

PERCEPTIONS OF NURSE PRACTITIONERS AMONG MONTANA
CRITICAL ACCESS HOSPITAL LEADERSHIP

by

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TABLE OF CONTENTS

1. INTRODUCTION 1

 Perceptions of Nurse Practitioners among Montana Critical Access
 Hospital Leadership 1

 Background 3

 Theoretical Framework 3

 Examination of the Evidence 4

2. METHODS 12

 Design 12

 Sample and Setting 12

 Question Generation 14

 Analysis 14

3. RESULTS 16

 Confidence, Respect, and Satisfaction with NP Services 16

 Lack of Clarity of NP Role, Scope of Practice, Autonomy 18

 Difficulty in Hiring and Retaining Providers 19

4. DISCUSSION 22

 Other Considerations 26

 Challenges 27

 Limitations 29

5. CONCLUSION 32

REFERENCES CITED 34

APPENDICES 41

 APPENDIX A: Letter to Chief Executive Officers 42

 APPENDIX B: Focus-Group Questions 46

ABSTRACT

Challenges associated with provider recruitment, as well as rural populations' access to healthcare, are well-documented in the literature. While primary care physician numbers continue to fall behind demand, nurse practitioners (NPs) are forecasted to drastically increase in numbers in upcoming years. Montana is a full-practice state for advanced practice registered nurses (APRNs), and critical access hospitals (CAHs) commonly employ APRNs, including NPs. Little is known regarding perceptions of NPs among CAH boards of directors, chief executive officers, or other senior-management officials. It is important to understand how leadership teams perceive NPs, as these are the individuals who will collectively make decisions affecting the number and type of providers employed within their respective facilities. This study employed focus-group methodology to interview four CAH leadership teams spanning the entire state of Montana.

Focus-group analysis suggests CAH leadership teams have primarily positive perceptions of NPs. There is a lack of consistency regarding comprehension of the NP's scope, role, and autonomy. Lastly, the challenges of provider recruitment were affirmed. However, it was noted that a number of NPs currently employed at CAHs previously worked as registered nurses within the facility, suggesting a potential provider recruitment advantage with regard to hiring NPs. Future implications include expanding research to include larger health systems within Montana, in addition to studying CAHs in states with restricted NP practice. Finally, more work should be done to raise CAH leadership awareness of the NP's role, scope, and autonomy.

INTRODUCTION

Perceptions of Nurse Practitioners among Montana Critical Access Hospital Leadership

Montana, like many states across the nation, is in desperate need of primary care providers (PCPs). According to the Montana Primary Care Needs Assessment (2016), 51 out of 56 counties have been designated Health Professional Shortage Areas (HPSAs). There is an abundance of literature speaking to the difficulty of hiring and retaining healthcare providers in rural locations (Hart, Salsberg, Phillips, & Lishner, 2002; Pathman, Konrad, Dann, & Koch, 2004). Data also suggest rural populations are older, less likely to be insured, and often suffer from more chronic conditions than individuals living in more populated regions (Bellamy, Bolin, & Gamm, 2011; NRHA, 2007). Numerous studies have proclaimed the benefits NPs offer in improving access to care in rural communities (Graves et al., 2016; Keith, Coburn, & Mahoney, 1998; Marsh, Diers, & Jenkins, 2012). NPs are more likely to serve in areas with rural or primary care shortage designations when compared to physicians (DesRoches et al., 2013). Finally, the number of NPs entering the workforce is expected to increase (Auerbach, 2012), as is the demand for primary care providers (PCPs) (Pettersen et al., 2012). From a regulatory perspective, Montana is a full-practice state for NPs. Therefore, it is intuitive to consider enhancing care in rural communities through the utilization of NPs in these locations.

Critical access hospitals (CAHs) are federally designated facilities that meet specific requirements with regard to number of beds, length of stay, and geographical isolation, as well as several other prerequisites. In an effort to maintain the financial

viability of these facilities, many reimbursable healthcare visits at CAHs are paid at 101% of what is deemed “reasonable cost” (Critical Access Hospital, 2015). Montana has 48 CAHs located in nearly every county in the state (Montana Rural Healthcare Performance Improvement Network, 2015).

One important aspect in addressing the primary care shortage in rural CAHs lies in the knowledge base of those responsible for hiring providers. Currently, limited knowledge exists regarding the awareness and comprehension level of chief executive officers (CEOs), boards of directors, and other senior management personnel in Montana regarding NP-led care. If the administration does not have a clear understanding of the NP’s scope, role, education, and credentials, there may be hesitancy to employ NPs.

This project aimed to answer the following question: What are the current attitudes, behaviors, and knowledge level of critical access hospital (CAH) administrators and boards of directors surrounding NP-led care? The project’s main purpose was to use focus-group methodology to assess knowledge of hospital administrators and board members at CAHs regarding NP care.

The desired outcome for this doctor of nursing practice (DNP) scholarly project was to identify perceptions and gaps in knowledge of CAH leadership in order to eliminate potential barriers to NP practice. The utilization of NPs in rural critical access hospitals may serve to address both current and projected shortages of primary care providers and potentially improve healthcare access for rural Montanans.

