

Factors Applicants Value when Selecting an Emergency Medicine Residency

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Objective: Little is known about the factors important to applicants when selecting an emergency medicine residency. We sought to identify which residency-specific criteria applicants value in selecting a training program.

Methods: We conducted an anonymous survey of emergency medicine interviewees at our residency. Applicants were asked to rate each of 18 factors on a four-point scale from 1 (“not at all important”) to 4 (“very important”) in their selection of a residency.

Results: Of 82 interviewees, 73 (89%) completed the survey. The factors with the top six mean scores were: how happy the residents seemed (3.9), program personality (3.8), faculty enthusiasm (3.7), geographic location (3.6), experience during interview day (3.5), and pediatrics training (3.5).

Conclusion: The top three factors deemed most important to emergency medicine applicants are primarily intangibles, while programs have no control over the fourth most important factor, location. [WestJEM. 2009;10:159-162.]

INTRODUCTION

Emergency medicine (EM) is one of the newest medical specialties. As the field expands, so do the number of training positions in the United States. EM has become an increasingly popular career path among graduating medical students, and residencies select future cohorts of trainees from a very competitive pool of highly qualified applicants. Previous studies have shown that residencies differentiate among applicants on the basis of several factors, the most important being performance in an EM rotation, grades in clinical rotations, and letters of recommendation.^{1,2} These data have been used to advise medical students facing the daunting task of applying to EM residency.

In contrast, residency selection committees have found little guidance in the literature regarding the factors that are important to applicants in selecting an EM residency. Knowing these factors could guide programs to emphasize factors that are already in place and improve those that are not

strengths to attract the best candidates.

In addition to identifying factors important to applicants in selecting a residency, we were also interested in exploring whether these factors differ between male and female applicants. Women, traditionally underrepresented in the field of EM, comprised 39% of EM residents in 2007-2008.³ In 2005-2006 the AAMC reported that women represented 49% of all graduating medical students.⁴ Evidence shows that the gender representation in EM is changing. The number of female residents in EM has increased by 36% in the last five years while the number of men has remained relatively unchanged. Because the growth in applicants is mainly due to increased numbers of women choosing the specialty, any gender differences in factors important to applicants may be of interest to programs.

The primary objective of this study was to identify factors important to residency applicants in selecting an EM residency. A recent study by DeSantis and Marco⁵ concluded

that the top five factors applicants consider when selecting a residency include friendliness, environment, interview experience, academics, and location. Our secondary objectives included investigating whether responses differed when respondents were stratified by gender or by whether they were involved in a committed relationship.

METHODS

Study Design

This cross-sectional study surveyed applicants interviewing at an urban, academic EM residency.

Study Setting and Population

This study was conducted at a three-year EM residency that offers nine PGY-1 positions each year. Of 653 applicants in this academic year, 114 (17%) were invited to interview, and all 82 applicants who did so during the study period were invited to participate in the survey. Geographic representation of our total pool of interviewees was 23% from the Midwest, 18% from the Northeast, 10% from the Southeast, 46% from the West, and 3% foreign medical graduates.

Study Protocol

During the orientation session on interview days, the survey was described to the applicants and the surveys and study information sheet were left in the room where they took a break during their interview day. They were able to fill out the survey privately, and the surveys were placed in a sealed box. Participation was both anonymous and voluntary. The local institutional review board granted approval for this study. Written consent was not required.

Measurements

The investigators selected aspects of an EM residency to include on the survey based on available literature and suggestions from the core education research faculty at our institution. The survey asked applicants to rate 18 factors on a four-point scale to indicate how important the factor was in their selection of an EM residency. The four options included “not at all important,” “less important,” “important,” and “very important.” Some of the terms, such as “the ‘personality’ of the program” and “academic rigor,” were intentionally kept broad to mirror our experience in how medical students use these terms when we have served as their advisors. The survey also asked applicants to provide the following demographic information: age, gender, race, and marital status (either “single” or “married or equally committed relationship”). The survey was piloted on 20 applicants and reviewed before the study was initiated. No significant problems were identified.

