Orthopaedic Sports Medicine Fellowship Match Rates: Does Gender Affect Match Success?

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INTRODUCTION:

While orthopaedic surgery has historically been the least gender diverse medical specialty, recent literature has shown that the number of females in orthopaedic surgery residency has increased. Previous literature also noted that a higher proportion of females than males matched into all orthopaedic surgery fellowships from 2010-2014. However, this has not been investigated specifically in regards to sports medicine fellowships or with more recent match data. Therefore, the purpose of this study was to evaluate the trends in applicant gender for orthopaedic surgery sports medicine fellowships over the last 12 years and to evaluate the differences in match rates between male and female applicants.

METHODS:

Beginning in 2010, orthopaedic surgery started using the San Francisco Match (SF Match) platform for eight different fellowship subspecialties, including sports medicine. SF Match data from 2012 to 2023 was extracted and analyzed. The gender, number of applicants, and number of matched applicants into orthopaedic sports medicine fellowship was reviewed. In addition, trends regarding number of applicants and match rates based on gender were evaluated. Pearson's correlation test was used to evaluate trends and proportions for number of applicants and match rates. Fisher's exact test was used to compare the match rates of male and female applicants.

RESULTS:

There were 2996 applicants for sports medicine fellowships from 2012-2023. There were 510 (17.1%) international medical graduates who were excluded from this analysis, leaving 2486 applicants in the study cohort. There were 265 female applicants (10.7%) and 2221 Male applicants (89.3%). The number of female applicants ranged from a low of 17 in 2020 to a high of 29 in 2017, (mean 22.1 +/- 3.4) with no statistically significant change over the study period ($r=-0.12$, $p=0.35$). Female application rates increased in 6 annual years over the study period, decreased in 5 annual years and had 1 year without change, although no significant difference in any year was observed ($p>0.05$). The match rate for female applicants increased from a low of 80.0% (16 of 20) in 2013 to 100.0% (26 of 26) in 2023, (mean 94.1% +/- 0.62%), with a statistically significant increase over the study period ($r=0.5$, $p=0.04$). For male residents, the number of applicants ranged from a low of 150 in 2014 to a high of 215 in 2012 (mean 186.2 +/- 16.5), with no statistically significant change over the study period ($p=0.28$). The match rate for male applicants ranged from a low of 82.8% (178 of 215) in 2012 to a high of 99.5% (186 of 187) in 2019, (mean 91.4% +/- 0.5%). There was no statistically significant change in the match rate of male applicants over the study period ($r=0.45$, $p=0.055$). Female applicants matched at a slightly higher rate than male applicants (94.1% v. 91.4%) although this difference was not statistically significant ($p=0.13$).

DISCUSSION AND CONCLUSION:

Since 2012, there has been no statistically significant change in the number of male and female applicants applying to orthopaedic sports medicine fellowship. Over the study period, female applicant match rates significantly increased, while male applicants had no significant statistical change. Although no statistical difference was found regarding the match rate between male and female applicants, the number of females applying to orthopaedic sports medicine fellowship remains disproportionately lower than expected. Gender diversity continues to be an issue in orthopedics prompting the need for further investigation in future studies.