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# **Where to Live and Work? Examining the Influence Of job and Community Characteristics On Post-graduation Plans among Physician Assistant Students**

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## **Abstract**

Physician assistants are one way to address the healthcare provider shortage in rural areas. However, recruitment and retention of physician assistants to live and work in rural communities remain a challenge. One's relationship to his or her hometown, be it rural or not, has important implications for who might be willing to live and work in a rural community. The purpose of this research was to examine factors influencing physician assistant students' desire to return to their hometowns to live and work after graduation. Data were collected in 2016 and 2017 through a survey administered to physician assistant students ( $n=149$ ) in a PA program at a Midwestern University. Survey questions examined hometown connections, community features, and job expectations, as well as desire to return to one's hometown. Students who grew up in rural communities reported lower levels of community satisfaction and were less likely to perceive that jobs were available in their hometowns. A series of regression models were run to examine the impact of hometown connections, community characteristics and evaluation, and job characteristics in predicting interest in returning to hometown while controlling for the effects of age and gender. Coming from a rural, suburban, or urban hometown did not significantly predict desire to return when controlling for respondents' evaluation of their hometowns. The strongest predictor of willingness to return to one's hometown was community attachment. Understanding the factors that impact physician assistant students' post-graduation plans may inform efforts to recruit and retain rural health care providers.

Keywords: Physician assistants, rural health care, community attachment, rural youth, rural outmigration, health care shortages, medical provider recruitment

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## **1.0 Introduction**

Rural communities have long faced the challenges of lack of access to healthcare and shortages of healthcare providers. Recent changes in the United States

healthcare system, such as the implementation of the Affordable Care Act, have increased this shortage (Larson, Andrilla, Morrison, Ostergard, & Glick, 2016). Since the emergence of the profession in the 1970s, Physician Assistants (PAs) have played a key role in addressing the healthcare provider shortage experienced in many underserved areas, especially rural communities, and continue to be seen as vital to addressing this shortage as they offer high quality and cost-effective care (Hooker, Cawley and Everett, 2017; National Conference of State Legislators 2016). PAs are nationally certified and state-licensed medical professionals who work with physicians to provide a team-based approach to care. PAs train under a medical framework that distinguishes them from other primary care providers, namely nursing professionals such as nurse practitioners and nurse-midwives. PAs practice and prescribe medication in all 50 states of the United States; however, each state determines specific scope of practice guidelines under which a PA works (American Academy of Physician Assistants, 2017). Since the 1970s, the number of PAs in the United States has grown significantly, with an almost 54% increase in certified PAs since 2010 (National Commission on Certification of Physician Assistants, 2018). There are approximately 123,000 certified PAs in the United States (National Commission on Certification of Physician Assistants, 2018).

Over the past three decades, the United States has experienced a decline in the proportion of PAs who are choosing to practice in rural areas from 27% in the early 1980s to less than 12% in 2013 (Cawley Lane, Smith, & Bush, 2016; Larson et al., 2016). Factors such as professional isolation, gaining acceptance and trust within communities, and a lack of medical resources make working in rural communities uniquely challenging for healthcare providers, including PAs (Henry, Hooker, & Yates, 2011). The decline in the proportion of PAs working in rural communities has also been attributed to increasing specialization within the profession because jobs in many specialty areas are not available in rural communities. The American Academy of Physician Assistants reported that between 1984 and 2013 the percentage of PAs in family–general medicine declined from 54.5% to 23% (as cited in Hooker, Cawley, & Everett, 2017, p. 107).

