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Judging film, not skin: can radiologists combat bias in medicine?

From the more than 700,000 deaths from COVID-19 in the US and over 5 million worldwide, there emerge even more stories than match the statistics when one considers all of the patients’ relations. While the numbers are staggering, when we humanize the stories, we are left with even greater devastation, of course. One of the stories among so many that seemed particularly salient and poignant to us was the death of Dr. Susan Moore. Her plaintive Facebook post, which went viral in December 2020, was made a few weeks before she died at the age of 52 from COVID-19 and claimed that she was a victim of racially biased treatment at a hospital in Indiana. It was Dr. Moore's mentioning of CT scans that led us to reflect on the biases of some health care workers and the role of radiologists. Our initial interface with our patients is actually not with their faces, but with their films. This dynamic does not eliminate any biases we may harbor but shields practitioners and patients from potential glaring racial biases in this first and sometimes only stage of the relationship.

2. Identifying bias

A study of implicit bias and discrimination by Maxfield et al. published in 2020 is instructive. Across three academic radiology departments, 51 faculty reviewers who took part in a 2017 audit study revealing that they treated radiology resident applicants differently based on physical appearance and race or ethnicity were asked to complete the Implicit Association Test, to assess implicit racial and weight bias. Of the 31 faculty who submitted results, 71% (22/31) were found to have expressed anti-black bias and 74% (23/31) demonstrated anti-obese bias. Whereas 84% (26/31) of respondents indicated self-awareness of possible racial bias during application review, only 23% (7/31) expressed self-awareness of potential anti-obese bias. The authors concluded that implicit bias does not necessarily result in discriminatory actions, which might be prevented or lessened by personal awareness. While this study pertained to selecting radiology residents and not patient interactions, the prevalence of implicit bias is critical to address.

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In an earlier systematic literature review of racial/ethnic bias among US health care professionals and possible effects on health care outcomes, Hall et al. found low to moderate levels of implicit bias in all but one of 10 studies, with scores comparable to those in the population at large. Some identified links between implicit bias and health care outcomes were not noted as significant. However, implicit bias was found to be significantly associated with patient-provider interactions, treatment decisions and compliance, as well as health outcomes for patients. A stronger relationship was revealed between implicit attitudes and patient-provider interactions and health outcomes as compared to treatment issues. The authors concluded that the majority of respondents expressed implicit positive bias toward white people and negative bias toward people of color. A subsequent systematic literature review by FitzGerald and Hurst, published in 2017, covered a larger volume of articles, but concluded similarly that health care practitioners display implicit bias at a level roughly equivalent to the greater population and that there is a significant positive association between higher negative implicit bias and lower quality care.

Currently, a bill that would require health care workers to participate in implicit bias training awaits the signature of Maryland Governor Larry Hogan. Further, the Centers for Disease Control and Prevention (CDC) has recently acknowledged racism as a “serious public health threat.” Further, though, it is incumbent upon health care systems to identify and aim to eliminate the structural racism and address the systematic and social determinants of health that ultimately result in biased interactions with patients.

3. Addressing inequities

We would like to see the proposed law implemented in Maryland and throughout the US. It has the potential to help identify and mitigate the effects of implicit bias. Also, particularly in the wake of continuing police violence committed against African Americans, we think the CDC declaration on racism is correct and, alas, belated. Such actions by states and a federal public health agency are important steps in addressing health inequities and injustice as well as promoting awareness of the systemic racism and other biases in order to blunt their effects.

The Maxfield et al. study suggests a way forward in academic radiology. Awareness of one’s implicit biases is a key step in stemming or preventing any such manifestation. Addressing implicit bias and the effects of bias on health outcomes, particularly in the variety of documented health care disparities, in medical and resident training is essential. Even in our syllabi as radiology instructors, if only fleetingly recognizing bias and health outcomes disparities when the focus may be on the intricacies of reading scans is worth the time. Training radiologic technologists and all members of the radiology care team on implicit bias should also be incorporated into education and work protocols.

Acknowledging implicit bias and ensuring that such tendencies are eliminated from medical care can be a focus of communications (e.g., journal articles, conference talks, editorials, tweets) regularly produced by some radiologists. Continuing medical education is also an appropriate venue for renewing implicit bias training and promoting self-awareness as a safeguard.

What else can we do? Listen. Regardless of specialty, it is one of the hallmarks of an effective, compassionate physician. While we may be expert in our chosen specialty, we are not expert in how others feel or their perceptions of their experiences. We can best assist others, particularly those most likely to bear the brunt of implicit bias, first through listening.

4. Conclusion

The full breadth of diversity, inclusion, equity, cultural competence, and anti-bias training should be made available for medical students, residents, fellows, technicians, nurses, and physicians. Ideally, the greater the availability early in training would obviate such programs later in a career.

Dr. Susan Moore deserved better. She deserved respect. All patients deserve respect. Being aware of one’s implicit biases is a crucial step in ensuring that patients receive the same, humane, and optimal care regardless of race, ethnicity, nationality, sex, sexual orientation, gender identity, religion, weight, or any other demographic distinction.

Listening to patients, truly hearing them, and incorporating their autonomy into their health care to the extent possible, without sacrificing professional knowledge, is one approach to respectful care that we recommend and teach to our radiology trainees. These are lessons best mandated throughout medicine.

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