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Original Paper

Perceptions and Motivations of Osteopathic Medical Students to Participate in the ACGME Match

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Abstract

Each year the majority of osteopathic students do not participate in the American Osteopathic Association (AOA) match. The ongoing merger of the Accreditation Council of Graduate Medical Education (ACGME) and AOA graduate medical education does not delineate formation of a single match process. This qualitative study explores the perceptions of osteopathic medical students about the matching process and perceived differences between the matches.

Semi-structured interviews were conducted with third and fourth year osteopathic medical students. Transcripts were analyzed using Grounded Theory. The replies to each question were considered separately as well as in context of the entire interview.

Eleven medical students were interviewed. Many of the themes found in the current study are consistent with past surveys. Local culture, lifestyle balance and geographic location were the themes found under Home Life, whereas Academic or Work Life consisted of good fit, diversity of patients, hands-on experience and formal educational process.

Two broad themes were developed: Home Life and Academic Life. A perceived balance between the two is necessary for a residency program to have substantial appeal.

Keywords

medical education, osteopathic, match process, qualitative design

1. Introduction

The residency match process is complicated. Currently there are two parallel processes; one by the American Osteopathic Association (AOA) and another through the Accreditation Council of Graduate Medical Education (ACGME). The AOA match for residency positions is administered approximately one month before the ACGME residency match each year. If a student matches in the AOA match then

they are automatically withdrawn from the ACGME match even if they are encouraged to rank programs in both.

Each year, according to National Matching Services most osteopathic students do not participate in the AOA match. The ongoing merger of ACGME and AOA graduate medical education does not currently delineate formation of a single match process. The current state of AOA graduate medical education adds to the confusion as some programs have been granted pre-accreditation status by the ACGME that will allow participation in the ACGME match.

Currently there is substantial growth in Osteopathic medical training. From 1980 to 2005, the number of graduates of osteopathic medical schools has increased over 250% while in roughly the same time period the number of DOs training in allopathic postdoctoral training programs has increased 419%. Presently only 40% of osteopathic graduates enter American Osteopathic Association postdoctoral training programs. Nearly the entire remaining majority enters allopathic residencies.

Several factors have been identified in past research as important to students when choosing a residency program appear to be: fit, emotional state of the current residents, geographic location, interview day experience, reputation/facilities, quality of training/faculty/education.

A 2005 single-site study of allopathic residency applicants conducted by DeSantis and Marcoidentified factors considered important when making decisions about residency selection. The top five factors when choosing a program were: friendliness (95%), environment (87%), interview day (81%), academics (76%) and location (74%). Nuthalapaty and others sought to examine the influence of quality-of-life in academic and workplace factors on residency program selection in 2004, including resident satisfaction, resident-centeredness, resident-environment fit, geographic location, and resident collegiality. All 16,183 medical students registered with Electronic Residency Application Service (ERAS) were surveyed with a 44% response rate. Characteristics of the work place environment & geography were found most important.

Yarris and others also sought to identify which residency-specific criteria applicants value in selecting a training program. In 2009, they anonymously surveyed emergency medicine interviewees at a single ACGME residency site. The top five factors were determined to be: how happy the residents seemed, program personality, faculty enthusiasm, geographic location, and interview day experience. That same year, the National Residency Matching Program (NRMP), which is the match for allopathic residency positions, released a survey study report that delineated considerations of greatest importance to medical students when ranking residency programs: quality of clinical training, faculty commitment to resident education, quality of faculty, quality of residents in program, house staff morale, quality of educational curriculum, geographic location, balance between faculty supervision and resident management responsibility for patient care, work/life balance, diversity of patient population.

In contrast to the above and many other studies of allopathic institutions, few studies of osteopathic residency selection criteria have been conducted. In 1990, Pecoramailed a survey to one hundred eighty-eight osteopathic graduates serving in ACGME internal medicine residencies who had provided

the AOA with their address. One hundred thirty-seven responded indicating that geography was a minor issue compared to perceived quality of an available residency. In 2014, a survey based on the instrument by Yarris and others was administered to osteopathic students for direct comparison with allopathic students. Little variation was found with the exception of geographic location, which was found to be significantly less important to osteopathic students.