Much research attention has been given to understanding how to both recruit physicians to rural areas and how to keep them in these regions. This research consistently finds that the rural background of individuals is essential to residential intentions, choice of residency placement during medical school, and remaining in a rural community (Brooks, Walsh, Mardon, Lewis & Clawson, 2002; Jones, Bushnell & Humphreys, 2014; Walker, DeWitt, Pallant, & Cunningham, 2012). While medical schools and residency placements can help to foster or hinder intentions to work in rural communities through courses and residency placements, it appears that the effect of these programs interacts with individuals' past experiences of rural places, most notably whether or not an individual grew up in a rural community (Brooks et al., 2002; Jones et al., 2014; Walker et al. 2012). Similarly, research more broadly focused on rural youth migration has highlighted the importance of place attachment and community resources in the residential aspirations of youth and young adults (Foster & Main, 2018; Homan, Hedrick, Dick, & Light, 2014; McLaughlin, Shoff, & Demi, 2014).

Increasingly, strategies for addressing the rural healthcare provider shortage have included the recruitment of individuals from rural communities. Physician assistant programs are following suit with several plans, including rural recruitment in their admission processes (Henry et al., 2011; Larson et al., 2016; National Rural Health

Association, 2008). Employment of PAs in the United States is expected to grow 31% between 2018 and 2028, and the need for primary healthcare providers in rural communities is anticipated to increase (Bureau of Labor Statistics, 2019; Larson et al., 2016). However, while the literature on rural physicians is expanding, there remains little systematic research on the PA profession in general, and on recruitment and retention of physician assistants in underserved areas such as rural communities. The PA profession differs from both physicians and nurse practitioners in ways that may impact where PAs decide to live and work. For example, in the United States, PAs must work within a specified proximity to a physician. Therefore, when considering where to live and work, PAs must consider not only desired community characteristics, but also their relationship with their supervising physicians.

In addition to the lack of research on PAs, there is also little understanding of what impacts the residential aspirations of individuals, especially youth and young adults, from urban and suburban communities. It is unclear how rural residents' evaluation of and connection to their hometown compares to individuals from suburban and urban hometowns. This lack of comparison between type of hometowns results in an oversimplified discussion of the role of geographic location in recruitment and retention of healthcare providers. By comparing the desired job and community characteristics and evaluation and connection to one's hometown among individuals from urban, suburban, and rural communities, researchers can better understand the mechanisms by which one's hometown influences migration intention.

Furthermore, understanding who stays and who leaves among students from rural, urban, and suburban settings is essential for addressing the needs of the PA profession, communities, and individuals. For example, there are underserved communities in urban areas, and PAs play a crucial role in meeting healthcare needs in these communities (Henry & Hooker, 2014). One's relationship to his or her hometown, be it rural or not, has important implications for who might be willing to live and work in a rural community. What matters more, 'going home' or the characteristics of one's future job and desired community? Furthermore, for whom does 'going home' matter most and why? In this study we compare hometown connections, community characteristics and evaluation, and desired job characteristics among PA students who identify their hometowns as either rural—farm, countryside, or town less than 10,000 people—a suburb, or a city.

### ***1.1 Stayers, Leavers and Returners***

Factors impacting who stays in their hometowns and who leaves are complex and include both individual agency and push and pull from local environments (Foster & Main, 2018). Reasons for leaving have been attributed to structural factors such as lack of education, employment, and occupational opportunities, as well as individual factors such as wanting to establish independence and a desire for change (Brooks, Lee, Berry, & Toney, 2010; Cicognani, Menezes, & Nata, 2011; Foster & Main, 2018; Homan et al., 2014; Pretty, Bramston, Patrick, & Pannach, 2006). While job availability is a key factor, research suggests that variables such as community and place attachment and place identity may also influence location preferences, especially among rural youth and young adults (Demi, McLaughlin, & Snyder, 2009; Eacott & Sonn, 2006; McLaughlin et al., 2014).

