

What Factors Are Associated with Early Career Attrition Among Orthopaedic Surgeons in the United States?

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Purpose: Prior studies have shown that reasons for leaving clinical practice vary widely and may range from professional dissatisfaction or disability to the pursuit of alternative career opportunities. Whereas attrition among older personnel has often been understood as a natural phenomenon, attrition among early-career surgeons may pose a host of additional challenges from an individual and societal perspective.

Methods: In this retrospective analysis drawn from a large database, we used the 2014 Physician Compare National Downloadable File (PC-NDF), a registry of all health-care professionals in the United States participating in Medicare. A total of 18,107 orthopaedic surgeons were identified, 4853 of whom were within the first 10 years of training completion. The primary outcome of early-career attrition was defined by 3 conditions, all of which had to be simultaneously satisfied. The first condition was presence in the Q1 2014 PC-NDF dataset and absence from the same dataset the following year (Q1 2015 PC-NDF). The second condition was consistent absence from the PC-NDF dataset for the following 6 years and the third condition was absence from the Centers for Medicare and Medicaid Services Opt-Out registry, which tracks clinicians who have formally discontinued enrollment in the Medicare program. A multivariable logistic regression model with adjusted odds ratios (ORs) and 95% confidence intervals (CIs) was constructed to investigate characteristics associated with early-career attrition.

Results: Among the 4853 early-career orthopaedic surgeons identified in the dataset, 2% (78) were determined to experience attrition after the first quarter of 2014. After controlling for confounding, we found that women were more likely than men to experience early-career attrition (adjusted OR 2.8 [95% CI 1.5 to 5.0]; $P = 0.006$), as were academic orthopaedic surgeons compared with private practitioners (adjusted OR 1.7 [95% CI 1.02 to 3.0]; $P = 0.04$), while general orthopaedic surgeons were less likely to experience attrition than subspecialists (adjusted OR 0.5 [95% CI 0.3 to 0.8]; $P = 0.01$).

Conclusion: Orthopaedic societies may benefit from more routine professional surveys to identify instances in which early-career surgeons face illness, disability, burnout, or personal hardships. In the event that attrition occurs because of such factors; these individuals may benefit from connection to well-vetted coaching or counseling services.

Table 1. Adjusted odds ratios for early career attrition^a by surgeon and practice characteristics.

	Adjusted OR (95% CI)	p value
Surgeon characteristics		
Sex		
Male	1 [Reference]	NA
Female	2.76 (1.53-4.98)	< 0.01
Estimated years since training	1.01 (0.92-1.11)	0.9
Specialty		
Specialist	1 [Reference]	NA
Generalist	0.52 (0.32-0.84)	0.01
Practice characteristics		
Practice size, number of physicians		
1-9	1 [Reference]	NA
10-99	0.9 (0.48-1.68)	0.74
100+	0.7 (0.23-2.08)	0.52
US Census region		
Midwest	1 [Reference]	NA
Northeast	1.71 (0.79-3.68)	0.17
South	1.18 (0.57-2.43)	0.66
West	1.52 (0.71-3.26)	0.28
Area Deprivation Index	0.997 (0.988-1.006)	0.52
Practice setting		
Urban	1 [Reference]	NA
Rural	0.63 (0.22-1.79)	0.39
Practice type		
Academic	1.74 (1.02-2.95)	0.04
Nonacademic	1 [Reference]	NA

^aAttrition is defined as a surgeon in active clinical practice during the year 2014, who did not submit any Medicare claims for the following 7 years between 2015 and 2021 AND who did not opt-out of the Medicare program.