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Selecting a Fellowship in Gastroenterology

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For the trainee who has decided on a career in gastroenterology, the process leading up to a successful pairing with a fellowship program can seem daunting. An informed and organized approach is important to be successful in the selection of a program.[1] The process can be conceptualized in five phases: preparation, application, interviews, ranking, and matching (PAIR–Match; Figure 1). In recent years, this process typically involved preparation starting from the first postgraduate year of internal medicine training; however, the internal medicine subspecialty match has recently undergone a shift in its timetable. The process and details of applying for a gastroenterology fellowship have been addressed in a recent MET Corner article.[2]

The selection of a fellowship program actually begins before a candidate even fills out any applications. During this preparatory phase, residents should start by considering their own qualifications, strengths, weaknesses, and limitations that could affect the specific programs for which a candidate should apply. Residents should seek advice from their own program director regarding the number of programs to which the candidate should apply. Because gastroenterology fellowships are currently quite competitive, a candidate may need to apply to a dozen or more programs to ensure an adequate chance for a successful match. After an application is submitted to a program, each program selects trainees to interview. Once the interview process has been completed, both the prospective trainees and the programs rank one another, and the selection process begins.

Factors affecting selection of a gastroenterology fellowship program by a trainee and vice versa are not well understood. Studies have focused on other specialties such as surgery, obstetrics and gynecology, emergency medicine, radiology, and internal medicine.[3–7] Even among these widely divergent fields, the factors cited as significant in their selection of training programs overlap considerably.

Broadly, the important factors involved in the selection of a training program fall into 3 categories: program characteristics, long-term professional goals, and personal considerations. In a survey addressing factors that affected medical students' selection of an internal medicine program, the most important factors were housestaff morale, academic reputation, the variety of clinical experiences, a location near a spouse or significant other, and a positive interview experience.[5] Similar factors have been reported to be important in other fields as well.[3,6,7] Anecdotally, many of these factors seem to be applicable to the selection of a gastroenterology fellowship program, with the addition of some specialty-specific nuances. In this article, we discuss considerations that a prospective gastroenterology trainee may wish to consider in their quest for an appropriate fellowship program.[8]

Program Characteristics

The Accreditation Council for Graduate Medical Education provides accreditation for gastroenterology training programs in the United States[8] and stipulates the requirements necessary for programs to maintain their accreditation. The Gastroenterology Core Curriculum was created as a joint venture between the 4 major GI societies (American Gastroenterological Association, American College of Gastroenterology, and American Society for Gastrointestinal Endoscopy, American Association for the Study of Liver Diseases) to provide a general framework for training programs that can be tailored to meet the needs of individual trainees based on the strengths of the program.[9] All programs should offer a variety of clinical experiences with adequate training in both inpatient and outpatient settings in a diverse patient population. The programs should similarly provide exposure to specialized training in areas such as motility, advanced endoscopy, and transplant hepatology, but the level of training can vary considerably. Such differences between programs may be important for a trainee with

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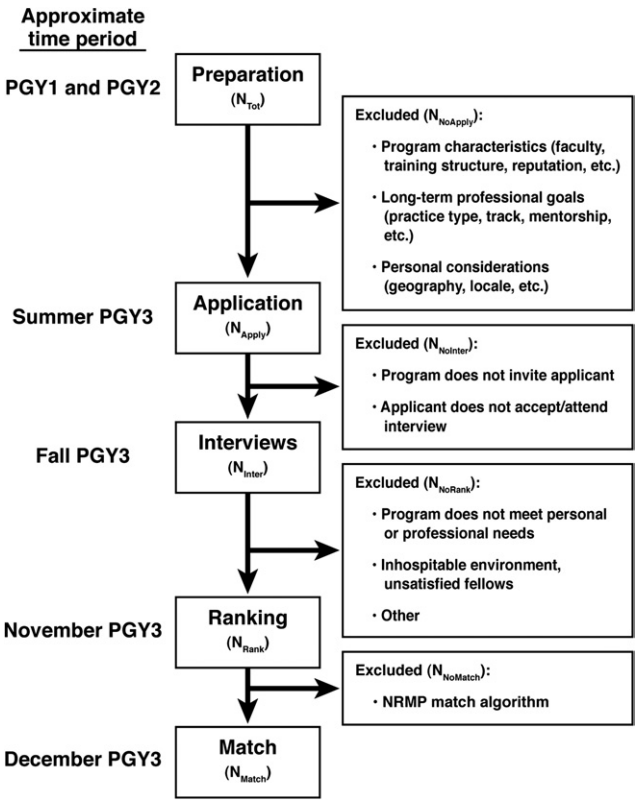