Another important yet often overlooked group in the discussion of rural outmigration is returners. We push the stayer-leaver dichotomy by focusing on returners. Petrin, Schafft, and Meece (2014) found that inhabitants of rural communities saw youth

leaving their hometown community as positive and necessary for community revitalization. The community members were confident that many rural youth who left would eventually return to their hometowns. Petrin et al. (2014) argued that ‘high achievers’ leaving rural communities do not automatically result in a brain drain, but rather the brain drain occurs when these high achievers fail to return home. Foster and Main (2018), after an extensive review of literature on the outmigration of rural young adults, recommended that efforts to revitalize rural communities and slow the rural brain drain need to focus on rural returners. Rural returners are both a substantial proportion of the people that migrate to rural areas, and bring higher qualifications and incomes (Foster & Main, 2018; von Riechert, Cromartie, & Arthun, 2011).

This study focuses on who desires to return home and extends the literature by contending that urban and suburban returners are as crucial to understanding the rural healthcare provider shortage as rural returners. The relative importance of individual, community, and job characteristics on PA students' desire to return to their hometowns is examined.

### ***1.2 Hometown Connections and Residential Aspirations***

University students are particularly relevant to the staying, leaving, and returning discussion with a growing body of literature examining ‘student geographies’ (Holton & Riley, 2013). Geographic mobility is common among young adults and can be an essential component of identity formation as youth transition to adulthood (Cicognani et al., 2011). Additionally, motivations for moving appear to differ based on age and stage of life (Fiore et al., 2015).

Research consistently finds that connections to one's hometown are essential in understanding where young adults decide to live both immediately after high school and after college (Cicognani et al., 2011; Foster & Main, 2018). Many recent studies show that community attachment and place identity significantly affect location preference among rural young adults (Demi et al., 2009; Eacott & Sonn, 2006; Ulrich-Schad, Henly, & Stafford, 2013). Furthermore, length of residence and social and organizational ties consistently predict the level of attachment to one's community, in addition to being valuable in understanding migration intentions (Foster & Main, 2018; McLaughlin et al., 2014; Pedersen, 2018).

While economic conditions and the ability to find a job are important in migration decisions among young adults, community attachment and satisfaction, as well as the quality of life features such as availability of good schools and natural amenities, are also significant. For example, Ulrich-Schad et al. (2013) found that community attachment was a key predictor of rural migration even during an economic recession, regardless of individual and place characteristics and when controlling for perceptions of community-level problems.

### ***1.3 Desired Community and Job Characteristics***

Traditional push–pull models place a heavy emphasis on economic drivers of migration, especially among rural youth. Job availability within one's hometown is an important predictor of both staying and returning to one's hometown (Brooks et al., 2010). Petrin et al. found that “the factors that most strongly differentiate Leavers from Stayers are student perceptions of economic opportunity and residence” (2014, p. 322). It is not necessarily the availability of jobs, but perceived availability of jobs that matter to youth considering staying or returning to a community. McLaughlin et al.

(2014) found that while perceived job availability was a concern, it was not merely the perception of jobs in general, but rather the jobs that rural youth desired that was a predictor of residential aspirations among rural youth. This is an especially relevant point when considering physician assistants. While the healthcare provider shortage in rural communities suggests that lack of jobs in rural communities is not an issue for graduates of PA programs, increasing specialization among PAs may mean that finding one's desired career in a rural community is challenging. Those who prefer a more specialized area such as dermatology or orthopedics may perceive job opportunities to be limited in rural communities. Thus, the area of specialization and desire to work in general practice are two job characteristics that may predict the likelihood to return to one's hometown.

However, there are several community features other than employment opportunities that are important to young adults, especially college graduates who are deciding where to live and work after graduation. For example, Fiore et al. (2015) found that from an extensive list of community features, graduating seniors from Iowa's three state universities rated the cost of living and strength of the local economy to be of primary importance. However, they also found that quality of life features such as a safe living environment and access to consumer goods and services were important. Similarly, McLaughlin et al. (2014) found that natural environment and outdoor recreation are significant predictors of residential aspirations.

Beyond specific community characteristics, rural, urban, and suburban young adults may have different motivations for staying, leaving, and returning to their hometowns. For example, community satisfaction, attachment, and quality of life have been correlated with migration intentions for both urban and rural residents. However, rural inhabitants were more likely to report dissatisfaction with their communities than their urban counterparts, yet more likely to express attachment (Cicognani et al., 2011; Foster & Main, 2018).

