

Residency Match Outcomes of DeBusk College of Osteopathic Medicine's DO/MBA Dual-Degree Students Relative to DO-Only Students

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Abstract

Introduction: Osteopathic students question whether a dual degree will help them distinguish themselves among their peers in the National Residency Match. This paper analyzes the impact that a DO/MBA dual degree has on matching into a competitive residency.

Methods: In a cross-sectional study design via email, fourth year osteopathic students and alumni of Lincoln Memorial University were queried on dual degree obtainment, elements of their residency application, residency match outcome, and opinion on why an osteopathic student would pursue an MBA degree.

Results: DO/MBA applicants did not differ from DO-only applicants. DO/MBA and DO-only students had similar board exam scores, leadership experiences, volunteer hours, memberships in honor societies, and research opportunities. A Fisher exact test showed that neither degree track was statistically associated with placement into a more competitive residency ($p= 0.7301$).

Conclusion: Despite the increase in dual-degree osteopathic programs, such programs alone do not afford a match into a more competitive residency.

Introduction

The joint doctor of osteopathic medicine and masters of business administration degree (DO/MBA) has become increasingly popular since Philadelphia College of Osteopathic Medicine introduced the first program in 1989.¹ Today, there are 11 osteopathic schools now offering this opportunity.² The growth in the number and recognition of schools offering this program is paralleled by questions regarding the impact of such a degree on a physician's career or medical student's match outcome.

Several themes arise concerning career aspirations of dual degree doctor of medicine and masters of business administration (MD/MBA) students. Among them are the following: to broaden potential career paths, attain an executive leadership position in healthcare, improve the efficiency of healthcare delivery, obtain the capacity to make business-related decisions in clinical practice, and assist in the process of entrepreneurship.^{3,4} Still, an understudied topic is whether this degree can help distinguish osteopathic students as top applicants in the National Residency Match.

In this article, we hope to provide context to how a DO/MBA degree may assist osteopathic students in matching into residencies that are traditionally considered competitive. Although one study has shown the impact that dual degree programs can have on residency placement for allopathic students, none have researched how this element can help osteopathic students attain positions at competitive residencies.⁵

Methods

This study was reviewed and approved by the Lincoln Memorial University Institutional Review Board (IR Ref. #1086). The survey hyperlink was emailed to 229 fourth-year osteopathic students. Forty-eight fourth-year osteopathic students responded, with 40 completing the survey in its entirety. Additionally, the survey was made available to the entire Lincoln Memorial University DeBusk College of Osteopathic Medicine alumni body via the monthly alumni e-newsletter. Zero of the 1,979 pre-2022 alumni that received the survey hyperlink via the monthly e-newsletter responded.

For this study, residency specialty competitiveness was measured as the percentage of DO students that were unmatched in the specialty that they listed as their one and only choice. Using this index, higher percentages correspond to a more competitive residency while lower percentages correspond to a less competitive residency. This data was retrieved from the 2022 National Residency Match and summarized in Table 2.⁶ Only residency specialties pertaining to this study are displayed. Due to statistical limitations, specialties are shown as belonging to one of two categories: more competitive and less competitive.

Results

Excel's XL Solver statistical add-on package was used for data analysis. A Fisher's exact test was performed to determine if there was a statistically significant association between receiving a dual DO/MBA degree and matching into a more competitive residency. Statistical significance was set at $p=0.05$. Table 3 summarizes the characteristics of our research subjects such as COMLEX Level 1 score, USMLE Step 1 score, volunteer hours, leadership experiences, research experiences, and membership to an honor's society.

Subjects were asked to select all the reasons why an osteopathic student would want an MBA degree among the following list: kickstart their own business, learn business lingo, build their own network, access unique professional development opportunities, learn about other industries, gain exposure to alternate career options, enrich their perspective on medicine, and take a break from medical school and clinical work. The top three most selected options were: kickstart their own business (64.6%), learn business lingo (47.9%), and build their own network (43.8%).

Discussion

While the DO/MBA programs seem to be focused and marketed as a way to broaden potential career paths, attain an executive leadership position in healthcare, improve the efficiency of healthcare delivery, obtain the capacity to make business related decisions in clinical practice, and assist in the process of entrepreneurship; we have not seen any claims that the program increases chances of a more competitive residency placement.

Our survey of DO and DO/MBA students showed no association between receiving a dual DO/MBA degree and matching into a more competitive residency ($p=0.7301$). While Dual Degree candidates did match more in one more competitive program (General Surgery), DO-only candidates matched at greater levels in the remaining more competitive programs.

Holding the characteristics in Table 3 constant, we expected to see our data be equal between each cohort to strengthen the dependent variable of more competitive matching. However, our data yielded that the DO-only cohort had higher COMLEX Level 1 test scores and more acceptances into the GOLDS honor society than the MBA/DO cohort.

Weaknesses in the data collection were noted, as fewer fourth-year students responded per what we would have liked. Furthermore, 100% of alumni did not respond, presumably because of the requirement that the survey hyperlink had to be buried inside a monthly e-newsletter. Therefore, caution should be exercised in interpreting these results, since a larger sample size will be needed to extrapolate results to the entire population of osteopathic students.

Research is limited on this subject. To accurately prove an association between the dual DO/MBA degree and a more competitive match outcome, different osteopathic schools should

be sampled and compiled. Follow-up research with newer matching data would be needed for more accurate results in the future due to the changing residency landscape of the recent AOA/ACGME merger and Level 1/Step 1 becoming Pass/fail.

Table 1: Match outcomes of DO/MBA and DO only students at LMU-DCOM.

Specialty	Dual Degree DO/MBA (n=15)	DO Only Degree (n=25)
Anesthesiology	0	3
Dermatology	0	1
Emergency Medicine	1	2
Family Medicine	3	3
General Surgery	3	0
Internal Medicine	4	5
Neurology	0	2
Obstetrics and Gynecology	0	1
Physiatry	1	2
Pathology	0	1
Pediatrics	2	4
Psychiatry	1	1

Table 2: Comparison of residency competitiveness.

More Competitive	Dermatology
	Anesthesiology
	General Surgery
	Emergency Medicine
	Neurology
	Obstetrics and Gynecology
Less Competitive	Family Medicine
	Internal Medicine
	Pathology
	Physiatry
	Psychiatry
	Pediatrics

Table 3: Applicant characteristics.

	DO-only	DO/MBA
Average COMLEX Step 1 Score	538	511
Average USMLE Step 1 Score	226	225
Average Volunteer Hours	67.4	73.5
Median Number of Leadership Experiences	2	1
Median Number of Research Experiences	3	3
Average Number of Sigma Sigma Phi Membership	0.44	0.47
Average Number of GOLDS Membership	0.24	0.13

Table 4: Two-tailed Fisher exact test comparison of students and residency.

Fisher's Exact Test	
Two-sided p-value	0.7301

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