

Choosing Primary Care: Findings from West Virginia Medical Student and Resident Focus Groups

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Purpose

Population growth, aging, and insurance expansion have increased the demand for a primary care workforce, especially in rural areas where disparities in access to primary and specialty care already exist^{1,2}. Currently, the ratio of primary care providers (general practice, geriatrics, family medicine, internal medicine, obstetrics and gynecology, and pediatrics) to specialists in West Virginia (WV), a rural state, is approximately one to one³. However, physicians are disproportionately located in more urban areas⁴. Thirty of West Virginia's 55 counties qualify as single-county Primary Care Health Professional Shortage Areas⁵. Therefore, recruitment and retention of primary care providers to underserved areas remains a priority in West Virginia⁶. The purpose of this study was to improve the understanding of how perceptions of practicing specific medical specialties contribute to career decisions. This study was part of a larger project designed to identify factors influencing medical professional career decisions to guide policies and interventions for improving recruitment and retention of primary care physicians in West Virginia.

Method

Study was reviewed and approved by the West Virginia University and Charleston Area Medical Center Institutional Review Boards.

Participants

- 27 fourth-year medical students from WV's three medical schools
- 29 medical residents in 2nd and 3rd postgraduate years from three in-state academic health center-based residency programs
- Cross-sectional sampling

Sessions

- Each session lasted 90 minutes and consisted of a written survey component and focus group format interviews
- Three separate sessions with medical students from each school were conducted between September and November 2013
- Three separate sessions with medical residents from each program were conducted between November 2014 and February 2015

Definitions

- **Rural:** A location with a population of ~20,000 inhabitants or less
- **Person-oriented specialties⁷:** Family practice, internal medicine, obstetrics and gynecology (OB/GYN), pediatrics, psychiatry, and internal medicine/pediatrics (Meds/Peds). Used as a proxy for primary care specialties
- **Technique-oriented specialties⁷:** Anesthesiology, dermatology, emergency medicine, otolaryngology, pathology, radiology, surgery, cardiology, neurology, ophthalmology, and urology. Used as a proxy for non-primary care specialties

Data Analysis

- Survey was determined by using high school as a proxy for hometown⁴
- Survey results were tabulated and presented as percentage of respondents where appropriate
- Chi-square analyses were used to compare student and resident responses for survey items presented to both students and residents (SPSS v21)

Focus Groups

- Transcripts were audiotaped, transcribed, and all participant responses were de-identified.
- Thematic content analysis was used to identify factors influencing career decisions including specialty
- Investigators reached a consensus on themes and qualitative data including coding agreement and additional analyses on the influence of perceptions
- Comments were examined to glean the perceptions about practicing person-oriented versus technique-oriented specialties.
- Qualitative data were analyzed using MAXQDA (v12)

Students and residents differed on the importance of financial incentives in deciding whether to practice in West Virginia and specialty choice.

	Students	Residents
	n = 27	n = 29
Rural Background	30%	18%
Career path influenced by rural rotation	48%	35%
Participated in K-12 program that encouraged STEM or health careers	61%	63%
Importance of financial incentives for deciding to practice in WV	68%*	14%

