

“It’s About Heart”: A Qualitative Study of Rural Family Physician Training Needs

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Dedication

To all those fighting to extend care to all people.

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Abstract

Efforts to reduce a chronic physician shortage and meet the needs of rural communities face long standing challenges such as physician recruitment and retention. While these topics have been researched at length, issues surrounding the contribution of training specifically geared toward the needs of the Southwest's rural communities are not well understood. The goal of this investigation is to discuss with rural family physicians the realities of rural practice and to determine what, if any, skills and competencies are specific to rural family practice and that, if addressed in training, would increase the number of students and residents pursuing rural family medicine and increase the number of physicians in rural areas. **Methods:** Physicians throughout rural areas in the Southwest meeting the role of thought leader were interviewed. Chain sampling was used to generate diversity of ideas. Interviews were conducted in person or by phone using a semi-structured format and a topic guide. Participants were asked to discuss what skills they feel are important to a successful practice in a rural community, the degree to which the competencies were covered in their residency training, and how having or not having these skills might affect job satisfaction and retention. Interviews were recorded and transcribed. Transcripts were analyzed by a two person committee for repeating themes. **Results:** Seven major repeating themes were evident in the data. Of these residency training type, individual resilience, comfort with lack of resources, community were some of the most common and important to participants. **Conclusion:** This study has shown that the challenges to recruitment and retention of family physicians in rural areas are many and complex. These results combined with the extensive literature studying successful recruitment and retention programs demonstrates the enormous potential that exists in a multifactorial approach to rural recruitment and retention to meet the tremendous need for more family physicians in rural areas.

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Introduction/Significance

Nationwide physician shortages, barriers to primary care services, and sky rocketing costs have tipped health care into a state of crisis¹. For rural areas many of these concerns are not new, but a worsening problem. The Southwest, a region comprised of largely rural states, faces many of these issues. The Bureau of Health Professions' and Graduate Medical Education National Advisory Committee estimated a rural physician shortage of greater than half of predicted need for the year 2000 across the US. As of 2010 the disparity in physician coverage across all specialties between urban and rural areas in Arizona was as great as 3.7 fold². Issues of medical care in rural areas of the Southwest are made increasingly complex by significantly higher rates of poverty and unemployment³. To address these issues, more rural family physicians committed to rural practice for the long term and trained to address uniquely rural challenges are seriously needed. Resultantly, there has been a substantial focus on what contributes to the choice to practice in a rural area and why providers stay. A few well recognized contributors to recruitment and retention to rural areas include procedural training and skills, the influence of personality and coping skills, and the impact of the training setting or curriculum.

It is widely accepted that the level and breadth of clinical and procedural skill demanded of practitioners in rural areas, where referral to subspecialty care is not possible or difficult, is higher than their urban counterparts. In a comprehensive review of international literature done in 2006 by Glazebrook and Harrison, reviewers found that care provided by rural general practitioners in the areas of trauma, anesthesia, full scope obstetrics, and certain types of surgery was as safe as that provided by generalists in urban centers. However, a significant number of rural physicians report being underprepared for the full spectrum care that a rural community demands⁴. This lack of adequate training initially is also reflected in a survey of training needs published in 1996 by Norris et al. Respondents cited inadequate training in community medicine and practice management, rehabilitation and behavioral health, surgical subspecialties, counseling, and surgery and trauma management⁵. Another study done in the US in 2000 by Acosta et. al. revealed that a significant number of family medicine graduates seek additional training in obstetrics and rural medicine through fellowship. More than 75% of

graduates from rural family medicine fellowships and up to 35% of graduates from obstetrics fellowships located to rural areas to practice. Nearly all obtained high risk obstetric privileges and up to 94% obtained caesarian section privileges⁶. As a part of the same 2006 literature review out of Australia, several studies abroad and in the US revealed that rural physicians report difficulty in maintaining procedural skills through continuing medical education for reasons related to lack of time and coverage to attend. This review also found that throughout Australia and Canada rural practitioners are reducing or planning to reduce the amount of procedural work that they do. This is at least in part due to new or increasing burdens that make it difficult to continue providing a certain level of procedural care⁴.

