

Orthopaedic Sports Medicine Fellowship Interviews

Structure and Organization of the Interview Day

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Background: Over the past few decades, there has been a trend toward an increasing subspecialization in orthopaedic surgery, with orthopaedic sports medicine being one of the most competitive subspecialties. Information regarding the application and interview process for sports medicine fellowships is currently lacking.

Purpose: To survey orthopaedic sports medicine fellowship program directors (PDs) to better define the structure of the sports medicine fellowship interview and to highlight important factors that PDs consider in selecting fellows.

Study Design: Cross-sectional study.

Methods: A complete list of accredited programs was obtained from the American Orthopaedic Society for Sports Medicine (AOSSM) website. An anonymous survey was distributed to fellowship PDs of all Accreditation Council for Graduate Medical Education (ACGME)-accredited orthopaedic sports medicine fellowships in the United States. The survey included 12 questions about the fellowship interview and selection process.

Results: Of the 95 orthopaedic sports medicine fellowship PDs surveyed, 38 (40%) responded. Of these, 16 (42.1%) indicated that they interview between 21 and 30 applicants per year. Eleven of the 38 fellowship programs (28.9%) have only 1 fellow per year at their respective program. Most programs (27/37, 73%) reported that between 0 and 5 faculty members interview applicants, and 29 of the 38 programs (76.3%) arrange for applicants to have ≥ 4 interviews during their interview day. Large group interviews are conducted at 36 of 38 (94.7%) sports medicine fellowship programs, and most programs (24/38, 63.2%) hold individual interviews that last between 5 and 15 minutes. The most important applicant criterion taken into account by PDs was the quality of the interview, with an average score of 8.68 of 10.

Conclusion: The most significant factor taken into account by PDs when deciding how to rank applicants was the quality of the interview. Many orthopaedic sports medicine fellowship programs interview between 21 and 30 applicants per year, with each applicant participating in an average of 2 to 4 individual interviews per interview day and interviews commonly lasting between 5 and 15 minutes.

Keywords: sports medicine; fellowship; fellow education

Over the past few decades, there has been a trend toward increasing subspecialization in orthopaedic surgery. Changes in the job market, Accreditation Council for Graduate Medical Education (ACGME)-mandated work-hour restrictions, and confidence as a surgeon are all factors that contribute to the shifting environment in orthopaedic education.^{5,7,14} Numerous benefits of orthopaedic subspecialization have been proposed, including financial stability and job security. In 2007, Ranawat et al¹⁰ surveyed 50 graduating orthopaedic residents regarding their plans after graduation from residency. The authors found that

approximately 90% of graduating orthopaedic surgeons chose to pursue at least 1 year of fellowship training.¹⁰ Furthermore, sports medicine has been one of the most popular orthopaedic fellowships for several years, with 40% of residents stating that they were applicants in a 2005 American Orthopaedic Association (AOA) forum.¹⁰

Information regarding the application and interview process for sports medicine fellowships is currently lacking. A study by Mulcahey et al⁸ in 2013 evaluated the content and accessibility of websites for accredited orthopaedic sports medicine fellowships. The authors found that of all accredited sports medicine fellowships listed on the American Orthopaedic Society for Sports Medicine (AOSSM) website, only 3% had websites that were linked to information about their respective fellowship. Similarly, of the 88% of sports

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medicine fellowships with links on the San Francisco Match website, only 5% connected directly to their respective fellowship.⁸ Fellowship websites were also assessed for specific content, such as the fellowship program's previous research and call responsibilities. Data pertaining to fellow education were sparse, as each of these criteria was generally represented by less than half of the programs.⁸ A follow-up study 3 years later demonstrated that there had been no appreciable improvement in the information available to fellowship applicants.¹⁵

Currently, there are few studies that define the factors that are thought to be important by orthopaedic sports medicine fellowship program directors (PDs) in selecting applicants for interviews and ultimately determining their rank list. There are, however, numerous studies that define important factors in the selection process for other orthopaedic surgery fellowships. A 2013 study by Grabowski and Walker⁶ surveyed all orthopaedic subspecialty fellowship PDs on distinct selection criteria. The authors found that fellowship selection criteria differed from those used in selecting residents in that fellowships placed more emphasis on qualitative aspects of the application (eg, letters of recommendation) rather than quantitative aspects (eg, Orthopaedic In-Training Examination scores).⁶ Given the competitive nature of applying for orthopaedic sports medicine fellowships, it is important for applicants to have a good understanding of the interview structure, common expectations for the fellowship year, and factors that are considered to be important for matching to an orthopaedic sports medicine fellowship program. The purpose of this study was to survey orthopaedic sports medicine fellowship PDs to better define the structure of the sports medicine fellowship interview and to highlight important factors that PDs consider in selecting fellows.

