Exploring Perceptions of Collaboration of Critical Access Advanced Practice Registered Nurses

Polly Petersen, RN, PhD ¹
William Schell, PhD, PE, CPEM ²

¹ Assistant Professor, College of Nursing, Billings Campus, Montana State University, polly.petersen@montana.edu
² Associate Professor, Department of Mechanical and Industrial Engineering, Norm Asbjornson College of Engineering, Montana State University, wschell@ie.montana.edu

Abstract

Purpose: The purpose of the study is to understand the relationship between advanced practice registered nurses (APRNs) and physicians practicing in a rural, northwestern state. Earlier studies found the presence of an oversight relationship. This study sought to deepen our understanding of that relationship in order to determine if this oversight limited APRN scope of practice.

Sample: The study interviewed eleven APRNs with varied specialties in rural practice settings.

Methods: An interview-based qualitative study was conducted with APRNs practicing in Critical Access Hospitals (CAHs). The IRB approved protocol was developed to investigate the influence of the relationship on APRNs' ability to practice to the full scope of care in a state that allows for independent practice. All interviews were transcribed and content analysis was completed using both manual coding and Leximancer software.

Findings: While the level of oversight found varied by the speciality of the APRN, the nature of oversight was generally found to be one of support. Any evidence of restriction of APRN scope of
practice was limited to early in the APRN's time in their current location or was experienced at least a decade ago.

Conclusions: Earlier work found evidence of oversight relationships between APRNs and physicians. These findings raised concerns that this relationship restricted the ability of APRNs to provide their full scope of care to rural populations, contributing to the chronic shortage of providers in these areas. This study illustrated that these concerns are largely unfounded in the current environment in CAH settings in this state.

Keywords: APRNs, physician, oversight, relationships, collaboration

Exploring Perceptions of Collaboration of Critical Access Advanced Practice Registered Nurses

Rural locations throughout the US have long endured a chronic shortage of healthcare providers. As many previously uninsured people in the US move into a provision of primary healthcare that they have never had before, this situation has worsened, especially since many rural residents are older or have multiple chronic health issues, requiring significant care coordination and management. Fields and colleagues examined associations of provider-to-population ratios and found that as rurality levels increased, so did disparities such as premature deaths (Fields, Bigbee & Bell, 2016). Sixty percent (60%) of the physician shortage in the United States occurs in non-metropolitan areas (HRSA Office of Shortage Designation, n.d.) with the patient-to-primary care physician ratio in rural areas only 39.8 physicians per 100,000 people (National Rural Health Association, n.d.).
One possible solution to enhance access and health management for rural residents is the utilization of advanced care providers, including advanced practice registered nurses (APRNs). This potential solution will only work if APRNs are allowed to practice to the full extent of their experience and education (Institute of Medicine, 2010). Likewise, to enhance the quality of care, primary care providers must work together to maximize each healthcare team member’s contribution. In order for this to be possible, knowledge of the working relationship between APRNs and physicians, particularly in the rural setting, is vital.

**Background**

APRNs have been utilized in the U.S. healthcare setting since the 1960s, with models of practice collaboration between APRNs and physicians for approximately 30 years (Crecelius et al., 2011). Implementation of the Patient Protection and Affordable Care Act (U.S Department of Health and Human Services, n.d.) and shortages of primary care physicians places APRNs in a prime position to assume more responsibility as primary care providers.

The traditional healthcare model as well as federal regulations for critical access hospitals (CAHs) maintain that APRNs function as "mid-level providers" and are accountable in their care to the supervising or overseeing physician. This is not congruent with many state statutes that allow independent practice of APRNs. Variation of state and federal regulations of the scope of APRN practice have a strong influence on the growth in numbers of nurse providers and consequently the number of patients that can receive primary care from them (Kuo, Loresto, Rounds & Goodwin, 2013).