Background

Theoretical Framework

Imogene King's theory of goal attainment has guided this project as a conceptual framework at many levels. The theory of goal attainment presents ten major concepts, which the author presents concisely in King's Theory of Goal Attainment (King, 1992). To paraphrase from King's A Theory for Nursing: Systems, Concepts, Process: human beings are social, spiritual, sentient, rational, reacting, perceiving, controlling, purposeful, action-oriented, and time-oriented (King, 1981, p. 142). Concepts employed by the theory of goal attainment are perception, communication, interaction, transaction, self, role, growth and development, coping with stress, time, and personal space (King, 1992). Using the concepts presented, NPs can work towards one of the major tenets of the theory, namely to create transactions. In the author's words, "[When] Transactions are made; goal is attained" (King, 1981, p. 151). For the purpose of this project, goal attainment should be defined as a positive perception of NPs by board members, as well as the senior management of CAHs.

King's concepts became meaningful and evident during focus-group analysis. While focus groups took place, each of the ten concepts had the opportunity to evolve. For instance, perceptions, role, and time may be elaborated on and qualified as three concepts relating to NP care. As focus-group data were analyzed, the important concepts, as foreseen in the eyes of board members and administrators, became increasingly apparent. The data obtained from focus groups will hopefully serve as a guide for the dissemination of results from this study, with the goal of ultimately increasing the

number of transactions occurring between NPs and personnel responsible for employing providers.

King's theory of goal attainment places emphasis in a conceptual framework identifying unique personal, interpersonal, and social systems. It was important to examine all three systems in order to accurately describe and evaluate perceptions of NP-led care for this project. The interacting systems King explores in *A Theory for Nursing: Systems, Concepts, Process* (1981) was also found in rural Montana, particularly through relationships fostered in the delivery of healthcare. Critical access hospitals and the communities for which the hospitals provide care are intricate social systems with underlying interpersonal and personal layers contributing to the overall system. As a result of the factors listed above, the theory of goal attainment was an appropriate selection to guide the theoretical component of this project throughout its entirety.

Examination of the Evidence

A thorough examination of the evidence was conducted using multiple academic databases and journals. Two databases were primarily used to gather evidence: CINAHL and Google Scholar. Search terms used included "rural and primary care," "rural and nurse practitioner," "primary care shortage," "Montana primary care," "Montana primary care shortage," "administration and nurse practitioner," "administration and board and nurse practitioner," "critical access hospital administrator and nurse practitioner," "critical access hospital board and nurse practitioner," "critical access hospital and perception and nurse practitioner," "perception and nurse practitioner," "outcome and

nurse practitioner,” “satisfaction and nurse practitioner,” “rural and perception and nurse practitioner,” and “Montana and perception and nurse practitioner.” A multitude of published studies investigated NP care from varying perspectives. Additionally, much effort has been placed in forecasting healthcare demands of the future. In short, three main themes arose with significant implications for NP care: a shortage of healthcare providers, a lack of understanding or comprehension of the NP’s role, and a positive forecast for clinical outcomes and satisfaction for patients receiving care from NPs.

To date, many projections have been made regarding an increase in demand for primary care services. According to Kirch and Vernon (2008), aging and expanding populations are primary contributors to an impending PCP shortage in the United States. Older adults often present with chronic conditions requiring more frequent outpatient visits for disease management. The Affordable Care Act also mandates insurance companies cover wellness exams at no cost to the patient. It is therefore reasonable to anticipate an increase in office visits due to preventive services (Auerbach et al., 2013). Additionally, “the number of uninsured people is projected to fall from roughly forty-five million in 2012 to about twenty-three million by 2023” (Sisko et al., 2014, p. 2). As these individuals obtain insurance and begin to access the health system, the demand for PCPs will continue to increase.

A shortage of primary care physicians to treat newly insured persons is the most immediate health workforce issue, but when added to the nation’s population growth and more aging patients who require treatment, finding a practitioner may become an even more daunting challenge. (Iglehart, 2013, p. 1935)

With regard specifically to rural provider shortages, Hart, Salsberg, Phillips, & Lishner (2002) suggest “national policy is largely designed to solve urban healthcare delivery problems, with rural interests left in the backwash” (p. 212).

The Association of American Medical Colleges predicts a shortage of 64,000 primary care physicians and 124,400 total physicians by the year 2025 (AAMC, 2010; Dill & Salsberg, 2008). One contributing factor to this shortage includes primary care residencies experiencing an unprecedented increase in the number of women entering the field (Colwill & Cultice, 2003). This demographic trend is important to consider for two important reasons when forecasting the rural, primary care physician workforce. First of all, female physicians are less likely to practice in rural locations (Colwill & Cultice, 2003). Second, an estimated 72% of female physicians work full-time, compared to 97% of male physicians (Salsberg, 2007). Overall, the majority of medical students choose residencies outside of primary care (Chen, Mehrotra, & Auerbach, 2014). The American College of Physicians attributes the lack of primary-care interest to three major challenges:

High levels of educational debt; lifestyle concerns due to administrative hassles and practice design; and payment issues, including the disparity in salaries between primary care providers and specialists, and payment policies that do not appropriately recognize the care that primary care providers provide. (Zerehi & Physicians, 2009, p. 2)

As a result, primary care shortages are unlikely to be fully met by new or recent physician graduates.

NPs, on the other hand, are projected to increase in numbers in upcoming years.

While we cannot be certain of the degree to which this growth will occur or what field

the NPs will be practicing in, there is agreement among researchers that the number of NPs in upcoming years is expected to increase drastically. Auerbach (2012) reports an estimated 198,000 NPs working in a variety of specialties by the year 2025, which is 130% increase from 2008. Specifically in the realm of primary care, the U.S. Department of Health and Human Services estimates “the supply of primary care NPs is projected to increase by 30 percent, from 55,400 in 2010 to 72,100 in 2020” (USDHHS, 2013). The American Association of Nurse Practitioners (AANP) reports a 28.8% increase in graduates from accredited NP programs between the graduating classes of 2006 and 2009 (AANP, 2011).