METHODS

After obtaining approval from the institutional review board at our institution (protocol No. 1701005083), an anonymous survey was distributed to the directors of all ACGME-accredited orthopaedic sports medicine fellowship programs in the United States. A complete list of accredited programs was obtained from the AOSSM website. The survey included 12 questions about the fellowship interview and application process (see the Appendix). Respondents were also asked 1 question regarding their geographic region; therefore, there was a total of 13 questions within the survey. A follow-up email was sent 2 and 4 weeks later to encourage more participation. Standard descriptive statistics were used to analyze responses to the survey.

RESULTS

Of the 95 orthopaedic sports medicine fellowship PDs surveyed, 38 (40%) responded. There was a wide geographic distribution of respondents, with the highest percentages from West B (7/38, 18.4%), Midwest A (6/38, 15.8%), and South A (6/38, 15.8%) (Figure 1).

Of the 38 PDs who responded to the survey, 16 (42.1%) stated they interview between 21 and 30 residents, 7 (18.4%) interview between 16 and 20 residents, and 6 (15.8%) interview between 31 and 40 residents. Eleven of the 38 fellowship programs (28.9%) have 1 fellow per year at their respective program (Figure 2).

PDs were asked to rank 15 factors used in selecting applicants for interviews on a scale of 1 to 10 (with 1 being least important and 10 being most important) (Table 1). The 5 most important factors identified were quality of the interview (8.68), letter from a faculty member at the PD's institution (7.58), letter from an orthopaedic surgeon whom the applicant works with (7.58), quality of the residency program (7.21), and telephone call placed on the candidate's behalf (6.92). The least important factor was whether the resident expressed interest in the program through a telephone call or email (Table 1).

There is a wide range in the number of faculty members who are involved in interviewing residents for orthopaedic sports medicine fellowships. One PD elected not to respond to this question, leaving a total of 37 respondents. Of the 37 respondents, 21 (56.8%) reported that 0 to 5 faculty members interview applicants. At 12 programs (32.4%), 6 to 10 faculty members interview applicants, while 4 (10.8%) programs have 11 to 15 faculty members interviewing applicants. Current fellows interview applicants at 19 (50.0%) programs.

The length of the interview day varies between programs. Eighteen of the 37 respondents (48.6%) interview for half of the day (eg, 8 AM to 12 PM), whereas the remaining 19 programs (51.4%) have applicants stay for a full day (eg, 8 AM to 4 PM). The length of each interview ranges from 5 and 15 minutes to 90 minutes. Twenty-four of the 38 programs (63.2%) hold individual interviews that last between 5 and 15 minutes. Twenty-nine programs (76.3%) arrange for applicants to have ≥ 4 interviews during their interview day. Large group interviews (ie, >5 faculty members) are required at 36 of the 38 sports medicine fellowship programs (94.7%). None of the programs reported that they use standardized questions during each interview (2 programs chose not to respond). Of the 37 respondents, 8 (21.6%) stated that they incorporate themes for some of their interview rooms, while 29 (78.4%) stated that they do not have a predetermined theme for each room.

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Orthopaedic Sports Medicine Fellowship Respondents By Region

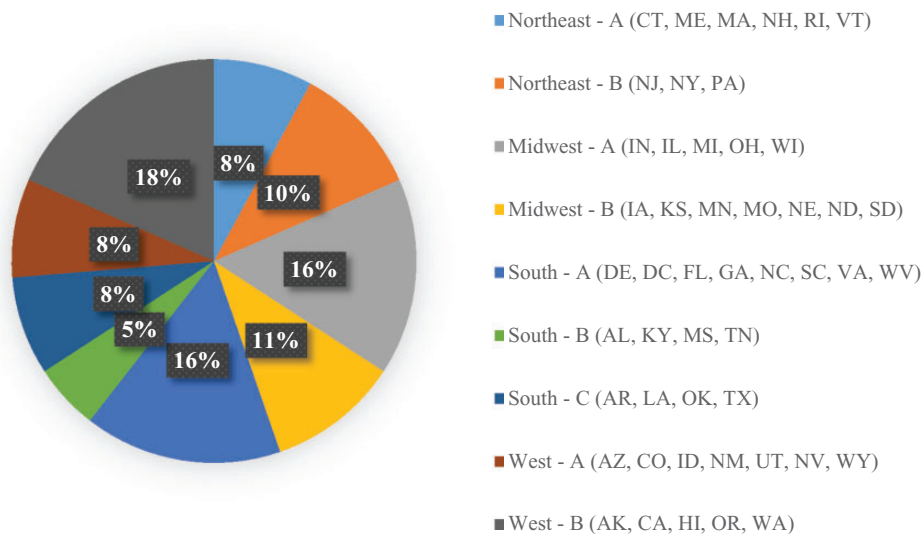


Figure 1. Geographic location of respondents' fellowship program.