A multidisciplinary, collaborative team effort that includes all types of healthcare providers, utilizing care models such as patient-centered medical homes, has the potential to improve the
quality of care as well as reduced costs in rural settings (Collins, 2012). Kasper and colleagues determined that a multidisciplinary team approach improves outcomes, decreases readmissions and comparable costs (Kasper et al, 2002). APRNs can contribute to the provision of care in this collaborative team approach, especially when knowledge of the role of the APRN is clearly defined in the system and understood by patients and providers. Collaboration, as defined by Crecelius et al. (2011), involves a joint, cooperative enterprise that integrates each individual’s perspective and expertise. Petersen and Way (2017) found that empowerment of APRNs was higher in those who identified physician oversight, a term utilized to identify situations where the physician had some sort of oversight responsibility of APRNs. This suggests that collaboration is one of the benefits of working within a team; that working with any type of physician supervision/oversight potentially increases opportunities for teamwork and collaboration. This collaboration could improve patient care and outcomes as well as play a role in the development of the relationship between team members. Other benefits of collaboration between the physician and the APRN include diminished provider isolation, decreased fragmentation of care, increased interaction and enhancement of the role of the APRN in clinical evaluation and decision-making (Kutzleb et al., 2015).

Schadewaldt, McInnes, Hiller and Gardner (2013) state barriers to a collaborative practice are related to personal, systemic, financial and historical reasons that have evolved as APRNs and physicians worked together. APRNs and physicians also have differing ideas about how collaboration occurs in practice with some ambivalence regarding physician supervision levels (Schadewaldt et al., 2013). Therefore, the research question for this study was: Does the supervising/oversight relationship between APRNs and physicians in rural healthcare settings
support or limit the scope of practice and services provided by APRNs? To understand these concepts of practice better, the researchers conducted interviews with 11 APRNs across a predominantly rural state in the northwestern region of the US, inquiring about the relationship that they maintained with physician team members.

**Methods**

In order to begin investigating the interpretation of APRNs’ relationships with physicians more fully, a series of structured interviews were conducted in rural healthcare settings. The researchers wanted to understand the true culture of the relationship of the rural healthcare team, particularly APRNs and physicians by utilizing a convenience sample in an ethnographic, qualitative study. Sites were chosen to include communities that have a Critical Access Hospital/Clinic that consistently has a physician who assumes supervision/oversight of APRNs, qualifies as frontier and rural according to their population, and represented diverse geographic locations in the state. The state is a predominantly rural state with a current population of only 1,042,520 (uscurrentpopulation, 2017) that covers 147,164 square miles (mt.gov, 2017) and has only one community with a population greater than 100,000 (montana.demographic.com, 2017). The interview protocol was approved for use by the Institutional Review Board, protocol #PP121014, at the university where both researchers are employed.

**Sample Selection**

The researchers obtained a list of all licensed APRNs in the state and contacted APRNs known to them for referrals of APRNs who fit the criteria for participation in this study. These criteria included practice in a rural (population ≤ 2,500 per square mile) or frontier area (population ≤ 6 per square mile) (Ratcliff, Burd, Holder & Fields, 2016), employment at a Critical Access
Hospital (CAH) and practice as one of the four types of practitioners. Potential participants were identified at a number of CAH locations within a three-hour travel time of either of the research team members, who are located four hours apart. While this approach introduced a measure of convenience sampling, and any bias that can be introduced with that approach, these criteria also allowed for inclusion of the majority of CAH sites in the state.

Potential participants were initially contacted with the reason for the study, time needed to complete the interview and topics included in the discussion. Interviews were recorded and the protocol maintained confidentially. Participants had the opportunity to agree to participate or decline. Each participant was given a consent form to sign prior to initiating the interview. The consent provided information regarding the study protocol, reassurances of confidentiality and contact information for questions regarding their participation. As only one invited participant declined to participate, the potential for meaningful influence from nonresponse bias is minimal. Following interviews with initial participants, others were recruited using snowball techniques (Brewerton & Millward, 2011). Each participant was also given a $50 gift card at the end of their interview in appreciation for taking time from their busy schedules and their willingness to participate in the study.

**Development of Interview Protocol**

The interview protocol developed for use in the study sought to answer the following research question: Does the supervising/oversight relationship between APRNs and physicians in rural healthcare settings support or limit the independent scope of practice and services provided by APRNs? To answer this question, an interview protocol was developed in three separate components.
1. Understanding the nature of the APRN’s preparation and certification. An investigation into the educational preparation of the APRN and their legal scope of practice in their state of practice. This included questions to understand the preparation and motivation to be an APRN.

An example question from this section is “Tell us about your educational background and what brought you to advanced practice nursing?” This question provided insight into the APRN's education, and reasons for continuing professional growth and development. These questions also clarified any additional certifications the APRN held, their understanding of their scope of practice, how long they had been practicing and their locations of practice.