In addition to requiring a unique set of clinical and procedural skills, rural family medicine presents significant psychological and social challenges that affect physicians' personal and professional lives. Well-developed interpersonal skills, a strong sense of self, and resilience play a tremendous role in managing these difficulties and potentially reducing burnout¹. As a result these skills and attributes have garnered increasing attention from medical educators at all levels. Many of these skills are traditionally thought of as aspects of personality or character traits, colloquially referred to as "heart" or "grit", which make a person well suited to the demanding practice environment of rural areas. In a study published in 2009 by Dr. E Elay et. al., physician character and temperament was evaluated with the goal of better understanding the rural physician. In the study model, character referred to traits influenced by socio-cultural learning which evolve over time and temperament referred to automatic emotional responses that are partially inherited and less affected by sociocultural learning. In comparing rural and urban practitioners, researchers found that rural physicians more commonly had high levels of novelty seeking – they tended to be more exploratory, impulsive, and extravagant - and low levels of harm avoidance – they displayed less pessimism, fearfulness, shyness; both of which are dimensions of temperament. It was also suggested that self-directedness is a critical character element in rural physicians⁷. One study published in 2015 by Walters et. al. exploring resilience in the Australian rural general practitioner found that most had a relatively high level of both self-reported and measured resilience, which was defined as "the ability to rebound from adversity and overcome difficult circumstances". The

study also outlined four specific themes – clinical caution vs. clinical courage, flexibility vs. persistence, reflective practice vs. task focused practice, and personal connection vs. professional commitment – which exist in rural practice. Participants reported that these tensions are best managed with resilience, self-reflection, metacognition, and an optimistic attitude⁸. A workshop comprised of various learners and teachers interested in rural medicine described in 2010 by Longenecker et. al. revealed four similar themes surrounding resilience and rural medicine. These include hardship as an opportunity for growth, teamwork and community as central to resilience, valuing adaptability over hardiness, and a focus on a lifelong learning approach to practice. These themes simultaneously suggest challenges inherent in rural practice and strategies on how best to handle them. They include many aspects central to the traits and characteristics of rural practitioners described by Elay et. al. and the coping mechanisms reported in the Walters et. al study^{7,9}. Additionally, each study considers how best to optimize these traits either through individual selection or various training methodologies so as to effectively recruit and retain more rural physicians.

Another major contributor to the decision to practice in a rural area is familiarity with the realities of rural practice and rural living. There are several studies examining the impact of programs focused on providing exposure to rural medicine at different stages of training. Much of that attention is focused on exposure during medical school. One such study completed at Jefferson Medical College over a span of 22 years, evaluated the impact of a Physician Shortage Area Program (PSAP) on the rural physician work force in Pennsylvania. The program was designed to recruit and selectively admit students to medical school from rural areas who intend to practice family medicine in a rural or underserved area. Additionally, the program includes a curriculum centered on experiences in rural areas throughout training and mentorship by a family physician faculty. Graduates are expected, though not required, to complete a family medicine residency and go on to practice in a rural or underserved area. This study found that 34% of PSAP participants went on to practice in rural areas compared to 11% of graduates not participating in the program. Additionally, 52% of participants went into family medicine and 21% went on to both specialize in family medicine and work in a rural area as compared to 13% and 2% among non PSAP students respectively. Graduates of this program

have a 7 to 10 times greater likelihood of going on to practice family medicine in a rural area than graduates not enrolled in the program¹⁰. A study at University of Minnesota–Duluth published in 2010 was designed to evaluate the effects of both a rural recruitment program and a longitudinal rural placement program on the turnout of rural family physicians. Fifty-four percent of the students participating in both programs elected to practice rurally. Individually each program resulted in 25% of its participants becoming rural practitioners and both programs seemed to recruit a greater number of students from metropolitan areas into rural practice¹¹. Another study done in 2012 used qualitative methods to evaluate the influence of placing a medical student in a rural area over the course of training on the student’s attitudes towards rural practice. Results indicated that the complex set of skills, both technical and personal, required to successfully work in a rural area were well supported through the program’s “immersive clinical and social experience”. The study further elaborated the importance of various personal factors to participant attitudes as well as barriers to entering rural practice¹².

