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Research Letter

Dermatology and the Match®: An analysis of the number of manuscripts in successful applications

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Dear Editors,

Dermatology residencies are some of the most sought-after positions, with 699 applicants applying for 478 spots in the 2020 Match. Participation in research has proven to be essential to a successful match (National Resident Matching Program, 2020). Its importance is emphasized by program directors and the growing number of applicants engaging in research fellowships (Kamath et al., 2020). The National Resident Matching Program releases the Charting Outcomes in the Match (ChOM) that summarizes the statistics of matched and unmatched applicants. ChOM makes no distinction among abstracts, posters, presentations, and publications in its count of scholarly work (National Resident Matching Program, 2018). Our study aimed to provide an overview of the number of Pubmed-indexed manuscripts published by dermatology residency applicants.

Dermatology residencies were sorted by reputation using the Doximity Residency Navigator, which combines feedback from >86,000 physicians with objective data on residency programs in 28 specialties (Doximity, 2020). Postgraduate year (PGY) 2 through PGY4 residents from 2016 to 2019 from the top and bottom 25 dermatology residency programs were included in the analysis. The name of each resident was searched on PubMed, and the number of manuscripts published before September 15 of their application year was determined. Each resident's identity was verified by looking at residency program websites, LinkedIn, or ResearchGate. The total number, number of first author, number of second author, and number of dermatology-related publications were obtained. Programs that did not list residents' names or provided outdated information were excluded. A two-tailed, independent *t* test was used to determine statistical significance.

A total of 21 programs in the top 25 (n = 345) and 14 programs from the bottom 25 (n = 89) were included in the analysis. Residents in higher-ranked programs published more total PubMed-indexed manuscripts (4.06 ± 5.14) than residents in lower-ranked programs (0.87 ± 2.01; $p < .0001$). There was no statistically significant difference in the number of published manuscripts for men (3.23 ± 4.78) and women (3.23 ± 4.87; $p = .42$; Table 1). In top programs, PGY2 residents had more manuscripts than their PGY3 and PGY4 counterparts (Table 2).

The ChOM 2018 reports that the average dermatology matched and unmatched applicant had a combined 14.7 and 8.6 abstracts, posters, presentations, and publications, respectively, which is higher than our investigated average of indexed manuscripts (National Resident Matching Program, 2018). The ChOM reporting methodology may lead to unnecessary stress for prospective dermatology applicants because of these data. Applicants should continue to pursue scholarly work, even if it cannot be published before the residency application deadline (Maverakis et al., 2012).

Most medical journals are PubMed indexed, but small portions are not. The authors have made every effort to ensure data accuracy, but there may be publications that have been included/removed due to unknown institution affiliations and/or similarities in author names.

Our data provide a more specific number of total PubMed-indexed manuscripts, which may be of interest to medical students and dermatology advisors. Students and the medical community would benefit from more transparency in ChOM regarding applicants' scholarly output.

Conflicts of interest

None.

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Study Approval

The author(s) confirm that any aspect of the work covered in this manuscript that has involved human patients has been conducted with the ethical approval of all relevant bodies.

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Table 1
Comparison of PubMed indexed manuscripts by program ranking and gender.

	n (%)	Mean number of publications	Standard deviation	*p*-value[a]
Program ranking				**.0001**
Top	345 (79)	4.06	5.14	
Bottom	92 (21)	0.87	2.01	
Gender				.42
All women	257 (59)	3.23	4.87	
All men	180 (41)	3.61	4.78	
Gender in top programs				.35
Women	204 (59)	3.23	4.87	
Men	180 (41)	3.61	4.78	
Gender in bottom programs				.74
Women	53 (58)	3.23	4.87	
Men	39 (42)	3.61	4.78	

[a] *p*-values <.05 denote significance on two-tailed independent *t* test.

Table 2
Summary of average publication numbers for applicants to dermatology programs.

	Number of residents	Mean number of publications	Number of publications in dermatology journals	Number of first author publications	Number of second author publications
PGY2	125	4.78	2.27	2.18	0.88
PGY3	126	3.9	1.91	1.87	0.72
PGY4	94	3.32	1.17	1.46	0.71
Total	345	4.78	2.27	2.18	0.88

PGY, postgraduate year.

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