Data suggest rural areas, such as Montana, are especially affected by provider shortages. According to the 2010 U.S. Census, Montana ranks 48th in population density, with 6.8 people per square mile (United States Census Bureau, 2010). Over 92% of Montana counties have been designated HPSAs (Fife, 2015). Nationally, only 9% of physicians practice in rural areas, while rural counties contain 20% of the population (Van Dis, 2002). Of Montana’s existing physician workforce, distribution varies significantly among urban versus rural communities with “very few physicians working in isolated small rural areas” (Skillman, 2014, p. 9).

With an unequal distribution of healthcare providers between rural and urban communities comes an associated disparity in health status (Glasser, Peters, & MacDowell, 2006). Amponsah, Tabi, and Gibbison (2015) studied cardiovascular disease (CVD) and hypertension (HTN) rates among urban and rural counties in Georgia. Their findings suggest those living in rural and medically underserved communities have

higher incidences of both CVD and HTN (Amponsah et al., 2015). Another large-scale study analyzed multiple health, social, and economic outcomes and compared rural to urban counties (Anderson, Saman, Lipsky, & Lutfiyya, 2015). Data were obtained from publicly accessible county-health rankings. This system places counties in quartile rankings with regard to mortality, morbidity, clinical care, social and economic factors, among other domains. Of the 3053 counties surveyed, 31.5% of rural counties, compared to 13.1% of urban counties, scored in the fourth and lowest quartile with regard to mortality (Anderson et al., 2015). Similarly, 29.1% of rural counties scored in the fourth quartile in the clinical-care domain, compared to 17.9% of urban counties (Anderson et al., 2015).

In 2002, Larsson and Zulkowski surveyed 34 rural Montana hospitals in an effort to analyze utilization of both physician assistants (PAs) and NPs. Despite the legal autonomy of NPs, 54% of the facilities required physician supervision of NP practice (Larsson & Zulkowski, 2002). Interestingly, the authors point to one possible factor being a “knowledge deficit among hospital administrators about the differences in state scope of practice” (Larsson & Zulkowski, 2002). Another study surveyed several Ontario hospital administrators and supervisors in an effort to assess comprehension of advanced practice registered nurse (APRN) services. The study looked specifically at oncology APRNs and results suggest a general lack of understanding regarding APRN roles (Bryant-Lukosius et al., 2007). It is important for those who recruit and hire qualified providers that include NPs to understand the scope, role, and responsibilities that NPs have with regard to the provision of primary care.

Surveyed rural NPs consistently report a significant barrier to practice being a general lack of understanding of the NP's role from the general public as well as other health professionals (Lindeke, Bly, & Wilcox, 2001; Lindeke, Jukkala, & Tanner, 2005). A survey of patient satisfaction regarding NP care at rural urgent care clinics in Virginia suggests often times patients do not understand the role, scope, or education of NPs (Ryan & Rahman, 2012). This finding has been consistent across similar studies as well. A survey of retail health-clinic patients revealed many patients' lack of awareness in regards to the type of provider they were seeing. After receiving care from an NP, survey respondents continue to refer to their provider as the "doctor" (Hunter, Weber, Morreale, & Wall, 2009). The authors of the study emphasize the need for NPs to remind patients of the role, education, and care NPs can provide (Hunter et al., 2009).

Positive clinical outcomes, as well as high levels of patient satisfaction, represent another theme identified from the literature review. Decades of research show NPs providing high-quality care. One large-scale study surveyed 146,880 Medicare beneficiaries and found no difference in patient satisfaction between NPs, PAs, and physicians (Hooker, Cipher, & Sekscenski, 2005). Numerous other studies, including multiple systematic reviews, also suggest patient satisfaction with NPs is equal to, or greater than, physician colleagues (Horrocks, Anderson, & Salisbury, 2002; Newhouse et al., 2011; Roblin, Becker, Adams, Howard, & Roberts, 2004; Stanik-Hutt et al., 2013).

NP's patient health outcomes have been extensively examined and compared to physician's patient outcomes. A randomized-controlled trial published in *The Journal of the American Medical Association* conducted by Munding et al. (2000) discovered no

statistically significant differences between physicians and NPs with regard to health outcomes in the management of chronic conditions such as diabetes, asthma, or hypertension. Laurant et al. (2009) synthesized eight systematic reviews, along with two original studies, and concluded similar management and treatment of patients treated by advanced-practice nurses when compared to physicians and PAs.

Finally, the expense associated with seeing an NP versus a physician for primary care visits suggest NPs may be more cost effective than their physician colleagues. Perloff, DesRoches, and Buerhaus (2016) analyzed and compared the cost of services billed to more than 500,000 Medicare beneficiaries over a 12-month period who were assigned to either a primary care physician or nurse practitioner. For Medicare Part B, which constitutes office visits, “beneficiaries assigned to an NP cost approximately 26 percent less than beneficiaries assigned to a primary care physician” (Perloff et al., 2016). With an estimated \$207 annual difference on evaluation and management billing per beneficiary, expanding NP services may offer significant cost savings to the Medicare program for an aging population (Perloff et al., 2016).