2. Understanding the APRN’s understanding of their role in relation to state regulations and codes. This section investigated specific nursing practices based on the Nurse Practice Act and scope of practice for APRNs. This component of the interview protocol investigated specific duties of the APRN in their practice including their roles in diagnosis, treatment and coordination of patient care.

3. Understanding the relationship with physicians. This included a series of questions based on the Dempster Practice Behaviors Scale (Dempster, 1990), a valid and reliable tool used previously to measure autonomy in APRNs (Cajulis, & Fitzpatrick, 2007; Smith, Kirksey, Becker & Brown, 2011; Honda & Takamizawa, 2017). These questions were built on the DPBS and included items to clarify if the APRN is able to practice using the full scope of their knowledge and ability autonomously and independently. The complete interview protocol is attached (see Appendix A).
Interview Sessions

The principle investigators deployed the interview protocol described above with eleven separate subjects. Since the interviews were conducted at various locations, travel times were considerable with distances over 300 miles round trip for several interviews. In order to reduce costs, only one of the authors participated in each interview session. While this split approach introduces a potential weakness in the study due to interviewer bias, the potential is dramatically reduced by utilizing the best practices of a robust protocol and interviewer training outlined by Brewerton & Millward (2011). The location of the interviews varied, based on the preferences of the participant, and included settings of the interviewees’ home, private office or available examination rooms. Each interview was recorded with the participant’s consent and interview durations varied, with most interview recordings averaging between 35 and 40 minutes. The shortest interview lasted just under 21 minutes and the longest running over 58 minutes. Total recorded interview time was slightly greater than six hours.

Interview Transcription and Data Preparation

The recordings were transcribed by a contracted professional transcriptionist, resulting in 193 pages of transcription with the speaker denoted using standard labels. The first draft of each transcription was developed within three business days of the interview. Any areas of the recordings that were unclear to the transcriptionist were noted and the interviewer returned to the recording to complete missing information based on their notes. These transcriptions were utilized for two subsequent levels of analysis.
Understanding Scope of Practice Using the Dempster Practice Behaviors Scale

Initial analysis of the transcriptions was completed using a manual coding of basic information from the third section of the interview protocol investigating the nature of relationships using questions based on the Dempster Practice Behavior Scale (Dempster, 1990). A sample question from this section is “In our prior work, most respondents thought it ‘extremely true’ that they were able to “base their actions on the full scope of my knowledge and abilities.” “Do you agree with this statement?” Participant responses to these questions were coded by the reviewer on a Likert style scale of 1 (Strongly Disagree) to 5 (Strongly Agree) for subsequent analysis. Anytime the words used in the transcript were not clear on which numerical outcome should be selected, the recordings were further reviewed for tone of voice and pauses, providing clarity of response.

Understanding Relationships with Leximancer

Detailed understanding of the relationship between APRNs and physicians was completed using Leximancer 4.5 software. This analysis moved through several steps to format and import the text files from the interview transcripts, without questions from the interviewer, into the system. Due to the automated nature of the analysis, the system can be used not only to rapidly analyze vast amounts of textual information, but also to avoid biases introduced by human interpretation of the text materials (Smith & Humphreys, 2006). Once the text documents are imported in the Leximancer system, the following steps are taken to generate the analysis:

1. The body of text is examined to select a ranked list of important lexical terms based on word frequency, known as generate concept seeds.

2. These terms seed a thesaurus builder which develops compound concepts.
3. The text is classified using those concepts.

4. A concept index and related concept map is developed from these concepts.

The concept-mapping analysis run by the Leximancer system simulates forces between concepts using a variant of the spring-force model for the many-body problem (Chalmers & Chitson, 1992). The system has been widely utilized in qualitative healthcare related studies including efforts to improve patient safety (Travaglia, Westbrook & Braithwaite, 2009), improve inter-professional healthcare education (Goldberg et al., 2010), understand patient case histories (Watson, Smith & Watter, 2005), understand transitions within the nursing profession (Logan, Gallimore & Jordan, 2016), and improve understanding of nursing identity (Bell, Campbell & Goldberg, 2015). For this work, the transcripts were analyzed to better understand the keywords that describe the APRN - physician relationship.