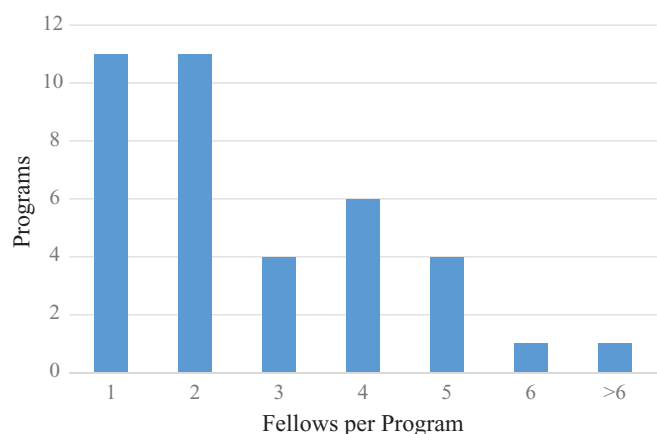


Figure 2. Number of fellows enrolled at each orthopaedic sports medicine fellowship program.

DISCUSSION

A paucity of information is available to orthopaedic sports medicine fellowship applicants regarding the structure of the fellowship interview and factors considered to be important in the selection and ranking process. This study demonstrates that there is considerable variability among sports medicine fellowship programs in terms of the number of applicants interviewed, the number of separate interviews conducted on the interview day, and the number of faculty members involved in the interview process.

Residency PDs use United States Medical Licensing Examination (USMLE) scores and medical school rank as major determinants in selecting applicants to interview and ultimately ranking the applicants; however, the same emphasis does not seem to hold true at the fellowship

TABLE 1
Criteria Used in Selecting Orthopaedic Sports Medicine Fellowship Applicants for Interviews^a

	Score	Rank
Quality of interview	8.68	1
Letter from a faculty member at the interviewer's institution	7.58	2
Letter from an orthopaedic surgeon whom the applicant works with	7.58	3
Quality of residency program	7.21	4
Telephone call placed on the candidate's behalf	6.92	5
Letter from the director of the applicant's residency	6.50	6
Publications	6.24	7
USMLE scores	5.47	8
Orthopaedic In-Training Examination scores	5.16	9
Personal statement	4.82	10
Applicant has various hobbies outside of medicine	4.58	11
AOA membership	4.42	12
Medical school rank	4.03	13
MD/PhD	3.68	14
Applicant has expressed interest in the program (telephone call or email)	3.16	15

^aScored on a scale of 1 to 10, with 1 being least important and 10 being most important. Ratings were then averaged to calculate the score. AOA, American Orthopaedic Association; USMLE, United States Medical Licensing Examination.

level.^{2,11-13} In our study, USMLE scores were considered the 8th most important factor of a list of 15, while AOA membership was ranked 12th of 15. The top 3 criteria for interview selection and final rank order for orthopaedic sports medicine fellowship applicants were quality of the interview, a letter from a faculty member at the PD's institution, and a letter from an orthopaedic faculty member at

the resident's institution. These results further support data from the current literature, which suggest that qualitative factors are the most important in selecting applicants for sports fellowship interviews and determining their ultimate position on the rank list.⁶ This speaks to the importance of obtaining strong letters of recommendation when applying for orthopaedic sports medicine fellowships.

The literature regarding the structure of the interview day for fellowship programs is limited, and when reported, the information is frequently nonspecific. In 2013, Egol et al⁴ summarized the information available in previous studies that surveyed medical students and residency PDs about the orthopaedic residency interview process. The authors found that the structure of the orthopaedic residency interview day varies considerably and is dependent largely on the individual institution's style of interview.⁴ Each program decides on an appropriate number of separate interview rooms, number of faculty members involved with the interviews, and length of the interview day.^{3,9} The results from our study demonstrate that sports medicine fellowship PDs arrange for applicants to undergo at least 2 interviews during the interview day and that the majority of institutions (76.3%) require at least 4 interviews per applicant. Residents should therefore anticipate having to participate in 2 to 4 interviews at each institution, with most interviews (63.2%) lasting between 5 and 15 minutes.

