7-1-2016

Advanced Practice Registered Nurse (APRN) Student Perceptions of Rural Health: Gaining Interest in Rural Health Care

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Abstract

The number of rural health care providers is insufficient to meet the nation's needs, since it is difficult to attract and retain providers (Chamberlain, 2011; Ross, 2013). Rural residents experience multiple health disparities including economic constraints, cultural and educational differences, and isolation, which restrict a healthy life (Winters & Lee, 2013). Nurse Practitioners (NPs) are a safe and cost-effective strategy to minimize the provider shortage and increase rural access (Larson et al., 2016; Vleet & Paradise, 2015). This project sought to determine Advanced Practice Registered Nurse (APRN) student perceptions of rural health and cultivate interest in practicing in rural Oregon communities. The subjects were APRN students from a Pacific Northwest University. A 25-question survey with a three-minute video describing the benefits of rural practice was sent to subjects. There was a 22% (n=20) response rate, 34% (n=13) from FNP and 26% (n=6) from PMHNP specialties. Eighty-five percent (n=17) had considered employment in rural health. The most influential factors for choosing rural health careers were loan forgiveness/repayment, location, and lifestyle. Limitations included a low sample size, self-selection bias, and constricted timeline. Promoting rural health through the introduction of the positive aspects of rural living, maintaining adequate distribution of loan forgiveness/repayment awards, and fostering interest through educational programs may influence a greater number of APRN students to pursue rural health careers. NP delivered health care is efficient, has high overall quality of care, and is at lower cost per visit (Larson et al., 2016). NPs should be utilized for rural health care needs and influenced through incentives by legislature and policy.

Key Words: Rural health, Nurse Practitioners, Advanced Practice Registered Nurse, Oregon rural health.

Clinical Problem

Over the last several decades, policy initiatives and programs to promote rural practice have been developed in response to the national health care shortage. However, the number of providers in rural health care remains insufficient to meet the nation's needs (Chamberlain, 2011; Ross, 2013). The World Health Organization (WHO) estimates a shortage of around 4.3 million health care providers globally (Crisp & Chen, 2014). Unfortunately, rural areas experience even greater provider shortage, as it is difficult to attract and retain health care professionals (Chamberlain, 2011; Crisp & Chen, 2014). The 2012 National Sample Survey of Nurse Practitioners (NPs) revealed that only one percent of NPs in the United States (U.S.) work in rural health care (U.S. Department of Health and Human Services, Health Resources and Services Administration, 2014). The shortage of health care providers not only limits access to care, but also overloads existing health care services available in rural communities (Brewer, Goble, & Guy, 2011).

According to the 2010 census, approximately 19% of the U.S. population lives in rural locations (U.S. Census Bureau, 2012). Approximately 36% of Oregonians live in rural areas and an estimated 80% of rural areas are characterized as medically underserved, indicating that they lack appropriate provider coverage (Brewer, Goble, & Guy, 2011; Oregon Office of Rural Health, 2015). The number of individuals living rurally is significant but more concerning is the number of individuals requiring health care which is expected to rise considerably in the next few years, particularly in rural locations. Oregon's 65 and older population increased by 18% from 2010 to 2014 and is

predicted to continue to increase (Chamberlain, 2011; Office for Oregon Health and Policy Research, 2014; U.S. Census Bureau, 2012). Additionally, the Affordable Health Care Act (ACHA) is expected to generate 1.39 million rural primary care office visits across the nation (Larson, Andrilla, Coulthard, & Spetz, 2016). Increasing numbers of insured individuals requiring care paired with the current lack of health care providers indicates a significant need for more providers in rural locations.

Using NPs to alleviate the effects of the physician shortage has been proposed as an effective strategy to increase access to care in rural areas and manage the effects of the Affordable Health Care Act (Larson et al., 2016; Oregon Office of Health and Policy Research, 2014). This will be particularly effective in states with less restrictive practice environments such as Oregon. Rates of practicing physicians in rural areas are persistently lower, as NPs and Physician Assistants (PAs) provide substantial portions of primary care in these locations (Larson et al., 2016). When compared with physicians, patient outcomes are similar and patient satisfaction is high among NP treated individuals, however, NPs typically see fewer patients per week (Larson et al., 2016). In addition, NPs have the skills and training needed to care for 70% or more primary care visits indicating that NPs will sufficiently meet the standards for providers in primary care (Larson et al., 2016).

