Doximity Orthopedic Surgery Program Rankings are Associated with Academic Productivity

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INTRODUCTION: Doximity residency rankings are often used to compare and evaluate residency programs. Program reputation is a substantial component of Doximity rankings, which is based on surveys sent to specialty specific physicians. Outcomes-based measures, such as academic productivity, allow for objective program comparison and may be more appropriate when assessing programs. Therefore, the purpose of this study was to evaluate how Doximity rankings of orthopaedic surgery residency programs compare to an outcomes-based ranking of programs based on academic productivity. This study also evaluated whether program size and type (university, university/community, community, and military) were associated with academic productivity.

METHODS: There are 201 orthopaedic residency programs in the United States. Using publicly available data through Doximity, orthopaedic program rankings, size, type, and research productivity were collected. Twenty-six programs were excluded due to missing data. An academic productivity score was calculated by averaging the mean % of alumni clinical trials and mean % of alumni publications as reported by Doximity. ANOVA analysis was performed to determine whether academic productivity was associated with program reputation, size, and type.

RESULTS: A total of 175 orthopaedic residency programs met final inclusion criteria. Doximity program rankings, size, and type of program had a statistically significant association with academic productivity ($p<0.01$). Orthopaedic programs in the top quartile had an academic productivity score of 79.1±13 in comparison to programs in the bottom quartile who had a score of 38.3±12.1 (Figure 1). Of the 44 programs in the top Doximity quartile, 73% were also in the top quartile for academic productivity. Programs with a greater number of residents also demonstrated greater academic productivity in comparison to smaller programs. Twenty-three programs (13%) have more than 30 residents and had a mean academic productivity of 76.2±14.8. In comparison, 13 programs (7.5%) had less than 10 residents with an academic productivity score of 40.6±16.3. University programs accounted for 103 (59%) of those analyzed. There was a significant difference in academic productivity score based on program type: university (63.9±14.8), military (54.7±16.9), university/community (46.3±15.6), and community (38.7±15) ($p<0.01$).

DISCUSSION AND CONCLUSION: Doximity rankings are often used by medical students, residents, and physicians to compare residency program training as well as reputation. Although the Doximity rankings are more subjective due to the emphasis placed on perceived program prestige, the findings of this study demonstrate that the rankings do have a signification association with academic productivity. Furthermore, larger orthopaedic residency programs and university programs demonstrated greater academic productivity than smaller programs and non-university programs. The findings of this study can be used by medical students, residents, and physicians to gain a better understanding of the academic productivity of various orthopaedic surgery residency programs.