

## LETTER TO THE EDITOR

# Characterization of Social Media Presence Among Orthopedic Residency Programs

## Dear Editor

Social media use by hospitals and clinicians continues to increase for the purposes of dissemination of accurate information, improvement of the patient-provider relationship, and recruitment. This study sought to characterize orthopedic residency programs' use of various social media platforms and evaluate whether social media presence and engagement correlate with program reputation ranking and/or diversity. Elucidating the trends and implications of social media use in orthopedic graduate medical education is important, as the field continues to reach a broader population of potential applicants for residency positions and further its diversity.<sup>1</sup>

Instagram, Twitter, and Facebook were searched for orthopedic residency program-specific accounts, using the list of accredited allopathic orthopedic residency programs gathered from the 2021 Electronic Residency Application Service. Program ranks were recorded according to Doximity Reputation Ranking and US News and World Report websites, and the AAMC Careers in Medicine Residency & Fellowship Program Search was used to extract diversity data.<sup>2,3</sup>

Of the 187 programs analyzed, there were 92 residencies program-specific Instagram accounts, 25 Twitter accounts, and 23 Facebook accounts [Figure 1]. Programs in the top quartile according to the Doximity Reputation ranking had more Instagram followers (1215.9 vs 870.6, 762.4, 610.7,  $P < 0.01$ ), and these programs were more likely to have an Instagram account (88.64% vs 54.55%, 36.36%, 29.55%,  $P < 0.01$ ) compared to the lower quartiles. Similar trends were seen in programs affiliated with US News and World Report ranked hospitals compared to unaffiliated programs (1126.1 vs 914.6 followers,  $P = 0.0133$ , 77.14% vs 44.46%,  $P = 0.0012$ ) [Figure 2]. 82.55% of residents in programs without Instagram accounts were white, whereas 75.48% of residents in programs with Instagram accounts were white ( $P = 0.0036$ ). 14.39% of residents were females at programs that have Instagram accounts, compared to 13.14% at programs without accounts ( $P = 0.3836$ ).

Our results reveal that many residency programs recognized the utility of social media, as it allows

potential applicants to directly connect with programs and demonstrate interest. Additionally, the analysis was consistent with previous studies, revealing that social media popularity (number of followers) and presence (number of programs with Instagram accounts) correlates with the reputation ranking.<sup>4,5</sup> This may suggest that competitive programs are more successful in reaching a broader scope of applicants.

Along with reputation ranking, social media presence

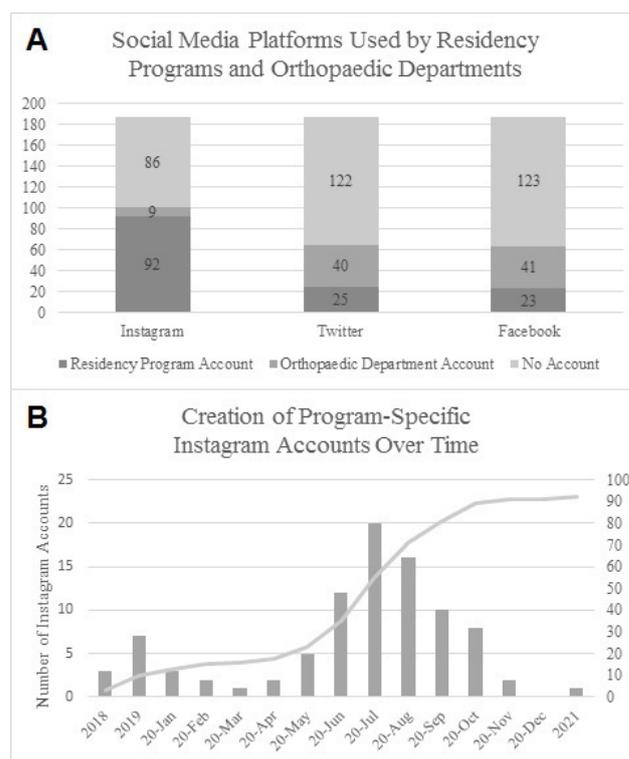


Figure 1. Graphs representing the (A) social media platform usage of orthopedic residency programs and (B) creation of orthopedic residency program-specific Instagram accounts over time along with the cumulative total.

