PERCEPTIONS OF THE NURSE PRACTITIONER

IN THE HOSPTIAL SETTING

by

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DEDICATION

This project is dedicated to my husband, children, and father. First, I want to thank my biggest supporter and husband Kris. Without you, I would not be here. You have wiped my tears, given me numerous high fives, proofread countless paper revisions, and yet never failed to let me know how proud you are of me. I won the lottery when I met you! To my children, thank you for being patient and understanding with me when I had to put my schooling first. I am blessed to have such a wonderful family. I hope I instill the value of education in all of you. Don't ever give up on chasing your dreams! Lastly, I would like to recognize my father, Maury, who passed away in 2012. One of my last conversations with him was filled with his encouragement for me to pursue my dream of becoming a Nurse Practitioner. Dad, I did it! I hope I made you proud.

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ABSTRACT

The practice of nurse practitioners (NPs) has evolved over the last 60 years. This evolution has taken the NP from practicing mainly in a family-practice setting into various other settings such as the hospital environment. The knowledge and associated role of the NP is often confusing for healthcare professionals. The purpose of this project was to gain insight from Medical Doctors (MDs) and Doctors of Osteopathy (DOs) regarding their perception of NP scope of practice, educational background, and appropriate utilization in the hospitalist's position.

A Likert-scale questionnaire was deployed to MD and DO providers from two different facility types in central and eastern Montana using a snowball sampling method. The two facility types were hospitals that currently utilize NPs in their inpatient settings and hospitals that do not utilize NPs in their inpatient settings in Montana. A total of 51 questionnaires were sent out with a response rate of 47%. Along with demographic data, the questionnaire included three umbrella themes: MDs'/DOs' perceptions regarding the NPs' educational background, NPs' scope of practice, and the utilization of NPs in a hospital setting.

The results from the questionnaire suggest that MDs/DOs do not understand the differing roles or educational processes of the APRN, specifically the Family Nurse Practitioner (FNP) versus the Acute Care Nurse Practitioner (ACNP). The results also showed strong support by MDs/DOs for the NP to work in a hospital setting, especially in urban areas. These findings support the need for changes in organizational hiring and regulatory policy consistent with independent state APRN practice regulations and the LACE Consensus Model. Enhancing hiring practices can lead to increased educational opportunities for MDs/DOs regarding the various APRN roles, afford an organization the opportunity to hire an APRN that is appropriately licensed to work in a hospital setting, and provide clarity between the FNP and ACNP roles.

CHAPTER ONE

INTRODUCTION

Nurse Practitioners (NPs), like many healthcare professionals in the United States, have evolved since their initiation into practice in the mid-1960s. Loretta Ford, a registered nurse, partnered with physician Henry Silver to develop the first NP program in Colorado in 1965 (American Association of Nurse Practitioners [AANP], 2018). While initially met with resistance, the role of the NP trudged on, evolving into an independent profession with partial reimbursement for services after President George H. W. Bush signed the Omnibus Budget Reconciliation Act of 1989 (O'Brien, 2003). By 1997, NPs achieved 80–85% reimbursement for services and became an accepted solution to the growing primary-care shortages seen nationwide (AANP, 2018; O'Brien, 2003). Since the 1990s, many states have adopted legislation allowing the NP to practice independently, which has permitted NPs to fill the gaps of the critical provider-shortage epidemic in the United States. While reimbursement appears to have paved the way for advanced practice registered nurse (APRN) (used interchangeably with NPs in this text) utilization in many healthcare organizations, evidence also suggests that APRNs improve patient outcomes, satisfaction, and compliance rates (Laurant et al., 2009).

Increased healthcare demands have challenged the NP to move outside of family-practice settings and into the acute-care environment. Family nurse practitioners (FNPs) are trained in health promotion, disease prevention, health education, diagnosis, and management of acute and chronic diseases in individuals of all ages (APRN Joint

Dialogue Group Report, 2008). This extensive training makes them ideal to function as providers in primary-care settings. The acute-care nurse practitioner (ACNP) is trained to provide care to the acutely ill adult and geriatric patient in a hospitalist role (American Association of Critical-Care Nurses, 2018). A hospitalist as defined by the Society of Hospital Medicine is a "physician whose primary professional focus is the general medical care of hospitalized patients" (Pantilat, 2006). The delineation between FNPs and ACNPs is the focus of this project; therefore, no other APRN roles are covered in detail.

APRN transition into the hospital setting has been met with hesitancy by many hospital professionals, primarily because the scope of practice for the NP is not clearly delineated within this setting (Butcher, 2017). Hain and Fleck (2014) state that some professional organizations such as the American Medical Association (AMA) believe that, due to the rigorous training that medical doctors (MDs) undertake, NPs are incapable of providing the same level of care in the hospital setting. In some instances, organizational bylaws requiring physician approval of NPs' charting create a less than independent work environment (Butcher, 2017). Misperceptions about an APRN's role by MDs may contribute to the gap in acceptability for NPs within the hospital setting. Another contributing barrier is the lack of clarity with NP regulations that vary from state to state (Hain & Fleck, 2014). Currently, 23 states allow NPs to have full practice autonomy, defined as no physician oversight and full prescriptive autonomy (AANP, 2018). The lack of consistent regulation across the states further contributes to the confusion of the APRN role.

The Problem

The knowledge surrounding the role of the NP appears to be a common state of confusion for healthcare professionals nationwide (Williamson, Twelvetree, Thompson, & Beaver, 2012). Without clear knowledge of the NP's role, underutilization of the NP is seen in settings such as acute care (Englebright, McCurley, & Borum, 2017). Lack of clear role identification has led to NPs being utilized in settings that may not be within the NP's scope of practice, such as an FNP who has not completed a hospital fellowship working in an acute-care setting. This lack of clarity leads to the question, "Does the lack of clear role identification and scope of practice lead to the misutilization of the FNP in an acute care setting?"

The Purpose

The purpose of this project was to assess physician perceptions of role, scope of practice, and appropriate utilization of NPs in the hospitalist's position. The results from this project will serve to guide the author and other nurse leaders in healthcare-system and organizational policy change recommendations to support ACNP and FNP practice consistent with state regulations and the Consensus Model for APRN regulation. The results of this project will also enhance interprofessional healthcare-provider collaboration for improving patient outcomes.

The Background

In many states around the country, NPs have gained the right to practice independently once they have graduated from an accredited program and passed a national certification exam through the American Academy of Nurse Practitioners (AANP) or the American Nurses Credentialing Center (ANCC). AANP certification focuses on three specialties, gerontologic, adult, and family practice, and carries the credentials FNP-C for family practice NPs. The AANP requires recertification of NPs every five years and tests on assessment, diagnosis, planning, and evaluation of care (AANP, 2018). ANCC is the other certifying body for NPs and is more specific to specialty fields such as acute care, family practice, gerontologic, pediatrics, and psychiatric practice (ANCC, 2018). The ANCC also requires recertification every five years and focuses its testing around the foundations of advanced practice, professional practice, and independent practice. The credential associated with the ANCC for family practice is FNP-BC and ACNP-BC for ACNPs who focus on the adult/geriatric populations. Both the ANCC and the AANP have utilized the APRN Consensus Model as a guideline since 2008. The Consensus Model outlines the integral associations among the licensure, accreditation, certification, and educational (LACE) requirements for the NP (APRN Joint Dialogue Group Report, 2008).

Montana allows autonomous NP practice. Overseen by the Montana State Board of Nursing, NPs must graduate from a nationally accredited NP program, pass a national board certification, and comply with yearly continuing-education requirements to maintain licensure per Montana Rule 24.159.1469 (APRN practice of 2013). NPs are not

required to have physician oversight in Montana. However, regulatory, contractual, or reimbursement issues hinder full autonomy for NPs in many practice settings, as oversight of the NP may be necessary for reimbursement. NPs are often utilized to bridge the gap in rural provider-shortage areas, but this practice may result in misutilization of the APRN (AANP, 2018).

