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Tackling Implicit Bias in Health Care

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Implicit and explicit biases are among many factors that contribute to disparities in health and health care.¹ Explicit biases, the attitudes and assumptions that we acknowledge as part of our personal belief systems, can be assessed directly by means of self-report. Explicit, overtly racist, sexist, and homophobic attitudes often underpin discriminatory actions. Implicit biases, by contrast, are attitudes and beliefs about race, ethnicity, age, ability, gender, or other characteristics that operate outside our conscious awareness and can be measured only indirectly. Implicit biases surreptitiously influence judgment and can, without intent, contribute to discriminatory behavior.² A person can hold explicit egalitarian beliefs while harboring implicit attitudes and stereotypes that contradict their conscious beliefs.

Moreover, our individual biases operate within larger social, cultural, and economic structures whose biased policies and practices perpetuate systemic racism, sexism, and other forms of discrimination. In medicine, bias-driven discriminatory practices and policies not only negatively affect patient care and the medical training environment, but also limit the diversity of the health care workforce, lead to inequitable distribution of research funding, and can hinder career advancement.

A review of studies involving physicians, nurses, and other medical professionals found that health care providers' implicit racial bias is associated with diagnostic uncertainty and, for Black patients, negative ratings of their clinical interactions, less patient-centeredness, poor provider communication, undertreatment of pain, views of Black patients as less medically adherent than White patients, and other ill effects.¹ These biases are learned from cultural exposure and internalized over time: in one study, 48.7% of U.S. medical students surveyed reported having been exposed to negative comments about Black patients by attending or resident physicians, and those students demonstrated significantly greater implicit racial bias in year 4 than they had in year 1.³

A review of the literature on reducing implicit bias, which examined evidence on many approaches and strategies, revealed that methods such as exposure to counterstereotypical exemplars, recognizing and understanding others' perspectives, and appeals to egalitarian values have not resulted in reduction of implicit biases.² Indeed, no interventions for reducing implicit biases have been shown to have enduring effects. Therefore, it makes

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sense for health care organizations to forgo bias-reduction interventions and focus instead on eliminating discriminatory behavior and other harms caused by implicit bias.

Though pervasive, implicit bias is hidden and difficult to recognize, especially in oneself. It can be assumed that we all hold implicit biases, but both individual and organizational actions can combat the harms caused by these attitudes and beliefs. Awareness of bias is one step toward behavior change. There are various ways to increase our awareness of personal biases, including taking the Harvard Implicit Association Tests, paying close attention to our own mistaken assumptions, and critically reflecting on biased behavior that we engage in or experience. Gonzalez and colleagues offer 12 tips for teaching recognition and management of implicit bias; these include creating a safe environment, presenting the science of implicit bias and evidence of its influence on clinical care, using critical reflection exercises, and engaging learners in skill-building exercises and activities in which they must embrace their discomfort.⁴

Education on implicit bias and ways to manage its harms should be part of health systemwide efforts to standardize knowledge in this domain and recognize and manage bias. Research at the Center for Health Workforce Studies at the University of Washington (UW) School of Medicine (where I work) evaluated whether a brief online course on implicit bias in the clinical and learning environment would increase awareness of bias in a national sample of academic clinicians. The course was found to significantly increase bias awareness in clinicians regardless of their personal or practice characteristics or the strength of their implicit racial and gender-based biases.⁵ Evaluation is under way of lasting effects of the course on clinicians' awareness of bias and their reports of subsequent behavior change.

Beyond awareness, examples of actions that clinicians can take immediately to manage the effects of implicit bias include practicing conscious, positive formal and informal role modeling; taking active-bystander training to learn how to address or interrupt microaggressions and other harmful incidents; and undergoing training aimed at eliminating negative patient descriptions and stigmatizing words in chart notes and direct patient communications. Teaching faculty at academic medical centers can develop curricular materials that contain inclusive, diverse imagery and examples and can strive to use inclusive language in all written and oral communications.