## **2.0 Focus of the Study**

This study contributes to the existing literature on residential aspirations in several ways. First, there is a focus on returners rather than stayers or leavers, which are both an essential and relatively less studied group (Foster & Main, 2018). Second, rural, suburban, and urban young adults are compared. PAs are used as a case example, which is valuable because they are highly qualified, have employment possibilities in many communities where other employment opportunities are limited, and are even provided economic incentives to return to underserved, primarily rural, communities. Finally, the study attends to Foster and Main's (2018) call for research that examines ways that factors at various levels (i.e., individual and structural) motivate residential aspirations.

The purpose of this research is to examine factors influencing PA students' desire to return to their hometowns to live and work after graduation. We consider the following research questions:

- Does the desire to return to one's hometown differ by type of hometown community (i.e., rural, suburban, and urban)?
- Do PA students from rural, suburban, and urban communities differ in their attachment and evaluation of their hometown communities?

- Do the desired job and community characteristics differ among PA students from rural, suburban, and urban communities?
- What is the role of hometown connections, desired community characteristics and evaluation, and job characteristics in predicting interest in returning to hometown?

### **3.0 Methods**

#### **3.1 Sample**

The sample consisted of three cohorts of physician assistant students enrolled at a small liberal arts university in the Midwestern United States ( $n=149$ ). Data were collected in 2016 and 2017 through a survey administered in one of several required physician assistant courses. Two of the cohorts were in their first didactic semester ( $n=99$  response rate 96-98%), and one was in the third didactic semester ( $n=50$  response rate 100%). Didactic refers to the classroom phase of PAs' education and includes training in anatomy and physiology, pharmacology, physical diagnosis, behavioral sciences, and medical ethics. Students in this particular PA program complete three didactic semesters before starting the clinical phase, which involves rotating through a variety of clinical sites. All students in this study were in the didactic phase and did not have significant clinical experience. Additionally, the three cohorts were not significantly different demographically or on any of the outcome variables.

#### **3.2 Measures**

Survey questions examined hometown connections, community features, and job expectations, as well as desire to return to one's hometown. Exploratory factor analyses using Principal Components procedures with Varimax rotation was conducted on the community and job variables. The independent and dependent variables included in this study are described below. Within the discussion of the variables which follow, factor alphas are reported for the variables that were measured with multiple items.

*3.2.1 Dependent variable—Interest in returning home.* Interest in returning home was measured by one item, "I would like to someday return to live in my hometown." This item was measured on a five-point scale ranging from 1=strongly agree and 5=strongly disagree.

*3.2.2 Independent Variables—(a) hometown connections, (b)community attachment, (c)community characteristics and evaluation, and (d) job characteristics.* The *hometown connection variables* in the models consisted of (a) length of residence, (b) organizational ties, (c) friendship and relative ties, (d) whether either parent grew up in their hometowns, and (e) distance from hometown. Length of residence was measured in years. Organizational ties was a summed variable ranging from 0–10 and consisted of yes–no responses to questions whether they belonged to any of the following groups or organizations in their hometown: (a) religious organization; (b) 4-H, Scouts, or youth group; (c) high school sports team; (d) community sports team; (e) support group; (f) high school music, arts, or theater group; (g) community music, arts, or theater group; (h) community service organization; (i) environmental organization; or (j) political organization. Friendship ties and relative ties were examined by the proportion of close friends or relatives living in the hometown (1=none, 2=less than half, 3=half, 4=more than half, and 5=all of them). An additional

question asked participants whether parents grew up in their hometown with responses of no=0 and yes=1. Distance from hometown was measured by the question, “About how far away is your hometown from the place you live while attending classes?” with responses ranging from “I live in my hometown” to 2000 miles or more.

