

**Letter**

**Pressure to publish for residency applicants in dermatology**

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**Abstract**

As it grows increasingly difficult to match into a dermatology residency program each year, there is a widening gap in research accomplishments between those who have and have not matched successfully. Applicants should be aware of the current trends in order to maximize their chances of matching. Such research inequality may subsequently lead to increases in the pressure to publish and the incidence of academic misrepresentation. Academic dermatology programs should be aware of these issues in order to help their students successfully match and exercise caution when reviewing the curricula vitae of applicants. We believe that student mentors in dermatology are in the best position to help applicants navigate these challenges until effective checkpoints can be built-in to the application system.

**Keywords: Educational activities; Medical education; Medical residency; Dermatology; Interest groups**

**Letter**

Dermatology is consistently one of the most difficult medical specialties to match into. As credentials of the average applicant continue to improve yearly, the bar subsequently gets raised. In data released by the National Resident Matching Program, the mean USMLE Step 1 score of matched U.S. seniors has gradually increased from 238 in 2007 to 247 in 2014 [1, 2, 3, 4]. The USMLE Step 2 score has similarly risen from 242 to 255 [1, 2, 3, 4]. Although these statistics are quite telling, a more noteworthy trend is in the research accomplishments of these applicants. Not only has the number of abstracts, presentations, and publications increased, but there also exists a significant gap separating successful applicants from those who are less fortunate. What appears extremely salient is that this gap continues to widen each year. Applicants should be aware of the trends and most importantly of this growing research inequality in order to effectively maximize their chances of matching.

Does this particular boost in research achievement necessarily correlate with more proven and capable applicants? A recent study by Stratman and Ness demonstrates that listing research experiences and publishing medical manuscripts are factors strongly associated with matching [5]. However, they also found that neither the quality of journal publications nor owning first authorship is credited with a similar influence on outcomes. A different study by Maverakis et al. supports the insignificant role that impact

factor plays, yet they additionally discovered that even unpublished manuscripts own a positive relationship with matching [6]. In combining these results, we can infer that applicants with research experiences leading to mediocre publications or even unpublished papers may still possess a significant competitive advantage.

The current evidence suggests that papers of any quality are strong predictors of successful matching--even if they are still in the process of either being written or submitted. This seems to support the all too familiar truism, 'something is better than nothing', despite some who would still consider unpublished papers to count as nothing. Proponents may argue that the real benefit is found within the actual scientific process that these students are forced to go through. The experience that they gain is considered to be invaluable compared to those who choose not to participate in research at all.

This growing research gap in dermatology may exacerbate the pressure for residency applicants to exhibit publications. Such a high-pressure environment may persuade some medical students to bend the rules and twist the presentation of their true accomplishments. Academic misrepresentation and erroneous claims of publications on the curricula vitae of applicants have previously been examined [7, 8]. Although these earlier findings suggested that the incidence was somewhat limited in dermatology, this was almost 20 years ago. A more current investigation is needed in order to shed light on our present rates of academic dishonesty.

Some instances of misrepresentation could also be considered the result of academic optimism, where 'in press' means submitted and 'submitted for publication' means in preparation [8]. Whatever their motive, this would still serve to potentiate the level of publication inflation. In light of this, residency program directors should think twice about the possibility of research falsification until functional checkpoints can be built-in to the application process and until the inclusion of 'submitted' works are no longer permitted.

In the meantime, we believe that student mentors are in the best position to help address these issues and to promote ethical behavior and proper reporting. They should clearly explain the realistic expectations to publish in addition to the various stages of the process in an attempt to decrease the prevalence of misrepresentation and its potentially severe repercussions. Mentors should proactively engage students early on in order to help identify the best times to complete meaningful research, guide them to the best opportunities, and motivate them to participate.

## References

1. National Resident Matching Program. Charting Outcomes in the Match, 2007. Washington, DC: National Resident Matching Program; 2007.
2. National Resident Matching Program. Charting Outcomes in the Match, 2009. Washington, DC: National Resident Matching Program; 2009.
3. National Resident Matching Program. Charting Outcomes in the Match, 2011. Washington, DC: National Resident Matching Program; 2011.
4. National Resident Matching Program. Charting Outcomes in the Match, 2014. Washington, DC: National Resident Matching Program; 2014.
5. Stratman EJ, Ness RM. Factors associated with successful matching to dermatology residency programs by reapplicants and other applicants who previously graduated from medical school. *Arch Dermatol.* 2011 Feb;147(2):196–202. [PMID: 20956631]
6. Maverakis E, Li C-S, Alikhan A, Lin T-C, Idriss N, Armstrong AW. The effect of academic "misrepresentation" on residency match outcomes. *Dermatol. Online J.* 2012 Jan;18(1):1. [PMID: 22301038]
7. Boyd AS, Hook M, King LE Jr. An evaluation of the accuracy of residency applicants' curricula vitae: are the claims of publications erroneous? *J. Am. Acad. Dermatol.* 1996 Oct;35(4):606–8. [PMID: 8859291]
8. Schwartz RA. Medical student publications: a faculty mentor's perspective. *J. Am. Acad. Dermatol.* 1997 Oct;37(4):667–8. [PMID: 9344218]