Beyond medical school residency programs have been shown to be an opportunity to provide rural exposure. In a review published by Rosenthal in 2000, 13 one plus two training programs or those in which trainees spend one year at a major teaching center and the subsequent two years in a rural area were evaluated. This review showed that 76% of two plus one graduates practiced in a rural area and 69% went on to admit to hospitals in rural areas. Further, 30% of respondents returned to their home town and slightly less than half remained within the catchment area of their training hospital¹³. The data also demonstrated an inverse relationship between stated intention to practice in a rural area and the size of the town in which the training site was located. Seventy-six percent of graduates of the rural training track stated an intent to practice rurally while only 18 percent of those in mid-sized urban centers reported the same intent. Another study by Bowman et. al. published in 1998 evaluating the characteristics of different family medicine residency programs and the resulting impact on number of graduates going on to practice in rural areas supports the importance of residency location. He reports that as many as 31.5% of rural physicians have taken a required rural rotation in residency and 59.5% had taken a rural clerkship in medical school. The study found

that programs that were located in rural states produced more rural physicians. A full rural mission and a program director experienced in rural practice also proved to have a significant influence over the number of graduates locating to rural areas¹⁴. Further strengthening the case for the location of medical school and residency training and the larger impact of experience in a rural area as central to choosing rural practice.

The influences affecting the decision to practice in a rural area studied in the literature are varied regionally and over many years. There remains a shortage of current, generalizable literature examining the skills required to reach mastery in rural clinical practice. The role of psychosocial factors such as resilience and personality traits in the decision to practice in a rural area is receiving more attention than ever. However, the generalizability of existing literature across diverse training and health systems is unclear. Further, how to best integrate the many disciplines required to address the complex challenges faced in rural practice into medical education in a comprehensive way remains an area open for further investigation. We hypothesize that there are challenges unique to rural practice in the Southwest United States that are insufficiently addressed during residency training. Our goal is to better understand what these aspects of practice are, uncover potential solutions as determined by those practicing in rural areas, and generate discussion on how these elements may be addressed in medical training to improve satisfaction and long term retention of rural family physicians.

Methods

We consented thought leaders in the rural family physician community, specifically educators and preceptors of upcoming rural family physicians, for informal interviews about the training needs of rural family physicians. We utilized chain sampling – requesting recommendations from interviewees for other potential participants – until we reached saturation defined as lack of appearance of new themes¹⁵. We targeted a broad geographic area in order to capture the potential variation in practice challenges and opinions throughout Arizona and New Mexico. Interviews were conducted by phone or face-to-face, when possible, using a semi-structured format and a peer reviewed topic guide. The topic guide was comprised of open-ended questions designed to avoid suggestion and reduce bias. It addressed the participant’s perception of the challenges of rural practice, his or her individual training setting and level of preparedness for rural practice, and his or her perception of the most significant contributors to physician retention. Pilot interviews were conducted to assess the topic guide and refine interviewing methods^{16,17}. The guide was reviewed periodically to address recurrent themes not previously included and to hone the discussion to recurring themes. Interviews ranged in length from 24 to 53 minutes. They were digitally recorded and transcribed in their entirety. They were then analyzed for themes by two reviewers. On first pass all interviews were read through and each reviewer developed possible themes encompassing recurring ideas central to the challenges and joys of rural practice, training needs, and recruitment and retention of family doctors in rural areas. Descriptions for each of these themes were written with a special effort to include the breadth of concepts and sometimes opposing tensions that existed within each of them. All interviews were re-read and statements falling under each theme were identified and categorized.

Results

A total of 13 participants were consented and interviewed. Two interviews were not used related to technical failure. Of the 11 remaining participants, four were women. The mean number of years spent in practice in a rural setting was 18 years and the range was 8 to 38 years. All providers practiced exclusively in a rural setting throughout their careers. A majority of participants trained in urban areas with approximately one third at multi-residency programs and one third at solo residency programs. The remaining approximate third of participants trained in either a rural setting or within a rural track.

Seven themes emerged from the data describing the challenges and benefits of working in a rural community, the approach and training needed to find balance between the two, and factors that contribute to recruitment and retention above and beyond training needs.

