan.edu, committee chair. If you have additional questions about the rights of human subjects, you can contact the Chair of the Institutional Review Board, Mark Quinn, 406-994-4707, mquinn@montana.edu.

AUTHORIZATION: I have read the above and understand the discomforts, inconvenience and risk of this study. I _____, agree to participate in this research. I understand that I may refuse to later participate and may withdraw from the study at any time. I have received a copy of this consent form for my own records.

Signed: _____

Investigator: _____

Date: _____

APPENDIX E

STATISTICAL REPORT

Montana State University

Statistical Consulting and Research Services

Empathetic Learning in Doctor of Nursing Practice Curriculum

Lead Statistician:
Michaela Powell, M.S.

Director:
Lillian Lin, Ph.D.

Contributions from:
Christopher Barbour, M.S.

When you make use of our work for publications or presentations, please be sure to acknowledge the funding we receive from NIGMS using the following: "Research reported in this publication was supported by Institutional Development Awards (IDeA) from the National Institute of General Medical Sciences of the National Institutes of Health under Awards P20GM103474, 5U54GM104944, U54GM115371, and 5P20GM104417. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health."

prepared for Kimberly Hardwick

July 6, 2018

1 Introduction

The client, Kimberly Hardwick, is a Doctor of Nursing Practice (DNP) student in the College of Nursing at Montana State University (MSU) and is advised by a clinical professor at MSU, Susan Raph, DNP, RN, NEA-BC. She is working on her scholarly project which is an assessment of the inclusion of empathetic affective learning in the DNP courses offered at the MSU. This assessment considers the identification of affective learning actions/activities in the the master resource outlines (MROs) of each course, the results of a self-designed voluntary student survey, and the results of a self-designed voluntary faculty survey. She has requested the assistance of Statistical Consulting and Research Services (SCRS) in summarizing and interpreting these data. She intends to defend her scholarly project before the end of September, 2018.

2 Data Collection

2.1 Master Resource Outlines

A master resource outline contains both the description and the learning objectives of a course offered at a university. For the DNP courses at MSU, the client recorded her subjective determination of absence or presence of any affective learning actions/activities in the MROs of these courses. This was done using both the affective learning actions defined per Bloom ("Bloom's Taxonomy of Educational Objectives" 2018) and the affective learning activities defined per Graber (Graber 2012). In addition to her subjective determinations, she also considered the determination of absence or presence of affective learning actions per Bloom in the MROs of the courses as assessed by the Graduate Academic Affairs Committee (GAAC).

2.2 Student and Faculty Surveys

The client designed two surveys - one for MSU DNP students and one for MSU DNP faculty. The student survey explored the perceived importance of empathy when practicing nursing, and the faculty survey explored the perceived importance of DNP students learning and developing empathetic skills. In total, 79 students were given the student survey and 16 faculty were given the faculty survey; 44 students completed the student survey and 9 faculty completed the faculty survey. Of the 44 students who completed the survey, 43 were female and 1 was male. Although both surveys had a variety of questions, this report is limited to the results of only the Likert-scale questions.

3 Results

3.1 Master Resource Outlines (MROs)

The data gathered from the MROs are summarized using proportions (Tables 1 through 4). For each table, the contents are defined and an example interpretation of a single cell is provided.

Table 1 contains the proportion of courses with and the proportion of courses without affective learning actions/activities for:

1. The GAAC identification per Bloom,
2. The subjective identification per Bloom,
3. The subjective identification per Graber.

For example, the first cell in the first column of the table can be interpreted as: 30% of the MSU DNP courses were identified by GAAC as not having any affective actions per Bloom.

Table 2 contains the proportion of courses with and the proportion of courses without affective learning actions/activities for the three different identifications split by the nursing track for which the course is offered (family track, mental health track, or both tracks). For example, the last cell in the first column of the table can be interpreted as: 53% of the MSU DNP courses offered for both the family and mental health tracks were identified by GAAC as having at least one affective action per Bloom.

Finally, Tables 3 and 4 contain the cross-classification of the MSU DNP courses for the identification of affective actions per Bloom by GAAC and the client. Table 3 contains this cross-classification for courses that the client identified as not having any affective activities per Graber. Table 4 contains this cross-classification for courses that the client identified as having at least one affective activity per Graber. For example:

- The second cell in the first column of Table 3 can be interpreted as: Considering only the MSU DNP courses that the client subjectively identified as not having any affective activities per Graber, 29% were identified by GAAC as having at least one affective action per Bloom but were identified by the client as not having any affective actions per Bloom.
- The first cell in the second column of Table 3 can be interpreted as: Considering only the MSU DNP courses that the client subjectively identified as having at least one affective activity per Graber, 0% were identified by GAAC as having no affective

actions per Bloom but were identified by the client as having at least one affective action per Bloom.