The Consensus Model for APRNs articulates expectations that certified clinical NPs (such as FNPs) and ACNPs have "separate national consensus-based competencies and certification processes" (National Council of State Boards of Nursing, 2008). The hospitalist's role is a newer concept with the first ACNP certification becoming available in 1995 (Hoffman & Guttendorf, 2017; Pantilat, 2006). ACNPs provide care to individuals in an acute-care/hospital setting and have completed necessary didactic and clinical training in the management of acute disease processes (ANCC, 2018). FNPs provide care to individuals across the lifespan; however, do not possess the educational preparation or certification to practice in an acute-care setting. Montana Rule 24.159.1406 states that an NP can "only practice in the role and population focus in which the APRN has current national certification" (APRN practice of 2013, p. 9). If Montana's rural communities are to benefit from NPs providing primary-care and/or acute-care services to this population, changes in healthcare facilities' organizational policy language must align with regulations to provide congruency so that the differences in APRN roles are clarified and, also, to ensure that APRNs are not practicing outside of their scope of practice.

For NPs to be successful in providing services in rural areas, physicians must be aware of the NPs' scope of practice to support a collaborative work environment. Without physicians' full awareness into the NPs' scope of practice, NPs are at risk for diminished full-practice capabilities as outlined by the Institute of Medicine (IOM). This could potentially influence team collaboration and confidence resulting in decreased quality of care for patients and limited access to care (IOM Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing at the Institute of Medicine, 2011, p. 468). To fully understand physician perceptions of NPs, their knowledge base must be evaluated.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

An extensive literature review was completed to assess the perceptions of the NP in a hospital setting. The following databases were utilized: CINAHL, EBSCO, PsychInfo, ProQuest, Joanna Briggs, and Cochrane, with search dates narrowed to the last 10 years, stemming from 2009–2019. Search terms (or related terms) included: NP/APRN in hospital setting, NP/APRN in acute care setting, NP/APRN in inpatient setting, perceptions of NP/APRN in hospital, perceptions of NP/APRN in acute care, evaluation of NP/APRN in acute care setting, satisfaction of NP/APRN in hospital, and patient satisfaction of NP in hospital. A collection of 28 articles were originally reviewed for applicability of this project with the majority being qualitative in nature consisting of survey and interview methodology. A total of 17 articles were excluded after review based on the article's facility type being a long-term care facility, urgent-care, or emergency room setting. Articles were also excluded if they focused on the physician assistant and not the APRN. Common themes identified in existing literature consisted of generalized lack of knowledge regarding the scope of practice for the NP, NP role clarity among healthcare professionals, NPs bridging the gap in healthcare, and the effects of the NP on team effectiveness.

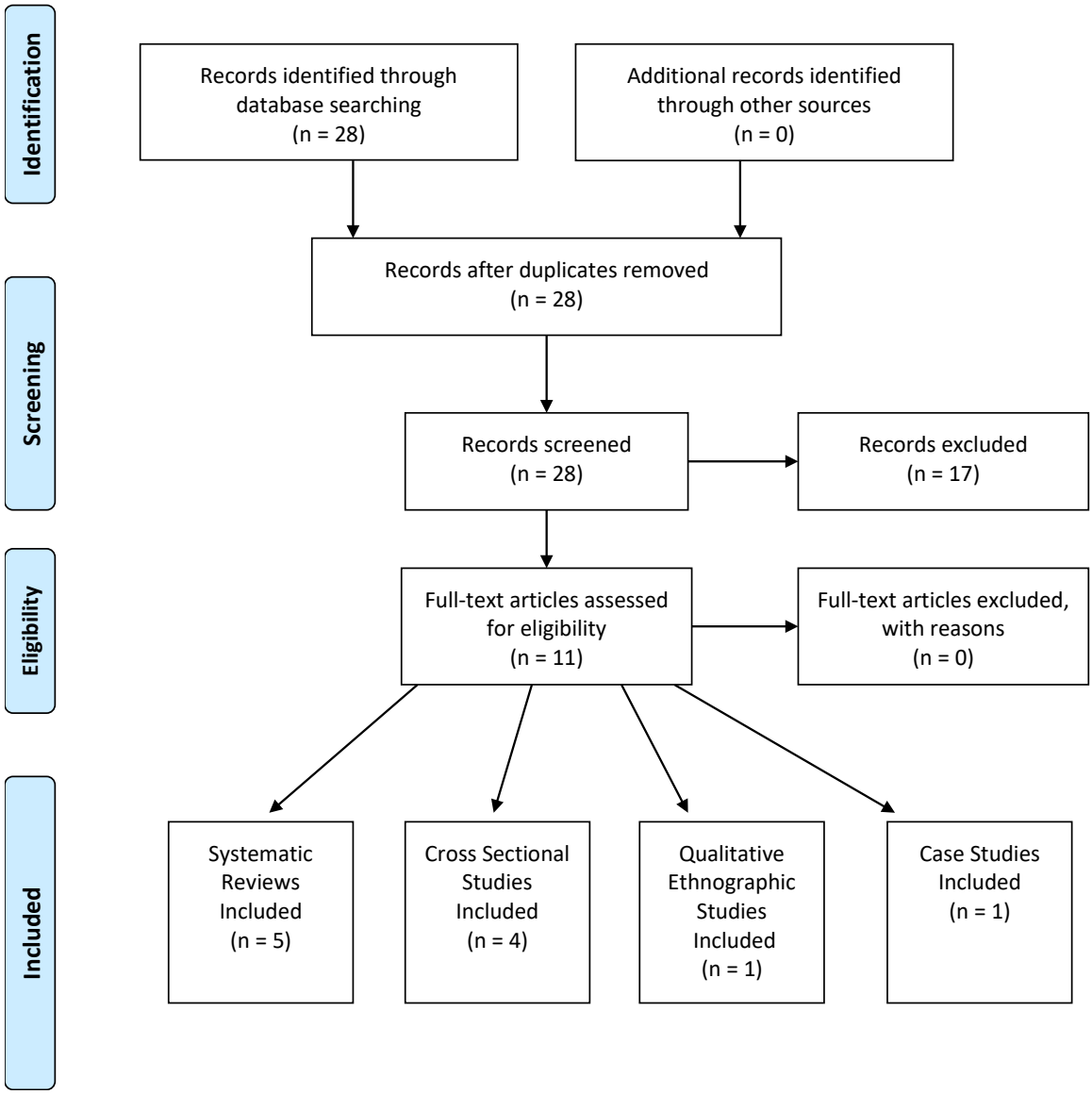


Figure 1. Literature Review PRISMA

Nurse Practitioner Scope of Practice and Role Clarity

The scope of practice for NPs is dictated by each state's board of nursing. Currently, 23 states allow NPs to practice without restriction. The varied regulations from state to state muddy the waters for understanding what an NP can and cannot do in their

practice. Further confusion could be attributed to the fact that NPs have mostly been utilized in primary-care clinical settings for the last 50 years (AANP, 2018). Literature also suggests that contributing factors, such as contradictory regulatory, contractual, and autonomy barriers, contribute to the lack of role clarity for NPs.

Contractual Barriers

Hain and Fleck (2014) indicated that the scope of practice is not only affected by federal and state regulations but also by the fact that an NP's place of employment is influential and dictates the scope of practice, which can disregard an NP's education and certification. Jakimowicz, Williams, and Stankiewicz (2017) alluded to a similar concept in their study that found that physicians tended to "…relinquish duties to APRNs for reasons other than the skills and abilities of the nurse" (p. 11). Williamson et al. (2012) referenced that a workplace impacts scope of practice, acknowledging that the lack of managerial support for the NP role in a hospital setting leads to employers allowing the NP role to be "appointed, educated, and trained without clear definition of what the employers expect of them" (p. 1580).

Role Clarity

The concept of a hospitalist is fairly new, with the implementation of this type of provider occurring in the mid-1990s (Pantilat, 2006). Jakimowicz et al. (2017) suggest that one reason the NP's scope is not clearly defined in an inpatient setting is due to the hierarchical structures that exist in a hospital environment not present in general practice. Similarly, Stanik-Hutt et al. (2013) note the lack of clarity with the NP role and failure to

outline responsibilities hinder a working model of care with physicians. Currently, 6.4% of the NP population in the US are certified as ACNPs and 60.6% are FNPs, which could contribute to the lack of attention placed on delineating between the two types of practitioners within facilities (AANP, 2018).