Rural populations are on average, older, poorer, sicker, and more likely to be uninsured when compared with urban populations (Burrows, Suh, & Hamann, 2012; Winters & Lee, 2013). Chronic disease, infant and maternal morbidity, mental illness,

environmental/occupational injuries, and obesity are also more prevalent in rural communities (Burrows, Suh, & Hamann, 2012). In addition, rural residents face a unique number of health disparities including economic factors, cultural and social differences, educational differences, and isolation, all of which limit the ability to live a healthy life (Alfero et al., 2013). Factors such as poorer population health and economic factors are often mentioned as undesired challenges by providers who are considering rural practice.

The purpose of this project was to determine APRN student perceptions and develop interest to practice in rural health settings with specific focus on rural Oregon communities. A determination of individual demographic factors that lead to interest in rural health was assessed through a multiple-choice survey. Barriers and influencing factors that lead to interest in rural health was also evaluated. In addition, a short video presentation discussing rural health careers was presented with the intention of gaining interest in rural health and/ or promoting knowledge of statewide and national needs for rural health providers.

Literature Review

A literature review was conducted periodically during the months of January, 2016 to March, 2016. Literature was identified in the PubMed, Ovid Medline, EBSCO, and Google Scholar through searches using the following MESH terms: “rural health care” OR “Oregon rural health” OR “rural primary care” AND “providers” OR “advanced practice registered nurse (APRN)” OR “nurse practitioners”. The search was limited to English language articles published in the last six years. Older articles, including one from 2001, were used due to the very limited data and number of articles

published regarding rural health. Exclusion criteria included articles related to physician assistants (PAs), studies performed in urban locations, and those with a poor level of evidence. Approximately 30 articles were reviewed. The Oregon Office of Rural Health website was reviewed as well as the World Health Organization (WHO) and U.S. Department of Health and Human Services for pertinent data and articles.

Rural Health Clinics (RHCs)

Rural health is defined by the Oregon Office of Rural Health as a geographic area that is ten or more miles from a central population of 40,000 or more people (Oregon Office of Rural Health, 2001-2006). Rural Health Clinics (RHCs) were designed in 1977 to sustain health care services and improve access to health care in rural communities. RHCs are eligible for cost-based reimbursement for care provided to Medicaid and Medicare patients (Oregon Office of Rural Health, 2015). By the end of 2015, 71 RHCs were present in Oregon (Oregon Office of Rural Health, 2015). Presently, RHCs exist in 25 of 36 Oregon counties (Young, Valley, Soenen, Johnson, & Ong, 2011). Without RHCs, many rural residing individuals would not have the opportunity to seek health care services (Young et al., 2011). A variety of insurance types are seen at RHCs including private insurance (35%), Medicare (29%), Medicaid (18%), other (9%), and uninsured (9%) (Young et al., 2011). RHCs are also categorized by the following:

- Must not be located in an urbanized area as defined by the U.S. Census Bureau;
- Must be in a location that is federally defined by Health Professional Shortage Area (HPSA) or a Medically Underserved Area (MUA);
- The clinic must employ a mid-level provider at least 50% of the time the

clinic is open (Nurse Practitioner, Physician Assistant, or Certified Nurse Midwife);

- Must have physician oversight at least once every two weeks available to consult with mid-level providers when necessary;
- Must offer basic laboratory services including urine pregnancy, glucose, occult stool, hematocrit/hemoglobin, culturing, and urine; and
- Area designation must have been updated within the last four years. (Young et al., 2011, pp.1-2)

Between 2010 and 2012, the number of rural physicians decreased by 12% (Oregon Health Workforce Institute [OHWI], 2014). This shortage is expected to rise as approximately 43% of the rural primary care physician workforce is over 55, indicating that a large percentage will be retiring in the next ten years (Chamberlain, 2011; Burrows, Suh, & Hamann, 2012; OHWI, 2014). Estimates suggest that the demand for health care providers in Oregon is expected to increase by 16% between 2013 and 2020; this is not accounting for factors such as retirement, relocation, or reduction in hours (Office of Oregon Health and Policy Research, 2014). The shortage of health care providers paired with the increased number of insured individuals demonstrates that recruitment and retention of health care professionals in rural areas is imperative.