Figure 1. The "PAIR-Match" flow diagram of a successful fellowship selection process by an individual applicant. Successfully selecting and matching into a gastroenterology fellowship takes place in 5 general phases: preparation, application, interviews, ranking, and match. Between each phase, a number of programs may be excluded for various reasons. N_{Total}, total number of programs available; $N_{NoApply}$, programs not applied to; N_{Apply}, programs applied to; $N_{NoInter}$, programs not interviewing applicant; N_{Inter}, programs interviewing applicant; N_{NoRank}, programs not ranked by applicant; N_{Rank}, programs ranked by applicant; $N_{NoMatch}$, programs not successfully matching with applicant; N_{Match}, program successfully matching with applicant; NRMP, National Residency Matching Program; PGY, postgraduate year.

specific long-term interests. Programs should provide opportunities to do electives outside of the division for the trainee to complement the training, such as rotations in surgery, radiology, or pathology. Educational conferences should be frequent enough to provide thorough didactic coverage of gastroenterology and hepatology, but not too burdensome that clinical training and personal satisfaction are compromised.

The local, national, and international reputation of the faculty, the program, and the division can be vitally important to some candidates, especially those who wish to enter a career in academic gastroenterology. For trainees who do not plan on entering academic medicine, such aspects may still play an important role in future practice opportunities. Faculty and programs with a strong local reputation may garner more referrals, and improve the educational experience for the trainee. Interactions with local physicians can allow the trainee to showcase his or her interpersonal skills, medical knowledge, and patient care abilities. The faculty should also have collegial relationships with closely aligned specialties such as surgery and interventional radiology to allow for collaborative approach to patient care.

Program structures themselves can vary widely and can play a significant role in trainee satisfaction. Patient care should be balanced between endoscopic and nonendoscopic training. An administrative infrastructure that promotes and supports fellowship training without undue economic or service pressure is an important consideration. Program-specific details such as rotation schedules, call responsibilities, trainee salary, book allowances, and travel stipends may be available on program websites or can be requested during the interview, and may be important for certain applicants. Other factors may need further clarification, often through direct contact with past and current trainees. Such factors include ancillary staff support (particularly in the ambulatory setting), depth and breadth of endoscopic experience, elective or research time allowance, possibility to obtain a degree during the fellowship (eg, in clinical design or health research policy), faculty involvement in patient care and trainee education, and board preparation and passage rates.

Long-term Professional Goals

Applicants to fellowship programs should develop an idea of their long-term career goals. Well-defined career goals can help guide residents to apply to appropriate fellowship programs, because some programs may be better suited to certain types of careers than others.

Residents should give significant thought to the eventual practice type they intend to enter. The most simplistic model distinguishes between private practice, health care organization, academic practice, and industry (eg, pharmaceutical companies). However, lines between these silos are increasingly blurring, as academic institutions, health care organizations, and small private practices consolidate more and more.

A second aspect that residents should consider is the percentage of time they anticipate spending in various activities after training is completed. This percentage is usually considered based on the effort (time) a physician dedicates to particular responsibilities, averaged over a week, a month, or a year. Such responsibilities include patient care, teaching, research, and administration. The specific "tracks" (Figure 2) that a physician maintains can vary based on the institution or the practice, and can change over time.[10]

As a resident's interest to engage in activities other than patient care increases, the more formalized training in these activities the resident should seek out in a fellowship program.[11] For example, if a resident expects to

