

Factors Used by Program Directors in the Orthopedic Sports Medicine Fellowship Match

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Abstract

Background: Obtaining an orthopedic sports medicine fellowship position is becoming more difficult, as the number of residents seeking post-graduate training continues to increase.

Objective: To identify factors that orthopedic surgery sports medicine fellowship program directors deem valuable in selecting applicants.

Methods: A web-based questionnaire was sent to all ACGME accredited sports medicine fellowship program directors in the United States in 2016. The questionnaire was designed to identify the most important criteria in selecting applicants for an interview, and ranking candidates to match into their program.

Results: Thirty-five of ninety-one program directors responded. The criteria for offering an applicant an interview were quality of recommendation letter, technical competence, and residency program reputation. Letters of recommendation that held the highest value were from the chief of sports medicine and another sports medicine surgeon in the department. The most important features of the interview were the applicant's ability to articulate thoughts, the maturity of the applicant, and the ability of the applicant to listen well. The attributes deemed most important in high ranking a candidate included the applicant's commitment to hard work, quality of the interview, and quality of letters of recommendation.

Conclusion: There are identifiable factors considered important by sports medicine fellowship directors when selecting candidates for an interview and ranking them in the match process. With increasing costs of the application process and competition among applicants, this information can be valuable to medical students and residents considering a career in orthopedic sports medicine.

Keywords: Sports medicine • Fellowship • Selection • Criteria

Introduction

Obtaining a fellowship position after graduation from an orthopedic surgery residency program is becoming more difficult, as the number of residents seeking post-graduate training continues to increase [1,2]. A study by Harner et al. reported that over 90% of orthopedic residents are pursuing additional fellowship training [3]. Factors used by fellowship directors in other programs, such as hand surgery, have been previously described [4]. Grabowski et al. also reported selection criteria across all orthopedic subspecialties, although they only listed the three most important selection criteria both prior to and after the interview [5]. The purpose of our study, therefore, was to identify factors deemed as important to both offering an interview and ranking of applicants for accredited orthopedic sports medicine fellowships in the United States.

Material and Methods

A web-based questionnaire consisting of 63 items in 4 sections was created using survey-monkey. The questionnaire was based on the one used in a previously reported study regarding hand surgery fellowship applicants [1]. Each fellowship program director was asked to rank them to determine

relative importance in offering an interview, and in ranking a sports medicine fellowship applicant for the match process. The four sections included importance in obtaining an interview, important sources for letters of recommendation, important factors during the interview, and factors deemed as important in highly-ranking the applicant. All items were ranked on a 1 to 5 Likert scale, with 1 being not important and 5 being critically important.

The survey was performed in 2016 and sent by e-mail to each ACGME accredited sports medicine fellowship program director. Information for each program director was obtained through the America Orthopedic Society for Sports Medicine (AOSSM) fellowship list. E-mail addresses were obtained from the program's website or by contacting the program coordinator if an e-mail address was not listed. We sent follow-up emails to complete the survey at 1, 2, 3, and 4 weeks after the initial mailing. The most important criteria were determined by calculating the mean Likert score and SD for each item surveyed.

Results

Thirty-five of ninety-one (38.5%) program directors responded. The criteria in order of importance for offering an applicant an interview was quality of letter of recommendation (4.4 ± 0.7), comments in letters of

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recommendation, comments regarding overall technical competence (4.1 ± 0.9), residency program reputation (4.0 ± 0.7), any interruption in education (3.8 ± 1.0), comments regarding arthroscopy competence (3.7 ± 0.9), and medical degree (MD versus DO) (3.6 ± 1.3). The least important factors in granting an interview were the applicant's race (1.1 ± 0.3) and gender (1.1 ± 0.5).

The letters of recommendation that held the highest value were chief of sports medicine (3.7 ± 1.0), and another sports medicine surgeon in the division/department (3.6 ± 1.0). The letter with the least value was clinical faculty not associated with the applicant's residency program (2.6 ± 1.1).

The most important features of the interview were the applicant's ability to articulate thoughts (4.3 ± 0.6), maturity of applicant (4.3 ± 0.7), ability of applicant to listen well (4.2 ± 0.6), applicant's degree of self-confidence (4.1 ± 0.6), fund of both medical knowledge (4.0 ± 0.6) and sports medicine knowledge (4.0 ± 0.6). The least important features were the appearance of the applicant (3.6 ± 0.9) and the first impression (3.7 ± 0.8).

The attributes and factors deemed most important in highly-ranking a candidate were the applicant's commitment to hard work (4.7 ± 0.5), quality of interview (4.3 ± 0.5), quality of letters of recommendations (4.3 ± 0.5), and ability to work with other members of the health care team (4.3 ± 0.8). The least important factors were applicants gender (1.1 ± 0.4), race (1.1 ± 0.4), video game experience (1.2 ± 0.5) if they were a former collegiate athlete (1.8 ± 0.9), and interaction with the applicant at regional and/or national conference (1.9 ± 1.0).

Discussion

Our study determined the most important criteria for offering an applicant an interview which was the quality of letters of recommendation and comments regarding technical competence from either the chief of sports medicine or other sports surgeon in the applicant's program. Other reports from different areas of medicine have defined similar specialty-specific criteria used to identify and rank fellowship applicants. A common finding across several different sub-specialties is the high emphasis on both quality and source of letters of recommendation [4-9].

We found that with respect to gaining an interview, the most important factor was not only the quality of the letters of recommendation but also the content within the letters, specific comments regarding technical competence. A similar finding was reported by Nies et al., who also found comments regarding technical competence were highly ranked by hand surgery fellowship program directors [4]. While the letter of recommendation was important for offering an interview, it was also deemed important when ranking an applicant and was among the top three factors used in determining the final ranking. The letters of recommendation that held the highest value were the chief of sports medicine and another sports medicine surgeon in the division/department. Other highly ranked characteristics included the credentials of the applicant, such as having an MD degree and training at a residency program with a strong reputation. We did not attempt to determine how a program's reputation was determined. Our results are very similar to those in other fellowship specialties [4,5]

The value placed on specialty-specific annual in-training testing varies considerably. Miller et al. reported that in the field of general surgery, certain sub-specialties place a higher emphasis on ABSITE scores [7]. However, the ABSITE scores ranked behind the applicant's letter of recommendation and residency program reputation in terms of importance. In the orthopedic literature, hand fellowship directors reported that the in-training score is not of high importance when ranking applicants, which corroborates our findings [4]. This finding may be due to the unknown association between a standardized examination score and quality of patient care, patient satisfaction with the provider, or other indicators of success.

Our study had several limitations. The response rate by fellowship directors was low, although the response rate of similar previously published

questionnaire-based studies has varied widely [4,5,8]. Furthermore, our study involved asking only the fellowship directors and not the entire faculty involved in the fellowship selection process. The opinions of the fellowship directors may not fully reflect those of their colleagues. Finally, even though the academic performance was ranked of lower importance than subjective characteristics, fellowship applicants have already gone through numerous application processes throughout their academic careers and an amount of pre-selection bias may exist [10].

Conclusion

In conclusion, our study identified several important factors for selecting and ranking candidates in the orthopedic sports medicine fellowship match. This is highly pertinent to medical education, as the costs associated with the interview process can be burdensome, representing up to 14% of a resident's salary. Furthermore, the combination of increasing costs and competition can be daunting to fellowship applicants, with the subsequent creation of a selection process that is time consuming, stressful, and financially limiting. We believe the findings of our study will be of value to not only program directors in revamping the match process, but also helps to applicants looking to pursue a career in orthopedic sports medicine.

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