Recruitment & Retention Strategies

Unfortunately, recruiting and retaining health care providers is a major challenge of RHCs as 43% of Oregon's RHCs are currently recruiting and half of these have multiple positions available (Young et al., 2011). Therefore, RHCs are not only competing with urban clinics for provider recruitment but also among other RHCs. The

average length for Oregon RHC recruitment is 16 months with a national average of 24 months, which is expected to increase (Young et al., 2011). Factors including call hours, assumed income, and small town lifestyle as well as other personal, professional, and social factors limit the number of providers willing to work in rural health care (Chamberlain, 2011; OHWI, 2014). However, one report suggested that perceptions of lower income for rural providers were inaccurate as adjustment for cost of living revealed that rural physicians had higher incomes than urban counterparts (Reschovsky & Staiti, 2005). It is unknown if this is the case with Advanced Practice Providers.

Some strategies to improve recruitment of providers include developing clinic websites, building community support, taking advantage of local, state, and federal incentives, and developing retention plans (Young et al., 2011). Research reveals that providers are more likely to work in rural areas if they have significant rural experiences in childhood, are from lower income families, are from minority populations, receive training in rural sites early in education, and have extended rural educational experiences in rural sites (Alfero et al., 2013).

A study performed by Longenecker, Zink, and Florence (2012), suggested that provider success in rural communities requires adaptability, resilience, resourcefulness, and creativity. These qualities should be considered when preparing students for a career in rural health. Another study revealed that interest in rural health is highly related to previously living in rural locations as well as having clinical placements in rural areas but more research is needed (Smith, Edwards, Courtney, & Finlayson, 2001). Creating educational opportunities that allow students to remain in rural settings rather than relocating to urban locations may show benefit as well. Studies reveal that rural students

relocating to urban locations for education often do not return to rural living (Alfero et al., 2013). In addition, providing education specific to the unique needs of rural communities would be beneficial. Universities utilizing rural training sites often have greater proportion of graduates working in rural settings (Alfero et al., 2013). Educational programs can also improve the rural health care workforce by promoting rural health in their programs.

Utilization of NPs

According to the Institute of Medicine (IOM) (2010), nurse practitioners fill a large gap in rural health care. It is suggested that the growing number of NPs in healthcare could alleviate the shortage of rural healthcare providers and are a safe, cost-effective alternative to their physician counterparts (Office of Oregon Health and Policy Research, 2014; Larson et al., 2016; Vleet & Paradise, 2015). Compared with other disciplines, NPs are most likely to practice in rural communities (American Academy of Nurse Practitioners, n.d.). NPs and PAs have been a major component of the rural health workforce, but the proportion of these providers has fallen in recent years (Burrows, Suh, & Hamann, 2012). A national survey conducted from 2009-2010 revealed that 27.6% of family nurse practitioners (FNPs) practiced in communities with fewer than 25,000 residents (Goolsby, 2011). Using NPs to meet the demands of rural health care is advantageous as the cost and time required for training is substantially less when compared with physicians (Larson et al., 2016). Evidence also suggests that NP delivered care is efficient, has high overall quality of care, and is at lower cost per visit (Larson et al., 2016). Nurse practitioners should be utilized for rural health care needs and influenced through incentives offered by the legislature and policy.

Various incentives are available for individuals interested in working in rural health care. These include loan repayment, tax credits, and malpractice subsidies (Young et al., 2011). Twenty clinics in Oregon reported using loan repayment as a means to recruit providers (Young et al., 2011). There are several national and statewide loan repayment programs available to providers interested in practicing in rural locations. Loan repayment recipients receive repayment awards after the completion of training in exchange for a service commitment in a rural or underserved community (Oregon Office of Rural Health, 2015). There are currently 53 sites in Oregon with approved loan repayment or loan forgiveness recipients (Oregon Office of Rural Health, 2015). Other incentives include Rural Practitioner Tax Credit and Rural Medical Practitioners Insurance Subsidy Program. Tax credits allow qualified providers to claim up to $5,000 in Oregon tax credit while practicing in a rural community (Oregon Office of Rural Health, 2015). The insurance subsidy is designed to reduce the high cost of medical liability insurance that was limiting obstetrical services in rural communities. Advocating for legislative policy for these programs to continue is essential in order to provide for the needs of rural areas.

Barriers & Opportunities

Rural health care providers face many challenges unique to their location leading to burnout and lack of retention. One study suggested that disconnectedness and isolation contribute to rural provider shortage personally and professionally (Ray, 2014; Winters & Lee, 2013). Barriers reported by clinicians working in rural areas include longer commutes and living in isolated communities without peers to discuss experiences and challenges within their work (Longenecker, Zink, and Florence, 2012).