Results

The 11 APRNs interviewed came from 9 different healthcare organizations in 8 different communities. Their practice specialties included all four areas; 1 practiced as a certified nurse practitioners (CNSs), 1 certified registered nurse anesthetist (CRNA), 7 certified nurse practitioners (CNPs) and 2 certified nurse midwives (CNMs). On average, participants had 17 years of APRN practice with 4 in excess of 20 years and only 1 having practiced less than 5 years. The sample included 8 females and 3 males. All participants practiced in a rural or frontier setting.

Summary of Findings

The overall theme from analysis of scoring APRN responses were that participants felt strongly that they were able to fulfill their scope of practice. As shown in Table 1, agreement across all dimensions was very high with all positively scored items except the ability to take

Online Journal of Rural Nursing and Health Care, 18(2)
http://dx.doi.org/10.14574/ojrnhc.v18i2.451

http://dx.doi.org/10.14574/ojrnhc.v18i2.451
control achieving 80% consensus response of agree or strongly agree. The only item not achieving this level of agreement consensus was the feeling of being constrained, which is a reverse scored items (strongly agree, indicating that the APRN was constrained in their practice).

These scores were further analyzed using Analysis of Means in Minitab 17 (Minitab, 2016). Prior to this analysis, the scoring of the constrained item was reversed to be consistent with other items. This analysis found a statistically lower ($\alpha = .05$) average score for constrained than all other measures. Further review of the transcripts responses to this item indicate that this lower score is largely driven by bureaucracy and insurance limitations rather than by the relationships between APRNs and physicians.

After testing the data to ensure the required assumptions were met, one-way ANOVA in Minitab 17 was run, which found no statistical difference in responses based on gender or level of experience ($p = .18 - 1$).

Table 1

Scores of Coded Responses to Dempster Based Items

<table>
<thead>
<tr>
<th>Roles/Skills</th>
<th>Average Score</th>
<th>Consensus Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordination of care</td>
<td>4.70</td>
<td>90%</td>
</tr>
<tr>
<td>Use full knowledge</td>
<td>5.00</td>
<td>100%</td>
</tr>
<tr>
<td>Take control</td>
<td>4.27</td>
<td>73%</td>
</tr>
<tr>
<td>Constrained (reversed score)</td>
<td>2.55</td>
<td>36%</td>
</tr>
<tr>
<td>Confident to work independently</td>
<td>4.45</td>
<td>82%</td>
</tr>
<tr>
<td>Socialized for independent work</td>
<td>4.10</td>
<td>80%</td>
</tr>
<tr>
<td>Function with authority</td>
<td>4.45</td>
<td>91%</td>
</tr>
<tr>
<td>Have deserved rights/privileges</td>
<td>4.36</td>
<td>91%</td>
</tr>
<tr>
<td>Have experience needed for independent action</td>
<td>4.67</td>
<td>89%</td>
</tr>
<tr>
<td>Able to make own decisions</td>
<td>4.30</td>
<td>90%</td>
</tr>
<tr>
<td>Possess ownership of my practice</td>
<td>4.91</td>
<td>100%</td>
</tr>
<tr>
<td>Provided a legal basis for independence</td>
<td>4.73</td>
<td>91%</td>
</tr>
<tr>
<td>Have respect</td>
<td>4.27</td>
<td>82%</td>
</tr>
<tr>
<td>Established parameters</td>
<td>4.55</td>
<td>82%</td>
</tr>
</tbody>
</table>
While the numerical analysis of the Dempster responses were consistent, the details of the interview indicated some discrepancies. As indicated in the Analysis of Means results above, three participants noted that they were not always able to take control over their environments, but only one felt that this was within the control of their administrators or practice. Two participants felt that they had not been socialized for independence (either in education or practice) but grew into it during the course of working as an APRN. One respondent felt that they lacked legal basis for independent functioning as physician oversight of some fashion was in their contract. This oversight included cosigning of charts, which is a federal requirement of all CAHs or internal policies of the CAH stemming from bylaws established with physician input. Some participants who noted a contractual oversight spoke of how little oversight actually occurred after initial startup in their practice as well as evolving relationships with supervising physicians.

Content Analysis Using Leximancer

The key element of the qualitative analysis was completed using Leximancer 4.5 as previously described. By employing Leximancer, the researchers were able to identify concepts and interrelationships present in the interviews without introducing an a priori model that may bias the results. Initial analysis using default settings identified 38 unique word concepts. These were manually refined to combine similar words (e.g. physician and physicians) into a single concept for final analysis. As shown in Figure 1, the initial concept map identified 11 different themes (indicated by circles and title in matching color), most containing a number of sub-themes (other words within the circle). The analysis indicated overlapping themes between work, nurse, and independent.

