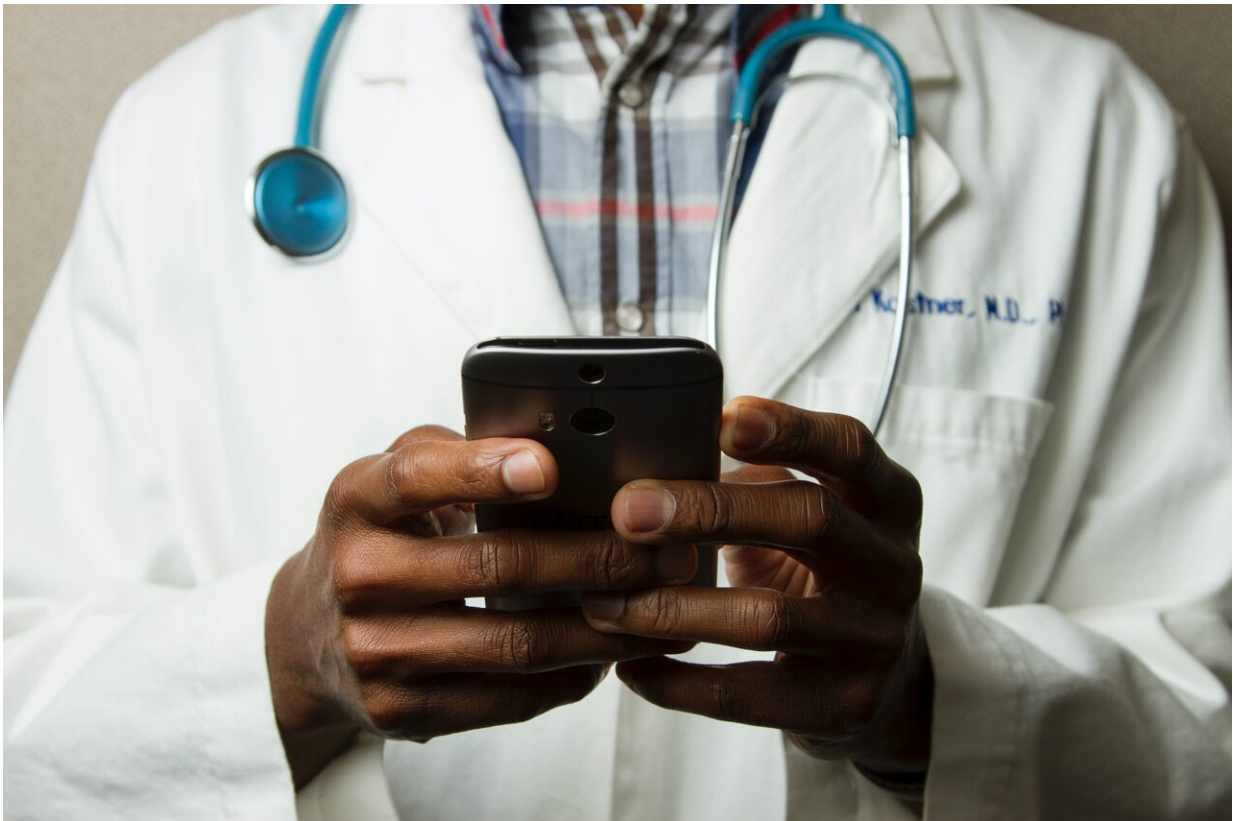# Improving racial representation in medical learning materials

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Credit: Unsplash/CC0 Public Domain

For Iku Nwosu, a Black medical student at Queen's, sitting in dermatology lectures, and watching slide after slide of skin conditions presented on mostly white skin tones, has been frustrating.

"It's been pretty discouraging to not see my [skin tone](#) represented in the lecture materials," says Nwosu, now in third year. "Because of this, I may not be able to diagnose conditions on myself, my family members, community members, or my future kids, and neither can others in my class.

"To me, it implies the university is complicit with sending out a cohort of medical students, future physicians, who don't know what things look like in a large portion of the population. I thought this was really dangerous."