Some providers report long work hours without breaks, lack of anonymity, limited career advancement, and inadequate staff coverage as disadvantages to rural practice (Longenecker, Zink, and Florence, 2012; Ray, 2014; Winters & Lee, 2013; Young et al., 2011). In addition, rural providers often have limited resources resulting in challenging healthcare problem solving. These barriers cause younger providers to hesitate in choosing rural clinic placing an even greater burden on current rural health providers, many of which are nearing retirement (U.S. Department of Health and Human Services, 2008).

In contrast, many providers find rural practice rewarding and chose it as a lifelong career path. There is limited literature regarding the social, cultural, recreational benefits that lead providers to seek careers in rural health. It should be recognized that often research describes the challenges and disadvantages of rural health care when several benefits exist as well. Rural health care allows providers to get to know their patients and the local community better than in urban areas (Leeper, 2011; Winters & Lee, 2013). Meaningful relationships with coworkers, patients, and the community are often cited as a benefit of rural practice settings (Winters & Lee, 2013). Rural providers are also able to practice with more autonomy and can act as change agents within their community (Leeper, 2011; Winters & Lee, 2013). Fostering a sense of community, caring for patients and families through their lifespan, experiencing recreational and social opportunities, working with underserved populations, lower cost of living, opportunities for family members, and greatly influencing the health of the community one lives in are rewards that are often overlooked (Sharp, Bond, Cheek, & Wolff, 2015; Winters & Lee, 2013). A rural lifestyle allows for less stressful living, lower crime rates, friendly people, and close

proximity to outdoor activities (Winters & Lee, 2013). Introducing the benefits rather than disadvantages to students and providers may influence the decision to practice in rural health (Sharp et al., 2015).

There is limited research regarding student perceptions of rural health care. This project will examine current perspectives of APRN students in a Pacific Northwest University on rural health, as well as attempt to influence prospective students to work in rural health care through video promotion. By studying the nature of this problem, strategies may be developed that promote Healthy People goals of 2020 which include advancing access to quality and equitable health care for all (Department of Health and Human Services, 2014).

Approach to the Project

This descriptive, cross-sectional project to determine APRN student perceptions and develop interest to practice in rural health settings. This was performed in a three-step process. An initial survey was sent to Oregon Health and Science University (OHSU) Master's and Doctor of Nursing Practice (DNP) level students in the family nurse practitioner (FNP), psychiatric mental health nurse practitioner (PMHNP), pediatric nurse practitioner (PNP), and certified nurse midwife (CNM) programs via OHSU email (Appendix A). Participants were asked to watch a three-minute video on Oregon rural health careers with the intention of gaining student interest. Following the video, the students were asked additional questions to evaluate the effectiveness of the video.

The objectives of this project included the following:

- To determine individual demographic factors that lead to interest in rural health;

- To identify barriers and influencing factors related to rural health careers; and
- To gain student interest in rural health careers.

Setting

There was no specific setting for this project as the survey and attached video were sent to participants through email. This allowed students to complete the survey on their own time, in a comfortable location of their choice providing flexibility. However, it may have limited the response of some students who chose not to participate when viewing the email initially and later, disregarded its contents.

Participants

All APRN students including FNP, PMHNP, PNP, and CNM currently enrolled at OHSU were invited to participate in this project. There were approximately 90 eligible students at the time the survey was distributed. The number of students per educational specialty was FNP (38), PMHNP (32), CNM, (23), and PNP (7). Participation in the survey was optional. It was unclear how many students would participate but the goal was to obtain a 40% response rate.

The students were in their first or second year of their master's program, or DNP year. Participants were between 20-60 years old. Exclusion criteria included Adult-Gerontology Acute Care Nurse Practitioner (AGACNP) & Certified Registered Nurse Anesthetists (CRNA), undergraduate & non-OHSU students, ages less than 18 & greater than 60, non-English speaking, and vulnerable populations.

Recruitment occurred in the form of an email with a link to the survey. The email invited the student to participate in the project informing the student that participation was optional and responses were anonymous. Invitations were sent to students by

program directors one time only. To ensure student anonymity, the invitations were sent to the students by program directors. Consent was implied when the questionnaire was access. The survey was available for approximately one-month.

Risks to participants included a time burden and potential breach of confidentiality. Benefits to participants included invoking interest in rural health care as well as contribution to the future promotion of rural health. Data obtained from the survey was password protected and encrypted in a survey monkey account. Participant identifiers were separated from other data and grouped to determine trends.

Project Implementation

The purpose, procedures, risks, benefits, confidentiality and participation details were presented to the participant at the time the link was accessed. The student was informed that participation was voluntary and responses were anonymous.