	Affective Actions per Bloom Identified by GAAC	Affective Actions per Bloom Identified Subjectively	Affective Activities per Graber Identified Subjectively
No	0.30	0.37	0.52
Yes	0.70	0.63	0.48

Table 1: Summary of the proportion of courses with and without affective learning actions/activities as identified by GAAC and as identified by the client subjectively.

		Affective Actions per Bloom Identified by GAAC	Affective Actions per Bloom Identified Subjectively	Affective Activities per Graber Identified Subjectively
Family	No	0.00	0.00	0.00
	Yes	1.00	1.00	1.00
Mental Health	No	0.00	0.20	0.40
	Yes	1.00	0.80	0.60
Both	No	0.47	0.53	0.70
	Yes	0.53	0.47	0.29

Table 2: Summary of the proportion of courses with and without affective learning actions/activities as identified by GAAC and as identified by the client subjectively split by the nursing track of which the course is a part (family, mental health, or both).

WITHOUT AFFECTIVE ACTIVITIES PER GRABER IDENTIFIED SUBJECTIVELY		*Affective Actions per Bloom Identified Subjectively*	
		No	Yes
Affective Actions per Bloom Identified by GAAC	No	0.29	0.21
	Yes	0.29	0.21

Table 3: Summary of the proportion of courses with and without affective learning actions per Bloom for courses without affective activities per Graber as identified by the client subjectively.

WITH AFFECTIVE ACTIVITIES PER GRABER IDENTIFIED SUBJECTIVELY		*Affective Actions per Bloom Identified Subjectively*	
		No	Yes
Affective Actions per Bloom Identified by GAAC	No	0.08	0.00
	Yes	0.08	0.85

Table 4: Summary of the proportion of courses with and without affective learning actions per Bloom for courses with affective activities per Graber as identified by the client subjectively.

3.2 Student and Faculty Surveys

The results of the Likert data from the student and faculty surveys are summarized using proportions (Tables 5, 6, and 7). Table 5 contains the results of the faculty survey, Table 6 contains the results of the student survey, and Table 7 contains the results of the student survey split by nursing track. As with the MRO summary tables, for each table, the contents are defined and an example interpretation of a single cell is provided.

In Tables 5 and 6, each row summarizes the responses from a single question, with each column representing a possible Likert response. For example:

- The first cell of the "Extremely" column of Table 5 can be interpreted as: 89% of the faculty that participated in the survey responded that it is extremely important for DNP students to learn the skill of empathetic communication.
- The first cell of the "Very" column of Table 6 can be interpreted as: 48% of the students that participated in the survey responded that it is very important for the nurse practitioner to have confidence in their patient's ability to look forward to the future with meaning while experiencing a negative health issue.

Table 7 contains the results of the student survey split by nursing track; each row summarizes the responses from a single question for the specified nursing track, again with each column representing a possible Likert response. For example, the first cell in the "Moderately" column of Table 7 can be interpreted as: 11% of the students in the family nursing track that participated in the survey responded that it is moderately important for the nurse practitioner to have confidence in their patient's ability to look forward to the future with meaning while experiencing a negative health issue.

In Figures 1 and 2 the information contained in Tables 5 and 6 is displayed with diverging stacked bar charts constructed using the **likert** package (Bryer and Speerschneider 2016) in the statistical computing program R (R Core Team 2017). Figure 1 displays the results of the faculty survey, and Figure 2 displays the results of the student survey. In these figures, there is a bar for each question, labeled on the left-hand side of the figures. The bars are partitioned by the proportion of the five Likert responses for a given question; the legend for the color-coding of the Likert answer options can be found at the bottom of the figures. The bars are centered such that the proportion of the "moderately important" responses is split in half by the zero reference line. On the right-hand side of the figure, the number of respondents for each question is displayed. The purpose of these diverging stacked bar charts is to visually compare the distribution of responses across questions.

In the Appendix, Figures 3 through 7 display the information contained in Table 7 with one diverging stacked bar chart for each question. In these figures, there is a bar for each nursing track, labeled on the left-hand side of the figures. As with Figures 1 and 2, these bars are partitioned by the proportion of the five Likert responses for a given question.