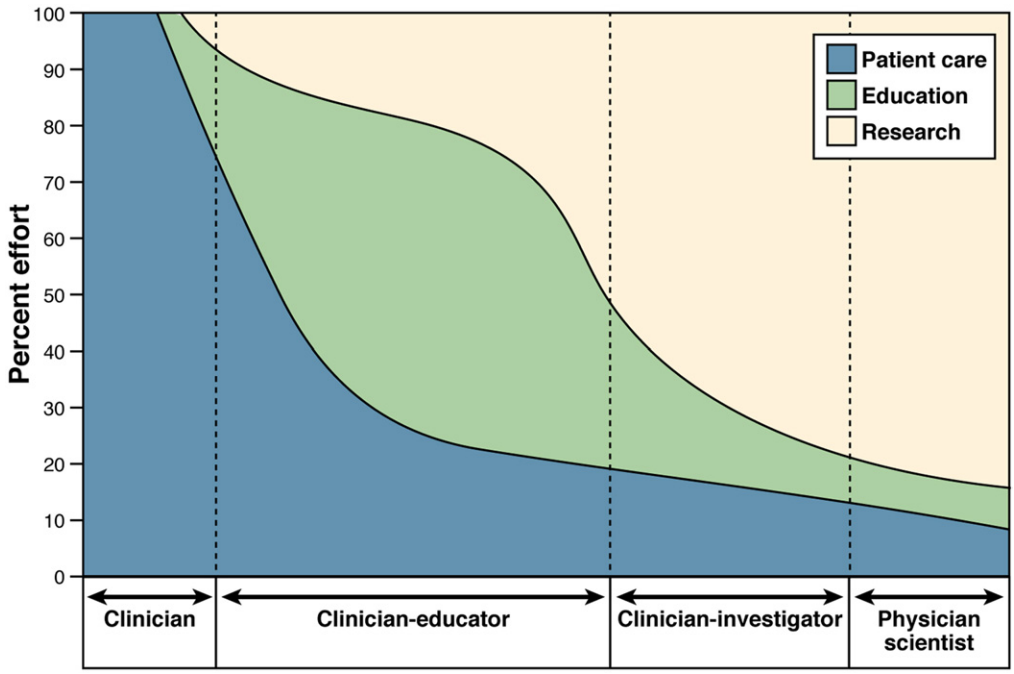

Figure 2. Example of the ranges of percent effort within different academic tracks. An academic physician's time (percent effort) can be generally divided into 3 categories: patient care, education, and research. Although the specific tracks vary from institution to institution, faculty within each track are expected to dedicate a specific proportion of their time to each category.

spend >50% of his or her time dedicated to research after training, then a program with a dedicated emphasis on research during training is more likely to fulfill this goal. The skills needed to achieve success in this path (often called a clinician–investigator) are significantly different from the skills needed to perform patient care exclusively. Although some type of research or scholarly activity is required in every training program, most training programs are geared more toward training the fellow for a career with an emphasis on patient care.

Training programs that are successful at producing clinician–investigators should prepare the fellow by providing a significant block of uninterrupted time (≥12–24 months, depending on prior experience such as a PhD) for learning the skills needed to be an independent researcher.[12] Programs need to provide adequate mentorship opportunities for the trainee by established investigators as well as formal training in research methodologies.[11] Programs should also teach the trainee various administrative skills, such as grant writing, manuscript writing, research presentation, and career development. Programs such as these occasionally offer the option to obtain an additional degree (eg, Masters in Public Health, PhD), although such education often requires additional time.

An additional consideration should be given to subspecialization. Each fellowship program has its own areas of relative strength and weakness. Certain programs may be completely lacking in particular areas, especially with more "niche" areas. If an area of weakness is a medical content area, such as nutrition or motility training, this weakness can often be overcome within a program by supplementing the education with digital modules, self-directed learning, or specialized training rotations (eg, American Neurogastroenterology and Motility Society's Clinical Training Program, Nestle Nutrition Institute Clinical Nutrition Fellowship Program). However, if the trainee has interest in pursuing this subspecialty in the long term, the inability to foster that fellow's learning experience locally may lead to long-term disappointment with training. On the other hand, some programs have faculty with national or international expertise in particular subspecialties (eg, inflammatory bowel disease or hepatology). Residents applying to fellowship with a well-defined desire to subspecialize in a particular field may wish to seek out programs that can further these interests.

Personal Considerations

Although applicants place greater significance on professional objectives during selection of a training program,[6] personal fulfillment plays a key role in realizing job satisfaction and vice versa. The factors that can help to achieve personal fulfillment can be challenging to define. Ultimately, the applicant determines what is most important, carefully considering how training at a particular program will impact his or her life. For some, the principal concerns revolve around what would best suit a spouse, significant other, or family. For others, personal and job satisfaction results from financial security. In a survey of GI fellows, the strongest correlates of personal satisfaction included having time for family and friends and not being overworked.[13] These factors defy the con-

ventional model of intense medical training common to the past several decades and may reflect generational differences in priorities.

Residents cite program location as a major factor in personal satisfaction.[14,15] Before even searching for available programs, prospective trainees should define their geographic limitations. Prospective trainees may have to remain in a particular city, state or region for any number of reasons (spouse's job, presence of family nearby, etc).

