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A Roadmap for the Development of a Diverse and Inclusive Medical Student Dermatologic Curriculum

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INTRODUCTION

The need for diversification in dermatology has been increasingly highlighted. However, until recently there had been a lack of emphasis on the pathway that unites all physicians: medical education. Fortunately, current articles have begun to provide suggestions for the role of medical education in improving diversity and inclusivity in our field.[1,2] Key curricular changes in dermatology education can impact medical students' experiences and emphasize dermatology's commitment to cultural sensitivity. Here, we outline a roadmap for the development of a diverse and inclusive medical student dermatology curriculum.

It is important to first evaluate the pre-existing curriculum. At our institution, first-year medical students receive a required one-week course on dermatology. We assessed thematic content by cataloging diseases and topics covered in our pre-existing curriculum (Table 1). To assess photographic content, lecture photographs were classified as appearing in lighter (non-SOC: FST I-III) or darker skin tones (SOC: FST IV-VI) by two trained reviewers. Discrepancies were resolved by an attending dermatologist. We found that disorders such as acne, dyschromia, and alopecia were not represented in our thematic content, yet are top conditions for which SOC patients seek dermatologic care.[3,4] SOC photographic content varied across lectures, ranging from 0-42%. Overall, however, a total of 84/399 images (21%) shown were in darker skin tones. This classification of photographs does have limitations, yet was our best surrogate to approximate photographic diversity.

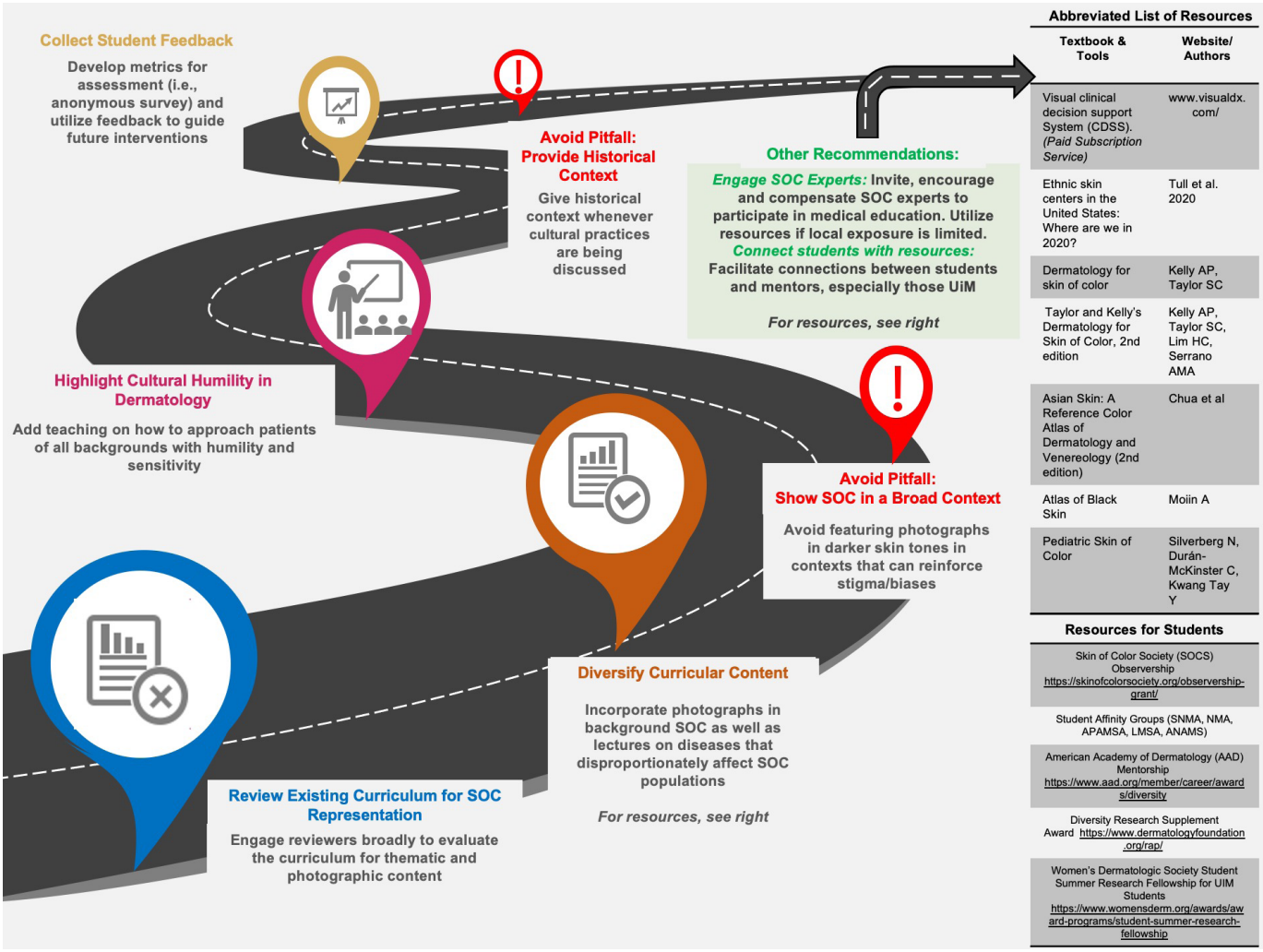
The second step is to diversify lecture content and photographs.

