



Editorial

Implicit Bias in Patient Care: An Endemic Blight on Quality Care

As health care professionals, we go to work every day intending to provide an optimal level of care to every patient we encounter. As noble as that intention is, it does not represent the level of care received by every patient. An abundant volume of research attests that many groups of patients receive a significantly lower quality of care—that is, substandard care—attributable in part to biases held by health care providers. Implicit (or unconscious) bias refers to positive or negative attitudes or stereotypes, activated automatically and involuntarily, that influence our understanding, decisions, and behaviors without our awareness or voluntary control.¹⁻³ Despite these attitudes operating outside the provider's conscious awareness,^{4,5} they can compromise patient care.

Overview of Problem Patients Most at Risk

The patients most at risk for receiving less than the current standard of care because of unconscious bias can be distinguished by broad features such as age, gender, and race. More specifically, patients with any of the following attributes have cause for concern regarding whether they will receive the current standard of care for their health problems: female gender, advanced age, nonwhite race, low socioeconomic status, non-English speaking, nonheterosexual, disabled, obese, mental illness, AIDS, and drug addiction.^{2,6-21}

Just one of these attributes, female gender, pertains to roughly half the world's population, so the problem of implicit bias is clearly expansive in scope. Implicit bias can affect any age group and carves an inclusive path across diverse clinical areas and practice settings. Within critical care, such bias is evidenced in patients with acute coronary artery disease, coronary syndrome, myocardial infarction, and trauma. (See detailed coverage and research related to gender bias against women in 2 previous *Critical Care Nurse* editorials.^{22,23})

Additional concerns relate to the potential effects of implicit bias on already disadvantaged patient groups, such as the poor, children, and those with low health literacy, who are already vulnerable to limited health services. An extended concern relates to patients with multiple attributes, for example, an elderly black woman with obesity and dementia, lacking health insurance, confined to a wheelchair, that may individually and cumulatively heighten vulnerability to the adverse effects of this bias.²⁴

No one appears immune to implicit bias, including those who explicitly disavow such beliefs.^{4,5,25-28} Two recent systematic reviews^{7,29} have confirmed reports that health care professionals exhibit implicit bias at levels comparable to those in the general population.³⁰

How Implicit Bias Is Manifested

A systematic review by Hall and colleagues²⁹ revealed that implicit bias is manifested in 4 key areas: patient-provider interactions, treatment decisions, treatment adherence, and patient

health outcomes. How a physician communicates, including verbal cues, body language, and nonverbal behavior (physical proximity, frequency of eye contact) may manifest subconscious bias.^{7,10} Several investigators found evidence that providers interact more effectively with white than nonwhite patients.³¹⁻³³ Bias may affect the nature and extent of diagnostic assessments and the range and scope of therapies considered.² Nonwhite patients receive fewer cardiovascular interventions and kidney transplants.¹⁰ One meta-analysis found that 20 of 25 assumption method studies demonstrated bias either in the diagnosis, treatment recommendations, number of questions asked, or tests ordered.⁷ Women are 3 times less likely than men to receive knee arthroplasty despite comparable indications.^{6,9,10,21} Bias can detrimentally affect whether patients seek or return for care, follow treatment protocols, and, perhaps cumulatively, can influence outcomes of care.² Numerous research studies^{7,22,23,29,34} offer evidence that implicit bias is associated with higher complication rates, greater morbidity, and higher patient mortality.

How Implicit Bias Is Assessed

Because this bias originates and operates outside conscious awareness, it cannot be accessed by surveys. In addition, because explicitly professed beliefs may diverge markedly from implicit attitudes, unconscious bias cannot be identified via explicit measurement. Two methods currently used to identify it are the Implicit Association Test (IAT) and the Assumption Method.

The most frequently used device for assessing implicit bias is the IAT, a product of Project Implicit, a collaborative research effort shared by Harvard University, University of Washington, and University of Virginia to examine attitudes and feelings outside of conscious awareness and control.³⁵ The test involves a computerized, timed, dual-categorization that measures implicit preferences reflected in the strength of associations between concepts (such as women, gay people) and evaluations (good, bad) or stereotypes (strong, weak). Test takers must quickly sort words into categories located on the left and right sides of the computer screen by pressing the “e” key if the word belongs to the category on the left and the “i” key if it belongs to the category on the right. The fundamental premise is that responses are faster to make when both items share the same response key. Someone who thinks women are “weak” and “followers” would respond

more quickly when “woman” is paired with “weak” or “follower,” rather than with “strong” or “leader.” The IAT can test for attitudes related to age, race, gender, disability, ethnicity, weight, sexuality, and religion.^{35,36} The IAT is not without its detractors and critics, who view its methodology as simplistic and its findings unrelated to behavior.^{7,37-42}

The Assumption Method uses clinical vignettes, identical except for 1 feature related to the bias variable, then measures differences in response across participants. If a statistically significant difference is demonstrated, researchers infer that it is at least partly due to implicit processes related to that bias variable.⁷

Managing Implicit Bias: Preliminary Considerations

The formation of stereotypical biases is a normal aspect of human cognitive development.^{3,34} Despite its potentially problematic effects, stereotyping is a means we learn to distinguish friends from foes when we interact, automatically categorizing either favorably or unfavorably. Formation of these biases is deeply rooted and resistant to change, even with personal experience and objective evidence to the contrary.¹⁰

Before the effects of implicit bias can be reduced, its existence must be identified. Our established procedures for monitoring the quality of care delivered can be extended slightly to include comparing findings across potential bias categories (eg, gender, race, age) to note any deficiencies in delivered care. For example, researchers at Johns Hopkins incidentally discovered that gender bias in venous thromboembolism prophylaxis was virtually eliminated when an evidence-based checklist was combined with full compliance (by making physician completion of the checklist requirements mandatory).^{43,44}

Implicit bias is more likely to surface at certain times; it is more likely to be activated and expressed when someone is tired, busy, under pressure, carrying a high cognitive load (a lot on their mind), or when decisions must be made with incomplete or ambiguous information.⁴⁵⁻⁴⁷ These circumstances are common in health care, but being mindful of them may prompt taking a few moments to gather one’s resources before interacting with patients.