Similarly, Shakira Brathwaite has also felt disappointed and frustrated with the lack of diversity in teaching resources. While she was on a dermatology placement outside of Kingston, she says she was excited to see patients who looked like her, with Black skin, but at the same time, she felt unprepared to manage their cases, because she had not learned to recognize the severity of certain conditions in skin of color.

"It was upsetting. I didn't feel like I was giving them optimal care at that point," says Brathwaite, noting that dermatologists have specialized training and can recognize conditions in different skin tones, but most general practitioners do not have this ability, which means patients with skin tones other than white are not given the appropriate therapies at crucial times.

Because of their experiences, Brathwaite and Nwosu, along with fellow medical students, Aquila Akingbade and Eric Zhang, have sought to make change at Queen's with respect to racial representation in medical school teaching materials and curricula.

Brathwaite's experience pushed her to seek funding through the Ontario Medical Student Association, a process she began in 2019, to create an interactive teaching module that provides information about various skin

conditions, what to look for in different skin tones, as well as photos showing how ailments present in various skin colors. The compact, curated module will be easy to use, accessible, and available as a point-of-care resource for practitioners, Brathwaite says.

Together, Nwosu, Akingbade, and Zhang decided to bring the skin representation issue up with leadership in the School of Medicine. They proposed a review of not only the dermatology lecture materials, but all pre-clerkship learning materials in undergraduate medical education (UGME).

With widespread support for their project, Nwosu, Akingbade, and Zhang recruited more than 120 Queen's students to review approximately 900 learning materials, and identify learning events that needed improvement with respect to racial representation. The students found that out of 168 learning events with skin presentations, 131 of those events contained only white skin presentations. The students also flagged 89 learning events for potential improvements in Indigenous representation.

"There are numerous statistics that show skin cancer is not being caught early on in Black patients, and that it is being diagnosed at a much more lethal stage," says Akingbade. "Black people represent a smaller percentage of skin cancer patients overall, but there is a much higher proportion of Black people who are likely to die from the disease.

"This is something that is wholly preventable and it starts at the institutional level. We have to start teaching and normalizing what conditions look like in darker-skinned individuals."

A representative image collection

A key component in improving racial representation in lecture materials

has been the need for a central repository of images, and one that contains a significant number of images with different skin tones. To that end, and because of the students' work and leadership involvement, Bracken Health Sciences Library has purchased access to VisualDX, a medical image database that is currently the best repository of diverse images.

"The students have done a really great job of mobilizing a lot of resources, and acquiring VisualDX through the library is an important step in addressing challenges in this area," says Michelle Gibson, Assistant Dean, Curriculum, UGME, who has supported Nwosu, Akingbade, and Zhang on the review project.

"At UGME, we do not want to depend on student work to support our curricular reform," says Dr. Gibson, noting that there are many different projects currently in the works to improve racial diversity in UGME curriculum. "But we are grateful to the students for their work, and we always welcome and value student partnerships. This has been a strength of our curriculum for years."

Nwosu, Zhang, and Akingbade have prepared a draft framework for racial representation of learning materials in UGME, including standards that all materials should meet, and where to find images to meet the criteria. Student volunteers are also ready to help implement changes to learning materials for lecturers to use in the next academic year.

For the teaching module, Brathwaite has created the script for the interactive, curated resource, and is currently in the process of gaining permissions for image use, learning more about VisualDX and how it may be used in the module, and working with dermatologists to incorporate the most up-to-date information on certain skin conditions.

Interest in advocacy work

Momentum behind these two projects, as well as several others, has been fuelled by the global Black Lives Matter protests in spring and summer of 2020, along with the pandemic, which the students say forced more people to pay attention to racial disparities, around the world and at a local level. Last summer, Queen's students were eager to get involved in advocacy work, and Nwosu, Akingbade, and Zhang say the group effort made a huge difference, making the time commitment to review learning materials much more feasible.

"We are a smaller community and the medical school here has very involved students," Nwosu says. "I think it's important that if students see a gap, they feel empowered to propose a solution."

Zhang emphasizes that their work on this project has been conducted with the understanding that the issue is not just a local one, but a national and international problem.

"This is not just a Queen's problem," Zhang says. "We've always had in the back of our minds that if we can do this successfully here, then we can create resources that will be helpful to other schools across the country."

Provided by Queen's University