

## Dermatology education in skin of colour: where we are and where do we go?

### L'enseignement en dermatologie et la couleur de peau : où sommes-nous rendus et où allons-nous?

Joshua Onasanya,<sup>1</sup> Chaocheng Liu<sup>2</sup>

<sup>1</sup>Faculty of Medicine, University of Saskatchewan, Saskatchewan, Canada; <sup>2</sup>Department of Dermatology and Skin Science, University of British Columbia, British Columbia, Canada

Correspondence to: Chaocheng Liu, MD, 835 West 10th Ave, Dept of Dermatology & Skin Science, 3rd Fl, University of British Columbia, Vancouver, BC Canada V5Z 4E8; email: [cl13@ualberta.ca](mailto:cl13@ualberta.ca)

Published ahead of issue: November 28, 2021; published: December 29, 2021. CMEJ 2021, 12(6). Available at <http://www.cmej.ca>

© 2021 Onasanya, Liu; licensee Synergies Partners

<https://doi.org/10.36834/cmej.73112>. This is an Open Journal Systems article distributed under the terms of the Creative Commons Attribution License. (<https://creativecommons.org/licenses/by-nc-nd/4.0>) which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is cited.

Canada is a multicultural society; 22.3% of Canadian residents identify as People of Colour (PoC).<sup>1</sup> Therefore, it is important for our medical trainees to become competent in managing skin diseases in PoC because there are distinct differences in the prevalence, disease manifestations, and treatments required for certain skin conditions in this population.

The current landscape of Skin of Color (SoC) dermatology education across North America appears to be suboptimal. Studies have shown a deficiency in SoC representation within medical school dermatology curricula. For example, a recent study examined the dermatology curriculum for first- and third-year medical students at the University of Toronto.<sup>2</sup> It found that of 513 images in the dermatology teaching materials for first-year students, only 3.7% of these images displayed skin conditions in SoC.<sup>2</sup> Of the 198 images in the dermatology curriculum for third-year students, a mere 12 pictures showed skin conditions in SoC.<sup>2</sup>

In addition to the lack of SoC representation within medical school dermatology curricula, there is a similar underrepresentation of SoC in different dermatology resources. Several studies have examined the representation of dark-skinned images (DSI) within dermatology resources commonly used to educate medical trainees.<sup>3-4</sup> One study by Adelukun et al. discovered a

limited representation of DSI of common skin conditions in six popular dermatology textbooks.<sup>3</sup> For example, only half of the textbooks they analyzed had DSI of acne vulgaris, while of the 120 combined images of atopic dermatitis in the six textbooks, only 17% of these pictures were DSI.<sup>3</sup> Another study by Alvarado et al. found that only 2.8% of images on DermNet NZ, a commonly used dermatology reference website, were DSI.<sup>4</sup>

A study by Cline et al. showed that dermatology residents strongly value SoC teaching and exposure to PoC during clinical training.<sup>5</sup> This study surveyed dermatology residents across the United States. It found that 91% of residents acknowledged that lectures dedicated to the presentation of dermatologic diseases in SoC are important for residents to become competent in diagnosing and treating PoC.<sup>5</sup> Also, 79% of residents believed they would need an additional 1-5 months of clinical training treating skin conditions in PoC to feel competent to manage this population.<sup>5</sup>

Canadian universities are developing initiatives to enhance SoC representation within their dermatology curricula to improve SoC dermatology education. For example, medical students at the University of Ottawa created a self-learning module that addresses the management of skin diseases in SoC for the dermatology curriculum taught to second-year medical pre-clerkship students. Furthermore, to address

the learning gap in SoC competency within Canadian dermatology residency programs, the Resident and Fellow Society of the Canadian Dermatology Association (CDA) plans to develop a SoC Lecture Series and have had discussions about supplying all dermatology residents with SoC dermatology textbooks. Additionally, during the recent 2021 CDA annual conference, several plenaries taught attendees effective strategies in managing skin conditions specific to PoC. Efforts are being made to ensure that medical trainees are provided with a comprehensive dermatology education that includes all skin tones.

Moving forward, more studies on the status of medical education in dermatology for SoC would help further delineate the learning gaps and challenges so that the issues can be addressed from a broader perspective. Different strategies can also be implemented to continually improve SoC dermatology education for medical trainees. For example, a first step could be including sufficient images of skin diseases in darker skin tones in all didactic lectures taught to pre-clerkship students. Additionally, exposure to standardized patients with different skin tones would help medical students develop both clinical and cultural competency. As for residency, dermatology programs should ensure sufficient SoC teachings to residents. Faculty members specializing in SoC may be invited to speak at national resident lecture series to teach residents across the country. Residency programs can also support residents with resources to pursue SoC electives. Lastly, residents should pursue independent learning opportunities. These opportunities may include attending SoC conferences like the Skin of Color Update and the Skin Spectrum Summit or becoming a member of the Skin of Colour Society—an organization that provides resources to help educate physicians on SoC.

All in all, the end goal for Canadian medical education is to ensure that future practising physicians (i.e., residents and medical students like us) can provide excellent care in dermatology to the ever-growing multicultural population of Canada.

**Authorship:** Joshua Onasany and Chaocheng Liu shared first authorship.

## References

1. Statistics Canada. *Visible Minority (15), Generation Status (4), Age (12) and Sex (3) for the Population in Private Households of Canada, Provinces and Territories, Census Metropolitan Areas and Census Agglomerations, 2016 Census – 25% Sample Data*. 2016; updated June 17, 2019. Ottawa, Canada: Statistics Canada. [Accessed on July 9, 2021].
2. Bellicoso E, Quick SO, Ayoo KO, Beach RA, Joseph M, Dahlke E. Diversity in dermatology? An assessment of undergraduate medical education. *J Cutan Med Surg*. 2021 Apr 13;12034754211007430. <https://doi.org/10.1177/12034754211007430>
3. Adekun A, Onyekaba G, Lipoff JB. Skin color in dermatology textbooks: an updated evaluation and analysis. *J Am Acad Dermatol*. 2020 Apr 23;84(1):194-6. <https://doi.org/10.1016/j.jaad.2020.04.084>
4. Alvarado SM, Feng H. Representation of dark skin images of common dermatologic conditions in educational resources: a cross-sectional analysis. *J Am Acad Dermatol*. 2021 May 1;84(5):1427-31. <https://doi.org/10.1016/j.jaad.2020.06.041>
5. Cline A, Winter RP, Kourosh S, et al. Multiethnic training in residency: a survey of dermatology residents. *Cutis*. 2020 Jun 1;105(6):310-3. <https://doi.org/10.12788/cutis.0012>