Skepticism surrounding NP scope of practice by colleagues such as nursing staff and MDs has been identified as one of the main barriers for the NP, as the NP's colleagues didn't fully understand their role within the organization (Williamson et al., 2012). Williamson et al. further found that NPs did not feel part of the medical or nursing team, their roles were not clearly defined, and they had to compete to overcome the challenges presented from their colleagues.

> The inherent challenges of an advanced nurse practitioner is [sic] to meet everyone's competing demands, because everybody's got a view on what you should be doing. Nurse management have their perspective. The medical team will come with their views and so on and so forth (2012, p. 1580).

Job dissatisfaction was also seen by the NP in facilities that did not define their roles well (Hurlock-Chorostecki, Forchuk, Orchard, Soeren & Reeves, 2014). Hurlock-Chorostecki et al. (2014) identified overpowering leaders and physicians who restricted NP roles were the major influencers behind job dissatisfaction. "The NP role was not empowered by the physicians at all; they [physicians] hadn't asked for it, they didn't want it, they had no interest in it" (Hurlock-Chorostecki et al., 2014, p. 262).

Regulation and Reimbursement Barriers

Reimbursement issues also contribute to a lack of role clarity. McDonnell et al. (2014) note NPs have been allowed to cover vacant positions within an organization in

response to the high costs associated with the use of locum doctors, placing an NP in varying or inappropriate settings despite their training and comfort level. Conversely, Hain and Fleck (2014) report that "payer policies have a significant impact on their [NPs'] ability to practice to the fullest extent of their licensure and training" (p. 3). Payer policies are often linked to in-network relationships with MD providers that do not always recognize an NP as being an independent provider. Lack of in-network recognition of the NP may contradict the scope of practice allowed and defined by a state board of nursing, forcing physician oversight of the NP. The Centers for Medicare & Medicaid Services' (CMS) requirement of physician signatures on all admissions and discharges creates a barrier for the otherwise qualified NP who can practice independently (Butcher, 2017).

Autonomy Barriers

Challenges to autonomy in a work environment affect appropriate use of the NP in the acute-care setting. Park, Athey, Pericak, Pulcini, and Greene (2016) found that NPs who worked in a hospital setting experienced negative day-to-day autonomy outcomes in five areas: full utilization of NP skills, billing independence, physician relationships, patient management, and hospital admitting privileges. This negative impact on autonomy was not related to a state's scope of practice guideline but rather the urbanism of the setting. Those involved in rural settings had higher autonomy than urban settings (Park et al., 2016). Hospital admitting privileges negatively affect NPs' autonomy in full-practice states. Admitting privileges are often determined by healthcare-system or

organizational bylaws and institutional policies and may conflict with the NPs' scope of practice.

> Hospital and facility bylaws often define specific services that NPs can or cannot provide within institutions. In our study, only 20% of NPs reported that they had hospital admitting privileges and this was consistent for NPs regardless of the state scope of practice regulations. Furthermore, it is unclear why most NPs do not have hospital admitting privileges. Nevertheless, this can create challenges for patient follow-up because continuity of care is an important aspect of providing the best care for patients. At a time when care coordination and continuity of care have drawn national attention, lack of hospital admitting privileges poses a significant obstacle to achieving these goals (Park et al., 2016, p. 76).

Physician oversight also affects NP autonomy. Petersen and Way (2017) discovered NPs acknowledged higher levels of autonomy in rural settings where physician oversight was not required in their practice. However, CMS dictates that "100% of all mid-level practitioner (NPs, physician assistants, and clinical nurse specialists) inpatient charts be reviewed by an MD or DO within a Critical Access Hospital (CAH) setting" (Centers for Medicare & Medicaid Services [CMS], 2005). CAHs serve many of rural Montana's population; therefore, this regulatory barrier essentially mandates physician oversight of the NP. Chart reviews are intended to "ensure that every inpatient is under the care of an MD/DO," which prevents the NP from practicing independently (CMS, 2005, p. 1).

Bridging the Gap in Health Care

Bridging the gap for all providers within the healthcare environment is a common theme found in NP research. NPs meld the foundations of traditional medicine with nursing skills to provide benefit not only to the patient but to the entire healthcare team

(Cowley, Cooper, & Goldberg, 2016). This is particularly true for the NP educated at the DNP level who possesses advanced education related to scientific method, theory, and research, which makes them highly knowledgeable in evidence-based best practice standards and current healthcare trends (AANP, 2018). In addition to a strong knowledge base, NP expertise in self-efficacy, creativity, and innovation during complex situations was found to fill holes in service provisions where doctors were in short supply (Williamson et al., 2012). Hurlock-Chorostecki et al. (2014) addressed the NP's ability to fill the gaps by adjusting their role to fit areas that need attention within the work environment. "To practice our role in the way we feel, within our scope of practice, is appropriate for the service that we're working with, the population we're working with, and the workload we're working with" (p. 261).

Effective communication between physicians and NPs assists in the creation of a working team environment, facilitates the concept of bridging the gap between providers, and enhances the interprofessional collaboration for improving patient outcomes. McDonnell et al. (2015) evidenced that NPs improve team function with improved communication across boundaries for nurses and providers, which ultimately improves patient safety, quality of care, and enhances patient outcomes. Cowley, Cooper, and Goldberg (2016) reported communication between multidisciplinary teams and family members was improved with the addition of NPs in an acute healthcare facility, again supporting the concept that NPs bridge the gap in health care.

Effects of the Nurse Practitioner on Team Effectiveness

Team effectiveness is facilitated by trust. Hurlock-Chorostecki et al. (2014) found that NPs need to feel appreciated by and included within team dynamics in order to preserve the team atmosphere. Ineffective teams are a result of providers not valuing or trusting members' abilities.

> Being there as the liaison with some authority, I think [NPs] allow [other professionals]to give their maximum input in terms of where the patient should go so it actually enables them to make decisions when they're the right person to be making the decisions (Hurlock-Chorostecki et al., 2014, p. 262).

Cowley, Cooper and Goldberg (2016) identified NPs as the missing link that bridged team dynamics through traditional medicine and nursing skills and improved patients' outcomes. "You've got the best of both worlds. You've got a bit of nurse and a bit of doctor. And [sic] patients can relate to them more because they have a nursing background" (p. 33).

Literature Review Summary

The literature review identified an overall lack of knowledge regarding the NP's scope of practice and role clarity by healthcare professionals. This lack of knowledge has led to physicians, organizations, and regulatory agencies limiting or dictating duties to the NP that may not fully align with the NP's scope of practice. NPs who practice in independent-practice states were found to have limitations placed on them, including some degree of physician oversight, which resulted in decreased levels of autonomy. Despite the limitations placed on the NP, literature also identified that the NP bridged the

gap in many healthcare settings, melding traditional medicine with nursing skills, which positively impacted patient outcomes (Cowley, Cooper, & Goldberg, 2016). NPs were also effective in bridging communication gaps between provider groups and nursing groups, improving interprofessional collaboration within organizations.

Gaps in Literature

Gaps identified in the literature included (1) the lack of research addressing the knowledge base of physicians (MDs and DOs) and their perceptions of the NP practicing in a hospital setting, (2) reasons why organizations dictate the scope of practice for the NP, and (3) lack of research on why regulatory agencies fail to recognize NPs practicing in independent-practice states. Additional research would be helpful to fully assess why physicians, organizations, and regulatory agencies have such influence on the scope or practice and role of the NP.

Theoretical Underpinning

Sister Callista Roy's Adaptation Model of Nursing illustrates the role NPs have in providing quality, competent, adaptive, and holistic care to patients (Petiprin, 2016). This model of care encompasses the concepts of person and environment; two main components an NP must consider when providing care in any realm (Petiprin, 2016). Masters (2015) describes Roy's concept of person to include "people as individuals, or in groups, including families, organizations, communities, and society as a whole" (p. 117).

This emphasizes that necessary collaboration between the NP and patients, organizations, and physicians must exist.

