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Editorial

Taking a “step” toward diversity in dermatology: De-emphasizing USMLE Step 1 scores in residency applications



Dermatology is the second least-diverse field in medicine, second to orthopedic surgery (Pritchett et al., 2018). The American Association of Medical Colleges (2004) defines underrepresented in medicine (UIM) as racial and ethnic groups that are not represented in medicine relative to their percentage in the U.S. population; this includes African Americans/blacks, Mexican Americans, Native Americans, and mainland Puerto Ricans. This is an issue not only for inclusive representation in our field, but also for the optimal care of our increasingly diverse patient population. By 2044, the majority of the U.S. population will be composed of people of color (Colby and Ortman, 2014). Patients from racial minority groups are more satisfied with the care they receive and are more likely to adhere to medical treatments from race-concordant physicians (National Resident Matching Program, 2018). Thus, to provide the best care to our increasingly diverse population, we must prioritize diversifying our physician workforce.

Although there is a variety of ongoing efforts to improve diversity in dermatology, much work remains to be done to ensure that our specialty closely reflects the patient population it serves. To effectively improve diversity and inclusivity of dermatology, we must understand potential barriers. In this article, we assert that one step toward improving diversity and inclusivity in our field would be to end reliance and stratification of applicants based on the U.S. Medical Licensing Examination (USMLE) Step 1 numerical score.

Dermatology is one of the most competitive residencies into which one can match. A variety of attributes is commonplace among dermatology applicants, but one commonality is a high USMLE Step 1 score. The current average Step 1 score of U.S. allopathic seniors who matched to dermatology is 249 (Cooper et al., 2003). A recent proposal to change USMLE Step 1 to a pass–fail examination has sparked a debate among dermatology educators. Although many program directors may be hesitant to embrace this change because of the utility of using USMLE Step 1 scores to adjudicate applicants, we propose that the use of USMLE Step 1 score for residency selection contributes to the racial disparity in the dermatology workforce. Less reliance on this assessment would help ameliorate its negative impact on diversity in dermatology.

The focus on USMLE Step 1 scores in dermatology has had a detrimental impact on selecting diverse medical students for residency. The USMLE Step 1 was implemented in 1992 with the primary intention of state licensure. The numerical score was never designed to be used by program directors as a tool for residency

selection/screening (Colby and Ortman, 2014). Changing Step 1 to an entirely pass–fail format to limit unintended secondary purposes has been discussed significantly in recent years. The Step 1 climate has been discussed by medical students because preparation for the examination negatively affects medical school education, diversity, and wellness (Chen et al., 2019). A recent National Board of Medical Examiners (2018) study showed that female medical students scored 5.9 points lower on USMLE Step 1 and Asian, Hispanic, and black students scored 4.5, 12.1, and 16.6 points lower than white male medical students, respectively.

UIMs may have lower average scores due to the cost of obtaining the commercial products used for Step 1 preparation, which on average require \$1500 to \$2000 in addition to the registration cost of approximately \$700 (Chen et al., 2019). Additionally, standardized tests, such as USMLE Step 1, are biased against historically disadvantaged groups such as UIMs and have the deleterious effect of continuing to benefit students from wealthier socioeconomic backgrounds. Sociological studies have shown that racial differences in average standardized test scores are evident beginning early in school, with Hispanic and African-American children scoring below Caucasian and Asian children; this is thought to be secondary to socioeconomic status based on parental education and family income. This trend continues into higher education, such as medical school, where UIMs continue to score lower than their peers (Grotsky et al., 2008).

Dermatology faculty and program directors can agree to take such differences into account during application reviews, but this may already be too late. Even before this stage, we must consider the hesitancy to pursue dermatology that our UIM students may feel upon receiving their Step 1 score. A survey of 155 UIM students across U.S. medical schools showed that they considered USMLE Step 1 to be a significant deciding factor in their pursuit of dermatology (Soliman et al., 2019). The implication is that UIMs who may have scored lower may not even consider dermatology because their score is sobering.

Even if UIMs do apply to dermatology with a lower score, some program directors use the score to screen and rank dermatology applicants despite a lack of evidence that Step 1 scores correlate with clinical competence (Chen et al., 2019). Although multiple studies have demonstrated a correlation between USMLE Step 1 scores and other specialty board examinations, there is a lack of such evidence available for dermatology boards. A recent study demonstrated a moderate correlation between Step 1 score and

the dermatology In-Training Examination. However, no data exist to suggest that Step 1 predicts dermatology board success (Fening et al., 2011). Because dermatology programs receive a large number of applications, easily usable and efficient screening tools are often used to whittle the field of applicants. These objective and distinct metrics may make application review more efficient, but we assert that, as a result of this objective measure, we are missing out on diverse and stellar applicants, which ultimately perpetuates the lack of diversity in dermatology and contributes to disparities in patient care.

We believe that moving away from focusing on the USMLE Step 1 numerical score and using the test as originally intended (i.e., a marker for licensure) would improve diversity and inclusion in dermatology. This approach would require program directors to find alternative methods to evaluate applicants, such as individual characteristics, research experience, and the clinical needs of the residency program (Conrad et al., 2016; Pritchett et al., 2018).

Program directors should consider the holistic review process in the selection of dermatology residents, akin to the approach that many undergraduate medical schools are increasingly adopting to increase diversity in their student bodies. Endorsed by the Association of American Medical Colleges as a model for medical school admissions, the holistic review ensures that applications of all qualified candidates are carefully evaluated in several domains and measured against the specific mission of the institution (Conrad et al., 2016). This requires program directors to consider other relevant measures, including personal statement, goals of addressing health care disparities, cultural competence, and community service activities (Conrad et al., 2016; Pritchett et al., 2018). Using this approach will likely result in the selection of diverse candidates for dermatology residency.

We understand that this type of intensive review of applications would require more time and resources. However, the alternative is costly, both to the medical education system and to our patients' lives. It prevents a more diverse physician workforce composed of individuals from different racial and ethnic backgrounds from taking care of an increasingly diverse patient population that evidence has shown does better with increased race concordance.

Lack of diversity in dermatology has been discussed significantly in recent years. Program directors must reconsider the use of USMLE Step 1 in their selection process and use other factors that may be more relevant to an applicant's potential to be a highly skilled and compassionate physician. Such change would allow mentors and program directors to feel comfortable advising and encouraging students with lower Step 1 scores to still consider dermatology as a career choice as opposed to eliminating the field as an option based solely on test scores. Additionally, program directors can lead the charge by insisting on application reform and meaningful selection processes, such as a holistic review, that would improve the diversity crisis in dermatology. Rethinking our usage of USMLE Step 1 solely for licensing purposes will not completely resolve the lack of UIMs in dermatology, but it is a potentially transformative step toward a goal of a more diverse workforce in dermatology.

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