The purpose of these diverging stacked bar charts is to visually compare the distribution of responses across the two nursing tracks within each of the questions.

	Not At All	Slightly	Moderately	Very	Extremely
How important is it for doctorate of nursing (DNP) students to learn the skill of empathetic communication?	0.00	0.00	0.00	0.11	0.89
How important is the development of affective learning skills for doctorate of nursing (DNP) students?	0.00	0.00	0.12	0.44	0.44

Table 5: Summary of the perceived importance of affective activities by DNP faculty.

	Not At All	Slightly	Moderately	Very	Extremely
How important is it for the nurse practitioner to have confidence in their patient's ability to look forward to the future with meaning while experiencing a negative health issue?	0.02	0.00	0.14	0.48	0.36
How important is it for the nurse practitioner to understand the patient's perception and meaning of a health experience?	0.00	0.00	0.02	0.30	0.68
How important is it for the nurse practitioner to be fully engaged and connected during patient interaction?	0.00	0.00	0.00	0.25	0.75
How important is it for the nurse practitioner to perform hands-on-tasks for the patient who would otherwise perform those tasks for themselves when free of current health issues?	0.02	0.16	0.54	0.23	0.05
How important is it for the nurse practitioner to assist a patient's transition through their health experience? This includes education, discussion, expression of fears and uncertainties, clarification, identification and processing of feelings, etc..	0.00	0.00	0.00	0.36	0.64

Table 6: Summary of the perceived importance of affective activities by DNP students.

		Not At All	Slightly	Moderately	Very	Extremely
How important is it for the nurse practitioner to have confidence in their patient's ability to look forward to the future with meaning while experiencing a negative health issue?	*Family*	0.03	0.00	0.11	0.53	0.33
	Mental Health	0.00	0.00	0.25	0.25	0.50
How important is it for the nurse practitioner to understand the patient's perception and meaning of a health experience?	*Family*	0.00	0.00	0.03	0.28	0.69
	Mental Health	0.00	0.00	0.00	0.375	0.625
How important is it for the nurse practitioner to be fully engaged and connected during patient interaction?	*Family*	0	0	0	0.25	0.75
	Mental Health	0	0	0	0.25	0.75
How important is it for the nurse practitioner to perform hands-on-tasks for the patient who would otherwise perform those tasks for themselves when free of current health issues?	*Family*	0.03	0.14	0.555	0.2222222	0.055
	Mental Health	0.00	0.25	0.50	0.25	0.00
How important is it for the nurse practitioner to assist a patient's transition through their health experience? This includes education, discussion, expression of fears and uncertainties, clarification, identification and processing of feelings, etc..	*Family*	0.00	0.00	0.00	0.42	0.58
	Mental Health	0.00	0.00	0.00	0.125	0.875

Table 7: Summary of the perceived importance of affective activities by DNP students split by the nursing track of which the students are a part.

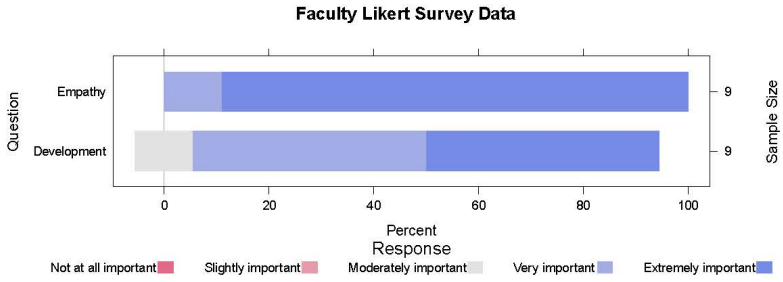

Figure 1: Diverging stacked bar charts for the faculty Likert-scale survey data.