The concept of environment allows NPs to be adaptive to healthcare settings and work with a variety of entities. This concept requires the NP to recognize that the needs of patients may change, depending on the environment. Adaptation in the acute-care environment integrates a collaboration of medical and nursing expertise intended to positively affect patient outcomes. The relationship between medical and nursing expertise creates a systematic link that must include acceptance, protection, and a fostering environment for interdependence, thereby making Roy's Adaptation Model the ideal framework for this project (Masters, 2015).

CHAPTER THREE

METHODS

Design

This DNP scholarly project explored the perceptions of MD/DO hospitalists regarding the NPs' educational background, scope of practice, and their understanding of NP utilization within the hospital setting. Two different facility types were evaluated in this project: hospitals that currently utilize NPs in their inpatient settings and hospitals that do not utilize NPs in their inpatient settings within Montana. These two types of facilities were chosen to isolate MD/DO perceptions, indicating perceptions were affected by utilization of NPs in their current practice environment. MDs and DOs working as hospitalists from a total of seven organizations were asked to participate. Participation was voluntary and the MDs'/DOs' completion of the questionnaire was indicative of their consent. The questionnaire format was a Likert-type scale, which allowed for respondents to indicate the degree to which they agreed or disagreed with the questions (Polit & Beck, 2017, p. 273). (See Appendix A for the list of questions.)

IRB Approval

The nature of the questionnaire fell under a low-risk category according to the federal requirements of ethical research (Polit & Beck, 2017, p. 151). Provisions were taken to protect participant confidentiality during the questionnaire process. An exempt

review was requested through Montana State University and granted (See Appendix C for IRB approval).

Setting and Population

The questionnaire was deployed to MD and DO hospitalists working in one of two settings in Montana: hospitals that currently utilize NPs in their inpatient settings and hospitals that do not utilize NPs in their inpatient settings. These settings were a mixture of rural and urban areas within Montana using a snowball sampling method, which is a variant of convenience sampling (Polit & Beck, 2017) where facilities that responded were asked if they could recommend any other facility that utilized or did not utilize NPs in their inpatient setting.

Sampling

Participation in the questionnaire was voluntary. An introductory letter explaining the purpose of this project was sent to each facility's medical director or department head asking if they utilize NPs in their setting. This introductory letter also queried how many current MDs/DOs were working in their facility's inpatient setting (Appendix B). After the facility was identified as either utilizing or not utilizing NPs in their inpatient setting, questionnaires were mailed directly to the medical director or department head for distribution. A self-addressed, stamped envelope was provided in each participant's package to mail the questionnaires back to the author for analysis. Each participant was

assigned a number to maintain anonymity. The timeframe for the questionnaire to be completed was a total of 40 days with no reminder letter sent.

Question Generation

Demographic data was collected within the questionnaire. Focus questions involved three categories: MD/DO hospitalist's perception regarding NPs' educational background, MD/DO knowledge regarding NPs' scope of practice, and their insight on how NPs should be utilized in the hospital setting. There were seven demographic, seven education, 11 scope of practice, and seven utilization questions with a goal of identifying the perceptions of the MD and DO regarding the NP role and perceptions of contribution to the healthcare team. No previously published, peer-reviewed survey was discovered that provided content in all three areas being researched; therefore, it was necessary to create a questionnaire. The questionnaire was created following the principles outlined by Polit and Beck (2017) on designing structured, self-report instruments that included focus on question clarity, ability of respondent to give information, avoiding bias, and respondent's sensitivity (p. 276–279). No validated survey instruments were used. Committee members for this project reviewed the three categories and questions covered in the questionnaire and had opportunity to provide feedback prior to distribution.

Statistical Analysis

Data from the questionnaire was collected over a 40-day period and manually entered into Microsoft Excel version 1903 and exported to IBM SPSS Statistics (SPSS)

version 23 for statistical analysis (2018). To ensure that data entries were correct, a cross-comparison between Excel and SPSS was completed. A combination of frequency distribution and Spearman's rho (r_s) was utilized to evaluate the data. A Cronbach's alpha was also calculated, indicating an overall reliability of 0.74, which shows good reliability within the questionnaire. Data was collected from MDs/DOs within two groups: hospitals that currently utilize NPs in their inpatient settings (n=17) and hospitals that do not utilize NPs in their inpatient settings (n=7). Participants were encouraged to answer all questions on the questionnaire, but were afforded the option of not answering if they were not comfortable or did not understand the question. In this case, missing data were handled by inputting a numerical value of -99, to exclude it from analysis. These missing data led to variation of response rates for each question.

Demographic data included age, provider type, time since the physician's residency, physician time as a hospitalist or working in a hospital setting, MD's/DO's previous working experience with APRNs outside of a hospital setting, and type of practice setting (rural or urban). Demographic data was not compared between the groups and was only analyzed using frequency distribution. Demographic data were necessary to fully understand the backgrounds of the participants; thus, no correlations were investigated.

The questionnaire was comprised of three sections related to perceptions of the MD/DO in regard to APRN educational background, scope of practice, and utilization within a hospital setting using a 5-point Likert scale: strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). If a question was directed at a particular

group, a sixth option of "not applicable" was a choice. Each section had a preceding label showing which sections the questions were assigned: E=education, S=scope of practice, and U=utilization. Spearman's rho analysis was utilized for each section comparing the responses from each facility group. A two-tailed significance level was used to evaluate the findings.

Ethical Considerations and Protection of Study Participants

The Belmont Report outlines three standards of ethical conduct when completing research, which include beneficence, respect for human dignity, and justice (Polit & Beck, 2017). Participants were at no risk for harm in this project and confidentiality was always maintained. Returned questionnaires were identified by facility type and contained no names or other personal identifying data. All questionnaires were kept in a locked filing cabinet. All data inputted into the computer were stored on a password-protected computer and contained no identifying information. Dignity was preserved as there was no coercion to participate and no monetary incentives offered to the participants. Participation was voluntary and a full disclosure including the project's description, rational, and procedures was included in all questionnaire packets for participants to review.

CHAPTER FOUR

RESULTS

Questionnaires were sent to seven facilities across Montana with six facilities having at least one physician response. Fifty-one questionnaires were distributed with 24 (N=24) returned (response rate of 47%). Four facilities that currently utilize NPs in their hospital settings with n=17 (70.8%) participants, and two facilities that do not utilize NPs in their hospital settings with n=7 (29.2%) participants made up the target population.

Demographics

Demographic data were collected from all participants (N=24) and can be observed in Table 1. The majority of participants were between the ages of 31 and 50 (79.2%). Of the 24 participants, 91.7% (n=22) were MDs and 62.5% (n=15) had been practicing in a hospital setting for 10 years or less. In total, there were 11 rural providers and 13 urban providers. A large portion of the participants acknowledged that they had worked with NPs outside of a hospital setting (83.3%), with eight participants acknowledging that they worked in a hospital setting prior to NP implementation within their facility.

Table 1. Demographic Frequency Distribution

Questions		Frequency	Percentage
Age			
	31-40 years of age	10	41.7
	41-50 years of age	9	37.5
	51-60 years of age	4	16.7
	Greater than 60 years of age	1	4.2
	Total	24	100.0

Table 1. Demographic Frequency Distribution Continued

Questions	Frequency	Percentage
Are you an MD or DO?		
MD	22	91.7
DO	2	8.3
Total	24	100.0
How long have you been a physician out of residency?		
0-10 years	13	54.2
11-20 years	9	37.5
21-30 years	1	4.2
Greater than 30 years	1	4.2
Total	24	100.0
How long have you been a Hospitalist or how long have you worked as an MD or DO in an inpatient setting?		
0-5 years	10	41.7
6-10 years	5	20.8
11-15 years	5	20.8
16-20 years	2	8.3
Greater than 20 years	2	8.3
Total	24	100.0
I have worked with NPs outside of a hospital setting before?		
Yes	20	83.3
No	4	16.7
Total	24	100.0
I worked as a hospitalist or a provider in an in-patient setting prior to NPs being implemented into inpatient care (if your facility does not currently utilize NPs for inpatient care, please choose not applicable)?		
Yes	8	33.3
No	10	41.7
Not applicable, my facility does not utilize NPs in inpatient care	6	25.0
Total	24	100.0
My current hospital setting is considered:		
Rural-Serving less than 25,000 individuals	11	45.8
Urban- Serving more than 25,000 individuals	13	54.8
Total	24	100.0

Educational Background

MDs'/DOs' perceptions regarding the NP educational background were examined comparing the participants' answers to the type of facility where they practiced. For all

seven questions, it was determined that there was no statistical relationship between the participant's facility type and the participant's response. Frequency distribution data indicated that 15 (62.5%) participants strongly disagreed, disagreed, or answered neutral when asked if they understood the differences between an FNP and an ACNP (definition of ACNP was not provided on questionnaire). Most of the participants agreed or strongly agreed (n=15, 62.5%) that FNPs should complete a hospital fellowship to be able to practice in an inpatient setting. Table 2 shows the combined totals for each group's responses.