*Online Journal of Rural Nursing and Health Care, 18(2)*
http://dx.doi.org/10.14574/ojrnhc.v18i2.451
This initial analysis supported subsequent investigations into the specific concepts of rural APRN practice and independence. First, Leximancer tools were applied to delve deeper into the concept of “practice”. As shown in Figure 2, practice was tightly associated with concepts of location (hospital), role (nurse), duties (take and care) as well as independent. Some of the specific language that triggered this relationship is included on the right side of the figure, illustrating the
types of phrases that were utilized by the APRN’s to describe the nature of their practice and operations.

Figure 2. Exploring the Concept of Practice

Given the nature of the research question, understanding how “independent” manifests itself as a theme in the interviews was the focus of several additional rounds of analysis. Leximancer tools were utilized to construct the relationship path between an APRN’s concept of “work” and “independent”. This analysis illustrated two key dimensions. As shown in Figure 1, the concept of work (denoted by the red circle) and independent (denoted by the orange circle) share a great deal of similarity, indicated by the large area of overlap. This overlap appears again in this deeper analysis, shown in Figure 3, and indicates that APRNs included in the study largely view their
work as independent. More detailed analysis indicates that the path to independence flows through concepts of location (clinic) and administration (hospital) to end in independent practice.

Figure 3. APRN Narrative Path from Work to Independent

Further drill-down into the themes identified by Leximancer as related to independent was used to generate the analysis shown in Figure 4. This analysis found thirteen different concepts with a greater than 5% probability of being related to independent. Of these, the strongest
relationships were with words describing people or roles (e.g. physicians: 9%, nurse: 8%, role 7%) and locations (e.g. practice: 15%, hospital: 6%, clinic: 5%).

Figure 4. Key Concepts Related to Independent

**Implications and Discussion**

Overall, the study found compelling evidence that the nature of the relationships between APRNs and physicians practicing in this study is one of support, not limitation. The results indicate that despite federal requirements of oversight of APRNs by physicians, there are no limitations for APRNs practicing to the full extent of their independent scope of practice or services provided by APRNs. This also supports earlier work done by Petersen and Way (2017),
that found those APRNs who identified a situation of physician oversight, no matter how defined, were more empowered than those APRNs without physician oversight. The concept of an APRN’s work and independence are similar, supported by location of their practice, the people that they work with and their role in patient care. As indicated by the content analysis, the path to independence runs through clinic and hospital (practice settings), illustrating both the experience and belief that independence depends on the practice. Only three APRNs indicated that constraints were largely driven by practice bureaucracy, including contractual restraints and insurance limitations. Others indicated the contractual oversight, while it existed, was minimal in their practice. Two of these respondents indicated that they had not been socialized, either in their educational program or in their practice setting, for independent practice.

These findings indicate that APRNs who are willing to develop a collaborative relationship with a supervising physician are supportive for expanding the number of primary care providers in rural and frontier healthcare settings. These circumstances are contingent on APRNs being supported by physicians in practicing to the full extent of their experience and education as well as their role in primary healthcare. This study also indicates that this needed condition is being met. An organization can maximize the APRNs’ integration and contribution through recognition of the value of their patient care, including the APRNs’ knowledge of outcomes and team approach (Kutzleb et al., 2015).

**Implications for Research**

As more rural residents obtain healthcare insurance, increasing their access to care, the need for primary care providers also increases. APRNs are prepared to assume that role. However, federal regulations as well as reimbursement and practice parameters within a CAH in rural and...
frontier settings may diminish the fluidity of relationship development between APRNs and physicians. It could be of value to further contribute to the knowledge of the APRN – physician relationship by interviewing physicians and learning of their understanding of APRN educational preparation, roles and patient outcomes within the healthcare team.

**Implications for Education**

One area worth noting in the results of the interviews was the mention of a lack of socialization for APRNs practicing in a rural or frontier setting. Understanding and knowledge of the role of the APRN within the healthcare team and setting is vital. Relationship development that is supportive and collaborative, allowing APRNs to practice to the full scope of their education and experience, has potential to maximize the APRNs’ contribution to the provision of healthcare. Educational programs have an opportunity to introduce concepts of socialization as APRN students move to their own professional practice.

