

Allopathic and Osteopathic Residents Perform Similarly on the Orthopaedic In-Training Examination (OITE)

Carolina Gomez, Rachel Ranson, Arianna Gianakos¹, Michaela A Stamm, Mary K Mulcahey

¹Harvard-Massachusetts General Hospital

INTRODUCTION: There is a bias in the medical community that allopathic training is superior to osteopathic training, despite the lack of substantiating evidence. The Orthopaedic In-Training Examination (OITE) is a yearly exam evaluating educational advancement in an orthopaedic surgery resident's scope of knowledge. The purpose of this study was to compare OITE scores between osteopathic (Doctor of Osteopathic Medicine [DO]) and allopathic (Medical Doctor [MD]) orthopaedic surgery residents to determine whether any appreciable differences exist in the achievement levels between the two groups.

METHODS: The American Academy of Orthopaedic Surgeons (AAOS) 2019 OITE technical report was evaluated to determine differences in OITE scores between MDs and DOs. Additionally, the progression through post graduate years (PGY) 1 through 5 for both groups was analyzed. Scores were compared with independent t-tests.

RESULTS: PGY-1 DO residents outperformed MD residents on the OITE (145.8 vs 138.8, $p < 0.001$) (Table 1, Table 2). The mean scores achieved by DO and MD residents during PGY-2 (153.2 vs 153.2), 3 (176.2 vs 175.2), and 4 (182.0 vs 183.7) did not differ ($p=0.997$, 0.440 , and 0.149 , respectively). However, for PGY-5, the mean scores for MD residents (188.6) were higher than those of DO residents (183.5, $p < 0.001$). There were similar levels of improvement seen throughout PGY 1–5 years for both groups.

DISCUSSION AND CONCLUSION: This study provides evidence that DO and MD orthopaedic surgery residents perform similarly on the OITE, thus displaying equivalencies in orthopaedic knowledge. Program directors at allopathic and osteopathic orthopaedic residency programs should take this into account when considering applicants for residency.

Table 1. Overall Mean OITE Scores for Orthopaedic Surgery Residents Across All Post-Graduate Years.

		N	Mean	SD	SE
PGY 1	ACGME Residents (PGY1)	755	138.84	15.37	0.56
	Osteopathic Residents (PGY1)	121	145.75	14.74	1.34
PGY 2	ACGME Residents (PGY2)	785	153.18	28.75	1.03
	Osteopathic Residents (PGY2)	120	153.17	34.28	3.13
PGY 3	ACGME Residents (PGY3)	773	175.18	13.39	0.48
	Osteopathic Residents (PGY3)	125	176.18	13.66	1.22
PGY 4	ACGME Residents (PGY4)	749	183.72	12.27	0.45
	Osteopathic Residents (PGY4)	121	181.98	12.47	1.13
PGY 5	ACGME Residents (PGY5)	735	188.57	11.60	0.43
	Osteopathic Residents (PGY5)	123	183.45	12.68	1.14

Note. OITE, Orthopaedic In-Training Examination; ACGME, American Council for Graduate Medical Education; PGY, Post-Graduate Year; SD= Standard Deviation; SE= Standard Error.

Table 2. Results for Individual Unpaired T-Tests for Each Post-Graduate Year.

PGY	T-Value	df	Two-Tailed P Value
PGY 1	4.6166	874	<0.0001
PGY 2	0.0035	903	0.9972
PGY 3	0.7725	896	0.4400
PGY 4	1.4441	868	0.1491
PGY 5	4.4691	856	<0.0001

Note. PGY, Post-Graduate Year; df, Degrees of Freedom