Table 2. Education Section Frequency Distribution

Questions		Frequency	Percentage
E-1. FNPs receive the necessary didactic education to effectively manage patients in an inpatient setting.			
	Disagree	5	20.8
	Neutral	11	45.8
	Agree	7	29.2
	Missing Data	1	4.2
	Total	24	100.0
E-2. ACNPs receive the necessary didactic education to effectively manage patients in an inpatient setting.			
	Disagree	2	8.3
	Neutral	12	50.0
	Agree	6	25.0
	Strongly Agree	3	12.5
	Missing Data	1	4.2
	Total	24	100.0
E-3. NPs receive an appropriate number of clinical hours during their education.			
	Strongly Disagree	1	4.2
	Disagree	8	33.3
	Neutral	9	37.5
	Agree	4	16.7
	Missing Data	2	8.3
	Total	24	100.0
E-4. NPs should possess doctoral degrees.			
	Disagree	3	12.5
	Neutral	15	62.5
	Agree	4	16.7
	Strongly Agree	1	4.2
	Missing Data	1	4.2

Table 2. Education Section Frequency Distribution Continued

Questions		Frequency	Percentage
	Total	24	100.0
E-5. NPs practice healthcare according to evidence-based practices.			
	Neutral	10	41.7
	Agree	11	45.8
	Strongly Agree	1	4.2
	Missing Data	2	8.3
	Total	24	100
E-6. FNPs should complete a hospital fellowship to be able to practice in an in-patient setting.			
	Disagree	1	4.2
	Neutral	8	33.3
	Agree	9	37.5
	Strongly Agree	6	25.0
	Total	24	100.0
E-7. I understand the difference between a FNP and an ACNP.			
	Strongly Disagree	1	4.2
	Disagree	8	33.3
	Neutral	6	25.0
	Agree	7	29.2
	Strongly Agree	2	8.3
	Total	24	100.0

Note. NP = Nurse Practitioner; FNP = Family Nurse Practitioner; ACNP = Acute Care Nurse Practitioner

Scope of Practice Knowledge

MDs'/DOs' perceptions regarding NPs' scope of practice were analyzed and compared between facility groups. Table 3 shows frequency distribution totals for the scope-of-practice section. Results revealed there was no statistical relationship between the participant's facility type and the participant's response to the questions in the scope-of-practice section. Questions S-7, S-8, and S-9 were directed to a specific facility type; therefore, not all participants answered these questions.

Question S-7 revealed that 14 (77.7%) participants who work in facilities that currently utilize NPs agreed or strongly agreed that their facility dictates the scope of practice for the NP. In facilities that currently utilize NPs in practice, 10 (58.8%)

participants agreed or strongly agreed physicians influence NP scope of practice in the work environment (question S-8). Statistical significance was seen regarding the facility dictating the scope of practice and the physician influencing the scope of practice for the NP, indicating that each strongly impact one another (questions S-7 and S-8), r = -.692, n = 24, $p<0.01$. In facilities that do not currently utilize NPs in practice, nine (75%) participants agreed or strongly agreed that their facility would dictate the NPs' scope of practice if they were allowed to practice in their setting.

Regarding the topic of oversight, 12 (50%) participants agreed or strongly agreed that ACNPs needed oversight in a hospital setting and nine (37.5%) participants agreed or strongly agreed that FNPs who have completed an acute-care fellowship required oversight in a hospital setting. Interestingly, 13 (54%) participants felt neutral or disagreed that ACNPs are clinically competent to practice in a hospital setting. Overall, 13 (54%) participants agreed or strongly agreed that they understood the scope of practice for NPs in Montana.

Table 3. Scope of Practice Section Frequency Distribution

Questions		Frequency	Percentage
S-1. I understand the scope of practice for NPs in Montana.			
	Disagree	4	16.7
	Neutral	7	29.2
	Agree	12	50.0
	Strongly Agree	1	4.2
	Total	24	100.0
S-2. FNPs are clinically competent to practice in a hospital setting.			
	Disagree	3	12.5
	Neutral	11	45.8
	Agree	10	41.7
	Total	24	100.0
S-3. ACNPs are clinically competent to practice in a hospital setting.			
	Disagree	1	4.2
	Neutral	12	50.0
	Agree	8	33.3

Table 3. Scope of Practice Section Frequency Distribution Continued

Questions		Frequency	Percentage
	Strongly Agree	3	12.5
	Total	24	100.0
S-4. FNPs practice with a strong understanding of their limitations in Montana.			
	Disagree	1	4.2
	Neutral	11	45.8
	Agree	12	50.0
	Total	100	100.0
S-5. ACNPs practice with a strong understanding of their limitations in Montana.			
	Disagree	1	4.2
	Neutral	13	54.2
	Agree	9	37.5
	Strongly Agree	1	4.2
	Total	24	100.0
S-6. My opinions related to NPs are directly related to my understanding of their scope of practice.			
	Disagree	6	25.0
	Neutral	10	41.7
	Agree	6	25.0
	Strongly Agree	2	8.3
	Total	24	100.0
S-7. My facility dictates the scope of practice for the NP in our work environment (Please mark not applicable if your facility does not currently utilize NPs in their inpatient setting).			
	Disagree	1	4.2
	Neutral	3	12.5
	Agree	11	45.8
	Strongly Agree	3	12.5
	Not Applicable	6	25.0
	Total	24	100.0
S-8. Physicians influence the scope of practice for the NP in our work environment (Please mark not applicable if your facility does not currently utilize NPs in their inpatient setting).			
	Disagree	1	4.2
	Neutral	6	25.0
	Agree	7	29.2
	Strongly Agree	3	12.5
	Not Applicable	7	29.2
	Total	24	100.0
S-9. Our facility would influence ' of practice in our work environment (Please mark not applicable if your facility already utilizes NPs in their inpatient setting).			
	Disagree	1	4.2
	Neutral	2	8.3
	Agree	5	20.8
	Strongly Agree	4	16.7
	Not Applicable	12	50.0
	Total	24	100.0
S-10. ACNPs need MD/DO oversight in an inpatient setting.			
	Disagree	8	33.3

Table 3. Scope of Practice Section Frequency Distribution Continued

Questions		Frequency	Percentage
	Neutral	4	16.7
	Agree	10	41.7
	Strongly Agree	2	8.3
	Total	24	100.0
S-11. FNPs who have completed an acute care fellowship (defined below) need MD/DO oversight in an inpatient setting.			
	Disagree	10	41.7
	Neutral	5	20.8
	Agree	7	29.2
	Strongly Agree	2	8.3
	Total	24	100.0

Note. NP = Nurse Practitioner; FNP = Family Nurse Practitioner; ACNP = Acute Care Nurse Practitioner; MD = Medical Doctor; DO= Doctor of Osteopathy; Acute Care Fellowship = A 1-year long post graduate training with a focus on inpatient chronic disease management.