Although several factors have been identified in past research as important to students when choosing a residency program, to date little is known about the desires and motivations of the osteopathic clerkship students who intend in advance of the match to solely participate in the ACGME process. The goal of this study is to explore the perceptions and intentions of this group of students as related to their intended match behavior and rationale for choosing an allopathic residency program.

2. Method

2.1 After IRB (Institutional Review Board) Approval, Semi-Structured Interviews of Current Third and Fourth Year Osteopathic Medical Students Were Conducted

A convince sample of students rotating through the emergency department at Skiff Medical Center or attending an ACOEP (American College of Osteopathic Emergency Physicians) conference were initially approached for an interview. More were identified using Snowball-Sampling Technique. Interviews were conducted over the phone or in person. This occurred in February and March 2016 before the results of the 2016 ACGME match were made known. Interview questions are included in Table 1 below.

Table 1. Interview Questions

What factors are important to you in looking for a residency program?
Describe the programs that you are considering?
Are you considering programs in both matches?
When did you know that you would be looking at ACGME programs?
Do you feel pressure to take part in one of the matches? If yes then by whom?
How do you see ACGME programs in general as compared to AOA programs?

2.2 Data Collection

After verbal consent was obtained, interviews were conducted until redundancy was obtained and no more themes came to light. Recorded interviews were then transcribed and coded for patterns of motivation and behavior.

2.3 Data Analysis

Coded data was analyzed using Grounded Theory. The replies to each question were considered separately as well as in context of the entire interview. Major themes emerging from each question will

be presented below.

3. Result

Demographics of the 11 interviewed students are included in Table 2.

Table 2. Demographics of the 11 Interviewed Students

Student number	Demographics	Specialty focus
1	3rd year, male	Family medicine
2	4th year, male	Neurology
3	4th year, male	Psychiatry
4	4th year, male	Pediatrics
5	4th year, male	Pathology
6	4th year, female	Radiology
7	3rd year, male	Emergency
8	4th year, male	Emergency
9	3rd year, male	Emergency
10	3rd year, male	Emergency
11	3rd year, female	Emergency

Themes from the first two questions were combined and presented in Table 3. They were designed to elicit the same information from different perspectives; one being theoretical, the other actual implementation. Although there are multiple aspects of each residency program that are considered important, they fall into two broad categories: Home Life and Academic Life (Table 3). A perceived balance between the two is necessary for a residency program to have substantial appeal. This finding is consistent with Stillman et al., who state, "Our qualitative data revealed evidence regarding students' efforts to balance academic opportunities with family and lifestyle considerations…".

Table 3. Home Life and Academic Life

Themes	Fundamental Question	Example
Home Life		
Local culture	Is my family going to be happy living here?	"Somewhere that's affordable for me and my family, that has good schools, a place that they were able to have other things available because I'm not always going to be there. I didn't want to be in the middle of nowhere where

		my wife's alone with kids and poor schools and she's struggling the whole time I'm there".
Lifestyle balance	Am I going to get worked to death or will I have time and energy to enjoy life here?	"I have a family so life style is going to be an important thing. I'm also a millennial so we love our life style. Right? As I talk to residents and program directors, it's important for me know what the lifestyle is for the residents. Do they feel like they have a decent work-life balance in spending time at work and getting the education they need but also feeling like they can properly support their relationship with their wife and their kids?"
Geographic location	Will I be close enough to my family?	"My first and biggest thing is probably location. My fiancé, my family and my fiancé's family are all still in one place and I'm trying to get back into that general area".
Academic/work life		
Good fit	Do I feel like I belong here and enjoy my coworkers?	I need a "feeling of community and camaraderie amongst residents, residents to attendings and even across other programs… I'm kinda done with a lot of the drama". "I need to get along well with my fellow residents".
Diversity of patients	Am I going to see enough different kinds of problems or just the same thing over and over?	"I'd be looking for a pretty diverse patient population… because I think you get a more well-rounded education that way".
Hands on experience	Will I get experience managing patients or will I be in line behind multiple other learners?	"I want a program that I see a lot of patients and get to manage those patients, I don't want to go to a program that has a lot of other programs and specialists in there so I