**Implications for Practice**

APRNs must have complete knowledge of their scope of practice as well as CAH contractual obligations, including supervisory/overseeing obligations of a physician. This study found that the participants were knowledgeable of their practice parameters; they were able to work independently but appreciated the support of the supervising physician. As more states introduce legislation to support APRN independent practice, the dynamics of APRN – physician relationships in care settings must be clearly understood. New APRNs, without knowledge of their role or scope of practice, may compromise the legitimacy of collaborative, healthcare team models, thus impacting existing APRN – physician relationships.

**Implications for Policy**

*Online Journal of Rural Nursing and Health Care, 18(2)*

http://dx.doi.org/10.14574/ojrnhc.v18i2.451
State regulatory language that allows for independent practice through the Nurse Practice Act is contradictory to federal policies that require such oversight as 100% chart review of physicians of all APRN providers in CAH settings. Consistency of policies at state and federal levels would support areas of patient care outcomes, reimbursement and knowledge of team members roles, responsibilities and competencies.

**Limitations**

The study was completed with a limited number of interviews. While the discussions generated a substantial data set, a key limitation is that these discussions only provided the experience of a relatively small group and their experience may not be truly representative of a broader group of APRNs. As such, the findings from this study are useful in indicating that physician supervision/oversight may not be the feared limiter to APRN practice but broader studies are needed to confirm if this is the case in other states, especially those states who do not allow for independent practice within their Nurse Practice Act. Furthermore, there was only a limited representation of each of the specialties that APRNs may achieve. Finally, since the target problem of the study is addressing rural healthcare needs, the sample of APRNs was deliberately limited to those practicing in Critical Access Hospital settings. The authors have no reason to expect that findings apply more broadly to those practicing outside of these settings.

**Conclusion**

The opportunity to understand the relationship that APRNs working as providers in rural and frontier settings in a northwestern state in the US was insightful. Knowledge of federal regulation and prior research indicated the existence of physician supervision/oversight for many APRNs. This raised the concern that this oversight was a limitation which had potential to diminish the
contribution that APRNs can make to increasing access to care for rural populations and practicing to the full extent of their education and experience. The results of this study alleviated that concern, indicating that this oversight relationship was actually not limiting APRNs but rather supportive and helpful for them. In other words, the relationship discovered through this work is one of a supporting, collaborative team approach to primary care, maximizing the APRNs’ contribution to the provision of healthcare in rural settings. Overall, APRNs view the relationship as beneficial, one that contributes to the quality of care. With one exception, those APRNs who noted initial challenges in gaining autonomy and respect in their practice setting came from a time many years ago, when the understanding of APRNs’ role and capabilities within the healthcare systems were evolving. Incidental findings included support that the patients of APRNs were knowledgeable of their provider’s capabilities.

References


Online Journal of Rural Nursing and Health Care, 18(2) http://dx.doi.org/10.14574/ojrnhc.v18i2.451


*Online Journal of Rural Nursing and Health Care, 18*(2) [http://dx.doi.org/10.14574/ojrnhc.v18i2.451](http://dx.doi.org/10.14574/ojrnhc.v18i2.451)


Smith, J. S., Kirksey, K.K., Becker, H., & Brown, A. (2011). Autonomy and self-efficacy as influencing factors in nurses; Behavioral intention to disinfect needleless intravenous...


**Appendix A**

**Part 1 – Understanding the Nature of the APRN’s Preparation and Certification**

1. Tell us about your educational background and what brought you to advanced practice nursing.
2. How long have you been an APRN?
3. Do you hold prescriptive authority with the State of Montana?