Utilization of Nurse Practitioners

The final section of the questionnaire addresses the MDs'/DOs' insights into the utilization of NPs within the hospital setting. Statistical significance was seen regarding a participant's facility type and their support for NPs working in a hospital setting (question U-7), r = -.535, n = 24, $p<0.01$. A distribution comparison of each facility type for question U-7 is seen in Table 4. Sixteen (94.1%) participants from facilities that currently utilize NPs in their hospital settings agreed or strongly agreed that they supported NPs working in a hospital setting. More than one-half of the providers (57.1%) who work at facilities that currently did not utilize NPs in their hospital settings agreed that NPs should be utilized in a hospital setting. Combined facility distribution calculations can be seen in Table 5. No other statistical significance was seen in the Utilization of NP section.

In total, 21 (91.3%) participants revealed that they agreed or strongly agreed that ACNPs positively contribute to the hospitalist team. Participants agreed or strongly

agreed that ACNPs should be utilized in Montana's urban settings (69.5%) and Montana's rural settings (65.2%). They also agreed or strongly agreed that ACNPs and FNPs were an acceptable solution to filling healthcare gaps in a hospital setting in Montana's critical-shortage areas (79.2%).

Table 4. Frequency Distribution Comparing U-7 by Facility Type

Question		Frequency	Percentage
U-7. I am in support of NPs working in a hospital setting.			
Facilities that Currently Utilize NPs in a Hospital Setting.			
	Neutral	1	6.0
	Agree	9	52.9
	Strongly Agree	7	41.1
	Total	17	100.0
Facilities that Do Not Utilize NPs in a Hospital Setting.			
	Disagree	1	14.3
	Neutral	2	28.6
	Agree	4	57.1
	Total	7	100.0

Note. NP = Nurse Practitioner

Table 5. Utilization of NPs Section Frequency Distribution

Questions		Frequency	Percentage
U-1. ACNPs positively contribute/can contribute to the hospitalist team.			
	Neutral	2	8.3
	Agree	10	41.7
	Strongly Agree	11	45.8
	Missing Data	1	4.2
	Total	24	100.0
U-2. ACNPs should be utilized in an inpatient setting in rural Montana areas.			
	Neutral	8	33.3
	Agree	8	33.3
	Strongly Agree	7	29.2
	Missing Data	1	4.2
	Total	24	100.0
U-3. ACNPs should be utilized in an inpatient setting in urban Montana areas.			
	Neutral	7	29.2
	Agree	8	33.3
	Strongly Agree	8	33.3
	Missing Data	1	4.2
	Total	24	100.0

Table 5. Utilization of NPs Section Frequency Distribution Continued

Questions		Frequency	Percentage
U-4. ACNPs are an acceptable solution for filling the gaps in hospital settings in Montana's critical shortage areas.			
	Disagree	1	4.2
	Neutral	4	16.7
	Agree	12	50.0
	Strongly Agree	7	29.2
	Total	24	100.0
U-5. FNPs are an acceptable solution for filling the gaps in hospital settings in Montana's critical shortage areas.			
	Disagree	1	4.2
	Neutral	3	12.5
	Agree	15	62.5
	Strongly Agree	4	16.7
	Missing Data	1	4.2
	Total	24	100.0
U-6. Montana should develop an ACNP program or an acute care fellowship program (defined below) for NPs in Montana.			
	Disagree	1	4.2
	Neutral	5	20.8
	Agree	12	50.0
	Strongly Agree	6	25.0
	Total	24	100.0
U-7. I am in support of NPs working in a hospital setting.			
	Disagree	1	4.2
	Neutral	3	12.5
	Agree	13	54.2
	Strongly Agree	7	29.2
	Total	24	100.0

Note. NP = Nurse Practitioner; FNP = Family Nurse Practitioner; ACNP = Acute Care Nurse Practitioner

CHAPTER FIVE

DISCUSSION

General Findings

This DNP scholarly project focused on understanding MDs'/DOs' perceptions of NPs' educational background, scope of practice, and how the NP should be utilized in a hospital setting. Prior to this project, it was thought that a participant's facility type would directly influence the answers to the questionnaire related to the obvious association with some participants' exposure and familiarity with NPs within a hospital setting. Results indicated that physicians' facility type had little correlation on their perception of the NP.

This project was successful in unveiling the common perceptions of MDs/DOs in Montana in regard to scope of practice, educational background, and utilization of the NP. Of utmost value, the project revealed that perceptions surrounding the NP's scope of practice was not well understood by 11 (45.8%) of the participants (question S-1), and that 15 (62.5%) of the participants were not aware of the differences between FNPs and ACNPs (question E-7). These findings, coupled with 20 (83%) participants showing support for NPs in a hospital setting (question U-7), builds a compelling argument that more can be done to enhance education with current healthcare providers in regard to the role and scope of practice differences between an FNP and an ACNP.

Most importantly, healthcare organizational policy changes must occur to allow for proper credentialing of the NP, which is the process of obtaining privileges within an organization, so that the NP can fit the role of the hospitalist (Holley, 2016). This project

did reveal that most providers agreed or answered neutral (n=18, 75%) that FNPs receive the necessary didactic education to effectively manage patients in an inpatient setting. FNPs are educated in health promotion, disease prevention, health education, diagnosis, and management of acute and chronic diseases in individuals of all ages, yet are not trained in providing care to those who are acutely ill and in an inpatient setting (APRN Joint Dialogue Group Report, 2008). Montana State Board of Nursing Administrative Rule 24.159.1406 dictates that an NP can only practice with the population for which they are educated, nationally certified, and licensed (APRN practice of 2013). Currently, the ANCC and AANP have adopted the guidelines for scope of practice outlined in the APRN Consensus Model. The APRN Consensus Model can assist with credentialing and hiring policy revisions and serve as an educational tool for hiring committees to learn about the differences in APRN roles. Since the findings of this project revealed that ACNPs should be utilized in a hospital setting (question U-2 and U3), organizational hiring policy changes should include the required ACNP certification and associated role and scope.

Regulatory rule changes are necessary to ensure that state and federal regulations are not contradictory. This is evident in the CMS requirement of oversight in states that allow for APRN independent practice. The findings of this project indicate that participants feel ACNPs and FNPs are clinically competent to practice in a hospital setting and are an acceptable solution to filling the gaps in critical healthcare provider-shortage areas. Yet, CMS requires physician signatures on all admissions and discharges

regardless of full-autonomy regulatory status in Montana and 22 other states (Butcher, 2017).

There are several conflicting factors that confound the NP hospitalist role. There is overwhelming support from physicians sampled in this project who work with NP providers in a hospital setting. In contrast, the CMS requirement and facility policy to require countersigning of admission and discharge orders undermines NP autonomy. While Montana statutes allow for APRN independent practice, these laws are couched in administrative rules that are based on national guidelines aligning APRN licensure, accreditation, certification, and education. FNPs who have not completed a hospital fellowship and are hired to work in the acute-care/hospitalist setting are not following the scope of practice regulations for Montana. Given the support from physician providers, facilities should support and use ACNPs in a hospital setting and provide educational support and/or fellowships for FNPs so they can obtain ACNP certification. This project revealed participants agreed or strongly agreed (n=18, 75%) that Montana should develop an ACNP program or an acute-care fellowship program, which is the most compelling argument to accommodate FNPs already working in a hospital setting.

Results Compared to Existing Literature

This project's focus was based on an extensive literature review that revealed three main themes related to utilization of APRNs in the acute-care setting: scope of practice/role clarity of the NP, bridging the gap, and the effects NPs have on team

effectiveness. The questions were designed to evaluate the perceptions of the MDs/DOs in each facility type and compare those to existing literature.

Much of the questionnaire addressed the physicians' perceptions of scope of practice for the NP. This project also revealed that, despite the Montana State Board of Nursing APRN scope of practice guidelines, nearly all participants acknowledged both their own and their facility's roles in defining NP scope of practice. This could be a contributing factor to the autonomy barriers and role confusion seen in the literature. Further research would potentially clarify this confusion.

The literature also indicates that NPs are an acceptable solution to filling the gaps in healthcare where physician providers are in short supply (Williamson et al., 2012). This project supports that concept with 79.2% of the participants acknowledging that ACNPs and FNPs are an acceptable solution to filling gaps in Montana's critical PCP-shortage areas. This project assessed MDs'/DOs' perceptions of ACNPs and FNPs in rural and urban settings, which revealed a majority of participants felt that ACNPs should be utilized in both settings. Contributing factors affecting the view of APRNs in a rural setting may be directly impacted by regulatory and contractual barriers within the participants' facilities.