No one wants to admit to having these biases. Particularly for health care professionals, evidence that their views are biased against some patient groups can be

perceived as highly negative, unprofessional, socially unacceptable, embarrassing, and personally disappointing. Because we are more predisposed toward managing these attitudes if we are not embarrassed by them,¹⁰ Burgess et al³⁴ emphasize the need to avoid making providers ashamed of stereotypical attitudes and to ensure a nonthreatening environment to practice alternative responses.

Minimizing Implicit Bias

Implicit bias is not directly amenable to either prevention or eradication, so designing instructional strategies to thwart its negative effects is challenging. Most of these programs^{34,48-50} use a 2-step approach that includes raising awareness and teaching ways to diminish activation or control how biases affect decisions and behavior.⁵¹

Bias Awareness Strategies

Self-reflection is commonly used to augment awareness of bias,⁵⁰ though expanded awareness alone does not necessarily alter attitudes about specific categories of patients.⁵² Researchers admonish us about the need for emphasizing that stereotyping is completely normal and ensuring that self-discovery of biases occurs privately in a nonthreatening environment.^{53,54} Examples include providing information about the role of provider bias in health disparities, reading related research, completing the IAT with self-reflection exercises, and discussing bias in class. In one study, most students reported positive beliefs about implicit bias, but 22% doubted the IAT's validity and the existence of health disparities.⁵⁵ In another study,⁵⁶ researchers reported that completing the IAT with feedback predicted decreased bias. In sum, these findings suggest that greater awareness of implicit bias may motivate providers to address these prejudices, but only if feedback does not induce defensiveness or denial.⁵¹

Control Strategies

A second approach to manage unconscious bias provides instruction in strategies aimed at controlling the automatic responses made to stigmatized group members. These strategies include perspective-taking, stereotype replacement, individuation via counter-stereotyping, seeking common-group identities, affirming egalitarian goals,^{48,49,57,58} and partnership building. Of these, perspective-taking (walking in another's shoes) is the most frequently employed

technique. This empathy-enhancing activity⁵⁹ develops skills in perceiving and responding to situations from another's frame of reference and has shown some positive effects.⁵⁹⁻⁶²

Stereotype replacement focuses on consciously modifying the stereotypical response.⁵⁸ Individuation involves formulating impressions and responding to others on the basis of their unique qualities rather than on the basis of stereotypical group attributes.^{48,58} Counter-stereotyping comprises perceiving the person as the opposite of the stereotype.⁵⁸ Seeking common-group identities is facilitated by expanding opportunities for contact and experience with individuals from groups dissimilar to one's own.^{56,58,63}

Research on affirming egalitarian goals indicates that participants are more receptive to acknowledging and modifying their biases when learning sessions start with expressions of commitment to provide the best possible care for all patients and to share in the responsibility to correct disparities in care.^{34,64,65} Partnership-building entails approaching interactions between providers and patients as a collaborative, patient-centered effort, rather than as one party of higher status directing another of lower status.⁵⁸ This approach requires both parties to agree on existing health problems, priorities of care, treatment goals, and roles.³⁴

In some studies, investigators employ multiple rather than single strategies and assess bias months later.⁵⁸ Another strategy is to institute implicit bias rounds,⁶⁶ modeled after morbidity and mortality conferences, in which physicians openly address cases in which implicit bias may have adversely affected patient care, thus providing a safe forum for teaching and correction of disparities in care.

These suggested strategies for reducing implicit bias have limited validation, especially in health care settings, so their effectiveness in diminishing inequities in care to vulnerable groups needs ongoing and targeted monitoring for verification. (The Kirwin Institute for the Study of Race and Ethnicity has designed a website [<http://u.osu.edu/breakingbias>] that may be a useful resource for sharing strategies for implicit bias mitigation in health care.) Unless and until all patients are receiving the established standard of care, we have more work to do on equitably delivering best practices.

Although implicit bias may affect different aspects of care, these relationships are associations, not cause and effect. Human behavior, including our proclivity for prejudicial behavior, is more complex than simplistic

associations might suggest. A meta-analysis⁴¹ examining 494 implicit bias studies found that although implicit bias can be changed, the effects are often weak; that procedures that changed implicit bias altered explicit bias considerably less; and that no evidence was found that changes in implicit bias mediate changes in behavior. These findings underscore the importance of monitoring care actually delivered to patients as the litmus test of quality care before any conclusions related to efforts to reduce bias are offered.

Closing

We long ago developed zero tolerance policies for workplace problems such as bullying that are detrimental to staff and patients. I believe that we are overdue in advocating for zero tolerance for delivering substandard care to large segments of our patient populations. Where disparities in care can be traced to differences in the quality of care delivered, we have an obligation to correct those discrepancies to erase the inequities. All of our patients have a right to receive our best care. **CCN**



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