Viewpoint From 2 Undergraduate Medical Education Deans
The Residency Application Process: Working Well, Needs Fixing, or Broken Beyond Repair?

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The experience of current medical students applying for US residencies

The residency application process, which includes not just the basic application components but away electives, negotiating for interviews, garnering faculty support, and managing postinterview communication, is protracted, is expensive, and often lacks transparency.[1] The process has become more challenging for medical students and program directors because of the increased number of applicants and applications.

Students are stressed by the timeline of residency interviewing, the difficulty in finding out information about residency programs, the perceived increase in competitiveness of the Match, and the time and expense that these processes entail. Having all aspects of the application ready by September 15, when residency programs start accessing applications through the Electronic Residency Application Service (ERAS), can be a daunting task, even for students at schools that complete the core clinical year earlier than the end of year 3. Furthermore, programs in specialties like orthopedic surgery and emergency medicine expect students to do electives at institutions away from their own schools. Some students applying to orthopedic surgery residency may do 3 away rotations at different programs. This is a lot to accomplish in a short amount of time; there may be limited opportunity for students to carefully consider and reflect on their chosen specialty and the specific program choices. Applying for residency occupies a substantial portion of the fourth year of medical school, which potentially prevents students from using the year more productively. This may also discourage schools from initiating experiences and curricula that can maximally prepare for the challenges of residency, especially in a way relevant to a student's chosen field.[1]

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Students also have voiced concern over difficulty finding information about programs. Some services, like the American Medical Association's FREIDA Online, are good sources for finding programs by region. Doximity has taken this a step further by rating programs using data like board pass rates, but it also uses reputation, which is of questionable merit.[2] Websites for programs are highly variable and may not be updated regularly. Students therefore rely heavily on mentors and advisers, who can be immensely helpful, but who also may have limited knowledge of programs beyond a regional scope. Students may use online resources like The Student Doctor Network,[3] where the information can be current but may not be accurate. Collectively, this results in an information imbalance in which students may have difficulty narrowing the lists of programs to which they are applying, since it is challenging to assess the strengths of a program or whether it is the right fit prior to an interview.

On a logistical level, students have reported that obtaining a date and time for an interview can be extremely difficult, even when they receive an invitation from a program. Some students have found that interview slots fill up quickly, within seconds, despite prompt responses to invitations. Some programs, especially those in more competitive fields, offer only a handful of interview dates, which may conflict with those of other programs. Some students hear nothing back from certain programs they have applied to, and may be unsure whether to interpret this as a rejection or as being placed on a waiting list for an interview. This leads to a dilemma about how to communicate with programs or whether to request advisers to advocate on their behalf.

The whole enterprise can be very expensive for students. In addition to the fees for ERAS and the National Resident Matching Program (NRMP), students have to pay for travel and accommodations, which can be substantial. These expenses are not typically covered by federal loan programs, and thus students may need to take out nongovernmental

loans. This adds to the level of indebtedness that is already a major issue for many students.

It is easy to see how from the perspective of an applicant this process can seem daunting, stressful, and even discouraging.

Why are medical students applying to an increasing number of residency programs?

In terms of the Match, US medical school seniors fare the best of all of the categories of applicants (versus those who have already graduated from medical school, international graduates, and students from osteopathic schools), with a match rate of 92% to 94% during the past 10 years.[4] Annually, there are about 9000 more postgraduate year 1 (PGY-1) positions than US seniors who register for the Match. While 2000 more US medical school seniors participate in the Match now than 10 years ago, there has been an overall steady increase in the number of PGY-1 positions that parallels the expansion of US graduating classes. In that sense, it is still a "buyer's market" for the US senior medical student. That being said, there is an increased sense of competition for positions because not all residency spots are equally attractive.[2]

Moreover, in 2015, US medical school seniors had a less than 80% match rate in the most competitive fields: dermatology, neurological surgery, orthopedic surgery, and otolaryngology.[2] Students' perceptions of increased competition and heightened concerns about not matching in certain specialties may be pushing students to apply to more and more programs, although whether such a strategy is effective has been questioned.[5] Concerns about competition and a lack of reliable data allowing comparison of programs prior to interviews have likely driven up the number of applications per student.

Why are medical students applying to many programs that are a "reach" for specialty or site, given their medical school records? Should the medical schools provide advice?