It took between 15 and 30 minutes to complete the survey. Personal data collected included age, gender, general area of residence (rural vs. urban), and personal views on rural health care. The survey also included a link to a three-minute video promoting rural practice. Participants were withdrawn from the project if they did not complete the entire survey.

Data was collected and analyzed through a password protected SurveyMonkey account and only accessed by the investigator. Data was anonymous and encrypted. Student identifiers were separated from other data and information grouped to determine trends. Results and findings from the survey will be shared with OHSU DNP students and faculty attending the final presentation of DNP projects on 6/10/2016.

Measures/Outcomes

OHSU IRB approval (STUDY # 00015626) was obtained on March 15, 2016. APRN program directors were emailed the survey link and instructions March 22, 2016 to disseminate to Masters and DNP students. The survey was ended on April 23, 2016 with a total of 20 (22%) responses. A total 34% enrolled in the FNP program and 26% in the PMHNP program responded (Appendix B). There were no responses from CNM or PNP students. Two respondents were removed from the results as the majority of survey questions were incomplete. Participants were primarily female between the ages of 30-34. The majority of respondents were in their DNP year, specializing in the FNP program (Table 1).

Table 1: Student Demographics (n=20)

Sex		**Specialty**	
Female	85% (17)	FNP	65% (13)
Male	15% (3)	PMHNP	30% (6)
Age (years)		**Year in School**	
20-24	5% (1)	1	20% (4)
25-29	25% (5)	2	15% (3)
30-34	45% (90)	DNP	65% (13)
35-39	15% (3)		
40 and above	10% (2)		

Sixty four point seven percent (64.7%) of respondents described their upbringing to be rural. Only 25% of students were living in a rural location at the time the survey was completed. Sixty five percent (65%) of respondents had been or expected to be

placed in rural clinical settings. Eighty five percent (85%) of respondents had considered employment in rural health and 78.95% would consider working at a rural health clinic (RHC).

The most influential factors for choosing careers in rural health practice among the respondents were loan repayment/forgiveness, location, and lifestyle (Figure 1). Among the respondents, 36.8% (7) students were currently enrolled in a loan forgiveness/ loan repayment program. The most significant barriers among the respondents included lack of clinical resources and distance from family and friends (Figure 2).