At the organizational level, the cornerstone of institutional bias-management initiatives should be a comprehensive and ongoing program of interactive, skill-building education in diversity, equity, and inclusion (DEI) that incorporates implicit-bias recognition and management for all employees and trainees throughout a health care system. Organizations need to collect data to monitor equity. Organizations can also implement best practices for increasing workforce diversity (https://diversity.nih.gov/); recognize engagement in antibias education and practices as necessary and meritorious criteria in their professionalism policy; and create policies for hiring, review, and promotion that recognize and credit candidates for their DEI activities. Many U.S. health care organizations have codified these practices, but not all have done so.

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Some health care organizations have developed bias reporting systems. For example, UW School of Medicine and UW Medicine have implemented an online tool allowing the target or observer of a biased incident to report their concerns (https://depts.washington.edu/ hcequity/bias-reporting-tool/). These incidents are then evaluated by a skilled incidentresponse team that gathers more information and either directs the concern to an existing system, such as the human resources department, or refers the incident for further investigation and appropriate follow-up. Since transparency is key, UW Medicine issues a quarterly report on the number of bias incidents that have occurred, the groups (faculty, patients, caregivers, staff, students, trainees, visitors, or some combination) who were affected by the incidents, the groups reported to have perpetrated them, the locations of reported incidents, and the themes or types of reported incidents. An initial evaluation of the data collected by the reporting tool identified four high-priority areas for immediate institutional intervention: bias affecting pain management, response to microaggressions and implicit bias, biased comments or actions by patients toward members of the medical team, and opportunities to make our institution more inclusive. These items are now priorities in our bias-management action plan.

Innovative research is under way on strategies for interrupting the effects of implicit bias in health care. Researchers at Indiana University are developing objective blood biomarkers of pain severity to open the door to precision pain management (https:// pubmed.ncbi.nlm.nih.gov/30755720/). These objective measures hold promise for reducing subjectivity and the intrusion of implicit bias in pain assessment. Harvard investigators have proposed methods for minimizing biases that are unintentionally embedded in artificial intelligence algorithms that result in health inequities (https://www.hsph.harvard.edu/ ecpe/how-to-prevent-algorithmic-bias-in-health-care/). Researchers at UW (biomedical informatics and medical education) and the University of California, San Diego (computer science), are collaboratively developing technology to help tackle implicit bias in clinical care; the tool under development will automatically detect nonverbal social signals that transmit clinicians' implicit bias in real-time interactions with patients and provide precise feedback to the clinician or clinician-in-training so that an individualized program for building communication skills can be designed (https://www.unbiased.health/).

U.S. health care organizations vary widely in the extent to which they have embraced the need to tackle the effects of implicit bias. The steps outlined here may help health care systems and clinicians to begin or continue the process of reducing, and ultimately eliminating, the harms caused by implicit bias in health care.

References

- 1. FitzGerald C, Hurst S. Implicit bias in healthcare professionals: a systematic review. BMC Med Ethics 2017;18:19. [PubMed: 28249596]
- 2. Greenwald AG, Dasgupta N, Dovidio JF, Kang J, Moss-Racusin CA, Teachman BA. Implicit bias remedies: treating discriminatory bias as a public health problem. Psychol Sci Public Interest 2022;23:7–40. [PubMed: 35587951]
- van Ryn M, Hardeman R, Phelan SM, et al. Medical school experiences associated with change in implicit racial bias among 3547 students: a medical student CHANGES study report. J Gen Intern Med 2015;30:1748–56. [PubMed: 26129779]

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- Gonzalez CM, Lypson ML, Sukhera J. Twelve tips for teaching implicit bias recognition and management. Med Teach 2021;43:1368–73. [PubMed: 33556288]
- Sabin J, Guenther G, Ornelas IJ, et al. Brief online implicit bias education increases bias awareness among clinical teaching faculty. Med Educ Online 2022;27:2025307. [PubMed: 35037585]

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