After broadly taking stock of geographic limitations, prospective trainees should consider the resources of the area surrounding the program, such as the local schools, nightlife, and commerce, as well as the presence of supportive family and friends. These resources may improve a trainee's (and his or her family's) quality of life and can be especially important for trainees who have (or intend to have) a family during fellowship. The stress of finding adequate education, childcare, or a job for one's spouse may affect the family's happiness and in turn increase a fellow's dissatisfaction. If the fellow has plans to have children during fellowship, inquiries should be made about a program's family medical leave policies, as a flexible schedule may reduce educational discrepancies caused by schedule interruption.[16]

Financial stress during training can be a major source of fellow dissatisfaction and personal unhappiness.[13] Financial factors that adversely affect job satisfaction include a lack of dental and vision benefits, a lack of disability insurance coverage, the presence of educational loans, and holding a second job.[13] Compounding these factors, fellow salaries are usually modest and typically not negotiable within an individual program during training. Therefore, the applicant should take these factors, as well as the cost of living in a given city or town, into consideration.

At the Interview

The interview is the final and most crucial step in program selection. The interview can assist applicants in determining which program will come closest in achieving the resident's career and personal goals. Because of limited time and resources, programs only interview a small percentage of their applicants. An invitation for an interview already suggests that the program has taken a significant interest in the applicant.

The interview process is not designed simply for the program to get a closer look at the applicant; fellowship interviews also allow the applicant to "interview" the program. Visiting a program firsthand allows an applicant to both see the physical space in which he or she will be working as well as determine if the program matches its written description and meets the trainee's needs and interests. Applicants should speak with as many of the program's current fellows as possible to gauge their satisfaction with the training and the environment, or arrange a later conversation with those who are unavailable. Current fellows can give candid information about the actual accessibility of resources for research (both within the division and at the institution), travel, advanced coursework, and mentorship.

A particularly important part of the interview day is meeting the program director (PD). The PD has the ultimate responsibility for creating and maintaining a structured training program that effectively meets the academic, clinical, and personal needs of the fellows and for ensuring that a program's primary role is education over productivity. Programs should have a director who takes ownership of the entire program and works enthusiastically to improve fellow education, despite challenges facing training programs today, including health care reform, and administrative and financial pressures. The PD can address the availability of additional resources that could complement training and fill gaps in education, mentorship, and career development.[17] The PD should also act as an interface between the fellows and the GI community, and should provide fellows with opportunities to interact with prospective employers. Because the fellowship program is usually the final stage of training, applicants should ask for specific information about the jobs their recent graduates have taken.

Fellowship applicants should also become familiar with departmental faculty as well as their clinical and research interests. This preparation allows the applicant to ask directed questions to facilitate a meaningful interaction and gauge one's ability to relate to the faculty. Collegiality between fellows and faculty was identified as a strong correlate of overall job satisfaction among surveyed fellows.[13]

Preparation regarding faculty interests also provides a platform to evaluate the faculty members as possible mentors. The availability of potential mentors in one's field of interest is important for career development and long-term job satisfaction. Mentoring is an important factor in rates of promotion, publication rates, career satisfaction, and confidence.[18–21] Questions regarding fellows' involvement in publications, membership in professional societies, and attendance of and participation in local and national meetings may help determine the faculty's roles in mentoring and fellow education.

After the Interview

After an applicant has completed his or her interviews, an applicant should take a few moments to write notes to the PD and faculty who interviewed him or her. These letters can solidify the sentiments about the program and serve to remind the faculty about the individ-

ual candidate. A candidate may communicate his or her interest in the program and vice versa, but a program may not ask an applicant about their rank preferences.[22] If significant uncertainty lingers at the end of the interview process, the applicant may wish to consider returning to a select number of programs for a second look (some programs may help to defray the expenses of a second visit, particularly if they are highly interested in the applicant). After considering all the strengths and limitations of the various programs, the applicant creates the final rank list for submission to the National Residency Matching Program.

Conclusion

Selecting the most appropriate fellowship program for one's particular situation involves multiple aspects that cannot be dictated. Although certain factors seem to guide many trainees into selecting the best program to suit their needs, only the individual applicant can dictate the most important criteria and values in making this difficult choice. Applicants should consider both short- and long-term issues to optimize the potential for both personal and professional satisfaction with a career in gastroenterology.

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