Table 1: Participant Demographics

Demographic		Participants
Gender	Female	4
	Male	7
Years in Practice	Mean	18
	Range	8-38
Years in Rural Practice	Mean	18
	Range	8-38
Type of Training	Urban – solo residency	4
	Urban – multi-residency	4
	Urban - rural track	2
	Rural	1

Table 2: Theme Descriptions

Theme	Description
Family	<ul style="list-style-type: none"> - The physician's ability to meet a spouse - Factors affecting family members including available education, child care options, job opportunities, distance to amenities such as shopping, distance from extended family, family friendly environment of small town. - Getting back to one's roots.
Training Experience	Medical school or residency training setting including urban, urban with rural track, urban with rural emphasis/rural rotation/rural program, urban unopposed. The perceived value of various types of training that either helped or failed to prepare the participant.
Meaningfulness of Work	<ul style="list-style-type: none"> - The purpose that the physician derives from his/her work as a rural physician. - The sentiment that he/she is making a special contribution to the world. - A sense of responsibility to care for others in their community.
Community	<ul style="list-style-type: none"> - The experience of living in a small community where the physician is well known, easily recognized and perhaps privacy is elusive. - The experience of caring for one's close family and friends in difficult times. - The experience of filling many roles in the community.
Resilience	Imprecise descriptions of characteristics traditionally considered personality traits or dispositions such as 'heart' or 'grit'.
Comfort with Resource Poor Setting	<ul style="list-style-type: none"> - Comfort with uncertainty and ability to manage with few or alternative resources. - Acceptance of and accommodation to relatively lower level of health literacy. - Self-reliance and confidence in the face of little subspecialty support. - The ability to determine the limits of one's skills.
Procedural Skills	The need for training in specific areas including OB, critical care, trauma, and various procedures.

Theme 1: Training Setting

Training setting referred to the extent to which respondents' residency training setting taught and facilitated the practice of skills needed in rural areas. Urban training sites with other training programs at the same hospital assumed easy availability of specialty care leading to higher referral rates or competition for access to cases among other residents or fellows. Rural training sites assumed less availability of specialty care, broad spectrum practice, and exposure to the realities of rural life. As expected, there were various permutations of these features of training experience among respondents including urban programs without other training programs in house, urban programs with a rural track, and rural rotations both in residency and medical school. Most respondents reported at least one experience that emphasized broad spectrum responsibilities or took place in a rural setting. One respondent reported training in *"an unopposed program...I thought that made a big difference because there was no one else to farm out all the procedures to. And in that hospital the family practice residents ran the ICUs. They ran the OB desk and they were the only residents in the ER."* Participants also reported seeking out more firsthand experience in subspecialty areas more commonly practiced by rural physicians via moonlighting in acute care settings or intentionally involving themselves in certain rotations beyond the minimum requirements. A participant that trained in an urban setting reported that *"I don't know that I would have been adequately prepared from my residency training by itself...the rural rotations really helped...I've got to say each month that I spend in the rural setting was worth maybe three months in hospitals down there [in an urban center]. Thank goodness I moonlit at Urgent Care during my residency and I got vastly more preparation for some of that across the board."* The aspects of various training experiences that were most instructive and formative included exposure to critical care, procedures, clinical volume, breadth and degree of pathology, pushing one's boundaries, learning self-reliance, and experiencing a rural area firsthand. One participant recalls a two month rotation in a rural hospital *"where I ran a clinic and did the ER."* Which he reports was *"...very challenging – I mean it's, there were just two of us, myself and a medicine resident who was a second year, and then we, we alternated being on call. I was on call every other night. I*

can remember like maybe on a, on one weekend maybe seeing 100 people that came through the emergency room. It was very demanding.”

Theme 2: Resilience, Heart, Grit

This theme was one defined by references to character, personality, disposition, and often an undiscernible *something* that allowed people to face the unique difficulties of rural practice. One interviewee described his experience working in a rural area for many years this way, “...*The preparation to practice, that was there – that foundation – and probably after that, maybe personality characteristics that I just had, that were going to allow me to adapt, to be intrigued, and to adapt and, you know...I think, certain personalities just gel and can handle it. And can handle the stress when you’re short-staffed, or when you’re short resourced, or when you’re overburdened by patients, or just overwhelmed by the disease state, the conditions. A certain person, if they can say ‘I’m OK. And I can do this. I can come back tomorrow.’”* Another described the same sentiment by saying, “*And then the rest of it I think that it’s either you’ve got it or you don’t in terms of family dynamics and the, and the personal, I don’t know, lack of some certain brain function that makes you able to be numb to the, to the hard issues of being in a, in a [rural area].”* Another put it this way: “*And a lot of times you go home knowing that you’re going to be back at 11, 12, 1 a.m. And you have to have a certain mentality to, to thrive. I mean to exist and, and even thrive under those conditions. I think it’s about heart and I think – it’s about heart.”* A last respondent discussed the issue this way: “*I think that there are certain personality types that are going to do better in rural medicine. And I think if you’re not flexible and you’re not willing to kind of, I don’t want to say fly by the seat of your pants, but I want to say just be flexible and learn it, you know, kind of learn as you go or, if you can operate without having to know everything up front then you’re probably going to be okay.”* These respondents and others are referring generally to resilience – the ability to dampen the impact of difficulties faced in rural practice by drawing on commitment to an ideal, having a positive, optimistic attitude, or emphasizing the other benefits of life in a rural area.