*Community attachment* consisted of seven items ( $\alpha = 0.86$ ) that addressed (a) feeling sad to leave, (b) feeling at home, (c) pride in hometown, (d) identification with hometown, (e) hometown as a part of one’s history, (f) sense of community, and (g) a feeling of fitting in. These items were obtained from other studies of community sentiment (Flaherty & Brown, 2010; Lekies, 2011; Sundblad & Sapp, 2011). Factor loadings ranged from 0.61 to 0.78. Responses for each question were on a 1–4 or 1–5 scale, with higher responses indicating more favorable views toward their hometowns.

*Community characteristics and evaluation.* Four variables were included for community characteristics and evaluation: (a) hometown type, (b) community satisfaction, (c) desired community characteristics and (d) perceived job availability. Hometown type was measured by the question, “How would you describe the place you most identify as your hometown?” with responses of a farm, countryside, small-town (less than 10,000 people), suburb, and city. Farm, countryside, and small-town were coded as rural. This variable was dummy coded to form two predictor variables for rural and suburban, with the city as the comparison group.

Similarly, seven items measuring community satisfaction ( $\alpha = 0.89$ ) were obtained from Sundblad & Sapp (2011) and Theodori (2001). Factor loadings ranged from 0.71 to 0.80. Items consisted of various aspects of the community: (a) medical and healthcare services, (b) local schools, (c) senior citizens’ programs, (d) youth programs, (e) local shopping, (f) physical appearance, and (g) recreation facilities and programs. Responses for each question were on a 1–5 scale, with higher responses indicating more positive ratings.

Desired community characteristics ( $\alpha = 0.65$ ) were derived from Petrin, Farmer, Meece, & Byun (2011) and consisted of five questions that examined the importance of having a safe place to raise children, having friends nearby, feeling part of a community, the availability of good schools and libraries, and affordability. The items were summed to form one variable. Responses for each question were on a 1–5 scale, ranging from 1=not at all important to 5=very important. Factor loadings ranged from 0.45 to 0.76.

Perceived job availability was measured by one question, “There are good jobs in my hometown for people like me.” Responses were on a 1–5 scale, ranging from 1=strongly disagree to 5=strongly agree.

Job characteristic variables consisted of interest in general practice and desired job characteristics. Students were asked to rank up to five areas of specialization in which they had an interest. Those who indicated internal medicine, family medicine, or public health were defined as having an interest in general practice and coded as one and those who did not were coded as 0.

Desired job characteristics ( $\alpha=0.81$ ) consisted of six questions that examined (a) the importance of the relationship with supervising physician, (b) autonomy in practice, (c) support from the community in which one practices, (d) income earning potential, (e) ability to work in the desired specialty, and (f) work schedule. Responses were on a 1–5 scale, with 1=not at all important to 5=very important. The scale was



developed for this study and based on a discussion with PA faculty. Factor loadings ranged from 0.69 to 0.78.

Additionally, age and gender were included in the models as control variables. Sex was coded 0=male and 1=female. Age was measured in years.

### **3.3 Ethics Approval**

Information explaining the study and indicating that participation was voluntarily accompanied each survey. Institutional Review Board approval was obtained before data collection.

## **4.0 Results**

### **4.1 Study Participants and Descriptive Statistics**

Of the sample, 69% were female, and 93% were Caucasian. Approximately 3% identified as Asian and 1% as Hispanic or Latino. The average age was 24.61 years ( $SD=3.51$ ), and 76% were single–never married. Almost half (48%) reported they were from suburban areas, one-third (33%) were from rural areas, and the remainder (19%) were from urban areas. They indicated living in their communities for an average of 17.92 years ( $SD=5.62$ ). The sample is similar to the demographic characteristics of PA students in the United States, which are 75.2% female, a mean age 25.7, 86.8% white, and 39.7% having lived in a rural area (Physician Assistant Education Association, 2018).

