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In 2020, the Coalition for Physician Accountability convened the Undergraduate Medical Education (UME)-Graduate Medical Education (UME) Review Committee, or UGRC, to study the transition from undergraduate to graduate medical education transition. The UGRC examined the underlying causes of stress in the system (1)) and imagined the ideal climate (2) and issued a series of recommendations in 2021 (3). The UGRC report identified “increasing financial costs and skyrocketing application numbers” as one of the primary challenges in the UME to GME transition. Proposed solutions run the gamut from capping the number of applications an applicant can submit and preference signaling (4,5,6), to AI solutions for residency application review (6). While key stakeholders in the residency application process have provided their opinions about the myriad of solutions (7), the root cause of student overapplication remains anecdotal with no evidence-based data to support the solutions. The investigators believe that medical student residency application behavior is multi-factorial and related to competitiveness of the specialty, perceived competitiveness of the student and demographic and socio-economic factors. The purpose of this study was to identify the underlying reasons for residency application inflation so that solutions can be tailored to address the root cause of the problem.

1064 fourth year medical students at 8 US allopathic medical schools were surveyed between October 1 and December 1, 2023 with an overall response rate of 26%.

Participants were asked to:

- List the number of residency applications submitted in their primary specialty.
- Rate their competitiveness for their primary specialty and predict their likelihood of matching in that specialty.
- Rate their knowledge of the residency programs on their application list
- Select and rank the resources used to create their residency application list.
- Identify their parallel plan.

- ✧ Being single seems to be associated with a higher number of applications.
- ✧ Participants who characterized themselves as less competitive for their specialty submitted a higher number of applications.
- ✧ Participants applying to more competitive specialties submitted a higher number of applications than those applying to less competitive specialties.
- ✧ Geographic location is a factor that emerges as a very high priority for determining where students apply for residency.
- ✧ Application cost is not an important factor in determining whether a program is added to a student's application list.
- ✧ The AAMC Residency Explorer tool received the highest perceived importance as a source of information.

Medical Specialty	Count
Dermatology	87
Plastic Surgery	85
Ophthalmology	82
Radiology-Diagnostic	80
Otolaryngology	75
Orthopaedic Surgery	67
Psychiatry	63
Urology	61.5
Surgery-General	60
PM&R	59
Neurological Surgery	56
Vascular Surgery	48
Emergency Medicine	36
Radiation Oncology	36
Obstetrics/Gynecology	35
Internal Medicine	35
Anesthesiology	35
Med-Peds	33
Neurology	33
Child Neurology	30
Pediatrics	29
Family Medicine	25
Pathology	25

Fit and Use of Residency Explorer

A horizontal bar chart titled 'Fit and Use of Residency Explorer'. The y-axis has two categories: 'Used Residency Explorer' and 'Did not Use Residency Explorer'. For each category, there are two bars: an orange bar representing 'Fit with Credentials is a Factor' and a green bar representing 'Fit with Credentials is not a Factor'. The x-axis is labeled 'Axis Title' and ranges from 0.0% to 80.0% in 10.0% increments. The data values are: Used Residency Explorer (73.0% orange, 61.5% green) and Did not Use Residency Explorer (27.0% orange, 38.5% green).

Category	Fit with Credentials is a Factor	Fit with Credentials is not a Factor
Used Residency Explorer	73.0%	61.5%
Did not Use Residency Explorer	27.0%	38.5%

Knowledge Level	AAMC Residency Explorer Chosen (%)	AAMC Residency Explorer Not Chosen (%)
Not knowledgeable at all	50	50
Slightly knowledgeable	68.5	31.5
Knowledgeable	67	33
Very knowledgeable	75	25

Match Confidence	Apply to Different Specialty	No Plan	Less Competitive Programs in Same Specialty	PGY-1 only and Reenter Match Next Year	Other	Post Doc Research	SOAP
Extremely Confident	2%	43%	29%	2%	4%	2%	19%
Very Confident		28%	34%	6%	3%	3%	24%
Moderately Confident	10%	21%	17%	8%	6%	8%	31%
Slightly Confident			63%	31%	13%	38%	13%
Not at all Confident		50%	50%				

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