Theme 3: Comfort with Resource Poor Settings

The description of resource poor that developed from the data is complex and refers to various aspects of rural practice. Most respondents cited specialty care at their hospital or nearby as a limited resource. The idea is well framed here: *“Resources are limited. The scope of services of what we can provide there and safely is limited in comparison to, say, if I was working in the city. And so, therefore, you’re always working, kind of, challenged at the limits of what you know and what you can manage.”* One respondent gave an example of adapting to this reality by developing the skills to provide a higher level of care, *“I am, I’m fearless at treating seizures. I am really good at diagnosing the high-end neurological dysfunctions, you know...We have to send those people off the mountain to get a formal neurology consult and that’s a big imposition [to the patient].”* Others cited the lack of access to certain technologies that force them to adapt and utilize different strategies in some cases. *“The availability of technology, you know. Getting someone to a CT scan....is more challenging just because of distance and transportation.”* *“You don’t necessarily always have the top-of-the-line equipment or equipment at all and you have to make do.”* Other resources can be an issue as well. *“We have one clinic...and there’s no pharmacy down there. So if we have someone who’s sick and needs antibiotics quickly, they have to travel up to an hour to Silver City just to go pick up their prescription.”*

Outside of hospital related resources there are systems based issues that test rural providers. A respondent working in private practice reported one of her biggest challenges was *“...practice management, because in rural areas, a lot of times you’re not, you know, you’re not employed by a big group or a big system. Those opportunities don’t exist in a lot of areas.”* Another described the lack of Medicaid and IHS funds and its ability to paralyze the provision of care. *“So a lot of things are being deferred. A lot of things are being put on hold until the money comes. Though, yeah, we are still acting as their advocate. We’re still trying to get stuff done, but the reality is it’s not getting done.”*

Aspects of the patient populations in rural areas also significantly affect the level of care respondents are able to provide. Several interviewees discussed the impact of social and cultural differences on the delivery and effectiveness of their care. This was particularly acute for practitioners on Native American reservations. One respondent discussed poverty: *“And then there’s a lot of, a lot of secondary things that go along with the social aspects of severe – I mean severe poverty and, and alcoholism. There’s violence. There’s, you know, I’m watching 30 and 40 year-olds die of end-stage liver disease.”* *“Education, education is an issue. Getting good schooling and good education in the rural areas for sure affects health and health outcomes.”* Another described the considerations of sending a patient to a large center, *“You know, they know us in the clinic. They know the site. They’re near home. Now I’m going to send them far away, and Tucson can be far away depending, to a specialist who may not understand their culture, may not know where they’re coming from, may speak faster or slower, may speak a different language.”*

Though these issues are diverse they limit physicians’ agency and lend a degree of uncertainty to their daily practice. Across the board respondents report some level of comfort managing this uncertainty and many have seen the consequences of an inability to do so. *“In general, the people who do well with it [uncertainty] have the confidence but humility...And then we have those who arrive and flame out because they just get so frustrated and angry with the system there.”* There were also several interviewees that framed uncertainty in terms of a willingness to assume risk on behalf of their patients. *“Treat empirically and just assume risk. That’s the other part of it. There’s a lot of assumption of risk, especially working in this kind of setting. And those who don’t do well with that don’t do well with us.”* *“...obstetrics is not for the faint of heart. And you can’t see one low, one variable on the fetal heart tracing and decide you’re going to section the patient. I mean you have to – I mean you can – some people do, but...you’re there to make your best decisions that you can and almost all the time those decisions are just fine.”*

