Gastroenterology Fellowship Match: An Inside Look

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Gastroenterology (GI) fellowships continue to be highly sought after by internal medicine residents interested in pursuing subspecialty training. Indeed, a recent study published in *Digestive Diseases and Sciences* reported that GI fellowships had the highest number of applicants per available position among the major subspecialties within internal medicine (IM) [1]. Despite its popularity, applicant characteristics that may influence one's candidacy for a GI fellowship position are not well described in the literature.

From the late 1990s–early 2000s, during which the GI fellowship match was abandoned, studies noted a geographical association between an applicant's site of IM residency and his or her GI fellowship training. For example, Niederle et al. [2] found that during this era, fellowship programs increasingly relied on internal applicants (e.g., candidates from the same institution's IM residency program) to fill GI fellowship positions. Following the reinstatement of the match in the US, little is known about how geography influences the application process from the perspective of the applicant and the fellowship program. Of note, a recent study of Canadian residents who matched in a GI fellowship program did find that applicants ranked a suitable location as the most important factor when choosing a training site [3].

Research from other disciplines of medicine has also identified location as an important consideration in the application process—notably from the perspective of program leadership [4, 5]. In a survey study of the pediatric otolaryngology fellowship application process, program directors ranked “prior knowledge of an applicant” as a top consideration in determining an applicant's candidacy—a factor that would preferentially benefit internal candidates [5]. And thus, the question for GI fellowship applicants and program

directors remains—how does the applicant's site of IM residency training actually impact the application process?

In this issue of *Digestive Diseases and Sciences*, Atsawarungrangkit et al. [6] investigated the potential influence of the geographical location of a US applicant's residency training program on the results of the GI fellowship match. The authors searched the medical professional network database Dximity for gastroenterologists who graduated from fellowship between 2010 and 2019 and also listed their respective fellowship and IM residency programs. GI physicians were then categorized as internal applicants if they graduated from the same institution for both IM residency and GI fellowship versus external applicants if the two programs differed. The authors also compared the location of a GI physician's IM residency and GI fellowship in terms of state as well as US Census Bureau-defined division (e.g., Pacific) and region (e.g., West).

A total of 1489 GI physicians were included in the study, with nearly 40% identified as internal applicants who matched at the same institution for both IM residency training and GI fellowship. The authors also found that 53% of applicants matched in the same state, 61% matched in the same division, and 72% matched in the same region. The distribution of internal, in-state, in-division, and in-region applicants varied in different locations of the US. The study authors state that an applicant's geographical site of IM training is a major factor influencing a GI fellowship program's decision to interview and rank applicants.

The findings of this study provide new data regarding the potential influence that the location of an applicant's IM residency program has in determining his or her GI fellowship program candidacy. The authors successfully gathered data over ten successive fellowship matches on a large sample of GI physicians using a publicly available medical professional network. The study results also intuitively make sense, for many of the reasons outlined in the study. Internal applicants may rotate on the GI service or pursue research projects within the same institution as residents, thereby increasing the familiarity between both applicant and fellowship program. There is also likely increased communication

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between IM residency and GI fellowship leadership when it comes time for the fellowship match for internal candidates. Thus, one could conclude from these results that an internal candidate is at an advantage when applying to his or her own institution for GI fellowship.

Nevertheless, another possible explanation for the high percentage of internal applicants within GI fellowship programs is that applicants *prefer* to stay at their own institution for additional specialty training. Whether to continue existing research and mentor relationships that began during residency, to avoid the need to learn a new hospital system and infrastructure, or to remain close to family or friends, there are many reasons for an applicant to highly rank his or her home institution. These more personal reasons also help explain the trend of applicants increasingly staying within their geographical area. As noted above, prior studies have identified location as a top factor in an applicant's decision on ranking a fellowship site [3–5]. Thus, one should hesitate to conclude from this study that there is a clear favoring bias that fellowship programs have toward internal candidates. Further qualitative studies with interviews and focus groups of gastroenterology program directors and fellows would be needed to explore this concept.

One important limitation of the study is the risk of sampling error. In addition to the potential inaccuracies of self-reported data, which the authors did acknowledge, there is also the risk that deriving the study sample from an online medical professional network such as Doximity is not representative of all GI physicians. Indeed, the study sample represented < 40% of the offered GI positions during the study period of interest. Further, it is possible that more recent graduates or existing fellows are more inclined to use such an online network than older graduates. Thus, the generalizability of the findings to all GI applicants remains in question.

This study adds to the current limited knowledge of how geography influences choices for GI fellowship. As noted in the study, a significant proportion of GI physicians were internal candidates when they matched at their respective fellowship programs, and an even larger percentage of GI physicians remained in the same region as their internal medicine residency program. Multiple reasons for these results may exist, both from the perspective of the applicant and the fellowship program. Further qualitative studies are needed to more clearly explain the potential motivations behind these results.

Compliance with ethical standards

Conflict of Interest No conflicts of interest to report.

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