**Part 2 – Understanding the APRN’s Understanding of their Role in relation to Montana codes**

4. Please explain how you see your role with regard to:
   a. establishing medical and nursing diagnoses, treating, and managing patients with acute and chronic illnesses and diseases
   b. providing initial, ongoing, and comprehensive care (if the participant does not touch on any of the following areas, ask appropriate follow-up questions)
      i. physical examinations, health assessments, and/or other screening activities
      ii. [if applicable from question #3 above] prescribing legend and controlled substances when prescriptive authority is successfully applied for and obtained;
      iii. ordering durable medical equipment, diagnostic treatments and therapeutic modalities, laboratory imaging and diagnostic tests, and supportive services, including, but not limited to, home healthcare, hospice, and physical and occupational therapy;
      iv. receiving and interpreting results of laboratory, imaging, and/or diagnostic studies;

*Online Journal of Rural Nursing and Health Care, 18*(2) http://dx.doi.org/10.14574/ojrnhc.v18i2.451
v. working with clients to promote their understanding of and compliance with therapeutic regimens;
vi. providing instruction and counseling to individuals, families, and groups in the areas of health promotion, disease prevention, and maintenance, including involving such persons in planning for their health care;

**Part 3 – Understanding the Relationship with Other Healthcare Workers and Physician Oversight**

5. Part of Montana Nurse Practice Act defines the APRN role as “working in collaboration with other health care providers and agencies to provide and, where appropriate, coordinate services to individuals and families.”
   a. Do you provide this coordination?
   b. Explain the nature of this part of your role.

6. In our prior work, most respondents thought it ‘extremely true’ that they were able to “base their actions on the full scope of my knowledge and abilities”
   a. Do you agree with this statement?
      i. If yes – Tell us what enables you to act this way?
      ii. If no – Tell us about what limits your ability to act this way?

7. In our prior work, most respondents thought it at least ‘very true’ that they were able to “take control over my environment and situations I confront”
   a. Do you agree with this statement?
      i. If yes – Tell us what enables you to act this way?
      ii. If no – Tell us about what limits your ability to act this way?

8. In our prior work, most respondents thought it at least ‘true’ that they were “constrained by bureaucratic limitations.”
   a. Do you agree with this statement?
      i. If yes – Tell us what provides this constraint?
      ii. If no – Tell us about what has been done to remove these barriers?

9. In our prior work, most respondents thought it at least ‘very true’ that they were “confident in my abilities to perform my role independently.”
   a. Do you agree with this statement?
      i. If yes – Tell us what enables you to act this way?
      ii. If no – Tell us about what limits your ability to act this way?

10. In our prior work, most respondents thought it at least ‘very true’ that they were “have been professionally socialized to take independent action.”
    a. Do you agree with this statement?
       i. If yes – Tell us what examples you have of these norms being set?
       ii. If no – Tell us what additional support you would want before acting this way?

11. In our prior work, most respondents thought it at least ‘very true’ that they were able to “function with the authority to do what I know should be done.”
    a. Do you agree with this statement?
       i. If yes – Tell us what enables you to act this way?
       ii. If no – Tell us about what limits your ability to act this way?

12. In our prior work, most respondents thought it at least ‘moderately true’ that they “have the rights and privileges I deserve.”
    a. Do you agree with this statement?
       i. If yes – Tell us what specific rights make you say that?
       ii. If no – Tell us what rights are restricted?
13. In our prior work, most respondents thought it at least ‘very true’ that they “have the professional experience needed for independent action”
   a. Do you agree with this statement?
      i. If yes – Tell us what experience enables you to act this way?
      ii. If no – Tell us about what experience you would need before acting this way?
14. In our prior work, most respondents thought it at least ‘very true’ that they are able to “make my own decisions related to what I do.”
   a. Do you agree with this statement?
      i. If yes – Tell us what enables you to act this way?
      ii. If no – Tell us about what limits your ability to act this way?
15. In our prior work, most respondents thought it at least ‘very true’ that they “possess ownership of my practice; that is, my role belongs to me.”
   a. Do you agree with this statement?
      i. If yes – Tell us what enables you to act this way?
      ii. If no – Tell us about what limits your ability to act this way?
16. In our prior work, most respondents thought it at least ‘very true’ that they are “provided with a legal basis for independent functioning.”
   a. Do you agree with this statement?
      i. If no – Tell us about what limits your ability to act this way?
17. In our prior work, most respondents thought it at least ‘moderately true’ that they “have the respect of those in other disciplines.”
   a. Do you agree with this statement?
      i. If yes – Tell us how you see that respect displayed?
      ii. If no – Tell us about what behaviors you see that indicate that is not true?
18. In our prior work, most respondents thought it at least ‘moderately true’ that they were able to “establish the parameters and limits of my practice activities”
   a. Do you agree with this statement?
      i. If yes – Tell us what enables you to act this way?
      ii. If no – Tell us about what limits your ability to act this way?