Many participants lived near their hometowns, with 37% reporting that they lived within 100 miles and 69% within 200 miles. Forty-one percent indicated an interest in internal medicine, family medicine, or public health as one of their top five areas of specialization. Overall, participants reported moderately high levels of community attachment and satisfaction. They were ambivalent about good job opportunities in their hometowns and whether they would like to return home to live someday. Community attachment and satisfaction were moderately correlated ( $r = 0.45$ ). See Table 1 for a summary of variable included in the analyses.

### **4.2 Differences by Rural, Suburban, and Urban**

One-way analysis of variance indicated a statistically significant difference,  $F(2, 145) = 5.04, p < .01$  in desire to return to one's hometown based on the type of community where one grew up. Tukey post-hoc comparisons indicated that those who grew up in urban areas expressed a stronger interest in returning home ( $M=3.57, SD=1.22$ ) than did those from rural areas ( $M=2.73, SD=1.09$ ), but not suburban communities ( $M=3.17, SD=1.15$ ).

Additional one-way analysis of variance analyses indicated statistically significant differences for community satisfaction  $F(2, 144) = 16.89, p < .001$  based on where one grew up. Students from rural communities reported lower levels of community satisfaction ( $M=24.33, SD=5.80$ ) than those from suburban ( $M=29.53, SD=3.80$ ) and urban ( $M=27.57, SD=5.26$ ). Similarly, students from suburban ( $M=3.82, SD=1.03$ ) and urban communities ( $M=4.11, SD=0.75$ ) were more likely than students from rural communities ( $M=2.76, SD=1.32$ ) to say there were jobs available for people like them in their hometowns  $F(2,145) = 18.75, p < .001$  Tukey post-hoc comparisons indicated that those who grew up in urban and suburban areas indicated higher levels of community satisfaction and perceptions of available jobs than did those from rural areas. Feelings of community attachment, desired community characteristics, and desired job characteristics were not significantly different.

Table 1. *Descriptive Statistics for Variables in the Analysis*

Variable	Range	Mean or Percentage	Standard Deviation
<i>Sociodemographic</i>			
Age	21–42	24.61	3.51
Sex			
Male %		31	
Female %		69	
<i>Hometown connections</i>			
Length of residence	3–42	17.92	5.62
Organizational ties	0–10	3.38	1.38
Friendship ties	1–5	2.78	1.01
Relative ties	1–5	2.89	1.13
Parents grew up in the community			
Yes %		42	
No %		58	
Distance from hometown			
50 miles or less %		23	
50–99 miles		14	
100–199 miles %		31	
200–499 miles %		17	
500–999 miles %		9	
1000–1999 miles %		4	
2000 miles or more		1	
Community attachment	7–34	27.64	4.74
<i>Community characteristics and evaluation</i>			
Hometown type			
Rural %		33	
Suburban %		48	
Urban %		19	
Community satisfaction	7–35	27.35	5.36
Desired community characteristics	5–25	21.73	2.27
Perceived job availability	1–5	3.53	1.22
<i>Job characteristics</i>			
Interest in general practice %		41	
Desired job characteristics	6–30	26.66	2.88
<i>Interest in returning to hometown</i>	1–5	3.08	1.18

### 4.3 Predicting return to hometown.

A series of regression models were run using SPSS v. 25 to examine the impacts of the variables of interest in returning home. The first model examined hometown connection variables. The second model consisted of community characteristic and evaluation variables, followed by the third model that examined the impact of job characteristics.

Model 1, community connections, significantly predicted interest in returning home,  $F(9, 123), 13.81, p < .001$ .  $R^2$  for the model was 0.50, and the adjusted  $R^2$  was 0.47. Variables in this model included (a) the length of residence; (b) organizational, friendship, and relative ties; (c) whether parents grew up in the hometown; (d) distance from hometown; and (e) community attachment. A significant relationship was found for community attachment ( $\beta = 0.66, p < .001$ ). Those who had higher levels of community attachment expressed higher levels of interest in returning home.