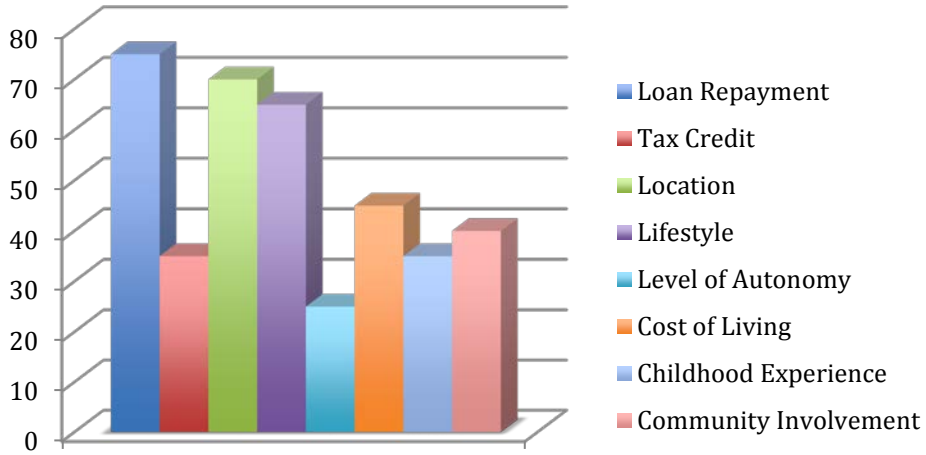

Figure 1: Influencing Factors to Rural Health Practice

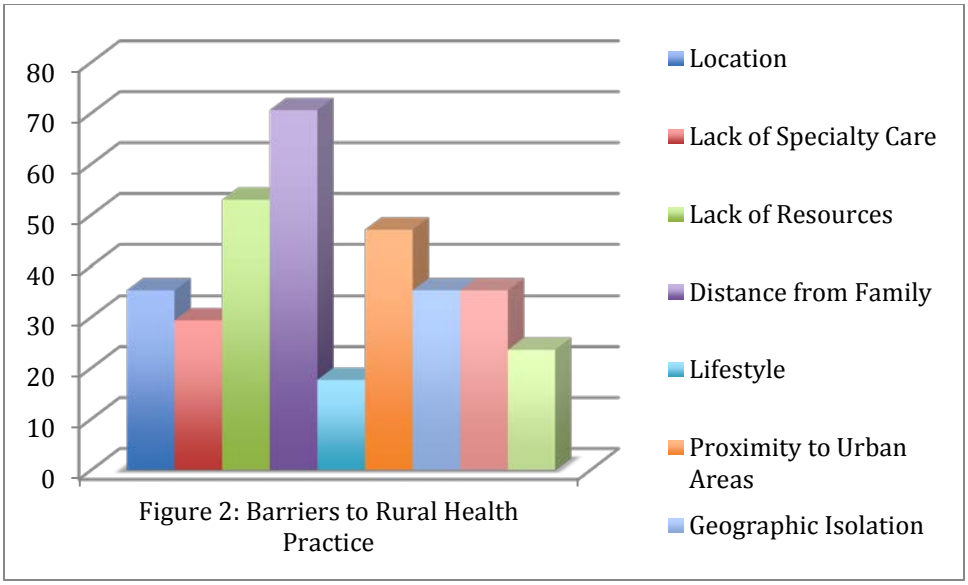

Figure 2: Barriers to Rural Health Practice

The advantages of rural living for respondents' families to move to rural areas included lifestyle factors (76.5%), reduced cost of living (53%), and community involvement (47.1%) (Appendix C: Figure 3). In contrast, the greatest disadvantages of rural living for families included career opportunities for significant other (77.8%), distance from family (61.1%), and geographic isolation (55.6%) (Appendix C: Figure 4).

The rural health video contained in the survey had very little influence on interest in rural health. Fifteen point eight percent (15.8%) reported moderate influence on choosing a rural health career. Interestingly, 52.6% (10) reported considerable interest in practicing in rural health in the future and 10.5% (2) reported moderate interest.

Limitations

There were various limitations of this project. The results of this project are subject to self-reporting data, which holds the risk of bias of socially undesirable responses. In addition, it should be considered that the sample size does not reflect the views of the population as a whole. It's possible that participants previously interested in rural health self-selected themselves to take this survey. Limited access to participants

and time constraints may have impacted the number of responses. In order to have input from all specialties, it would have been beneficial for the project to increase the number of participants from other APRN specialties including CNM, PNP, CRNA, and AGACNP. Further research, should include greater specialties and students from additional universities.

Practice-Related Implications/ Recommendations

While individual definitions of rural may vary, previous research suggests that rural upbringing influences interest in rural practice (Smith et al., 2001). According to the results, many of the students had significant childhood experiences in rural areas, however, the majority were now living in urban locations. This is unfortunate as students who relocate to urban areas for education are less likely to return to rural settings (Alfero et al., 2013). A large percentage of students were expecting or had experienced rural clinical placements. This is promising as evidence suggests that schools utilizing rural training had greater proportion of graduates working in rural health (Alfero et al., 2013). In fact, many students had considered employment in rural health. This represents a significant number of individuals who may be influenced through the curriculum and clinical hours provided by the university.

Loan forgiveness/ repayment was the most influential factor for choosing careers in rural health. In 2015, Office of Rural Health (ORH) awarded 13 students with the Oregon Partnership State Loan Repayment Program (SLRP) and 11 students with the Primary Health Care Loan Forgiveness Program (PCLF) (Oregon Office of Rural Health, 2015). In addition, there are currently 53 rural Oregon sites with loan repayment or loan forgiveness participants (Oregon Office of Rural Health, 2015).

Among the respondents of this project, a large percentage showed moderate to considerable interest in rural health practice. This interest may be promoted through educational programs, curriculum, and clinical practice. Incentives to rural health care, particularly loan repayment/forgiveness, could be endorsed as they are a important factor in future rural health practice. The video did not influence student's to consider rural health careers but may be utilized as an informational tool for students.

The implications of this project suggests that FNP and PMHNP students with significant rural experiences, families living in rural locations, and those without children and/or significant others may be more likely to work in rural areas. These individuals could be targeted for educational programs and recruitment purposes concerning rural health.

Summary

The health care provider shortage has been a national concern over the last decade (Chamberlain, 2011; Crisp & Chen, 2014; Ross, 2013). Unfortunately, this shortage is considerably more evident in rural areas where access to care is limited and the burden on existing resources is overloaded (Brewer, Goble, & Guy, 2011). Attracting and retaining providers to rural locations is now at the forefront of health care concerns, particularly in Oregon.