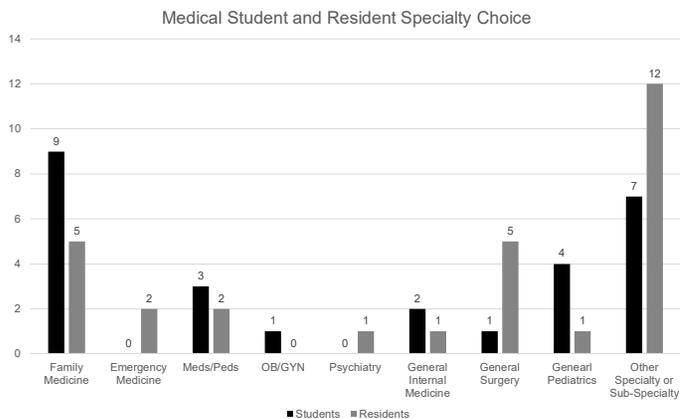
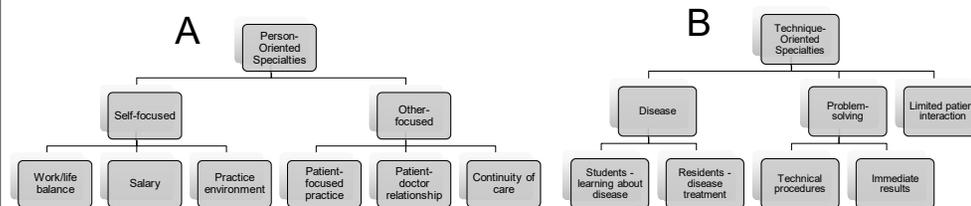


Figure 1. The left panel compares percentage of respondents in each group to survey questions presented to both medical students and residents. Financial incentives such as loan repayment were significantly more important in making a decision to practice medicine in WV following residency for medical students compared to residents, $\chi^2 = 21.0$, $p < 0.001$. STEM = Science, technology, engineering and math. The right panel illustrates the frequency of specialty choice at time of survey. Open-ended responses for other specialty or sub-specialty choices being considered included: cardiology, cardiothoracic surgery, neurology, neurosurgery, ophthalmology, orthopedic surgery, otolaryngology, pediatric cardiology, pediatric dermatology, radiology, and urology.

PERSON VERSUS TECHNIQUE-ORIENTED FOCUS AREAS



Perceptions of Primary Care

	Advantages	Disadvantages
Person-oriented	<ul style="list-style-type: none"> • "The practice of medicine has made me a little more humble." • "I was really touched by things they did for me and how they wanted to help." That really made me decide I wanted to do family medicine to give back to the community that had cared so much for me." • "I think it is a rewarding experience to have patients over the long term." 	<ul style="list-style-type: none"> • "I think that nobody goes in this field for the money." • "You have to clearly take everything because you are the only one there." • "Working in a small area, you give up your privacy."
Technique-oriented	<ul style="list-style-type: none"> • "I like to be on the front line doing a lot of leg work on diagnoses." • "I wanted to do something with a little more gratification in working with my hands and fixing problems immediately." • "There is a great mix of inpatient and outpatient procedures. Kind of the full spectrum from birth to death." 	<ul style="list-style-type: none"> • "Frustrating when you are trying to make those changes and there are sometimes people that don't care about their health." • "We will never truly be masters of anything." • "It's not so much that you're choosing a specialty, you're choosing everything...the job cuts you off from things that you don't get."

Figure 2. Panels A and B illustrate themes emerging within person-oriented and technique-oriented comments, respectively. Similarity matrix analyses indicated a high level of coding agreement across transcripts between independent reviewers with a range of 0.78-1.0, where 1.0 indicates the highest level of similarity (MAXQDA v12). The table provides example comments regarding advantages and disadvantages of practicing primary care that were categorized based on specialty orientation.

Conclusions and Discussion

- **Financial incentives were more influential in deciding to practice in WV following residency for medical students compared to residents**
 - Students were more likely to be influenced by financial incentives when selecting a practice location than residents
 - More medical students than residents were interested in Family Medicine and more residents than students were interested in specialization
- **Participants preferring person-oriented specialties viewed rural practice locations more favorably**
 - Rural locations provide an opportunity to become an integral part of the community
- **Strong patient-doctor relationships and continuity of care are rewarding components of primary care practice**
 - More compatible with person-oriented personalities
- **Problem-solving and learning about disease states were the most appealing aspects of practicing medicine to those interested in technique-oriented specialties**
 - Preference for limited patient interaction
- **Potential limitations:**
 - Inability to correlate intended medical specialty with each coded comment
 - Participant availability constrained by clinical schedules and geographic distance

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