General Surgery (Among Other Specialties): An Unlikely Favorite For Medical School Reapplicants

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Introduction

-Very little is known about students who matriculate after an initial unsuccessful medical school application (reapplicant matriculants -RM), particularly compared to first-time applicant matriculants (FTM).

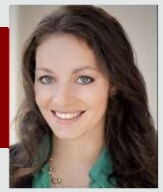
- Despite RM making up a significant portion of residency applicants, there has been no investigation into whether specialty preferences differ from peers.

Aim and Hypothesis

-To characterize specialty preferences of medical students who were admitted as reapplicants.

Hypothesis: this cohort may prefer shorter residency training programs after delaying the start of medical school

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References:
Doximity 2024 Physician Compensation Report. Accessed March 3, 2025. https://www.doximity.com/reports/physician-compensation-report/2024.
Match Data & Analytics. NRMP. Accessed September 30, 2023. https://www.nrmp.org/match-data-analytics/

Table 1: Matched Specialty by First-Time Matriculants vs Reapplicants to Medical School

Specialty	FTM (n)	%	RM (n)	%	P
Emergency Medicine	5,829	9.19%	2,216	11.42%	<0.0001
Surgery-General	**5,529**	**8.72%**	**1,936**	**9.98%**	**<0.0001**
Family Medicine	5,950	9.38%	2,058	10.60%	<0.0001
Anesthesiology	2,840	4.48%	922	4.75%	0.11
Neurological Surgery	716	1.13%	241	1.24%	0.197
Neurology	1,025	1.62%	315	1.62%	0.944
Orthopedic Surgery	2,884	4.55%	874	4.50%	0.801
Dermatology	734	1.16%	200	1.03%	0.144
Plastic Surgery-Integrated	611	0.96%	154	0.79%	0.031
Otolaryngology (ENT)	1,230	1.94%	328	1.69%	0.026
Psychiatry	4,416	6.96%	1,170	6.03%	<0.0001
Obstetrics and Gynecology	4,467	7.04%	1,147	5.91%	<0.0001
Internal Medicine	18,471	29.12%	5,411	27.88%	0.0009
Pediatrics	6,831	10.77%	1,722	8.87%	<0.0001
Specialties with < 80% Match Rate US Seniors*	4,945	7.80%	1,469	7.57%	0.302
> 5-year residency**	12,246	19.30%	4,006	20.64%	<0.0001
4-year residency**	19,938	31.43%	6,211	32.00%	0.133
3-year residency**	31,252	49.27%	9,191	47.36%	<0.0001
Specialties with Top Tertile Average Annual Income***	9.015	14.50%	2,719	14.36%	0.627

*Combined data for Dermatology, Integrated Plastic Surgery, Neurosurgery, Orthopaedic Surgery
**>5 years: Combined data for Neurosurgery, General Surgery, Integrated Plastics, ENT, Orthopaedic Surgery
**4 years: Combined data for OBGYN, Emergency Medicine, Anesthesiology, Dermatology, Psychiatry, Radiology-Diagnostic, Neurology
** 3 years: Combined data for Pediatrics, Internal Medicine, and Family Medicine
***Combined data for Neurosurgery, Orthopaedic Surgery, ENT, Integrated Plastics, Anesthesiology, Dermatology

Methods

-Data from the Association of American Medical Colleges (AAMC) was obtained on applicants to allopathic medical schools from 2015-2019, which included GME data from 2019-2023.

-The 2024 NRMP "Charting Outcomes in the Match" report was used to identify match rates of various specialties.

-The 2024 Doximity Physician Compensation Report was used to identify average annual income by specialty.

-Initial univariate analysis was conducted in STATA using Pearson's Chi2 to assess categorical variables.

Results

81,141 FTM and 24,729 RM were identified. 71,798 FTM and 22,016 RM had entered a residency program.

RM were *less* likely to match into a 3-year program ($p<0.0001$).

No difference in match rate in terms of:
-Specialty competitiveness ($p=0.302$).
-Highest tertile for physician compensation. ($p=0.627$)

General surgery was the second most heavily favored specialty by RM. ($p<0.0001$).

Conclusions/Limitations

Limited nature of univariate analysis
RM are NOT more likely to choose shorter residencies
Multivariate analysis could provide further insight into how students choose specialties