Medical students make specialty choices based on content of the specialty, and how it fits with their interests, goals, and expectations about work-life balance.[6] They select programs based on a number of factors, including geographic location, program reputation, and perceived goodness of fit.[2] Students can benchmark themselves against graduates who have matched and not matched in a given field using data available through the Association of American Medical Colleges' (AAMC) Careers in Medicine website.[7] With this information as well as school-specific track records, advisers can help frame a student's potential chances for matching in a field. Applying for "reach" specialties or programs does incur the risk of not matching and the potential additional expense of applying to and interviewing at many programs. On the other hand, students may feel they have invested substantial effort and cost into their education, and therefore should not be deterred from pursuing fields or programs about which they feel strongly. They believe they should "go for it" and let the programs decide whether they are worthy applicants. It is the duty of an adviser to be as honest as possible with students about their chances of matching in a field, and to make sure students understand the potential costs and risks of applying to reach fields and programs, as well as the risks and consequences of not matching. However, no adviser's knowledge is perfect, and it is likely that anyone doing this kind of advising has known students who did match into their chosen field even when the odds were not favorable.

Should the NRMP—or another group—place a limit on how many programs medical students can apply to or how many interviews they can attend?

Limiting the number of programs that students can apply to or interview at is not something we would support. There are many reasons why a student may apply to a large number of programs, aside from trying to increase the chances of matching to a competitive specialty. Students may need to consider a large number of programs for compelling reasons, such as matching as a couple or family or personal responsibilities. Just as there are no limits on other kinds of applications, such as to colleges or medical schools, it does not seem fair to arbitrarily cap the number of applications or interviews for applicants to residency.

Should medical schools advise applicants to apply to a backup specialty, through the Match, if they are applying to a highly competitive first–choice specialty?

Students who do not secure a position through the main Match can try to do so through the Supplemental Offer and Acceptance Program (SOAP). However, there are not sufficient residency spots for all unmatched US students, and many of the positions are only for a preliminary year. In 2015, there were still more than 600 unmatched US seniors at the

conclusion of SOAP.[2] Thus, it can be very difficult to find a position afterward.

We feel it is better for students to apply to a backup specialty than to go unmatched. We usually advise students to pursue a parallel plan if they do not appear to be competitive for their preferred specialty and they have some interest in another field. We recognize that the gains of such a strategy are modest. Students who applied to a backup specialty and matched into that specialty applied, on average, to nearly 15 programs in that specialty and received 4 interviews.[2] It is not known how this strategy affects a student's chances in the 2 fields. For example, the work of applying in 2 specialties could make the applications less compelling. Anecdotally, we have heard program directors say that they look less favorably on candidates whose experiences make it appear that they are aiming for another specialty. While these are potential downsides to applying to a backup specialty, we feel any strategy to avoid going unmatched is worth the additional effort.

When faced with huge numbers of applicants, how can program directors approach the applicant in a holistic way and avoid using cutoffs, such as USMLE score, class rank, or type of medical school?

Program directors can learn much from medical school admissions officers about considering applicants in a more holistic way. For several years medical schools have emphasized a holistic review, a process of individualized and flexible consideration of applicants across a range of experiences and metrics. Such efforts are time and faculty intensive but have been shown to increase student diversity without changes in entering student metrics.[8]

For example, use of the selection to the Gold Humanism Honor Society (GHHS) as a criterion could identify students who are recognized by their peers as providers of excellent care. GHHS designation is now a checkbox in ERAS, which allows for easy identification. Emergency medicine has pioneered the use of the standardized letter of evaluation that prompts faculty to rate students based on a variety of metrics, including teamwork and communication skills. This allows applicants to be compared on skills that are relevant to residency.[9] Other fields are considering or adapting similar approaches. The AAMC has charged a task force to examine the Medical Student Performance Evaluation (MSPE). Having a briefer, standardized document with easy-to-access data across demographics, skills, metrics, and accomplishments could facilitate more efficient reviews by program directors.

How can the current application and interview process be improved?

There are several things we can do collectively to improve the current application and interview process. Advising around specialty choice should occur well before the beginning of the fourth year. This way, students can pursue activities and experiences that can help them explore specialties and not rely on the interview process for that purpose. Having more current, accurate, and accessible data in a standardized format that allows students and advisers to compare residency programs may help them narrow the list of programs for applications. Students experience considerable anxiety around when they can expect to hear from programs about interviews; thus, having standardized dates by specialty for interview invitations could be helpful, as could be a formal waitlist designation for interviews, so applicants are not left wondering about their status.

Programs should consider how many interview invitations to send so that all students who are actually invited can secure a date to interview. The AAMC's eventual recommendations for the MSPE may be helpful in terms of promoting holistic review and providing residency directors with comparable data across fields that are relevant to the goals of the residency program. Likewise, specialty departments should consider increasing their efforts to assist program directors in pursuing a holistic review of applicants.

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