Use of social media resources by applicants during the residency selection process

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Original Article

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Abstract

Background: The attitudes of residency applicants regarding social media resources and how these resources affect their decisions during residency selection have not been well-studied. The objective of this study was to evaluate the use of electronic and social media resources by residency applicants and the impact of these resources on their residency selection decisions.

Methods: Interviewees at our anesthesiology residency program during the 2012-2013 interview cycle were surveyed anonymously regarding their use of electronic and social media resources.

Results: On a scale from 1 to 5 (1=not at all important, 5=very important), social media resources were given a ranking of 3 (2-3) (median [25%-75%]) for importance for gathering residency program information. Our Facebook page was accessed by 47% of respondents. Thirty-seven percent did so before applying and 58% did so after applying but before interviewing. The Facebook page was useful to 12% when deciding whether to apply to our program, 25% when deciding whether to interview, and 29% when deciding where to rank our program on their rank order list. **Participants who responded that our Facebook page was useful in three domains (applying, interviewing, and ranking) credited it for increasing the likelihood that they applied to, interviewed at, and preferentially ranked our program.**

Conclusions: Social media resources serve a valuable role for residency applicants. Applicants who accessed our program's Facebook page reported that it made them more likely to apply to our program, interview at our program, and that it increased the position of our program on their rank order lists.

Key words: Education, Social media, Residency, Internet, Facebook

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Introduction

The residency selection process is an important milestone in a medical student's progression from trainee to attending physician. It can be a stressful time when decisions are finalized regarding medical specialty, training program, and geographic location for the subsequent three or more years. Applicants to residency programs have multiple sources of information available to them about these programs including flyers and brochures, medical student colleagues, and resident and attending physicians at their home institutions.

Increasingly, applicants are utilizing electronic resources to gain knowledge about residency programs. Websites run by emergency medicine residency programs are routinely accessed by applicants and are considered very important in the selection process.[1] In fact, 78% of respondents in one survey reported that information from an emergency medicine residency program website influenced their decision regarding where to apply.[2]

At the same time that residency program websites have become a standard offering, social media use has grown rapidly. In 2008, 66.2% of medical students and 12.8% of residents reported having Facebook accounts; these numbers increased to 69.5% and 39.8% in 2010, respectively.[3] Just as previous cohorts of residency applicants began using program websites as an informational resource, current medical students have begun using social media resources in the same manner. However, little is known about which social media resources applicants use, what information they gather from these resources, and how this information affects their decisions. This cross-sectional, observational study was conducted to evaluate which social media resources applicants are using, the perceived importance of these resources, and the effect that these resources have on the decisions of where to apply, where to interview, and how to rank our residency program.

Materials and Methods

This project was determined to be exempt by the University of Pittsburgh Institutional Review Board. Prior to the 2012-2013 National Resident Matching Program (NRMP) cycle, our department developed social media resources including a Facebook page and Twitter account in order to provide information about our residency program to potential applicants. The Facebook page contained information about new developments within the department, achievements of residents, fellows, and attendings, videos of current residents describing aspects of the residency program, and information about the residency interview day. The Twitter account was used to highlight current events and news from within the department. Applicants were notified of these resources in an email inviting them to interview and by way of signs in our department's residency offices during their interview day.

The population surveyed consisted of applicants who completed an interview at the University of Pittsburgh Department of Anesthesiology Residency Program during the 2012-2013 NRMP. Following the 2013 Match, surveys were distributed to the 179 applicants who interviewed with our program. The survey (Table 1) was delivered via US mail and pre-addressed and pre-

stamped return envelopes were included for return. No identifiable information was collected and all answers were recorded anonymously. As the survey was conducted after the 2013 Match Day, it played no role in the NRMP process. Surveys were collected for a period of 6 weeks after the initial mailing.

The survey consisted of questions regarding the use, importance, and effects of electronic and social media resources during the applicants' residency selection process. It was based on prior studies examining residency applicants' use of related resources.[3-5] Applicants were asked which social media resources they personally used, if they used various informational resources during the residency selection process, what percentage of other residency programs they evaluated had social media resources, when they accessed our department's Facebook page, and the effect that the Facebook page had on their decisions to apply to our program, interview at our program, and where to rank our program on their rank order list. They were asked to rank the importance of various informational resources using a 5-point Likert scale ranging from 1 (not at all important/not at all useful/much worse) to 5 (very important/very useful/much better).