The Future of Nursing: Leading Change, Advancing Health (2011) is a report published by the Institute of Medicine (IOM) that examines how the roles, responsibilities, and education of nurses, including NPs, should change to meet the needs of an aging population. As a result of the abundant literature supporting NP practice, compounded with a shortage of providers nationwide, the report states “Advanced practice registered nurses should be able to practice to the full extent of their education and training” (IOM, 2011, p. S-8). With this guideline, the IOM recommends Congress,

state legislatures, the Centers for Medicare and Medicaid Services, and several other entities make legislative and policy changes to aid in the effective utilization of APRNs. An update to the original IOM report was published in 2016, stating that, while improvements have been made in reducing practice barriers for APRNs, many barriers still remain (IOM, 2016). Furthermore, the committee recommends APRNs become more involved in leadership roles, collaborating with senior executives and multidisciplinary teams in order to bring about positive system changes (IOM, 2016).

METHODS

Design

This was an ethnographic, qualitative study that used focus-group methodology. Focus groups have been used in a variety of health-related, social-action research and health-related educational studies (Aitken, Leathar, O'Hagan, & Squair, 1987). Additionally, focus groups have allowed researchers to explore patient and physician perceptions of NP care (Baldwin et al., 1998; Parker et al., 2013). According to Krueger & Casey (2014), the less threatening nature of focus groups allows participants to more openly discuss ideas, opinions, thoughts, and perceptions. Participants' anonymity was maintained throughout the project in an effort to encourage open dialogue.

An expedited review was requested and granted from the Montana State University Institutional Review Board (IRB). In accordance with federal regulation, an expedited IRB review may be considered minimal risk when data is collected in interview and/or focus-group methodologies (Polit & Beck, 2012, p. 166). Focus-group participants were asked to sign a consent form permitting audio recording to take place during focus groups. Names of participants and facilities are withheld from publication.

Sample and Setting

Sampling was obtained by contacting CAHs across Montana with a standardized letter (Appendix A), with follow-up phone calls and emails. Letters were sent to a total of eight CAHs across Montana. The locations initially contacted were chosen in an attempt

to obtain a geographically diverse sample of CAHs from across Montana. However, participating CAHs were ultimately determined by the order in which facilities responded. Of the eight letters mailed, three facilities initially responded and correspondence ensued to coordinate meeting times. Scheduling the focus group with the fourth participating CAH took place a number of months following the initial letter. The remaining four CAHs did not respond to either the mailed letter or follow-up phone calls. No incentives were available or offered to CAHs.

Efforts attempted to control for the geographic location of CAHs. However, without incentives for participation and a limited time to conduct the study, those facilities that agreed to participate were graciously accepted into the study. Fortunately, the four facilities participating represented regions of northern, eastern, central, and western Montana. The purpose of studying geographically diverse facilities was to obtain a representative sample from all regions of Montana. Population density, economy, and industry vary widely across Montana. For that reason, it was important to attempt to obtain data from multiple regions throughout the state.

The setting for each meeting was the facility's board meeting room. The purpose of this was twofold. First, using a board meeting room aided in organizing and facilitating focus groups. It also provided a familiar location for group participants, in the hopes of facilitating an atmosphere in which participants would presumably feel comfortable sharing their perceptions and experiences. A comfortable, familiar location may aid in obtaining more meaningful responses from focus-group participants (Kreuger & Casey, 2014).

Question Generation

Questions were generated with the goal of identifying the knowledge, attitudes, and behaviors surrounding CAH board members and administrators regarding NP care. In accordance with Kreuger & Casey's (2014) recommendation, questions were carefully constructed to bring participants toward a more direct and detailed discussion surrounding the topic. See Appendix B for the list and order of focus-group questions.

Analysis

Focus-group discussions were audio-recorded and transcribed to allow for thematic analysis. Transcripts were reviewed and analyzed using the constant-comparison analysis technique (Strauss & Corbin, 1998). This method involves three stages of coding the recorded communication (Onwuegbuzie, Dickinson, Leech, & Zoran, 2009). First, data were chunked into smaller units using a descriptor to identify units. Next, the units were grouped into more specific categories. Lastly, themes were identified that address the content throughout group transactions. Identifying themes across the multiple focus groups allowed for enhanced understanding of knowledge levels, as well as attitudes and behaviors surrounding NP care.

Doctor of Nursing Practice (DNP) scholarly projects should be a “demonstration of how practicing scholarly nurses can build new knowledge. The scholarly project is an effort to build the bridge between research and practice and narrow the gap that has existed there” (Moran, Burson, & Conrad, 2014, p. 73). Therefore, the intent for focus-group analysis was to identify perceptions, as well as knowledge gaps, and categorize

recurring themes among the participating CAHs. The ultimate goal for the dissemination of knowledge attained through this project was to increase access to care in rural Montana by encouraging CAH leadership committees to seek and employ more NPs in their quest to hire and retain quality providers in isolated regions across Montana.

RESULTS

Focus groups were conducted with hospital board-of-directors members and senior-management officials including chief executive officers, chief nursing officers, and/or chief operating officers. Researchers suggest focus groups of six to twelve participants are most effective at encouraging dialogue (Polit & Beck, 2012). Despite varying leadership structure among CAH locations, Polit & Beck's (2012) focus-group size guidelines were only exceeded in one location. Of the four focus groups conducted, the number of participants ranged from seven to fourteen.

A number of recurring themes emerged through a three-step analysis of focus-group data. These themes include CAH leadership's overall sense of respect, confidence, and satisfaction with the services provided by NPs, a lack of consistent clarity regarding role, scope, and autonomy of NPs, and difficulty in hiring and retaining providers in general.

Confidence, Respect, and Satisfaction with NP Services

Board members from both clinical and non-clinical backgrounds consistently spoke highly of NP care. Each focus group had responses from multiple participants speaking to their overall satisfaction with NPs. When asked about experiences with NPs, one board member reported, "I think it's a very positive experience for me. I think nurse practitioners are going to be the salvation of rural healthcare." A physician respondent noted, "It's a lot of risk to have a PA working under me because that's my license on the line, whereas with nurse practitioners, they're licensed independently."