Limitations

Several limitations were noted in this project. First, the sample size was small with a total of N=24 participants from six facilities in central and eastern Montana. Facilities in western Montana were not included in this project. Gathering statewide data

may be beneficial to eliminate the potential for geographical bias. This questionnaire also did not ask the participants if they were internal medicine physicians or family physicians, which also may have impacted responses.

Another limitation was the use of only one method of questionnaire distribution. Use of an online or email questionnaire may have resulted in a larger sample size. Questionnaires were mailed directly to the facility and were dependent on facility staff for disbursement. Therefore, it is unknown if all physicians within the organizations truly received a questionnaire.

This project also failed to allow for comments on the questionnaire, which could have been beneficial in identifying themes, or areas that warrant further investigation, or questions that were confusing to the participants. This oversight could have affected questionnaire responses regarding the perceptions of the NP's scope of practice in facilities that are deemed CAHs. Comments would have been helpful when the participants were asked if they understood the scope of practice for the NP in Montana, as their knowledge base cannot fully be evaluated based on one question in Likert-style format. Additionally, no face or content validity was conducted on the questionnaire, which could have resulted in meaningless questions being incorporated into the questionnaire.

The focus of this questionnaire was very broad and included three umbrella or overarching themes. A narrower focus approach may be beneficial with only one theme addressed at a time, allowing for more questions to be asked regarding a specific theme. Lastly, this questionnaire did not include the definitions for FNP or ACNP, but did

include a definition for what an acute-care fellowship entailed. This could have affected results as it is unclear if the participants truly understood that an ACNP is licensed with distinct clinical and didactic training focused on an acute-care/hospital setting that differs from other APRN roles.

Future Research

This project identified many areas that would benefit from future assessment. Future projects should focus on the preferences of the APRN in regard to an ACNP program versus an acute-care fellowship that will allow for the APRN to become certified to practice in a hospital setting. Further assessment could be completed on the FNP's perception of working in a hospital setting and interest in obtaining their ACNP licensure and certification that could further support an ACNP program or an acute-care fellowship in Montana.

This project also revealed that MDs/DOs felt that ACNPs should be utilized in urban settings more than rural settings in Montana. Future research should be completed to explore and identify reasons why the MDs/DOs felt this way, especially when this project identified that ACNPs and FNPs were an acceptable solution to filling the gaps in hospital settings in critical shortage areas of Montana. Research could also be completed with existing ACNPs to gain insight into how they perceive their utilization and role in urban and rural settings of Montana.

Implications for Practice

The foundation for DNP practice was envisioned by the American Association of Colleges of Nursing (AACN), who developed eight key essentials that DNP-prepared APRNs should master to be competent clinicians (Zaccagnini & White, 2017). These eight essentials were considered throughout this project and served as a foundation for APRN practice clarity. The first DNP essential focuses on the scientific underpinning for practice. By researching the various theories in nursing, the DNP-prepared APRN considers specific situations, ways of thinking, and melding a proposed theory so that nonjudgmental, autonomous, and holistic care can be placed in various circumstances that are ethical and valuable. For this project, Roy's Adaptation Model of Nursing provided a framework for the APRN to not only influence holistic and competent care to patients but also be easily viewed as an asset to a variety of organizational setting changes.

This project supports the need for transformation of the current healthcare system to meet the demands of the emerging APRN role as outlined in the second DNP essential. By illustrating that the role of the DNP is not well understood by healthcare professionals and that current state and federal systems are misaligned, the APRN can be an advocate for promoting change. By starting at a microsystem level, the DNP-prepared APRN can push leadership to promote organizational hiring-policy changes surrounding the role of the APRN that coincide with the Consensus Model for APRN regulation. The microsystem approach invites APRNs and leadership to align policy changes with organizational strategy and operations to foster appropriate hiring of APRNs in an acute-

care setting consistent with their certifications (Nelson, Batalden, & Godfrey, 2007). Once organizational hiring-policy changes occur within the whole organization or macrosystem, the APRN can then advocate for mega-system changes that affect all health care globally (Zaccagnini & White, 2017). Mega-system changes can start with lobbying by the APRN, which should include public awareness of the differences between the ACNP and the FNP and raise awareness in state legislatures and the Montana State Board of Nursing about how independent-APRN-practices states are being held to oversight requirements by regulatory agencies such as CMS.

Essential four focuses on information systems for improvement and transformation of healthcare. This project assessed physicians' perceptions on whether the FNP and ACNP were clinically competent to practice in a hospital setting. Results showed that most of the participants felt neutral or disagreed that FNPs and ACNPs were clinically competent to be practicing in a hospital setting. Further exploration into this is warranted and could include analyzing quality reporting data from the facilities that currently utilize NPs in practice to see how they compare to MD/DO data. Such quality data should focus on outcomes management of patients being cared for by the NP during their hospital stay compared to the outcomes of patients being treated by MDs/DOs.

This scholarly project recommends the need for healthcare hiring-policy changes with regard to the APRN role. The fifth DNP essential focuses on how APRNs should look at policy change, not as just a legislative process, but as a comprehensive method of identifying healthcare issues that can be brought to the attention of policy leaders and the American public (Zaccagnini & White, 2017). This project identifies perception gaps

where opportunities lie to improve awareness in policy makers regarding the role and scope of practice for the APRN so that current misutilization of FNPs in acute-care settings can be avoided. The APRN can be an advocate for verbiage changes in hiring policies that align with the Consensus Model so that the ACNPs or FNPs who have successfully completed a fellowship are being hired to work in acute-care settings.

Essential six focuses on interprofessional collaboration for improving patient and population health. This project suggests that MDs and DOs value the APRN and see them as a solution to filling gaps in health care. Shortages of MD/DO primary-care providers, especially in rural settings, are likely to influence the configuration and function of interprofessional teams according to Zaccagnini and White (2017). With this knowledge and the results from this project, the APRN can foresee potential obstacles and become a leader in interprofessional relationships within their work environments.

Lastly, DNP essential eight focuses on the role of the APRN. This project reiterates that just as the AANP and the AANC have adopted the role and population principles found in the Consensus Model, all APRNs should have a firm grasp on their role and scope of practice, maximizing their contributions to health care for all individuals.

CHAPTER SIX

CONCLUSION

The role of the NP provider has been a source of confusion across healthcare systems for many years. This project captured the perceptions of the MD/DO providers and suggests overall positive support for the use of the NP in the healthcare system and, in particular, a hospital setting. Since initiation into practice, the APRN has become a valuable member of the healthcare team and viewed by many MDs/DOs as a solution to filling the gaps in today's critical shortage areas.

The APRN Consensus Model, along with a state's regulatory agency, details the scope of practice for each APRN role and this language has been adopted by many states. This DNP scholarly project has identified the need for alignment of facility hiring policy, federal billing and oversight policies, and states' advanced nursing practice regulations. Consistent and intentional alignment of these practice qualifications will improve APRN role clarity, collaborative interprofessional practice with physician colleagues, and ultimately improved health outcomes.

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APPENDICES

APPENDIX A

QUESTIONNAIRE

Questionnaire

For the following questionnaire please refer to this key for abbreviations and definitions:

FNP- Family Nurse Practitioner,
ACNP- Acute Care Nurse Practitioner,
NP- Nurse Practitioner (term encompassing both the FNP and ACNP),
MD-Medical Doctor,
DO- Doctor of Osteopathy,
Acute Care Fellowship- A 1-year long post graduate training with a focus on inpatient chronic disease management.

Demographic Information:

D-1. What is your age?

20-30 years	31-40 years	41-50 years	51-60 years	> 60 years

D-2. Are you educated as an MD or DO?

MD	DO			

D-3. How long have you been a physician out of residency?

0-10 years	11-20 years	21-30 years	>30 years	

D-4. How long have you been a Hospitalist or how long have you worked as an MD or DO in an inpatient setting?

0-5 years	6-10 years	11-15 years	16-20 years	>20 years

D-5. I have worked with NPs outside of a hospital setting before?

