Analysis of Factors Associated with Future Academic Faculty Careers After Arthroplasty Fellowship Training

Jason Silvestre, ANTONIA F CHEN, Jay R Lieberman, Christopher L Peters, Charles L Nelson

INTRODUCTION: Creating optimal training environments for future academic leaders in arthroplasty is a topic of increasing interest. This study determined the training characteristics associated with future academic faculty appointments after arthroplasty fellowship training.

METHODS: This was a retrospective case-control study of arthroplasty fellowship graduates in the United States (2017 to 2023). The primary outcome of interest was academic faculty appointment, which was assigned if the arthroplasty fellowship graduate was employed at a teaching hospital. Demographic, bibliometric, and training characteristics of arthroplasty fellowship graduates were obtained. Bivariate analyses were performed to elucidate the training characteristics associated with future academic faculty appointments.

RESULTS: There were 1,100 arthroplasty fellowship graduates and 267 had academic faculty appointments (24.3%, Figure 1). Female arthroplasty fellowship graduates were more likely to obtain academic faculty appointments than their male counterparts (38.6% vs 23.3%, P=0.006). Allopathic graduates were more likely to obtain academic faculty appointments than osteopathic graduates (25.7% vs 14.2%, P=0.005). Arthroplasty fellowship graduates with future academic faculty appointments had more peer-reviewed publications during medical school (2.0 □ 2.6 vs 1.1 □ 4.0, P<0.001) and orthopaedic surgery residency training (10.2 □ 8.7 vs 4.8 □ 15.8, P<0.001) than their counterparts in private practice. Several characteristics of arthroplasty fellowship programs were associated with future academic faculty appointments (Figure 2) including geographic region (P=0.003), greater number of faculty (P<0.001), and greater number of annual fellows (P<0.001).

DISCUSSION AND CONCLUSION: Characteristics associated with future academic faculty appointments in arthroplasty included increased scholarly productivity during medical school and orthopaedic surgery residency training. Larger arthroplasty fellowship programs with more faculty and fellows trained more future academic faculty. These data may help future arthroplasty trainees and faculty align on desired academic career goals.