Participants were asked if they consider NPs when working toward the facility's goals. One participant replied, "For us to be successful with this new payment model, nurse practitioners are vital to our success in that." One facility had recently implemented a new payment model, where a participant described the NP's contribution to organizational success by saying, "Nurse practitioners are vital to making that program work." Another respondent affirmed, "I would just echo, I mean, I don't think we could do that program right now without our nurse practitioners. There just aren't enough hours in a week for our physicians." A board member at another location said, "The thing I'm struck with is nurse practitioners are all part of access to care. That is part of our mission; what do we do to meet the needs of the people in our area? The nurse practitioners allow us to have accessible healthcare when we are very rural."

One facility is utilizing NPs in a unique role for a CAH; namely as the hospitalist service. Prior to this model, the facility would have physicians' rounds on inpatients in addition to their clinic duties. A physician on the hospital board reported his opinion of the utility of NPs in this capacity by stating the following:

As an initial skeptic, honestly, the program is working incredibly well. I mean, the quality of the nurse practitioners that take care of our patients, accept our patients from the emergency room, the interface they have with the [larger health system] hospital. I think patients are getting really, maybe even superior care to the old system.

When asked what thoughts emerge when one considers NPs, one respondent replied by saying, "...for one thing, their bedside manner is way better than most doctors." At another location, one board member responded, "I think good thoughts and I hear good thoughts. I experience good things. I find nurse practitioners take more time

with you, they listen better. Of course, as a woman, most of them are women, and I would like to see a woman.” Another respondent from this group added, “I agree. I saw one of our nurse practitioners in our clinic and they called me on a Sunday to follow up!”

Lack of Clarity of NP Role, Scope of Practice, Autonomy

Data were conflicting regarding CAH board member familiarity and understanding of the NP’s role, scope, and autonomy. Some participants, primarily those employed by the hospital and particularly those working in a clinical capacity, had extensive comprehension of the NP’s role. Other members had little or no understanding of the differences between a PA and an NP. Overall, there were inconsistencies among each focus group regarding the NP’s role, scope, and autonomy.

An example of these inconsistencies was supported by the following responses resulting from the same focus group. A physician respondent had a clear understanding of the scope and autonomy of NPs, “The nurse practitioners’ supervision by physicians is very minimal, and it’s mainly how, they cannot do their own home-health orders and, at times, they can’t do the hospital orders. But, overall, they don’t have to be supervised by a physician.”

Another participant responded, “Really, no idea. I would echo what [another participant] said with [the term] nurse, and I stereotype and go one direction.” The respondent was referencing a previous discussion describing a community survey in which findings suggested community members preferred the facility hire more physician assistants as opposed to NPs.

When asked to describe the understanding of NP scope of practice in Montana, silence ensued. One clinical board member finally responded in the following manner, “I do think this has been a struggle, actually. This has been one of the things that we’re trying to help educate on, the scope of practice, especially in relation to a PA...so I think that is maybe some of the quietness; is I think it’s difficult.”

A number of other responses from multiple locations suggest similar uncertainties, including the following statements: “I guess I’ve never been altogether certain what the difference is between the PAs and the nurse practitioners other than I’ve heard nurse practitioners can practice without the MD being on staff.” and “I definitely think it’s general perception that they [PAs and NPs] are at the same level and they are working under a doctor’s orders.”

Board members also had conflicting reports in response to this question. For instance, one respondent claimed, “Certainly, we understand it at the organization as far as the broader scope of NPs and the requirements for the PA. I’m not sure a patient does.” Another board member immediately responded, “As a patient, I don’t. I just know they’re both not doctors, but yet I’m still very comfortable with them. I really don’t understand the difference between a PA and an NP.”

Difficulty in Hiring and Retaining Providers

The difficult nature of hiring and retaining providers in CAHs across Montana was mentioned in each of the four focus groups. A number of factors were attributed to the challenge including geographical and cultural isolation, lack of family member

support, lack of large medical center support, and a harsh climate. Additionally, each group mentioned the fact that NP education programs have produced providers for their facilities that would have otherwise likely been very difficult to find. Many of the NPs working in the participating CAHs were registered nurses employed at the facility prior to completion of an NP degree.

One physician participant summarized her experience in recruiting and retaining quality providers, saying “It’s a special kind of person to want to practice in a place where sometimes you’re the only one here and you’re flying by the seat of your pants...Secondly their spouse has to want to come to a small town that doesn’t have a Costco or a Sam’s Club or a Target....” Another focus-group dialogue also mentioned the unique nature of rural healthcare. “Having someone that is comfortable practicing in a smaller facility where they have to have a little bit more comfort...wearing a bunch of different hats.”

Difficulty with socialization and community networking was mentioned a number of times. “I think in a smaller community, sometimes it’s harder to fit in and acclimate to that when you are new,” one participant noted. Another board member responded, “And sometimes it’s about the spouse. They’re not the ones who are out working and involved.” Geographic isolation among CAH varies from twenty-five miles to a larger city up to several hundred miles. As such, one participant in a more isolated community notes, “You can be rural and be an hour or two from [larger town]. But we’re a long way from anywhere.”

With regard to NPs progressing from RN to NP within the facility, one respondent noted, “And two of ours [NPs] that are here, that’s how they trained.” A senior-management, clinical board member added to another group’s discussion, saying, “We’ve actually developed quite a few nurse practitioners here at [CAH].” The flexibility of NP education and training appeared to have benefited the provider recruitment process at each location.