Model 2 examined community characteristics and evaluation and included the variables of (a) hometown type, (b) community satisfaction, (c) community characteristics, and (d) perceived job availability. This model was significant,  $F(7, 133) = 8.73, p < .001$ .  $R^2$  for the model was 0.32, and the adjusted  $R^2$  was 0.28. Significant relationships were found for community satisfaction ( $\beta = 0.21, p < .05$ ) and perceived job availability ( $\beta = 0.21, p < .001$ ). Those who expressed higher levels of satisfaction and perceived job availability indicated higher levels of interest in returning home.

Model 3 examined job characteristics and included an interest in general practice and desired job characteristics. It was not significant,  $F(4, 139) = 0.23, p > .05$ . None of the variables were significant in predicting interest in returning home. Refer to Table 2.

## 5.0 Discussion

Students from rural areas reported lower levels of community satisfaction and perceived less job availability in their hometowns compared to students from urban and suburban areas. However, regression analyses indicated that coming from a rural, suburban, or urban hometown does not significantly predict desire to return when controlling for respondents' evaluation of their hometowns. This suggests that it is not necessarily rurality that deters students from returning to their hometowns, but rather perceptions of their rural hometown communities. This also highlights the importance of understanding the specific features of some rural communities that cause students to have lower levels of community satisfaction.

Given that many rural areas need healthcare providers (National Conference of State Legislators, 2016), it is surprising that students from rural areas were more likely to report that there are no jobs available for people like them in their hometowns. This potential disconnect between the availability of jobs and perceived availability may be due to students' desire for employment in areas of specialization or in types of practices that are not found in rural communities. However, it might also be due to a lack of awareness of job opportunities in rural communities.

The strongest predictor of desire to return to one's hometown was community attachment. While past research has demonstrated that community attachment is an essential predictor of migration intention among rural residents and residential aspirations (Demi et al., 2009; Eacott & Sonn, 2006; Ulrich-Schad et al., 2013), especially among rural youth, these findings indicate that community attachment is vital for individuals from suburban and urban communities as well. Interestingly,

job characteristics and community characteristics did not significantly predict respondents' desire to return to their hometowns.

Table 2. *Regression Analysis Results for Interest in Returning to Hometown*

Variable	Hometown Connections			Community Characteristics			Job Characteristics		
	B	SE B	B	B	SE B	β	B	SE B	β
Age	0.01	0.03	0.02	-0.04	0.03	-0.12	-0.01	0.03	-.02
Gender	0.06	0.17	0.02	-0.01	0.19	-0.01	-0.04	0.22	.02
Length of residence	0.00	0.02	.00						
Organizational ties	0.03	0.06	.03						
Friendship ties	0.11	0.08	.09						
Relative ties	0.08	0.08	.03						
Parents	-0.33	0.19	-.14						
Distance	-0.06	0.05	-.07						
Community attachment	0.16	0.02	.66***						
Rural				-0.30	0.27	-.12			
Suburban				-0.44	0.24	-.19			
Community satisfaction				0.05	0.02	.21*			
Community characteristics				0.06	0.04	.11			
Perceived job availability				0.35	0.09	.36***			
General practice							0.18	0.2	.08
Job characteristics							0.02	0.03	.01
R <sup>2</sup>			.50			.32			.01
Adj R <sup>2</sup>			.47			.28			
F			13.81***			8.73***			.23

\*p < .05, \*\*p.01, \*\*\*p<.001

The importance of community attachment in predicting PA students' desire to return to their hometowns suggests that education programs, state and federal policies designed to address recruitment and retention of PAs to rural areas, and local leaders must consider how to foster community attachment in underserved communities and how to create community environments conducive to the attachments. Providing economic incentives to work in rural communities will remain limited at best if they fail to consider who is most likely to want to stay in a rural area. If rural students are recruited to PA programs, but these same programs fail to keep young adults connected to their hometown communities, the findings of this study suggest that it is less likely that these recruits will return to their hometowns.

