Public Perceptions of Orthopaedic Surgeon Diversity for Residency Selection using Online Crowdsourcing

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INTRODUCTION: The orthopaedic community has placed an emphasis on improving diversity among its surgeons. Here we evaluate the public's perception of surgeon background, diversity, academic success, and technical competency when selecting potential orthopaedic residents.

METHODS: A 32-question online paid survey was developed and distributed via Amazon MTurk in January 2022. In total 510 responses were collected. Participants were divided into an “acceptable” and “unacceptable” cohort based on their response to the following scenario: a) accepting a more diverse medical student to an orthopaedic surgery residency over a b) less diverse but more academically competitive applicant. Participants were instructed in this scenario, clinical acumen and technical skill were unaccounted for, reflecting the current residency selection environment. The two cohorts were compared regarding their demographics, value placed on surgeon background, and importance of technical competency using Student’s unpaired t-test and χ^2 test.

RESULTS:

297 participants (58.2%) responded acceptable, while 213 (41.2%) responded unacceptable. Acceptable respondents were generally younger (39.34 vs 41.99 years; p<.05), female (49.49% vs 39.44%; p<.05), of minority background (Caucasian 79.46% vs 88.26%; p<.05; Table 1), and more interactive with the health care system (3.29±6.21 vs 2.38±2.32 PCP visits per year; p<.05; Table 2). Language, education, income, region of the US, regional density, and insurance type did not differ between the two.

A greater proportion of acceptable cohort respondents placed value in increasing diversity (95.29% vs 60.56%, p<.0001), particularly for female surgeons (16.84% vs 7.04%, p<.01; Table 3). There was no difference in preference for surgeon race, same sex surgeon, same race surgeon, experience or distance from home.

In a hypothetical scenario, respondents were asked how agreeable they were with accepting a a) highly diverse residency candidates with varying levels of surgical skill over an b) average diversity residency candidate with high surgical skill. The acceptable group was generally more agreeable or had no opinion of accepting more diverse applicant regardless of surgical skill (High skill [Fig 1]: 96.96% vs 83.09%; Average skill [Fig 2]: 48.48% vs 8.92%; Below average skill [Fig 3]: 39.39 vs 7.52%; p<.0001). However, both groups demonstrated a similar trend towards being less agreeable with accepting less technically competent applicants for more diverse ones.

DISCUSSION AND CONCLUSION: An increasingly diverse community of orthopaedic surgeons is valued among potential orthopaedic patients, particularly female orthopaedists. However, the public technical competency remains a more critical factor when selecting surgeons among the public.