DISCUSSION

This study represents an encouraging and empowering situation for NPs in rural Montana. These data offer an initial glimpse into the realm of rural CAH leadership's insight and appreciation for NP services. Focus-group analysis suggests an overarching positive perception of NPs with regard to confidence, respect, and satisfaction with NP-led care. Furthermore, no barriers were identified that would detract from the hiring of an NP. Each location shared overwhelmingly more positive experiences with NPs than negative encounters. Due to the subjective nature of focus groups, particularly in a group with a moderator that is an NP student, it is possible that participants were reluctant to share negative experiences or perceptions.

One physician respondent's concern over increased liability in working with PAs when compared to NPs has also been explored in a previous study. McMichael, Safriet, and Buerhaus' (2017) work studied NP scope-of-practice legislation in relation to physician malpractice payments. Findings from this study suggest a less restrictive NP scope-of-practice legislation is correlated with a decrease in physician malpractice payments of up to 31% (McMichael et al., 2017). Because Montana is a full practice state for NPs, physicians are not legally bound to take on additional liability with the addition of NPs to clinics or hospitals. Despite the independent nature of NP practice afforded in state law, at least two of the participating CAHs specifically noted they do not distinguish hiring between NPs and PAs, referring to both clinicians as "mid-levels." Educating senior-management officials with regard to the distinction between NP and PA scope of

practice may result in a more productive provider workforce, freeing up time physicians spend overseeing NP practice or conducting facility-imposed chart reviews.

Despite the positive perceptions shared by the vast majority of focus-group participants, there remains a lack of clarity regarding the NP's role, scope of practice, and autonomy. Board members who either work in a clinical capacity or work closely with the clinicians, appeared to have a sound understanding of the NP-provided services. In contrast, it appeared the board members who were well-respected, local citizens, or other non-clinical members, lacked thorough comprehension of the NP's role, scope, and autonomy. Intuitively, this is not a surprise, as these individuals are not immersed in healthcare as a daily occupation. However, as boards of directors make large-scale decisions regarding the vision and growth of the CAH, having a thorough understanding of what NPs can offer a community may serve to increase both the quantity and quality of care delivered at a given facility.

An incidental finding from this study was the lack of NP involvement in senior-management teams. One of the recommendations from *The Future of Nursing: Leading Change, Advancing Health* urges nurses to "produce leaders throughout the system, from the bedside to the boardroom." (IOM, 2011, p. S-6). Unfortunately, NPs were only represented at one of the four focus groups, and this NP was actually serving in the role of vice president of nursing services. It is hypothesized that many of the knowledge gaps identified in this study could be reduced or eliminated by further utilizing NPs in management teams or as board members. Doing so would also serve to accomplish the

IOM's recommendation for nurses to become more involved in leadership and management teams (IOM, 2011).

This project was limited to examination of CAHs across Montana, which is a full-practice state for NPs. These facilities are unique entities that face difficult and persistent challenges involving access to healthcare, geographical isolation, and hiring and retaining providers. Consequently, results cannot be generalized to larger health-care-delivery systems in Montana, to CAH hospitals in other states, or to states that restrict NP scope of practice.

The difficulty in hiring and retaining providers was an expected theme. Results of studies support the tendency of providers gravitating to suburban or urban areas, where more advanced medical services and specialties are available (Skillman, 2014; Van Dis, 2002). One interesting caveat to this finding that was unanticipated was the influence of the spouse on the provider's decision to work in a Montana CAH. Each group mentioned the challenge of recruiting not just the provider, but also the spouse and/or family that will accompany the provider. In an effort to address the problem, multiple board members described how they often attempt to bring the provider's spouse/family to the community and afford the potential candidate and his or her family the opportunity to experience the local area and interact with other community members. Several respondents recognized the obstacles, such as geographical and cultural isolation, and the weight these factors have on a provider and family in determining whether or not to relocate to a community with a CAH.

The recurring theme of spouse influence on provider recruitment noted in this study has been documented in another, larger-scale study as well. Staiger, Marshall, Goodman, Auerbach, and Buerhaus (2016) used demographic data of over 75,000 physicians obtained from a combination of the Decennial Census and the American Community Survey to explore the impact of spouse educational level and the physician's tendency to practice in rural underserved areas. "Physicians with a highly educated spouse were significantly less likely to work in a rural HPSA." (Staiger et al., 2016, p. 939). As such, there is a need for further research into ways to achieve family member support in the decision to live in a remote area. Overcoming this obstacle may serve to increase hiring capability, as well as retention, of quality providers.

There were a number of previous RNs at CAHs who earned advanced degrees as NPs and continued to serve the healthcare needs of their communities. This is an area that could certainly be explored through more research. The tendency of an RN to continue working for a CAH in the capacity of an NP upon graduation supports the educational model of most NP programs across the nation, which is primarily distance learning. If NP programs were to require classroom attendance, thus likely requiring rural students to relocate for a number of years, perhaps less NPs would return to the CAH communities in which they had previously served as an RN.

Imogene King's theory of goal attainment continued to guide this project throughout its entirety. Many of the attributes King links to human beings, such as our social, spiritual, and reacting nature, became evident during the focus-group interviews. While focus groups took place, each of the ten concepts had an opportunity to evolve. For

instance, perceptions, role, and time may be elaborated on and qualified as three concepts relating to NP care. King's concepts continued to reveal themselves during data analysis. As analysis progressed, the most important concepts, as foreseen in the eyes of board members and administrators, became increasingly apparent. Applying theory to the future of this project, one of the primary goals will be to increase the number of transactions occurring between NPs, CAH leadership, patients, and the specific individuals responsible for employing providers. King's theory is particularly useful for qualitative, social research because it accounts for the emotional and social component of human interaction in its quest for increasing transactions. For these reasons, the theory of goal attainment would serve as a useful guide for future work investigating perceptions of nurse practitioners.