		end up just being a traffic cop. I want to be able to take care of the patients".
Formal educational processes	Are didactics and rotations going to teach me what I cannot learn on my own?	"The didactics where I was as a third year (student): pathetic. The residents would get up and read a power point almost word for word… and it was painful. Other programs, I'd go there and say, 'I enjoyed this. I'm learning at this place'."
Program size	Is the program big enough to be flexible but small enough to give me individual attention?	"As I went along the interview trail I found out I wanted a bigger program with more classmates. I think they can handle abrupt changes in schedule a little bit better and if there's a larger class size there's going to be more opportunities at that hospital".
Prospects for advancement	Is the program academically rigorous and organized enough to have a fellowship or high rate of fellowship placement of graduating residents?	"Reputation of the program… with… mentors and the residents themselves when they tell me about their program. The success of their residents at getting fellowships at probably, big-name institutions can be kind-of important but success in general is also important".

Many of the themes found in the current study are consistent with past surveys. However, a few were not. In the past, location has been considered an important determinate for residency selection. In the current study it was found that the word has two meanings that were not evident before. Location can mean the national geographic region or it can mean the local area directly around the hospital where the residents and their families live. This latter use is referred to as local culture and includes schools, housing, neighborhoods and available recreation.

Although the size of a residency could have been incorporated under many other different headings in the previous studies, it was not overtly evident. The topic of program size took on another dimension as well. On one hand, larger programs are desirable for flexibility and critical mass, but on the other hand, a larger residency and graduate medical education program in general may evoke images of having to stand in line to see a patient and having the interesting stuff stolen by another learner.

All of the interviewees expressed a great deal of consternation and insecurity regarding the changes in

graduate medical education in the AOA. Many students commented that they were not sure how it was going to work and as such steered away from those programs. Although this merger process will be completed by 2020, it is disconcerting to the students and does no favors to the programs affected.

The responses to the question, "Are you considering programs in both matches?" revealed a split between the 3rd and 4th year students. The 3rd year students were mostly positive stating they wanted to keep their options open or that the programs they were interested have switched matches. For example, one student mentioned, "Pretty much every program I'm interested in is getting or has already gotten their ACGME accreditation. So at this point all the AOA or formerly AOA programs that I think I'm most interested in are actually participating in one match". She then went on to say, "This is both terrifying and awesome because I don't have to miss out on things but it also means that the competition is tremendous". The theme of missing out on some residencies to have access to others was repeated seven times including all of the 3rd year students.

Timing of when the 4th students knew they would be looking at ACGME programs was split. Half stated from before medical school and the other half stated they considered ACGME programs only recently when they started looking at specific residencies in earnest. Two 3rd year students introduced another possibility stating that they only considered going to the ACGME match when the programs they were interested in received pre-accreditation from the ACGME. One student replied that he started looking at ACGME programs when he got is board scores (on which he did quite well).

Most AOA residency programs have not yet applied for pre-accreditation status and some, rather then switch, have opted to close. Furthermore, pre-accreditation status doesn't initiate a change in match participation, initial accreditation does. These details and current uncertainty of the status and near-term plans of AOA residency programs push some students toward ACGME residency programs.

When asked about feeling pressured, all denied that specific people pushed them to a specific match, but one student mentioned that, "Being involved with ACOEP, I felt like people would be disappointed in me if I didn't (participate in the AOA match, but) no one specific person". Another comment exemplified the sentiment of the others. "My home medical school would love it if everyone were to stay in the AOA match but they have their blinders on as to how many (residencies) are switching over to the ACGME match. They want everyone to match but they are also spreading the idea that you only need to take COMLEX (Comprehensive Osteopathic Medical Licensing Examination), which is darling but a little naive for the programs that are out there. We'll call it encouragement not pressure".