Programs that recruit rural students should create intentional avenues to keep those recruits connected to their hometown communities. Additionally, placements at clinic sites in rural communities should provide opportunities for PAs to engage with the community in which they are practicing more fully. Community involvement should not be viewed as an optional part of the clinical experience, especially for students placed in rural communities. Instead, PA programs and local medical facilities should consider ways to integrate community involvement such as invitations to medical board and committee meetings or participation in civic organizations as an intentional element of the program. Such a program might include specific learning outcomes that focus on creating belonging and connection to communities. It might also involve connecting students to medical facilities in their hometowns in ways that were not available when the students first left home. Although organizational ties while growing up were not significant in predicting interest in returning home, organizational ties developed as an adult and in a professional capacity may be more impactful in creating feelings of attachment and interest in remaining in the community (Cicognani et al., 2011; Foster & Main, 2018).

### ***5.1 Limitations and Future Research***

This pilot study had several limitations. First, the sample was limited. Respondents were from one PA program and may not be representative of all PA students in terms of career goals and interests. Additionally, all of the students in the study were in their didactic or classroom-based portion of their program and did not have significant clinical experience at this point. As they enter clinical settings, their interests may change or be further refined. Clinical experience may also expand their understanding of employment opportunities. Next, 69% of respondents lived within 200 miles of their hometown, which may mean that these students were already reluctant to move too far away from their hometowns and may be more attached than the general PA student.

These findings highlight the need for additional research. First, community characteristics were measured based on how students rated the level of importance of particular items; however, it would also be useful to examine structural factors of communities such as median income, level of education, or unemployment rates within communities. Additionally, students self-identified their hometown as rural, urban, or suburban. Students' perceptions of rural might not match official classifications.

Second, past research shows that the value one places on family and the importance of one's family in decision making are essential in understanding individuals' residential aspirations (Homan et al., 2014). For example, Frieze, Hansen, and Boneva (2006) found that family centrality was a critical difference between college

students that wanted to stay in their hometowns and those who wanted to leave. A more recent study of rural stayers found that ‘contented stayers’ valued being close to family (Morse & Mudgett, 2018). However, family centrality was not measured. Future research should include this variable.

Third, the study does not predict community attachment. While the results demonstrate that community attachment is vital in the understanding desire to return to hometown, it is unclear what causes some students to be more attached than others. It may be that the dynamics of community attachment differ among young adults compared to older adult populations examined in other studies (Flaherty & Brown, 2010; Sunblad & Sapp, 2011; Theodori, 2001). There is a need to understand more about how community attachment changes over the lifespan, and especially in young adulthood, as people move away for education. To better understand community attachment, as well as the desire to return to one's hometown, researchers should consider a lifespan approach.

Additionally, future research should include past and present experiences in the hometown community beyond community satisfaction and organizational ties. Previous research suggests that how one experiences a rural community, including a sense of belonging and ‘rural culture’ influences intentions to stay (Eacott & Sonn, 2006; Pretty et al., 2006). Future research should measure experiences of the community, not only in rural communities but also in urban and suburban communities.

## **6.0 Conclusion**

By focusing on PAs from rural, suburban, and urban hometowns, this study uniquely contributes to an understanding of the residential aspirations of young adults. Rural students were compared to their classmates from suburban and urban hometowns, which provides a broader understanding of the factors that potentially motivate young adults to return to their hometowns, as well as reveals differences in how individuals evaluate their hometown communities.

The present study highlights the importance of community attachment in understanding where PA students desire to live and work after graduation. There must be a better understanding of hometown community attachment among students training to be doctors, PAs, nurses, and other healthcare professionals. Recruiting students from underserved communities, while important, is not enough to ensure that these students return to the communities from which they came. Programs that desire to deploy students to rural communities must also devote energy to fostering and maintaining community attachment.

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