Other Considerations

Several variables were identified among focus groups that may have affected the study. From the northwestern to southeastern corners of the state, nearly 650 miles spanned the separation between some of the participating facilities. With this distance comes substantial variation in economic drivers, population density, and proximity to larger towns and medical centers. The size of the board and attendance of board members were other variables essentially outside the control of the researcher. As a result, group sizes ranged from seven to fourteen focus-group participants.

Another variable to consider was the CAH's affiliation with a larger health system. In this setting, hiring practices and other potential barriers to NP care may be

regulated to some extent by the larger corporation. Though this project did not attempt to control the sample of CAHs for an affiliation with a parent healthcare corporation, one of the CAHs participating in this study was part of a larger health system. Another hospital included in the study had a loose affiliation with a nearby regional medical center.

Despite these factors, thematic analysis revealed similar findings at each of the locations studied. There were no obvious or consistent outliers to the themes presented above. This suggests perceptions of NPs among CAH leadership teams are not influenced by the CAH's affiliation with a larger health system.

Challenges

There were also a number of challenges encountered throughout this project. First of all, determining which questions to ask, along with the order of questioning, can significantly alter participants' responses. Therefore, question order and selection were crucial to obtaining meaningful data. In an effort to overcome this obstacle, the researcher consulted with an expert focus-group moderator. This valuable resource was able to provide guidance and suggestions as to question wording and order in addition to a number of other ideas and helpful tips. In order to maintain consistency throughout the data collection process, focus-group questions were unchanged between locations.

The reality that an NP student was the moderator for focus groups aimed at identifying perceptions of NPs was a unique challenge. In anticipation of the potential for participants to be hesitant to share negative perceptions, the researcher prefaced the focus groups with an open and honest guideline for discussion. Participants were encouraged to

share their true perceptions, discuss these amongst one another, and not withhold thoughts from the group for the sake of offending either the moderator or another participant.

Lastly, focus-group analysis is a labor- and time-intensive process with room for error at multiple levels. The researcher thoroughly reviewed existing literature speaking to focus-group analysis. The constant-comparison technique served as an effective tool to allow for systematic and rigorous review of audio-recorded transcripts. This process evolved over the course of months with feedback at multiple levels in order to ensure themes were extracted in the most accurate and meaningful manner.

Future researchers may benefit from conducting focus-group research in teams. Kreuger and Casey (2014) suggest having an assistant moderator in addition to the moderator at each group. In a focus group with a limited amount of time, a large quantity of information is shared outside of the audio recording. Meaningful focus-group data can arise from observation of participants, including both verbal and non-verbal interaction. There were times during interviews when multiple participants were talking at the same time. Having an assistant moderator may allow the research team to obtain and record more data. With a team of researchers analyzing data, the potential for researcher bias being interjected may also decrease.

Another suggestion for researchers interested in continuing this work is to secure an incentive for participants. This could be done by obtaining grant funding or perhaps some other form of sponsorship. If an incentive is available, the possibility to conduct the focus group for a longer duration of time may arise. With an increased duration of focus

groups, perhaps at a time outside of a regularly scheduled board meeting, participants may feel encouraged to participate and engage in dialogue at a deeper or more personal level.

Limitations

Focus groups are limited in their universal application due to the qualitative, relatively small-scale nature of their design. Because individual personalities affect respondents' tendency to participate, generalizability can be difficult using focus-group methodology (Basch, 1987). "The primary purpose of the focus group method is to illuminate, to describe, and to explain narrow categories of inquiry within the context used by the respondents." (Bender & Ewbank, 1994, p. 74). However, other possible methodologies, such as surveying CAH leadership teams, may not have revealed the same results. This is, in part, due to the open-ended nature of focus-group discussion. As an example, the utility of NPs as hospitalists in CAHs and the successes of that program as perceived by the board would have been impossible to ascertain through surveys. Focus groups allowed for meaningful dialogue among board members, revealing perceptions that were potentially unknown by colleagues prior to the group's discussion. Some board members, particularly those that did not have clinical backgrounds, likely increased their awareness and knowledge of NPs as a result of the dialogue that ensued throughout each focus group.

Using a sample size of four focus groups may represent another limitation to this project. Of the nearly fifty CAHs across the state, only four were represented by this

study. However, focus-group experts suggest the number of groups held be determined by the data obtained from the groups. The term “data saturation” refers to the point at which the data becomes redundant and does not add future value to the research question (Onwuegbuzie et al., 2009, p. 4). “The rule of thumb is to hold three or four groups with each type of participant for which you want to analyze results” (Kreuger & Casey, 2002, p. 383). The transcripts were analyzed one at a time, often with weeks or months in between one another, as meetings took place and transcripts became available. During analysis of the third and fourth groups, the recurring themes became repetitive and supported findings discovered during the earlier groups’ discussions.

The time available to participate in a focus group was another key limitation. Obtaining a slot on the agenda of a CAH board meeting to conduct research proved difficult. This obstacle was largely overcome by respectful, clear, and open communication along with persistence. Ultimately, the researcher was fortunate to obtain thirty minutes with each CAH board. Ideally, focus groups would last between one and two hours (Morgan, 1996).