NPs have the potential to alleviate the shortage of rural healthcare providers (Larson et al., 2016; Office of Oregon Health and Policy Research, 2014; Vleet & Paradise, 2015). Research is limited regarding APRN student perceptions on rural health practice however, it has been suggested that interest in rural health care may be impacted by childhood experiences and graduate studies. Promoting rural health through the

introduction of the positive aspects of rural living, maintaining an adequate distribution of loan repayment/forgiveness awards, and fostering interest through educational programs may influence a greater number of APRN students to pursue a career in rural locations.

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Appendix A

APRN Student Perceptions on Rural Health: Gaining Interest in Rural Health Care Survey Questions

Gender:
Female
Male
Other _____

Age group:
20-24
25-29
30-34
35-40
40 and above

Specialty:
NP
PMHNP

Year in school:
1
2
DNP

Years of RN experience:
1-5
5-10
15-20
20 or more

RN specialty:
Medical-Surgical
Emergency
Surgical/PACU
ICU
Telemetry
Labor and Delivery
Outpatient
Other _____

Choose the definition that best defines where you spent that majority of your childhood:
Urban

Rural
I don't know
Other _____

Choose the definition that best defines your current living situation:
Urban
Rural
I don't know
Other _____

Which specialty do you plan to pursue a career in?
Family Medicine
Internal Medicine
Pediatric
Geriatric
Psychiatry/Mental Health
Other _____

What setting do you plan to work in? (Choose all that apply)
Private practice
School based health center
Federally Qualified Health center (FQHC)
Rural clinic
Hospital inpatient
Public health
Other: _____

Have you considered employment in rural health?
Yes
No
Not sure

Did you or do you expect to have rural clinical placements?
Yes
No
Not sure

How many miles are you willing to work from your current place of residence?
Within 25 miles
25-50
50-100
100 or more

What has influenced your interest in rural health care? (Choose all that apply)

Loan repayment
Tax credit
Location
Lifestyle
Level of autonomy
Cost of living
Place of birth
Community involvement
Other _____

What barriers have prevented your interest in rural health care? (Choose all that apply)
Location
Lack of specialty care
Lack of resources
Distance from family/friends
Lifestyle
Proximity to urban areas (shopping centers, entertainment, restaurants, etc.)
Geographic isolation
Salary/income
Lack of anonymity
Other _____

How would practicing in rural health care negatively impact your immediate family?
Career opportunities for significant other
Relocating children into another school
Lack of entertainment
Housing
Transportation
Distance from family
Geographic isolation
Other _____

How would practicing in rural health care positively impact your immediate family?
Community involvement
Career opportunities for significant other
Lifestyle
Schooling opportunity for children
Reduced cost of living
Closer proximity to family
Other _____

Are you currently enrolled in a loan repayment program?
Yes
No
Not sure

Are you currently enrolled in OHSU's Rural Track Program?
Yes
No
Not sure

If rural health care is your interest, how long to do you plan to practice in rural health?
1-2 years
2-5 years
5-10
15 or more
Not my interest

What is the likelihood you will practice rural health in the future?
1 No Interest
2 Little Interest
3 Some Interest
4 Moderate Interest
5 Considerable Interest

After viewing the video…
What is the likelihood you will practice rural health in the future?
1 No Interest
2 Little Interest
3 Some Interest
4 Moderate Interest
5 Considerable Interest

Do you have any other comments related to rural health that you would like to share?
Comments _____

Appendix B

Survey Results

Table 2: Student Totals

	Family Nurse Practitioner (FNP)	Certified Nurse Midwife (CNM)	Psychiatric Mental Health Nurse Practitioner (PMHNP)	Pediatric Nurse Practitioner (PNP)	Other
Total number of students	**38**	**32**	**23**	**7**	**?**
Total number of respondents per specialty	**13**	**0**	**6**	**0**	**0**

Table 4: Student Responses

Years of RN experience:		Childhood location:	
1-5	68.4% (13)	Urban	35.3% (6)
6-10	26.3% (5)	Rural	64.7% (11)
11-20	5.3% (1)	Other	3
21 or more	0	Current living situation:	
Considered employment in rural health:		Urban	75% (15)

