Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Clinical Imaging 81 (2022) 60–61

Contents lists available at ScienceDirect

Clinical Imaging

journal homepage: www.elsevier.com/locate/clinimag

Patients & Practice, Policy & Education

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

ARTICLE INFO

Keywords
Covid-19
Health inequities
Health care disparities
Implicit bias
Systemic racism

ABSTRACT

From the more than 700,000 deaths from COVID-19 in the US and the nearly 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.

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. Dr. Moore, an African American physician, asserted that her complaints of pain were dismissed, her requests for Remdesivir initially rebuffed, and she was made to feel like a drug addict. She also had to implore her physician to allow her to review her CT scans, which she said revealed lymphadenopathy, after she was finally permitted to see them upon multiple pleas and despite being told previously that her film work looked normal.[1]

Sadly, to too many health care workers and patients alike, the notion that structural and systemic racism plays a role in treatment is not unfamiliar.[2] The fact that a black physician felt that she wasn't being listened to is a more egregious example of what people of color have come to fear, if not expect, from society at large and within the microcosm of health care.

1. The prism of film

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 and cannot 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. It is possible that some bias may manifest in encounters that precede any involvement of a radiologist, such as in the initial intake or through referring physicians and radiology technicians. This prompts us to consider how radiologists can best help to identify and mitigate racial bias in medicine.

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.[3] While this study pertained to selecting radiology residents and not patient interactions, the prevalence of implicit bias is critical to address.

☆ Both authors contributed equally to the writing of this manuscript and have no conflicts of interest. There was no funding associated with this work.

https://doi.org/10.1016/j.clinimag.2021.09.009
Received 28 June 2021; Received in revised form 16 August 2021; Accepted 6 September 2021
Available online 29 September 2021

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.[4] 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.[5]

Currently, a bill that would require health care workers to participate in implicit bias training awaits the signature of Maryland Governor Larry Hogan.[6] Further, the Centers for Disease Control and Prevention (CDC) has recently acknowledged racism as a "serious public health threat."[7] 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.

References

1. Lewis S. Black doctor in Indiana dies of COVID-19 after publicly complaining of racist treatment at hospital. CBS News; December 24, 2020. https://www.cbsnews.com/news/black-doctor-susan-moore-indiana-dies-covid-19-facebook-video-racist-treatment-iu-hospital/.
2. Evans MK, Rosenbaum L, Malina D, Morrissey S, Rubin EJ. Diagnosing and treating systemic racism. N Engl J Med 2020 Jul 16;383(3):274–6.
3. Maxfield CM, Thorpe MP, Desser TS, Heitkamp D, Hull NC, Johnson KS, Koontz NA, Mlady GW, Welch TJ, Grimm LJ. Awareness of implicit bias mitigates discrimination in radiology resident selection. Med Educ 2020 Jul;54(7):637–42.
4 Hall WJ, Chapman MV, Lee KM, et al. Implicit racial/ethnic bias among health care professionals and its influence on health care outcomes: a systematic review. Am J Public Health 2015 Dec;105(12):e60–76.
5. FitzGerald C, Hurst S. Implicit bias in healthcare professionals: a systematic review. BMC Med Ethics 2017 Mar 1;18(1):19.
6. Tansill-Suddath C. Implicit bias training for health workers becomes mandatory under bill on governor's desk. Capital News Service; April 9, 2021. https://baltimorefishbowl.com/stories/implicit-bias-training-for-health-workers-becomes-mandatory-under-bill-on-governors-desk/.
7. Gilbert AC. CDC declares racism a 'serious public health threat' as COVID-19 puts a spotlight on disparities. USA Today; April 9, 2021. https://www.usatoday.com/story/news/health/2021/04/09/racism-serious-public-health-threat-seen-covid-cdc-says/7156121002/.

Edmund M. Weisberg[a,*], Elliot K. Fishman[b]

[a] *Johns Hopkins University Russell H. Morgan Department of Radiology and Radiological Science, 601 North Caroline Street, JHOC 3262, Baltimore, MD 21287 USA*

[b] *Johns Hopkins University Russell H. Morgan Department of Radiology and Radiological Science, 601 North Caroline Street, JHOC 3254, USA*

[*] Corresponding author.
E-mail address: eweisbe1@jhmi.edu (E.M. Weisberg), (E.K. Fishman).
@CTisus (E.K. Fishman)