Moderating focus groups is a difficult and acquired skill, requiring extensive experience before obtaining proficiency. With any focus group, and particularly with a novice moderator, the researcher has the potential to unintentionally influence participants’ responses. In addition, the moderator of the focus groups for this study was an NP student, which introduces the possibility for respondents to be reluctant in sharing negative perceptions for NPs. Although this challenge was not completely avoidable, the researcher sought wisdom from the experiences of seasoned moderators. This included

meeting with an experienced focus-group researcher, but also involved extensive study from the publications of focus-group experts such as Drs. Kreuger & Casey (2014), Bender & Ewbank (1994), and Onwuegbuzie et al. (2009). It was encouraging and affirming to see the progression of moderator skills from the first focus group to the final group moderated six months later.

CONCLUSION

This project was the first of its kind aimed at identifying perceptions of NPs among boards of directors at CAHs across Montana. Despite an extensive review of existing literature, no remotely similar studies were able to be located. Findings from this study are both encouraging and empowering to the NP community. Resoundingly, CAH leadership teams showed confidence, respect, and satisfaction with care provided by NPs. Data obtained from this project should serve to increase awareness and knowledge with regard to the successes and continued obstacles surrounding NP care and access to care in rural Montana.

This study opens the door to both further research and education regarding knowledge and perception of NPs at healthcare facilities across the nation. Implications for future work include expanding this project to study CAHs in states with restrictions on NP practice, which may result in varying leadership perceptions of NPs. Repeating this study at larger health centers is also warranted, as these facilities may employ NPs in unique roles when compared to CAHs. A large health center is also less likely to face the same hiring challenges a CAH in rural Montana encounters. Offering or developing educational programs for healthcare leadership teams regarding the unique nature of the NP's role, scope, and autonomy may also serve to benefit not only patients' access to care, but the health system at large. With graduates on the rise, healthcare leaders need to be educated and encouraged to use the services of NPs, particularly in provider shortage areas. Moreover, the IOM's 2010 report, *The Future of Nursing: Leading Change*,

Advancing Health, recommended the inclusion of NPs in leadership teams in healthcare facilities in order to more effectively use the services NPs provide.

It is important to understand and recognize hospital leadership teams' perceptions of NPs, as ultimately the utilization of NPs may be affected by the team's perception. Given current predictions for healthcare demand in conjunction with contributions NPs may add to the sector, perceptions of NPs among hospital leadership teams has the potential to impact access to care. This study, despite its limitations, suggests CAH teams in Montana have an overall positive perception of NP-led care. The data obtained strongly support using NPs in rural Montana from both the perspectives of increased healthcare quality and accessibility.

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APPENDICES

APPENDIX A

LETTER TO CHIEF EXECUTIVE OFFICERS

Zach Deffinbaugh

Date

1722 Kelly Road

Helena, MT, 59602

Mr./Mrs.

Chief Executive Officer

Critical Access Hospital

123 4th Avenue

Rural, MT, 12345

Dear Mr./Mrs.,

I am writing to ask for your voluntary participation in a small-scale research study. As a graduate nurse practitioner student at Montana State University, I am investigating CEO and board of directors' perceptions of patient care provided by nurse practitioners. More specifically, I will be holding focus groups at a number of critical access hospitals across Montana and asking a series of questions aimed to identify the knowledge and perceptions of CEOs and board members toward nurse practitioners. To give you a little background about myself, I am a Great Falls native and an intensive care unit registered nurse. I currently work in Helena, although I've worked in Great Falls and also as a traveler in the ICU at St. Vincent's Hospital in Billings. Upon graduation from

the nurse practitioner program, I intend to work in primary care, perhaps at a critical access hospital or similar rural setting in Montana.

Essentially, the focus groups will involve a brief informal discussion in which I will ask questions and participants will respond as they feel compelled to do so. I have prepared a total of nine questions to ask participants. The discussions will be audiotaped and transcribed at a later date, at which time I will identify recurring themes from the multiple critical access hospitals involved in the study. If participants would like to review transcripts, they may do so by contacting me any time prior to completion of the project. The anonymity of your facility, community, and individuals participating in the focus group will be of utmost importance. I will personally ensure that no identifiable information is included in my final doctoral project, presentations, or publications. The audiotapes and transcripts will be stored securely and deleted/shredded upon completion of this project.

If you are willing to participate in this study, I would be very grateful! With regard to scheduling this focus group, I would be available any time the board and yourself would be willing to meet. Perhaps most convenient would be hosting the discussion at or after a scheduled board meeting? If possible, I would appreciate your reply before Friday, January 27th. I look forward to hearing from you and again thank you for your time!

Sincerely,

Zach Deffinbaugh, DNP-FNP Student

Contact Information

Cell: 406-899-7723

Email: zdeffinbaugh@gmail.com

APPENDIX B

FOCUS-GROUP QUESTIONS

- 1) What clinical and financial outcomes are most important to your organization? For example patient satisfaction, revenue generation, quality measures, etc.
- 2) When you think of how best to achieve these outcomes, do you consider nurse practitioners?
- 3) Describe the obstacles, if any, the organization encounters in recruiting, hiring, and retaining clinicians who can best achieve the outcomes mentioned in response to question one.
- 4) What comes to mind when you hear the term “nurse practitioner”?
- 5) To what extent is the board and/or CEO involved in the hiring of NPs?
- 6) Describe your understanding of nurse practitioner scope-of-practice in Montana.
- 7) If you were to have a say in the type of provider your facility hired, are there any legislative, financial, or other restrictive barriers that affect your decision to employ or not employ nurse practitioners?