In terms of how to cope with the difficulties of resource poor settings the reported methods are many and just as diverse as the challenges. Many respondents report that *“Adaptability is key. I think you have to be very flexible.”* Respondents reported having an understanding that they bear responsibility for a much broader scope of problems as a rural physician and internalizing that reality early on in training. *“...it’s about training them to have a comfort level with not knowing all the answers.” “You need to be trained with the thought that you’re it.” “I’ve got to have a way higher threshold before I’m sending the referral in. I make lots of referrals but my work-up is much more advanced by the time they go.”* In addition to being willing to work on the borders of their comfort, many emphasized the importance of knowing their boundaries and when to ask for help or transfer a patient. *“I’m going to manage to the point where I can’t and then I’m going to, you know, look for help or transfer...”*

Theme 4: Procedural Skills

This theme refers to the training needs that respondents reported surrounding procedures and management of various cases including obstetrics, orthopedics, psychiatric emergencies, and critical illness. Though important to respondents, it was less commonly mentioned. The majority of participants reported feeling very well prepared for family practice in a rural setting as a result of the training they received in their residency program. *“...That’s how you learned it, by doing...So we did quite a few office procedures in our residency...And I think that was really important.”* However, some reported that had they relied solely on the standard curriculum they would not have been adequately prepared technically. *“I kind of had to push extra hard, OB. Push extra hard to get those experiences and use up a bunch of extra elective time getting kind of, more of those intensive training and, and things I knew I was going to need.” “I would just elbow my way in and say I want that [training opportunity]. I’m doing that [procedure].”* In these cases they described seeking additional opportunities such as moonlighting in high acuity settings. *“For my elective I did an ER trauma...I made sure I, I got the extra ER and I moon, I did a lot of moonlighting ‘cause back then we didn’t have hour restrictions and stuff.”* While others sharpened their skills on the job, sometimes with the help of their colleagues. *“...Once I got this job, I got stronger in ortho and I think ortho has become*

really important...” “So when I came here I was able to work with, ‘cause there’s always two people at a c-section. So I was able to work with the experienced doctors that were my partners to just get those skills up.”

Only one respondent cited specific skills that she wished were included in her training: psychiatric emergencies and chronic pain management. She described the challenge of emergency psychiatric care this way: *“...It’s that emergency, that actively suicidal [patient], or somebody who is circling severe substance abuse problems, those, those issues where they’re in front of you in your office and you’re questioning ‘can I let them go or not?’, you know, and you really don’t know...It’s such a hard choice.”*

Theme 5: Closeness to the Community

Closeness to the community in which respondents worked was a recurring theme. Most participants discussed the loss of anonymity which gave way, in several cases, to a more complex notion of the joys and dangers of personal connectedness as a physician. One provider describes this exact idea: *“I took care of my 8th grade teacher and he was on hospice, my best friend’s dad, but he died of stomach cancer several years ago. That was kind of tough, but at the same time kind of rewarding. One of my best friends from middle school, I ended up having to discharge him from the practice because he was on pain meds and he was getting them from someone else too. I can’t do that. And so he ended up dying from an unintentional overdose from the pain medication. So that was, that was really hard.”* Another participant touched on the impact of constant professional availability. *“If you are a rural doctor, you’re a doctor all the time...burnout is a real, a very real phenomenon and boundaries in a place with no – boundaries have to be set and maintained by the doctor because there are no boundaries in a small town...Yeah, and so it’s a hard balance to find...You’re either being a bit of a jerk or being really accessible and getting used up. And you are very rarely in that happy zone.”*

Theme 6: Meaningfulness of Work

Respondents also reported the theme of meaningfulness of their work in a small community. *“So I remember I delivered a baby early in the morning and went and dialed in the end of life comfort meds for a grandma in the evening. The same family, same group of people in the room...and to be able to share the joy, share the grief, be a part of the family, you don’t get that in a city. You just, you’re an ever present part of people’s lives and that’s just a profound honor.”* This idea was often mixed with a sense of obligation to his or her community to provide quality medical care. *“But in a rural area it’s a little different because, I, you really are under the constant crush or demand to serve the community.”* *“...So my patients see me because they like me, ‘cause they like my kids, ‘cause they like my wife. They went to school with me. I’m related to them...Its incumbent upon me to make sure that I have, that my skill level is up to the trust level...”*