Statistical analysis was performed using Microsoft Excel (Microsoft Corp., Redmond, WA). Data were tabulated as frequencies and displayed as percentages or, for Likert scale questions, presented as median and interquartile range. Not all respondents answered every question; therefore results were calculated based on the number of responses for each individual question.

Results

Of the 179 surveys distributed, 42 were returned during the study time period representing a 23% response rate. Study results are shown in Table 1. The social media site that the most respondents had an account for was Facebook (Facebook, Inc., Menlo Park, CA) (88%), followed by Twitter (Twitter, Inc., San Francisco, CA) (31%), Pinterest (Pinterest, San Francisco, CA) (19%), LinkedIn (LinkedIn Corp., Mountain View, CA) (17%), and MySpace (MySpace LLC, Beverly Hills, CA) (0%). Using a 5-point Likert scale ranging from 1 (not at all important) to 5 (very important), applicants rated residency program websites 5 (5-5) (median [25%-75%]) and medical student/resident colleagues 5 (4-5) as their two most important sources of information about residency programs. Attending physicians 4 (3.25-4), brochures and pamphlets via direct mail 3 (2-3.75), and social media resources 3 (2-3) trailed in importance.

When queried specifically about the electronic resources offered by our department, 100% of applicants reported using our residency program's website, 47% accessed the Facebook page, and 2% accessed the Twitter account. The respondents' ranking of importance of these resources on a 5-point Likert scale (1=not at all useful, 5=very useful) corresponded to their use, with the program website being ranked 5 (4-5), the Facebook page 3 (1-3.25), and the Twitter account 1 (1-2.5). **Sixty-nine percent of respondents reported that fewer than half of the programs that they evaluated made social media resources available to applicants, while 31% of respondents reported that more than half of the programs they evaluated made these resources available.**

Forty-seven percent of respondents had viewed our residency program's Facebook page. Of those who had viewed the Facebook page, 37% viewed it before applying while 58% first

viewed it after applying but before interviewing at our program and 5% first viewed it after their interview. Twelve percent found the Facebook page useful when deciding whether to apply to our program, 25% found it useful when deciding whether to interview at our program, and 29% found it useful when deciding how to rank our program on their rank order list. All respondents who reported that the Facebook page was useful for any decision during the residency selection process reported that it affected their decisions in a positive way. This included increasing their likelihood of applying to our program, increasing their likelihood of interviewing at our program, and increasing the position of our program on their rank order list.

Compared to the social media resources available from other programs, the respondents ranked our resources as a 4 (3-5) on a 5-point Likert scale (1=much worse, 5=much better). Videos describing different aspects of the residency program were ranked as the most helpful aspect of the Facebook page (69%).

Discussion

Applicants to residency programs are routinely using electronic resources to gather information during their residency selection process. Even in 2003, 80% of respondents who had applied to an internal medicine residency program found web-based information about residencies helpful when deciding where to apply.[4] A study in 2005 found that 78% of respondents were influenced by a residency program website when deciding where to apply.[2] More recently, in 2009, a survey of 233 applicants to an emergency medicine residency program showed that 96% used the internet as a resource to investigate programs.[1]

As residency websites have become ubiquitous, applicants have begun exploring social media resources as another source of information about residency programs. In contrast to the literature on applicants' use of program websites, the literature on applicants' use of residency programs' social media resources is sparse. The information that does exist mostly concerns the use of social media sites by residency programs to evaluate applicants.[6-8] Black et al.[3] do provide information regarding the prevalence and growth of the use of the social media site Facebook among medical students and residents at an academic medical center. They show that from 2007 to 2010, Facebook use among medical students grew from 66.2% to 69.5% and use among residents grew from 12.8% to 39.8%. More recently, Schweitzer et al.[9] completed a survey of osteopathic medicine trainees regarding their use of social networking websites. This study surveyed medical students, interns, residents, and fellows. Twenty-seven percent of medical students reported gaining information about GME programs through social networking and 10% reported that this information was influential in their decisions.