Data Analysis

Mean scores were calculated for each factor by assigning a

numerical value to each category (1=not at all important, 2=less important, 3=important, 4=very important).

Differences in responses by gender and relationship status were compared using the Wilcoxon rank sum test. For ease of interpretation, when the rank sum test was significant, the importance scores were collapsed into two categories of approximately equal sizes and compared using chi square tests.

RESULTS

Eighty-two applicants interviewed during the survey time frame of December 9, 2005 to January 20, 2006. Of these applicants, 73 completed the survey (89% response rate). As shown in Table 1, 60% of respondents were male, 86% were white, and 49% were in committed relationships. Sixty-four percent of males and 32% of females reported being in a committed relationship (chi-square test, $p=0.01$). Respondents' mean age was 28 (SD 2.6, range 25-36). Table 2 shows the applicants' ratings of the importance of each factor.

We also evaluated whether women answered differently than men. For women, the mean score for geographic location

Table 1. Characteristics of respondents*

Gender		
Male		44 (60%)
Female		27 (37%)
No response		2 (3%)
Race		
White		63 (86%)
Black		1 (1.5%)
Asian		5 (7%)
Other		1 (1.5%)
No response		3 (4%)
Marital Status		
Single		33 (45%)
Married/committed relationship		36 (49%)
No response		4 (6%)

* Percentages listed for 73 returned surveys.

was 3.7, compared to 3.4 for men ($p=0.04$, rank sum test); 78% of women, compared to 52% of men, rated location as “very important” ($p=0.03$, chi-square). Females were also more likely to find opportunities for international electives important. The mean score for the importance of international electives was 3.1 in women, versus 2.4 in men ($p<0.01$), with

Table 2. Applicants' ratings of the importance of factors in selecting an emergency medicine residency

Factor	Mean Score*	Std. Dev.
Happy residents	3.9	0.36
Program personality	3.8	0.40
Faculty enthusiasm	3.7	0.55
Location	3.6	0.60
Interview	3.5	0.55
Pediatrics training	3.5	0.60
Away rotation experience	3.4	0.85
Academic rigor	3.2	0.52
Ultrasound	3.2	0.62
Family friendly	2.9	0.94
Faculty reputation	2.9	0.81
Needs to coordinate with spouse/ partner	2.7	1.18
International opportunities	2.6	0.91
Length of program	2.6	0.78
Research infrastructure	2.6	0.69
Proximity to family	2.6	0.90
Salary and benefits	2.2	0.79
Family leave policy	2.0	0.63

* Possible range from 1 to 4, where 4 is the most important.

74% of females responding “very important” or “important” as compared with 43% of males ($p=0.01$). The only factor that was significantly more important to males than females was a need to coordinate with spouse/partner; the mean score in women was 2.1, versus 3.0 in men ($p<0.01$); However, this association decreased to a trivial magnitude and lost statistical significance after adjusting for marital status.

Considering differences between single respondents and those in a committed relationship, committed applicants were less likely to value the international elective, with mean scores of 2.4 for committed applicants versus 2.9 for single applicants ($p=0.02$); 42% of committed applicants versus 70% of single applicants chose “very important” or “important” ($p=0.02$).

Committed applicants were more likely than single ones to place importance on the need to coordinate with spouse or partner (mean scores 3.5 versus 1.8, $p<0.01$); 92% of committed vs. 28% of single applicants chose “very important” or “important” ($p < 0.01$). Committed applicants also placed greater importance on family-friendly environment (mean scores 3.4 versus 2.4); 56% of committed respondents versus 9% of single chose “very important” ($p<0.01$).

DISCUSSION

EM residencies compete for the strongest applicants, and each program determines which strengths to highlight during interview season. Many conduct post-match surveys of applicants to determine which factors led them to select other programs in lieu of their own. However, a prospective understanding of the factors important to applicants is helpful for residency selection committees and may help shape the interview-day experience.