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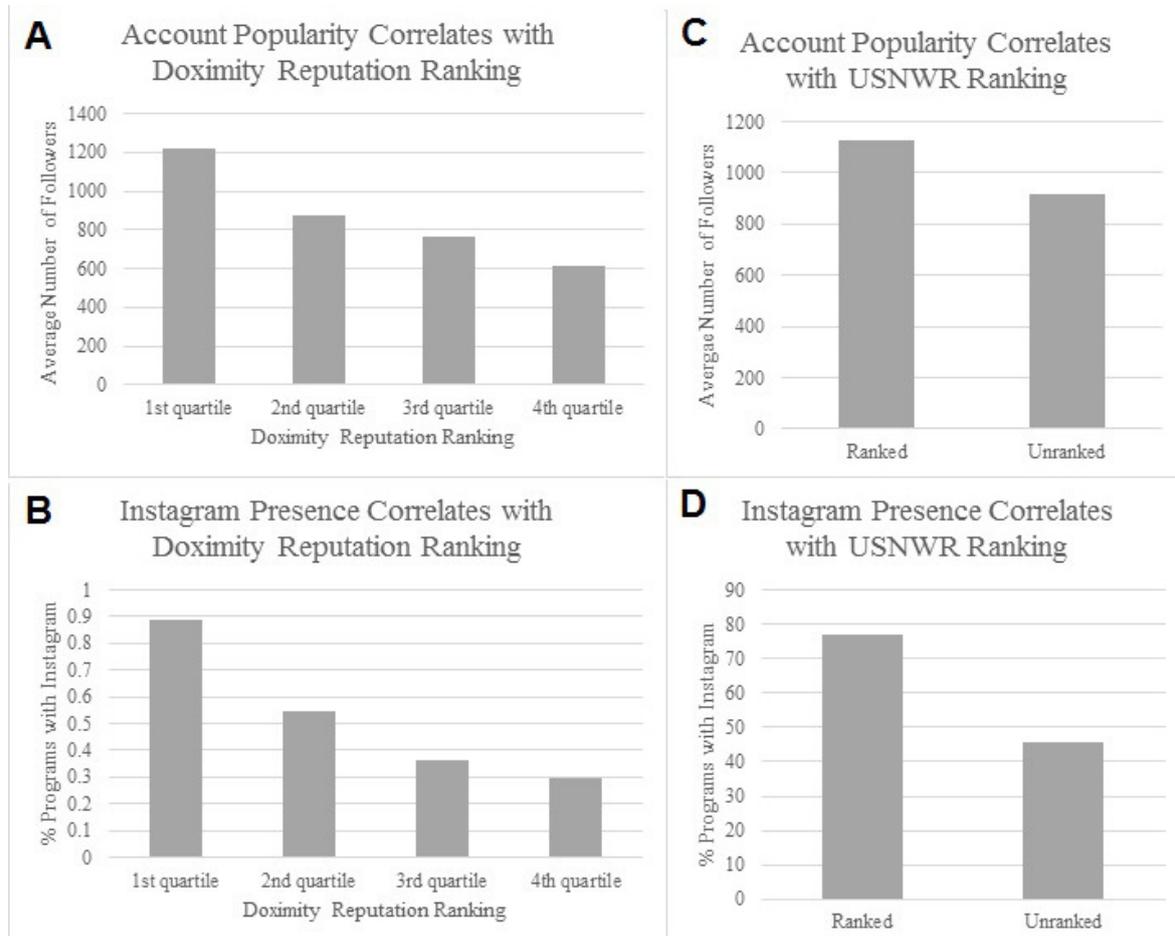


Figure 2. Graphs representing (A) the number of Instagram followers and (B) the percentage of programs with Instagram accounts according to Doximity Reputation ranking, (C) the number of Instagram followers, and (D) the percentage of programs with Instagram accounts according to USNWR ranking.

also correlates with resident diversity to some degree. Although programs with Instagram accounts had a lower percentage of white residents, the great majority of their residents are still white (75.48%) and male (85.61%). This represents the continued overall lack of diversity in the field of orthopedics.<sup>1,6,7</sup> While it is impossible to claim that the findings in this study represent causality, the correlation between social media presence and diversity may indicate the overall willingness of a program to reach out to a wider scope of potential applicants. Overall, our study highlights trends in social media use and potential strategies for orthopedic residency programs to continue to recruit exceptional applicants.

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**References**

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1. Poon S, Kiridly D, Mutawakkil M, et al. Current Trends in Sex, Race, and Ethnic Diversity in Orthopaedic Surgery Residency. *J Am Acad Orthop Surg.* 2019;27(16):E725-E733. doi:10.5435/JAAOS-D-18-00131
2. Feinstein MM, Niforatos JD, Mosteller L, Chelnick D, Raza S, Otteson T. Association of Proximity Ranking and Residency Program Characteristics Across 16 Specialty Training Programs. *J Grad Med Educ.* 2019;11(5):580-584. doi:10.4300/JGME-D-19-00336.1
3. Ried LD, Ried DB. Predicting the 2016 US News & World Report rankings using a reputation and prestige model. *Curr Pharm Teach Learn.* 2021;13(2):91-101. doi:10.1016/j.cptl.2020.09.011
4. Xie DX, Dedmon MM, O'Connell BP, Yawn RJ, Haynes DS. Evaluation of social media presence of otolaryngology residency programs in the United States. *JAMA Otolaryngol - Head Neck Surg.* 2018;144(9):802-806. doi:10.1001/jamaoto.2018.1447
5. Ciprut S, Curnyn C, Davuluri M, Sternberg K, Loeb S. Twitter Activity Associated With U.S. News and World Report Reputation Scores for Urology Departments. *Urology.* 2017;108:11-16. doi:10.1016/j.urology.2017.05.051
6. Okike K, Phillips DP, Swart E, O'Connor MI. Orthopaedic Faculty and Resident Sex Diversity Are Associated with the Orthopaedic Residency Application Rate of Female Medical Students. *J Bone Jt Surg - Am Vol.* 2019;101(12). doi:10.2106/JBJS.18.00320
7. McDonald TC, Drake LC, Replogle WH, Graves ML, Brooks JT. Barriers to Increasing Diversity in Orthopaedics. *JBJS Open Access.* 2020;5(2):e0007-e0007. doi:10.2106/jbjs.oa.20.00007