

# Female Orthopaedic Sports Medicine Fellows Tend to Train at Programs in the South and Cover High School Football

Madeline Case<sup>1</sup> BA, Kyra Lowery<sup>2</sup> BS, Mia V. Rumps, MS<sup>3</sup>, Mary K. Mulcahey<sup>3</sup> MD

1 Department of Orthopaedic Surgery, Tulane University School of Medicine

2 Edward Via College of Osteopathic Medicine - Auburn

3 Department of Orthopaedic Surgery and Rehabilitation, Loyola University Medical Center



## Introduction

- Orthopaedic sports medicine fellowships lag behind most specialties regarding female representation.
- There are no studies that evaluate characteristics of programs that train female orthopaedic sports medicine fellows.
- The purpose of this study was to determine the gender distribution of orthopaedic sports medicine fellows during the 2022-2023 academic year and to evaluate what factors may impact fellowship program selection.

#### Methods

- A comprehensive list of orthopaedic sports medicine fellowships in the United States was obtained from the Arthroscopy Association of North America (AANA) Fellowship Directory and American Orthopaedic Society for Sports Medicine (AOSSM) fellowship database in May 2023.
- Programs that met the following criteria were included: Accreditation Council for Graduate Medical Education (ACGME) accredited, provided information on current fellow demographics, and had a website that was linked on the AANA Sports Medicine Fellowship Directory or AOSSM fellowship database or found via a google search.
- Data collection on faculty included only physicians (MDs/DOs) listed on program websites
- The following data was collected from all orthopaedic sports medicine fellowship program websites: geographic region, faculty gender, specific sports covered, level of team coverage, breadth of surgical exposure, and alumni gender as provided

## Results

- Out of 98 programs listed in the AANA Fellowship Directory and AOSSM Fellowship database, 52 were included for analysis.
- All programs were relatively equally distributed across the United States.

Table 1: Geographic Breakdown of Orthopaedic Sports Medicine Fellowships with and without Female Fellows

	All Programs	Programs with Female Fellows	Programs without Female Fellows
Geographic region	N = 52	N = 13	N = 39
Northeast	12 (23%)	2 (15.4%)	10 (25.6%)
South	15 (28.9%)	6 (46.2%)	9 (23.1%)
Midwest	11 (21.2%)	2 (15.4%)	9 (23.1%)
West	14 (26.9%)	3 (23.1%)	11 (28.2%)

- Of the 49 programs that reported data about their fellowship faculty, 16 (32.7%) had at least one female faculty member.
- Programs with current female fellows had a higher percentage of female alumni than programs without current female fellows (14.7% compared to 10.4%) (p=0.00014617)

Table 2: Faculty and Alumni Composition of Orthopaedic Sports Medicine Fellowships with and without Female Fellows

	All Programs	Programs with Female Fellows	Programs without Female Fellows
Faculty	N = 49	N = 11	N = 38
At least One Female Faculty	40 (00 70()	0 (40 40()	4.4.(00.00/)
Member	16 (32.7%)	2 (18.1%)	14 (36.8%)
Average male:female			
faculty ratio	12.4:1	12.4:1	11.8:1
<u>Alumni</u>	N=26	N=6	N=20
% Female alumni	11.8%	14.7%	10.4%
% Male Alumni	88.2%	85.3%	89.6%
Programs with Female Alumni	17	4	13

#### Limitations

- The AANA fellowship directory and AOSSM fellowship database may not include all active orthopaedic sports medicine fellowships
- Only a small number of programs provided information on current fellows and an even smaller number provided faculty and alumni composition.
- This study primarily focused on data from 2022-2023 academic year, which limits the ability of this data to be generalized to a broader timeline, although incorporation of alumni data, when provided, does mitigate this to some extent.

#### Conclusion

- A majority of orthopaedic sports medicine fellowship programs did not have any female fellows during the 2022 2023 academic year.
- This study found a positive correlation between female alumni and future female fellow matriculation.
   Programs with female faculty had a higher percentage of female alumni.
- Programs with female fellows were more likely to expose their trainees to football at the high school level.
- Further research is needed to determine factors influencing the decision of female orthopaedic surgeons to pursue a sports medicine fellowship.

## References

- Eras statistics. AAMC. (n.d.). Retrieved April 19, 2023, from https://www.aamc.org/data-reports/data/eras-statistics-data
- Van Heest, Ann E. MD1; Agel, Julie MA1; Samora, Julie Balch MD, PhD2. A 15-Year Report on the Uneven Distribution of Women in Orthopaedic Surgery Residency Training Programs in the United States. JBJS Open Access 6(2):e20.00157, April-June 2021. | DOI: 10.2106/JBJS.OA.20.0015
- Fellowship Directory. AANA. 2023. Accessed June 27, 2023. https://www.aana.org/aanaimis/Members/Fellowships-Research/Fellowship-Directory.aspx?WebsiteKey=10f6eed0-bcab-4019-8f57-18dad8aaf2d7.
- Fellowship Directory. AOSSM. 2023. Accessed August 20, 2023. https://www.sportsmed.org/education/sports-medicinefellowships/fellowship-listing.