Yes	No			

D-6. I worked as a hospitalist or a provider in an in-patient setting prior to NPs being implemented into inpatient care (If your facility does not currently utilize NPs for inpatient care, please choose not applicable)?

Yes	No	Not applicable, my facility does not utilize NPs in in-patient care		

D-7. My current hospital setting is considered:

Rural- Serving less than 25,000 individuals	**Urban-** Serving more than 25,000 individuals			

MDs/ DOs knowledge regarding NPs educational background: Please rate your agreement with the statements.

E-1. FNPs receive the necessary didactic education to effectively manage patients in an in-patient setting.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

E-2. ACNPs receive the necessary didactic education to effectively manage patients in an inpatient setting.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

E-3. NPs receive an appropriate number of clinical hours during their education.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

E-4. NPs should possess doctoral degrees.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

E-5. NPs practice healthcare according to evidence-based practices.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

E-6. FNPs should complete a hospital fellowship to be able to practice in an in-patient setting.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

E-7. I understand the differences between a FNP and an ACNP.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

MDs/ DOs knowledge regarding NPs Scope of Practice: Please rate your agreement with the statements.

S-1. I understand the scope of practice for NPs in Montana.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

S-2. FNPs are clinically competent to practice in a hospital setting.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

S-3. ACNPs are clinically competent to practice in a hospital setting.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

S-4. FNPs practice with a strong understanding of their limitations in Montana.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

S-5. ACNPs practice with a strong understanding of their limitations in Montana.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

S-6. My opinions related to NPs are directly related to my understanding of their scope of practice.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

S-7. My facility dictates the scope of practice for the NP in our work environment (Please mark not applicable if your facility does not currently utilize NPs in their inpatient setting).

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Not Applicable

S-8. Physicians influence the scope of practice for the NP in our work environment (Please mark not applicable if your facility does not currently utilize NPs in their inpatient setting).

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Not Applicable

S-9. Our facility would influence the NPs scope of practice in our work environment. (Please mark not applicable if your facility already utilizes NPs in their inpatient setting).

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Not Applicable

S-10. ACNPs need MD/DO oversight in an inpatient setting.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

S-11. FNPs who have completed an acute care fellowship (defined above) need MD/DO oversight in an inpatient setting.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

Hospitalists insight into the utilization of the NP within the hospital setting: Please rate your agreement with the statements.

U-1. ACNPs positively contribute/ can contribute to the hospitalist team.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

U-2. ACNPs should be utilized in an inpatient setting in rural Montana areas.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

U-3. ACNPs should be utilized in an inpatient setting in urban Montana areas.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

U-4. ACNPs are an acceptable solution for filling the gaps in hospital settings in Montana's critical shortage areas.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

U-5. FNPs are an acceptable solution for filling the gaps in hospital settings in Montana's critical shortage areas.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

U-6. Montana should develop an ACNP program or an acute care fellowship program (defined above) for NPs in Montana.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

U-7. I am in support of NPs working in a hospital setting.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)

APPENDIX B

SUBJECT CONSENT FORM FOR PARTICIPATION IN HUMAN RESEARCH AT MONTANA STATE UNIVERSITY AND LETTER TO PHYSICIANS

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

Project Title: Perceptions of the Nurse Practitioner (NP) in the Hospital Setting

Description of Project: You are being asked to participate in a doctoral scholarly project that aims to contribute to the understanding of the relationship the NP has with physician members of the healthcare team. The purpose of project is to assess physician knowledge of role, scope of practice and appropriate utilization of NPs in the hospitalist's position.

Rational for Project: The knowledge surrounding the role of the NP appears to be a common state of confusion for healthcare professionals nationwide. The results from this project will serve to guide in the potential for development of an educational offering for improving the knowledge base of MDs/DOs, in hopes that NPs can be utilized to their full potential in Montana according to their certification and licensure.

Subject Identification: This survey will be deployed to MD and DO hospitalists working in one of two settings in Montana: Hospitals that currently utilize NPs in their inpatient settings and hospitals that do not utilize NPs in their inpatient settings. These settings will be a mixture of rural and urban areas within Montana using a snowball sampling method.

Procedures: Participation is voluntary. If you agree to participate you will be asked to complete the questionnaire, and you can choose to not answer questions you do not want to answer and may stop at any time.

Risks: There are no foreseen risks of this project.

Confidentiality: Each participant will be assigned a number to maintain anonymity after completion of the questionnaire.

Questions about Research: If you have questions about the project, you may contact Marji Cunningham (406) 366-4148 [marji.cunningham16@gmail.com]. If you have additional questions about the rights of human subjects you may 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 risks of the study. I, _____ (name of subject), agree to participate in this research. I understand that I may later refuse to participate and that I may withdraw from the study at any time. I have received a copy of this consent form for my own records.

Signed: _____

Investigator: _____

Date: _____

Date

Marji Cunningham
1403 Hill Crest Avenue
Laurel, MT 59044

Medical Director
Facility Name
Facility Address
Facility City, State, Zip Code

Dear Dr./Mr./Ms.

My name is Marji Cunningham and I am currently working on my Nurse Practitioner degree at Montana State University. As part of my doctoral defense, I am conducting a small-scale research project that is collecting information from physicians (Medical Doctors or Doctors of Osteopathy) who currently work within a hospital setting, regarding their knowledge of the Nurse Practitioners (NPs) scope of practice, educational background and views on how NPs can be utilized with in a hospital setting. I am requesting to know if your facility utilizes NPs in their acute care setting? I am also wondering how many MDs/DOs work as an inpatient provider at your facility?

I am hopeful to send out a questionnaire to providers working within your organization in February 2019. If you could provide me with an address or contact to send this questionnaire, I would greatly appreciate it!

Thank you for your time!

Sincerely,

Marji Cunningham
Doctor of Nursing Practice-Student
406-366-4148
marji.cunningham16@gmail.com

Date

Marji Cunningham
1403 Hill Crest Avenue
Laurel, MT 59044

Facility Name
Facility Address
Facility City, State, Zip Code

Dear Dr at (facility name).

My name is Marji Cunningham and I am currently working on my Nurse Practitioner degree at Montana State University. As part of my doctoral defense, I am conducting a small-scale research project that is collecting information from physicians (Medical Doctors or Doctors of Osteopathy) who currently work within a hospital setting regarding their knowledge of the Nurse Practitioners (NPs) scope of practice, educational background and views on how NPs can be utilized within a hospital setting.

I am requesting your voluntary participation in my research study. Taking the survey indicates your consent to willingly participate. Attached is my questionnaire consisting of approximately 32 questions, which should not take longer than 10-15 minutes to complete. This information you submit will be kept confidential with only aggregate data being reported. You may refrain from answering questions that you feel uncomfortable completing however, it is important that I understand this topic completely so would appreciate your honesty and participation. The results from this study will add to the understanding of the utilization of NPs within acute care facilities in Montana. The results will be available to you upon request following completion of the study.

I would be grateful if you would consider participating in this exciting study! I would appreciate the completed questionnaire back by (Date).

Thank you for your time and participation!

Sincerely,

Marji Cunningham
Doctor of Nursing Practice-Student
406-366-4148
marji.cunningham16@gmail.com

APPENDIX C

IRB APPROVAL

MONTANA STATE UNIVERSITY

INSTITUTIONAL REVIEW BOARD
For the Protection of Human Subjects
FWA 00000165

2155 Analysis Drive
c/o Microbiology & Immunology
Montana State University
Bozeman, MT 59718
Telephone: 406-994-4706
FAX: 406-994-4303
E-mail: cherylj@montana.edu

Chair: Mark Quinn
406-994-4707
mquinn@montana.edu
Administrator:
Cheryl Johnson
406-994-4706
cherylj@montana.edu

MEMORANDUM

TO: Marji Cunningham and Polly Petersen

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

DATE: February 11, 2019

RE: *"Perceptions of the Nurse Practitioner in the Hospital Setting" [MC021119-EX]*

The above research, described in your submission of February 11, 2019, 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; and (iii) the information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by section 16.111(a)(7).

____ (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.