Notable findings from our study include the popularity of Facebook among residency applicants. The vast majority of respondents had personal Facebook accounts (88%) and this percentage was more than double that of the next most popular social media site, Twitter (31%). Websites run by residency programs were ranked as very important for gathering information and, surprisingly, were considered as important as medical student and resident colleagues and more important than attending physicians. Social media resources were ranked as having a moderate level of importance for these purposes. The importance of social media resources may rise as more

residency programs begin utilizing them, mirroring the rapid growth in importance already seen for program websites.

All respondents who reported how the Facebook page affected their decision process indicated that it positively affected their decisions to apply to our program, interview at our program, and/or increase the position of our program on their rank order list. No applicant indicated that the Facebook page had a negative or even a neutral effect on their decisions. Previous studies have evaluated the importance of departmental websites for decisions during the residency selection process. Embi et al.[4] surveyed applicants to an internal medicine residency and found that 80% of respondents found these websites helpful when deciding where to apply, 69% when deciding where to interview, and 36% when deciding how to rank programs for the Match. However, while measuring the general importance of these websites to applicants, this survey did not evaluate how a specific program's website affected applicant's decisions in regard to that program. Our social media offerings were highly-ranked in comparison to those offered by other residency programs. However, the majority of respondents reported that most programs to which they were applying did not offer social media resources. Perhaps as more programs create social media sites, competition will dilute the applicants' positive opinion of these offerings and their effect on decisions during the selection process.

One of the greatest strengths of electronic resources in the residency selection process is the ability to offer information in a multimedia format. Although websites offer this ability, social media sites such as Facebook have more streamlined and less labor intensive methods for doing so. For example, all Facebook sites utilize the same basic format of a large cover photo at the top of the page followed by a brief description of the organization and then two columns of posts that continue to the bottom of the page. The posts consist of text, photos, or videos chosen by the user. These posts, and the cover photo, are easily uploaded using the on-screen tools. Applicants considered videos describing different aspects of our residency program as the most helpful aspect of the Facebook page.

The present study has multiple strengths. To our knowledge, this is the first study to evaluate the effects of social media resources specifically designed for resident applicants on these same applicants' decisions during an NRMP cycle. Only one other study could be found that examined medical trainees' opinions regarding social media,[9] however that study was not specific to recent residency applicants and it did not evaluate how information gained from social media resources affected their decisions. The present study also illustrates the relative importance of electronic and social media resources compared to other sources of information for residency applicants. Despite social media resources being ranked as having less importance than other types of informational resources, respondents still reported that it affected their residency selection decisions. These findings, combined with the expected continued growth of social media use, suggest that social media could be an increasingly powerful tool in resident recruitment. This study also shows the specific types of information that are most helpful to applicants, with videos earning the highest ranking. Most importantly, it is the first study to evaluate the effect that social media resources have on applicants at various points in the residency selection process and shows that these resources have a uniformly positive effect.

A limitation of this study is the small sample size. Twenty-three percent of surveys were returned; a larger percentage of returned surveys would have strengthened our results. Similarly, not all respondents fully answered every question. This led to several questions having fewer than 42 responses. Specifically, the questions regarding the usefulness of the Facebook page and its effects on residency selection decisions received the lowest number of responses and thus must be interpreted cautiously. It is unknown whether interviewees with a more positive opinion of our program were more likely to return completed surveys. If this were so, a selection bias phenomenon could be present skewing our data toward more favorable conclusions about the effects of our social media resources. This survey was distributed after the 2013 Match and respondents' answers to the survey questions may have differed significantly if it had been distributed before the Match or at various points during the application process. Although one of the goals of this survey was to measure the effect that our social media resources had on applicants' decisions, we did not directly compare this effect to that of other resources such as websites and brochures. Nor was our aim to directly compare our Facebook page to social media resources of other residency programs. As noted, not all residency programs have social media resources. This may have created an exaggerated positive opinion of our resources. Finally, the results of our survey must be considered in the context of our specific resident interview process and may not be generalizable to other anesthesiology residency programs or residency programs in other specialties.