Theme 7: Family

Lastly, many respondents discussed the importance of family. This was a simple term that was used broadly to encompass diverse ideas – both benefits and difficulties – such as the challenge of finding a partner while living in a small rural community, the impact that living in a rural community has personally, professionally or academically on an existing partner or children, the limitations socially or in terms of entertainment for family, and the desire to return to one’s roots or hometown. One participant emphasized the importance of family by saying “My wife loves it or we wouldn’t be here.” He went on to say “And, and so you might find a doctor who loves it, loves it... but their spouse, their kids very often really, really want the conveniences. So, so my rough anecdotal experience is that one in five doctors that you recruit will still be there three years later.” Another participant reported that “...the biggest problem that we have is spouses. Because spouses a) can’t find a job, or b) get kind of claustrophobic from living in a rural, rural place and they want a bigger place to live, or they want to be closer to family because they’re isolated...Or they’re single and they want to get married and they can’t meet anybody in a rural place.” In terms of how this challenge is managed, participants report different methods but the common theme is preparation for spouses in addition to providers.

“Well, I think that preparing them for those realities would be helpful because then they would make better choices in terms of, or educating their own spouses or choosing their spouses accordingly.”

Discussion and Conclusion

Rural family medicine is widely recognized as a unique practice setting requiring a comparatively broad scope. In this study respondents have further detailed the realities of being a single provider or among few physicians in a community. Interviewees overwhelmingly emphasized the importance of complex psychological and interpersonal skills related to managing uncertainty and assuming clinical risk, mindsets that engender a balance between self-reliance and reaching out for help, and the importance of experiencing rural clinical practice and rural life. These results differed significantly from our expectation that isolated technical skills such as bedside procedures and familiarity with issues of practice management would be paramount on providers' list of training needs. Further, our hypothesis supposed that a provider's comfort with these aspects of practice may significantly affect their willingness to venture into resource poor settings, their job satisfaction, and resulting interest in remaining in a rural community.

The training needs that participants identified more commonly as important are not often critical objectives of clinical training, however; these skills are discussed at length in the wider body of literature on rural physician recruitment and retention^{9, 13, 18, 19}. Many of these skills are examined through the concept of resilience. Some of the most recent studies in this area are those previously discussed investigating rural physician character and temperament, the tensions of clinical caution vs clinical courage, flexibility vs persistence, reflective practice vs task focused practice, and personal connection vs professional commitment, and the development of a new curriculum to teach resilience. Equally important is the impact of rural exposure. The different interventions designed to provide this critical aspect of preparation include targeted recruitment to medical school, longitudinal rural placements during medical school, rural family medicine mentorship, and one plus two or partially rurally based family medicine residency training programs, which have all been evaluated in the literature for their impact on recruitment and retention and found to make a measurable contribution. However, it is not uncommon that the impact of a single intervention has been found insufficient to completely repair the deficit of physicians in rural areas. Given the qualitative results being reported here and their consistency with the larger body of literature that has shown the

effectiveness of different approaches to reducing rural physician shortage, it is our recommendation that a multidisciplinary approach using interventions at all levels of training be adopted.

Limitations

This study has some limitations that should be considered. Chain sampling, a method to recruit new participants by asking current participants for referrals, has the potential to skew the representativeness of our sample towards single ideas held in common by participants. Saturation, or the lack of appearance of new themes, was used as a criteria to maximize the diversity of responses and combat the risk of a chain sampling. There is also the possibility that the interview process itself could introduce the research team's or the interviewer's bias. Measures used to combat this included using a topic guide consisting of open-ended questions and limiting discussion of existing literature on rural recruitment and retention with participants. Upon analysis of the data, reviewers maintained an awareness of their preconceptions and made an effort to consider all ideas within the data including those that diverged from expectations. Lastly, it is unclear how well the findings discussed here can be generalized to other regions of the US. In an attempt to capture as much community and practice diversity as possible we conducted interviews across the state of Arizona and in New Mexico. Additionally, existing data within the literature in locations and health care training and delivery systems as distant and diverse as Australia have yielded many of the same themes²⁰.

Future Studies

This investigation revealed many areas that could benefit from further investigation. One aspect is further study of the complex psychosocial issues related to the themes that pervade rural practice. For example, better understanding of burnout and the current curricula used to combat it as it relates to retention in rural areas. The other field of inquiry left wide open by these results is outcomes based research on curricula or programs designed to address some of the challenges of rural practice. Do resilience curriculums ultimately help providers cope in rural areas? What is the impact of a well-designed mentorship program on a physician's decision to practice in a rural area? How might establishing a system for collaboration and collegial support change retention in a rural area?

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