When asked about general differences between AOA programs and ACGME programs there were two specific and perceived thoughts where were consistent across all but two students. First, ACGME programs were perceived aslarger and better resourced, be it in expertise, patients, pathology, geographic diversity, research and prestige. As one student commented, "I see them as larger and more resourceful, with better didactic training for sure. Resourceful in physical equipment and leading-edge technology or diagnostics coming forward". He also commented on their perceived didactics as, well-planned didactic time that is not resident dependent. Some AOA residencies he rotated with

"Didn't have a didactic plan or their plan was very loose or in some cases it was resident driven". The second generalization was that they are less personal. One student commented, they cast a "Superficial look at the students... Board scores and e-mail… just doesn't feel personal". Another student spoke that ACGME programs "Looked higher on themselves and valued themselves more then they probably should have. They thought they were better than the rest, both osteopathic and other allopathic programs. They listed the reasons why they were the best. AOA programs listed the reasons why they thought I would be a good fit at their program. (For AOA programs) me going there would benefit the program. (The ACGME programs were) doing me a service by letting me be a part of the program".

4. Discussion

From further back than anyone living can remember there have been multiple opinions about what makes man sick and what can make him well again. Sherwin Nuland traced medicine back to Hippocrates, founder of the Coan School on the island of Cos in, *Doctors: The Biography of Medicine*. He notes:

It is one of the ironies of history that the academy of Cos, the so-called Coan School, had a rival, situated on the opposite peninsula at Cnidus, which practiced a form of medicine that was in some ways more like our own than that of the physicians of Cos. The Cnidian focus was on the disease, while that of Hippocrates was on the patient. The Cnidian physicians, like those of today, were reductionists, fine-tuners who directed their efforts to the classification of the processes of sickness and to exact diagnosis. They sought to know the specific local organ disturbances that caused the symptoms they so assiduously categorized... The Hippocratic physicians saw diseases as events that happen within the context of the life of the entire patient, and they oriented their treatment toward restoration of the natural conditions and defenses of the sick person and the reestablishment of his proper relation to his surroundings.

At the turn of the 20th century, the contrast between Cnidian and Coan traditions was redrawn in the United States, with osteopathic physicians following the philosophy of Hippocrates and allopathic physicians following the Cnidian tradition.

In this history by Miller, initially, Osteopaths, as they were called, wanted nothing to do with traditional methods used by Allopath and were aggressively opposed to the use of medicines. Over time Osteopaths became Osteopathic physicians and adopted all modern notions of good medicine. They maintained their separate identity by stressing the main tenants of the profession as opposed to the strict practices of the founder. It is not clear which school-of-thought moved more, but by learning from each other the chasm between them has drastically reduced to the point where the two are "virtually indistinguishable" according to Schenarts. In fact, Schlitzkus noted that American Allopathic and Osteopathic medical students are more alike than Allopathic students are from Allopathic foreign medical graduates.

The merger of GME is possible because of the similarities of osteopathic and allopathic medicine not

because of their differences, yet differences remain. The stereotypical ACGME program is well resourced but cold. The AOA program is like family but unpolished. The merger invites us to overcome these weak spots without depleting the strengths. As one body with identical goals and standards this should be a time of opening lines of communication so we can talk, appreciate and learn from each other. There will be more opportunities for regional gatherings of programs and their leaders. If we choose to learn from each other, we will produce a better product.

Under the theme of Home Life, prior studies have indicated geography and work life balance as important in residency selection. This is the first time geography took on two different meanings, one of region in the US, the other as local culture. Emphasizing the popular and interesting places to live and things to do in the area would be a nature draw to students of a generation known for their focus on balance. Under the theme of Work/academic Life many themes have also been revealed by prior studies including: good fit, program size, prospects for advancement, diversity of patients and formal educational processes. The idea of hands-on experience is important to a generation known for craving experiential learning. The ability to be the first to encounter the patient or the doctor to perform the procedure should be demonstrated and advertised to prospective residents to attract them.

All of the interviewees expressed a great deal of consternation and insecurity around the changes in graduate medical education in the AOA. The fear of the unknown has a deterrent effect on the students interviewed steering them away from AOA residencies. In *The Peaceful Warrior*, Dan Millman stated, "The secret of change is to focus all of your energy, not on fighting the old, but on building the new". All graduate medical education will be unified soon. Let us speed it along by building the new not fighting to retain the old.

There are several limitations to this study including the design of using only one interviewer as well as limiting the number of interviews. Marital, family and long-term relationship status would have also added depth to this project. The study would be greatly enhanced if more data were available on the different groups of students and their academic performance. Further studies as the merger progresses will be of interest.

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