The number of respondents who viewed the Facebook page could likely have been increased by advertising it in more ways than was done (in an email and via signs in our department's offices). However, one of the greatest advantages of using social media, the ability to quickly and continuously communicate with potential applicants, also presents a unique set of problems. Concerns regarding patient confidentiality and posting of inappropriate images are important considerations. Accordingly, only individuals trained on the appropriate standards for posting should be granted access to do so, and there should be active and consistent oversight of these postings by residency administration. Due to these concerns, we were unable to provide links to the Facebook or Twitter sites on our residency program's official website. Finally, although respondents reported that use of the Facebook page increased their rank of our program on their rank order list, we are unable to independently verify this.

In conclusion, this study shows that residency websites and social media resources are an important part of how applicants gain information about residencies. Nearly half of respondents reported accessing our program's Facebook site and the majority did so prior to their interview day. The most helpful aspect of the Facebook page was videos describing our program. **Most importantly, respondents who found the Facebook page to be useful when making specific decisions during the residency selection process reported that it positively affected these decisions toward our program.**

Acknowledgements, Disclaimers

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Tables

Table 1 – Survey Results

Questions	Response Options	Results	Number Responding
1. Which social media sites do you have accounts for?	Facebook	88%	42
	Twitter	31%	
	LinkedIn	17%	
	MySpace	0%	
	Pinterest	19%	
2. How important are the following resources for gathering information about residency programs? (1=not at all important, 5=very important)[a]	Brochures and pamphlets via direct mail	3 (2-3.75)	42
	Residency program websites	5 (5-5)	
	Social media resources	3 (2-3)	
	Colleagues (fellow medical students and residents)	5 (4-5)	
	Attending physicians	4 (3.25-4)	
3. How useful were the UPMC Department of Anesthesiology Residency Program informational resources during your evaluation of our program? (1=not at all useful, 5=very useful)[a]	Program website	5 (4-5)	42
	Facebook page	3 (1-3.25)	24
	Twitter account	1 (1-2.5)	19
4. What percentage of residency programs that you evaluated had social media resources	1-25%	28%	32
	26-50%	41%	

available to applicants?	51-75%	28%	
	76-100%	3%	
5. When did you first view the UPMC Department of Anesthesiology Residency Program Facebook page?	Prior to applying to UPMC	18%	40
	After applying to UPMC but before interviewing	28%	
	After interviewing at UPMC	3%	
	Did not view	53%	
6. Considering the UPMC Department of Anesthesiology Residency Program Facebook page in particular, did you find it useful when deciding:			
a. Whether to apply to UPMC?	Yes	12%	25
	No	88%	
I. If yes, did it make you more or less likely to apply to UPMC?	More likely	100%	3
	No effect	0%	
	Less likely	0%	
b. Whether to interview at UPMC?	Yes	25%	24
	No	75%	
I. If yes, did it make you more or less likely to interview at UPMC?	More likely	100%	4
	No effect	0%	
	Less likely	0%	
c. How to rank-order UPMC in your Match List?	Yes	29%	24
	No	71%	

	Increase	100%	
I. If yes, did it increase or decrease the position of UPMC on your Match List?	No effect	0%	6
	Decrease	0%	
7. How would your rank the UPMC Department of Anesthesiology Residency Program's social media offerings compared to other programs that you evaluated? (1=much worse, 3=about the same, 5=much better)[a]		4 (3-5)	27
8. Which aspect of the UPMC Department of Anesthesiology Residency Program Facebook page did you find most helpful?[b]	Videos describing different aspects of the program	69%	16
	Pictures of residents working in the hospital	13%	
	Pictures of residents socializing	25%	
	Information about notable events and activities within the department	19%	
	Information about awards, publications, and achievements of members of the department	19%	
	Information about the	33%	

	interview day at UPMC	
	Other	6%

aResults listed as median (25%-75%). All other

results listed as percentages.

bResults total greater than 100% due to

respondents selecting multiple answer choices.