TABLE 1.

Pre-existing Curriculum: Thematic and Photographic Lecture Content

Lecture Title	#Total Non-SOC images	#Non-repeating non-SOC images	#Total SOC images	#Non-repeating SOC Images	% Non-repeating SoC representation (non-repeating SOC images/total unique SOC + Non-SOC images)
Ultraviolet Radiation	5	4	0	0	0%
Wound Healing	13	5	0	0	0%
Learning to Look	5	4	0	0	0%
Non-Melanoma Skin Cancer	53	35	0	0	0%
Dermatitis (Seborrheic, Contact, Allergic)	17	14	1	1	7%
Superficial Skin Infections	45	42	4	4	9%
Microbiology of Skin	9	9	1	1	10%
Red Scaly Rash (Psoriasis)	36	34	6	4	11%
Histology: Skin in Health & Disease	14	14	3	3	18%
Melanoma	31	26	7	7	21%
Drug Eruption	37	34	11	11	24%
Red Spots (erythema multiforme, SJS/TEN)	19	17	7	6	26%
Dermatology Vocab	40	28	14	12	30%
Autoimmune Blistering Diseases	14	14	8	8	36%
Atopic Dermatitis	12	12	8	8	40%
Systemic Lupus Erythematosus	28	26	20	19	42%

FIGURE 1. Roadmap with recommendations and pitfalls.



Our goal was to have SOC featured in a minimum of 35% of photographs, mirroring the patient population served in metro Atlanta. Only 3/16 lectures reviewed met this goal. Lectures that fell below the 35% target were flagged and sent to lecturers for diversification. Resources were made available to lecturers (Figure 1).These goals were shared with medical students in our course learning objectives.

The third step is to integrate cultural humility as well as diseases that disproportionately affect SOC populations into the curriculum. To accomplish this, we encouraged lecturers to incorporate concepts such as disease incidence across populations, variability in disease presentation across skin types, and bias in diagnosis/treatment. To reflect the top reasons SOC patients seek dermatologic care, we added vitiligo, melasma, acne, and alopecia to our curriculum, highlighting the intersection of culture and disease when appropriate.[3,4]

We recommend collecting feedback as the fourth step. An optional, anonymous pre- and post-lecture survey was administered to medical students following the lecture on cultural humility and diseases that disproportionately affect SOC populations. 88/107 and 49/107 students completed the pre and post-test, respectively. Medical students agreed that the course incorporated themes of diversity, inclusion, and cultural competency ($P< 0.001$). Following the lecture, students were more likely to view dermatology as a specialty that emphasized the importance of cultural competency ($P<0.001$) and to recognize the role of culture in dermatologic conditions ($P=0.0022$). Furthermore, medical students' interest in dermatology as a career increased following the lecture (P=0.048). Additional end-of-course feedback was solicited and overall, students reported a preference for learning about variation of disease prevalence/presentations across populations and diseases disproportionately affecting SOC.

In summary, our roadmap offers a guide and resources for institutions looking to develop a more diverse and inclusive medical student dermatology curriculum (Figure 1). Implementation of these simple, feasible interventions can have a measurable, positive impact on student attitudes towards the field of dermatology.

DISCLOSURES

The authors have no conflicts of interest to declare.

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