This study addresses some of the limitations in DeSantis and Marco previous study,⁵ which noted that their study population was limited to applicants of one Midwestern residency. By conducting our study in a markedly different geographic location, we add information about a population that may differ in important ways from that of the first study. In addition, the authors of the previous study note that their survey was conducted by mail with a response rate just over 50%. Our method of self-administered surveys completed on interview day yielded a response rate of 89% and demonstrated the feasibility of this method of survey administration.

In contrast to the previous study, which found that academics is one of the most important factors, we found that academic rigor as perceived by applicants was in the middle of the rank list for factors that applicants value (mean score 3.2). Similarly, research infrastructure was listed in the six factors *least* important to future residents. If, as we suspect, many programs focus on academic and research strengths during residency fairs and interview-day experiences, and if this finding holds true for other applicant pools, they may want to reconsider which strengths to emphasize when interacting with applicants. While some programs may choose to focus on other strengths to appeal to the broadest audience, others who wish to maintain or develop an academic distinction may continue to emphasize academic and research strengths to attract like-minded residents.

Our study also lends new insight into the factors that women value as compared to men. This information could be of value to programs interested in focusing recruiting efforts on talented female applicants. For example, if a program wants to foster gender equality (given the fact that women in academic EM reach achievement milestones at a rate that lags behind their male colleagues)⁶ then knowing what factors are important to women could help attract strong female candidates with academic and leadership potential.

The DeSantis and Marco study found only minor gender difference in responses, with the top five factors being the same for both genders; however, rank differed slightly by gender with location ranked higher for females and environment ranked higher for males. Our study confirmed that location is indeed more important to women. One may hypothesize that women value location more because of a need to coordinate with a

spouse or partner, but we did not find a statistical difference between female and male responses about this variable (need to coordinate with spouse or partner) after adjusting for relationship status. Of note, males were twice as likely as females to be in a committed relationship. Interestingly, while females valued location more than males, as a group they are less tied to that location in the sense that they are more interested in international opportunities. Since program directors cannot change their program location, further investigations into other factors that may help recruit strong female applicants are needed.

Our findings are similar to DeSantis and Marco's in several interesting ways. We, too, found that geographic location and interview-day experience are among the most important factors to applicants in selecting a program. While location is a factor beyond the program director's control, understanding its importance to applicants may lead residency selection committees to emphasize the strengths of their geographic location. In contrast, because the interview-day experience is a dynamic factor amenable to change, it would be helpful to investigate what features of that experience are particularly attractive to residency applicants.

Similar to DeSantis and Marco's finding that friendliness and environment are important, we found that how happy the residents seem, the "personality" of the program, and the enthusiasm of faculty topped our list of factors that applicants value. While encouraging the residents and faculty to be welcoming and engaging may make some programs shine more than others, the program "personality" is likely to be subjective for each applicant and therefore a difficult factor to control. It seems that our top three factors relate to the concept of "a good fit" and one can argue that if programs strive to present an accurate self-image, then those who are drawn to the program are likely to be a better match than those who are not.

LIMITATIONS

Our candidate pool may differ from the general pool of EM applicants in several ways. For example, an interviewee at our program may not be representative of candidates who consider other areas of the country, or prefer a four-year program. In addition, this study identified which factors in a broad sense are valued by applicants, but further investigations are needed to more clearly understand how they define these factors. It is also important to note that the factors they value are likely to change over time. For example, both generational and medical system changes, such as technology advances and overcrowding, may impact future applicants' perceptions of the most important factors when selecting a residency.

CONCLUSION

Faced with finite time and resources, EM residency directors must determine how to best structure the interview-

day experience to highlight program strengths that applicants value while accurately representing the character and mission of their residency. We found that when selecting an EM residency, applicants value how happy the residents seem, the personality of the program, the enthusiasm of the faculty, geographic location, and the interview-day experience. While most of these factors are subjective, their importance may prompt programs to investigate innovative ways to increase applicants' exposure to the residents, faculty, and program characteristics – especially since the most objective factor, location, cannot be altered. Areas that merit future consideration include the specific aspects of interview day that applicants value, as well as further exploration of the differences in values according to gender and relationship status.

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