There is some variability in the length of the interview day, with 51.4% of programs requiring a full-day visit and 48.6% of programs clustering their interviews into a half day. More time away from work is necessary to attend full-day interviews. Additionally, this structure may make it more difficult for an applicant to travel to another interview location in time to attend a social gathering or to prepare for the interview the following day. General surgery and orthopaedic residents commonly interview at a minimum of 8 fellowship programs.^{9,16} A substantial amount of time away from work is needed for travel and for the interviews themselves. According to Oladeji et al,⁹ 86% of residents miss at least 8 days from work to interview for fellowships. The study further demonstrated that 70% of orthopaedic residency PDs found the fellowship interview process to be disruptive and that 69% felt that it should undergo a fundamental change.⁹

There are several limitations to this study. Our response rate was 40%, and therefore, the results may not reflect the views of all sports medicine fellowship PDs. The sample size was limited to a minority of geographic locations, so the distribution of respondents may not represent geographic locations of all sports medicine fellowship programs. Published studies on orthopaedic education commonly have response rates that are similar to ours.^{1,6,9} Our survey may not have included all factors that fellowship directors and/or applicants consider to be important in the application, selection, interview, and ranking process. Another potential factor that PDs could take into account would be the evaluation of performance on a manual skills test. Additionally, some studies used postinterview criteria (eg, formality and politeness of the candidate) and performance on ethical or manual tests during the interview.^{7,8} Finally, responses to some of the questions in the survey may have been influenced by individual interpretation.

CONCLUSION

The most significant factor taken into account by PDs when deciding how to rank applicants was the quality of the interview. Many orthopaedic sports medicine fellowship programs interview between 21 and 30 applicants per year, with each applicant participating in an average of 2 to 4 individual interviews per interview day and interviews commonly lasting between 5 and 15 minutes. These results help define the process of deciding where to apply and interview and ultimately how to rank orthopaedic sports medicine fellowship programs. Sports medicine fellowship applicants may use this information to gain a better understanding of the interview and selection process.

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APPENDIX
Orthopaedic Sports Medicine Fellowship Director Survey^a

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| <p>1. On average, how many applicants does your program interview?
 10-15
 16-20
 21-30
 31-40
 41-50
 >50</p> <p>2. How many fellows do you have in your program?
 1
 2
 3
 4
 5
 6
 >6</p> <p>3. Please rate each of the following selection criteria from 1 to 10 (1 is least valuable, 10 is most valuable).
 Orthopaedic In-Training Examination scores
 USMLE scores
 AOA membership
 Medical school rank
 Telephone call placed on the candidate's behalf
 Letter from an orthopaedic surgeon whom the applicant works with
 Letter from the director of the applicant's residency
 Letter from a faculty member at your institution
 Personal statement
 Quality of residency program
 Publications
 MD/PhD
 Applicant has expressed interest in the program (telephone call or email)
 Applicant has various hobbies outside of medicine
 Quality of interview</p> <p>4. How many faculty members are involved in reviewing applications and selecting residents to be interviewed?
 0-5
 6-10
 11-15
 16-20</p> <p>5. Is this an ACGME-accredited fellowship?
 Yes
 No</p> | <p>6. Is your interview structured as a half day or full day?
 Half day (eg, 8 AM to 12 PM)
 Full day (eg, 8 AM to 4 PM)</p> <p>7. How many separate interviews does your program include for each applicant as part of the interview day?
 0
 1
 2
 3
 4
 >4 (please specify)</p> <p>8. Do applicants undergo a large group interview (>5 faculty members with 1 applicant)?
 Yes
 No</p> <p>9. How long is each individual interview session during the interview day?
 5-15 minutes
 16-20 minutes
 21-30 minutes
 >30 minutes (please specify)</p> <p>10. Do the current fellows interview applicants?
 Yes
 No</p> <p>11. Does your program use any standardized questions during the interview day?
 Yes
 No</p> <p>12. Does your program have multiple interview rooms with different formats of interviewing (eg, specific focus of one interview room vs another)?
 Yes
 No
 Other (please specify)</p> <p>13. In what geographic location is your program located?
 Northeast: New England (CT, ME, MA, NH, RI, VT)
 Northeast: Middle Atlantic (NJ, NY, PA)
 Midwest: East North Central (IN, IL, MI, OH, WI)
 Midwest: West North Central (IA, KS, MN, MO, NE, ND, SD)
 South: South Atlantic (DE, DC, FL, GA, NC, SC, VA, WV)
 South: East South Central (AL, KY, MS, TN)
 South: West South Central (AR, LA, OK, TX)
 West: Mountain (AZ, CO, ID, NM, UT, NV, WY)
 West: Pacific (AK, CA, HI, OR, WA)</p> |
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^aACGME, Accreditation Council for Graduate Medical Education; AOA, American Orthopaedic Association; USMLE, United States Medical Licensing Examination.