Yes	85% (17)	Rural	25% (5)
No	5% (1)	Rural clinical placement:	
Not sure	10% (2)	Yes	65% (13)
Willing to relocate for a job:		No	35% (7)
Yes	65% (13)	Not sure	0
No	25% (5)	Currently enrolled in OHSU Rural Health Track:	
Not sure	10% (2)	Yes	47.4% (9)
How long do you plan to practice in rural health:		No	52.6% (10)
1-2 years	5.5% (1)	Likelihood of rural clinical practice:	
3-5 years	10.5% (2)	No interest	0
6-10 years	10.5% (2)	Little interest	5.3% (1)
16 or more	47.4% (9)	Some interest	31.6% (6)
Not my interest	26.3% (5)	Moderate interest	10.5% (2)
Did the video influence interest in rural health:		Considerable interest	52.6% (10)
Not at all	15.8% (3)		
Little	36.8% (7)		
Somewhat	31.6% (6)		
Moderate	15.8% (3)		
Considerable	0		

Appendix C

Perceived Advantages and Disadvantages Families Living Rurally

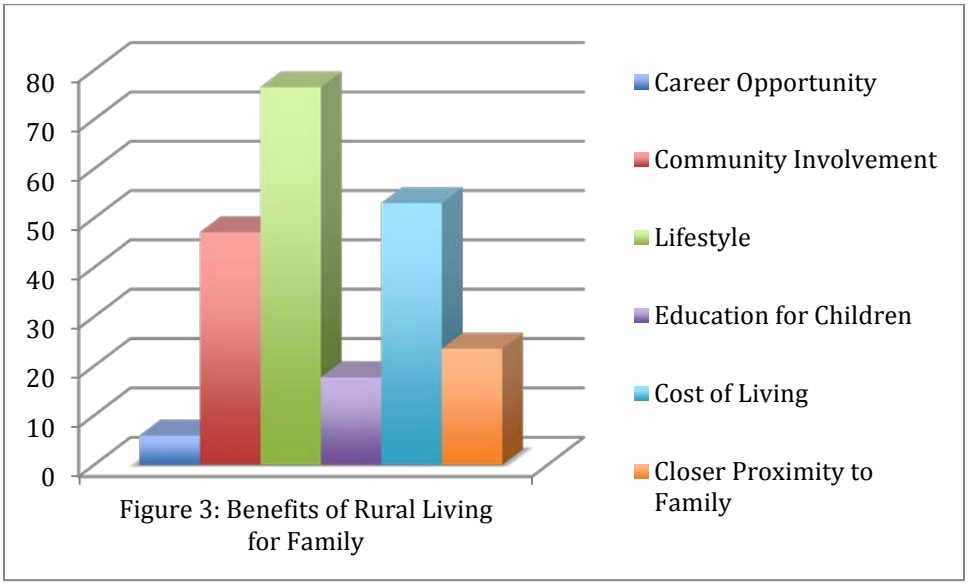

Figure 3: Benefits of Rural Living for Family

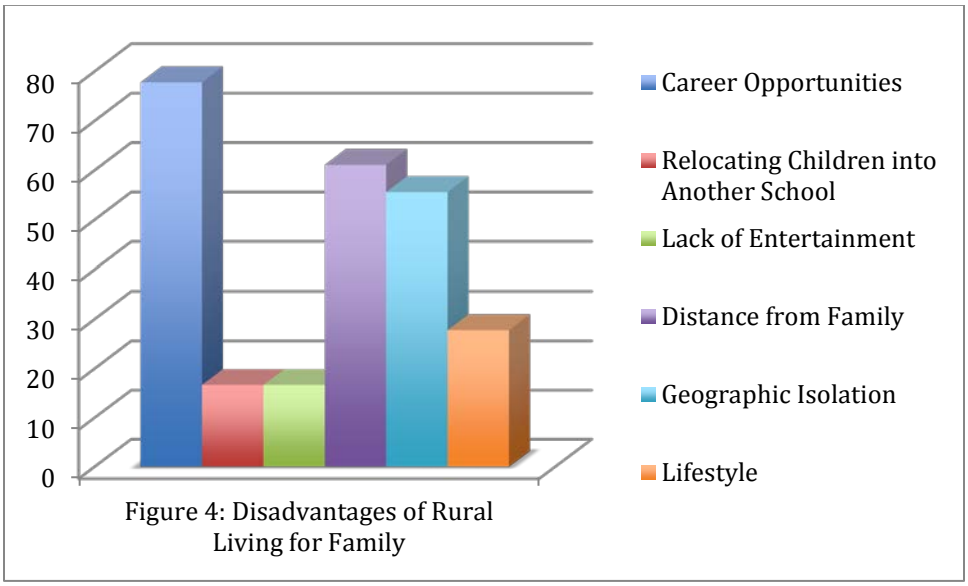

Figure 4: Disadvantages of Rural Living for Family