

Orthopaedic Adult Reconstruction Fellowship Match Rates: DOes MeDical Degree Initials Matter?

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INTRODUCTION: Beginning in 2010, orthopaedic surgery started using the San Francisco Match (SF Match) platform for eight different fellowship subspecialties, including adult reconstruction. Since that time, there has been a continuous increase in doctors of osteopathic medicine (DO) applying for orthopaedic residency, which has led to an increase in osteopathic orthopaedic surgery residents applying for fellowships. Previous literature has shown that osteopathic medical students are less likely to match into orthopaedic surgery residency than their allopathic (MD) counterparts. Therefore, the purpose of this study was to evaluate the change in degree type of applicants to adult reconstruction fellowships over the last 12 years and to evaluate the differences in match rates between osteopathic and allopathic applicants.

METHODS: SF Match data from 2012 to 2023 was extracted and analyzed. Prior to 2018, adult reconstruction and musculoskeletal oncology match was combined. There were 3014 applicants for adult reconstruction fellowships from 2012-2023. There were 332 osteopathic applicants (15.3%) and 1842 allopathic applicants (84.7%). There were 840 (27.9%) international medical graduates who were excluded from this analysis. The degree type, number of applicants, and number of matched applicants into orthopaedic adult reconstruction fellowship was reviewed. In addition, trends regarding number of applicants and match rates based on applicant degree 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 allopathic and osteopathic applicants.

RESULTS: There were 3014 applicants for adult reconstruction fellowships from 2012-2023. There were 332 osteopathic applicants (15.3%) and 1842 allopathic applicants (84.7%). There were 840 (27.9%) international medical graduates who were excluded from this analysis. The number of osteopathic applicants ranged from a low of 22 in 2014 to a high of 36 in 2020, (mean 27.7 +/- 4.1) with no statistically significant change in correlation over the study period ($r=0.4$, $p=0.09$). The match rate for osteopathic applicants increased from 54.8% (17 of 31) in 2013 to 96.4% (27 of 28) in 2023, (mean 75.9% +/- 3.9%). There was a statistically significant increase in the match rate of osteopathic applicants over the study period ($r=0.76$, $p=0.001$). The mean osteopathic applicant rank on programs' lists ranged from a low of 13.3 in 2022 to a high of 5.19 in 2017, (mean 8.92 +/- 2.3), with a significant increase over the study period ($r=0.66$, $p=0.01$). The mean program rank on osteopathic applicants' lists ranged from a low of 4.79 in 2021 to a high of 2.54 in 2023, (mean 3.44 +/- 0.8), with no significant change over the study period ($r=-0.004$, $p=0.5$). For allopathic residents, the number of applicants ranged from a low of 86 in 2012 to a high of 193 in 2021 (mean 153.5 +/- 30.1), with a significant increase over the study period ($r=0.8$, $p=0.0006$). The match rate for allopathic applicants ranged from a low of 80.0% (144 of 180) in 2017 to a high of 94.4% (153 of 162) in 2022, (mean 87.2% +/- 4.9%). There was a statistically significant increase in the match rate of allopathic applicants over the study period ($r=0.62$, $p=0.01$). The mean allopathic applicant rank on the programs' lists ranged from a low of 10.15 in 2022 to a high of 6.02 in 2013 (mean 7.52 +/- 1.4), with a significant increase over the study period ($r=0.79$, $p=0.001$). The mean program rank on allopathic applicants' lists ranged from a low of 4.41 in 2021 to a high of 2.59 in 2022 (mean 3.22 +/- 0.5), with no significant change ($r=0.3$, $p=0.17$). From 2012-2023, allopathic applicants were more likely to match into adult reconstruction fellowship when compared to osteopathic applicants (OR=2.47, $p=0.0001$).

DISCUSSION AND CONCLUSION: Since 2012, there has been a significant increase in allopathic applicants, whereas there has been no statistically significant change in the number of osteopathic applicants for adult reconstruction fellowships. Over the study period, there has been a significant increase in match rate for osteopathic and allopathic residents, with allopathic candidates significantly more likely to match when compared to osteopathic candidates.