

Adjusted Match Rates among Underrepresented Minority and Female Applicants to Orthopaedic Surgery Residency Programs from 2011-2021: How Are We Doing?

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INTRODUCTION:

Orthopaedic surgery residency programs have traditionally had less representation of underrepresented minority (URM) and female trainees compared with other medical specialties. Widespread efforts have been implemented to increase the diversity of orthopaedic surgery residency programs, however, it is not known if URM and female applicants are increasingly likely to match as a result. Thus, we aimed to study the independent association between URM and female applicants and matching into orthopaedic surgery over the past decade.

METHODS:

Applicant-level data from the Electronic Residency Application System (ERAS) were reviewed from 2011-2021 with variables including demographic variables, URM status, and matriculation to an orthopaedic surgery residency program. Multivariate logistic regression was used to identify the likelihood of matriculating into orthopaedic surgery when controlling for number of applications, top 40 medical school status, AOA status, and MD/other degree.

RESULTS:

A total of 12,111 applicants were identified from 2011-2021 with a match rate of 70% overall. In total, 2,056 (17%) of applicants were female and 1,926 (16%) classified as URM. The total number of applications increased from 1,074 to 1,229 from 2011 to 2021. The adjusted odds ratio (OR) associated with matching among all applicants decreased from 0.75 in 2011 to 0.64 in 2021, $p < 0.001$, and the OR of non-URM male and female applicants also decreased (female - 0.79 to 0.69, $p < 0.001$; male - 0.78 to 0.65, $p < 0.001$). The OR of URM male applicants did not change significantly (0.57 to 0.55, $p = 0.60$). The OR for URM female applicants, however, increased significantly from 0.46 to 0.61, $p < 0.001$. Over the entire timeframe, odds of matching were significantly lower for URM applicants compared to non-URM applicants (both male and female).

DISCUSSION AND CONCLUSION:

Overall, the adjusted odds of matching into orthopaedic surgery among female URM applicants has increased over the past decade, indicating successful efforts to improve the diversity of orthopaedic surgery training programs. The odds of URM male applicants has remained relatively constant, and the odds of URM male and female applicants was significantly lower than all non-URM applicants.