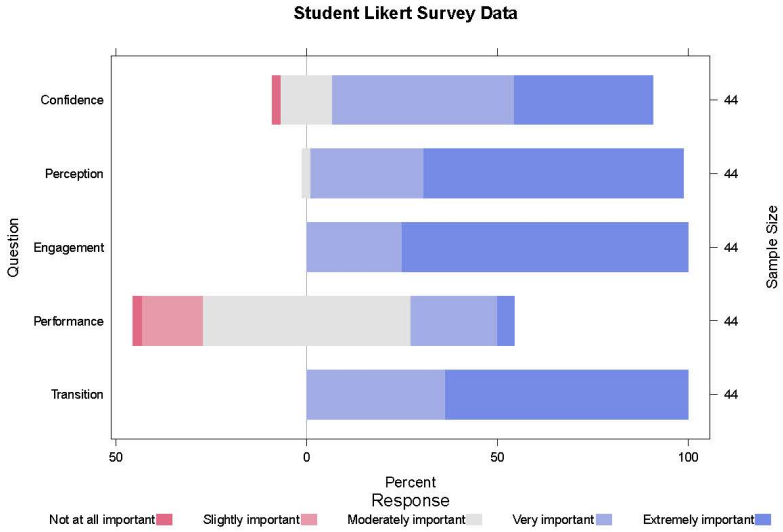

Figure 2: Diverging stacked bar charts for the student Likert-scale survey data.

4 Discussion

In this report, the client's data collected from the master resource outlines (MROs), the student survey, and the faculty survey were summarized. Example interpretations for these summaries were provided, however the full interpretation of these summaries will be left to the client as to allow discussion with subject-area expertise. It has been agreed that SCRS will remain available to review the client's interpretations.

5 Appendix

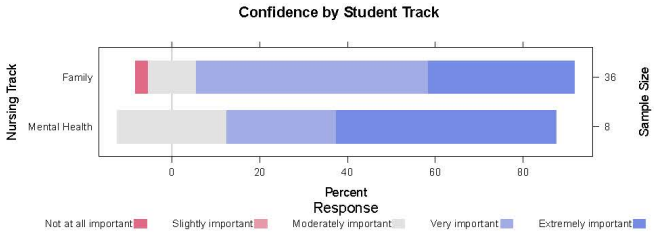

Figure 3: Diverging stacked bar charts for the "Confidence" student survey question split by the nursing track of which the student is a part.

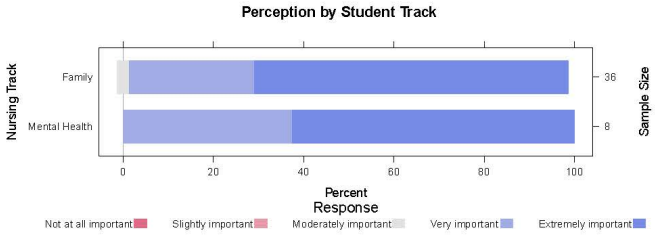

Figure 4: Diverging stacked bar charts for the "Perception" student survey question split by the nursing track of which the student is a part.

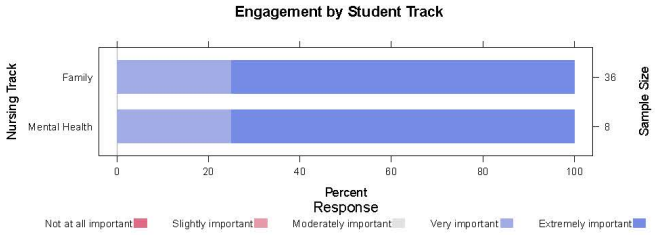

Figure 5: Diverging stacked bar charts for the "Engagement" student survey question split by the nursing track of which the student is a part.

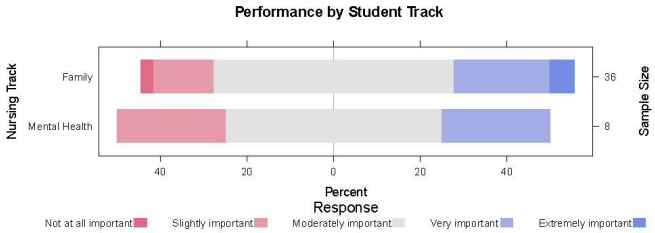

Figure 6: Diverging stacked bar charts for the "Performance" student survey question split by the nursing track of which the student is a part.

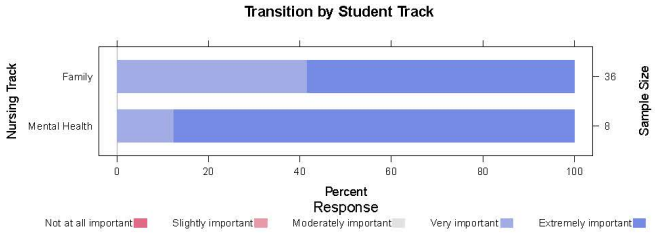

Figure 7: Diverging stacked bar charts for the "Transition" student survey question split by the nursing track of which the student is a part.

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