DIVERSITY SCIENCE

PROTECTING YOURSELF AND YOUR PATIENTS FROM IMPLICIT BIASES

By Michelle van Ryn, PhD, MPH

Research shows that unintentional bias on the part of health care providers can influence the way they treat patients from different racial and ethnic groups. Most providers, however, are unaware that they hold such biases, which can unknowingly contribute to inequalities in health care delivery.

This whitepaper explains why a person's thoughts and behaviors may not align and provides strategies for preventing implicit biases from interfering in patient care.

The Physician contribution to disparities in care

Over the past two decades, hundreds of studies have documented widespread inequalities in medical care. Although the reason for unequal care is multifaceted, provider behavior and decision-making is one documented contributor.[1-8] Disparities in physicians' clinical decision-making and use of guidelines and evidence-based practices have been documented for a variety of diseases and conditions all along the clinical continuum from prevention to palliative care, including:

- Care for cardiovascular risk factors ranging from hypertension[9,10] to sleep disorders.[11,12]
- Treatment of cardiac symptoms associated with coronary artery disease as well as and severe cardiac events.[6,13,14]
- Cancer screening, prevention, treatment and symptom management.[15-25]
- Pediatric care, including asthma treatment for children.[26,27]
- Assessment, treatment and referral for mental health services.[28]
- Pain control independent of clinical factors and patient pain ratings,[29-32] including children with postoperative pain and those treated in the emergency department for a variety of conditions.[33-37]
- Diagnostic processes including questions asked by physicians in diagnostic interviews tests ordered.[38-43]

Providers often find it difficult to accept that unconscious biases may affect their care because the notion is so inconsistent with their genuine explicit (conscious) attitudes, motivation and intentions. Most providers have genuinely egalitarian conscious beliefs and almost all are motivated to provide equally excellent care to all of their patients.[44]

The apparent contradiction between what providers consciously believe, and the research evidence supporting unconscious bias, can cause considerable cognitive dissonance—the uncomfortable feeling people get when holding two conflicting ideas simultaneously.

Cognitive dissonance is so uncomfortable that people will go to great lengths to resolve it, often going so far as to discount or ignore the evidence that supports the lesser preferred of their conflicting beliefs. When providers reject evidence of unconscious bias, they miss an opportunity to improve the equity and quality of care they provide, thus potentially perpetuating the delivery of unequal care. This article is intended to help providers resolve the cognitive dissonance they may feel related to disparities in health care by:

1. Explaining why—despite their best intentions—they might behave in ways inconsistent with their conscious attitudes, and,
2. Providing specific strategies to prevent deep-seated biases from negatively affecting the care they provide.

Why Our Thoughts and Behaviors May Not Align

So, why is it that providers (among other professionals) may be consciously well intentioned yet behave in biased ways?

The explanation is rooted in ubiquitous human information processing systems. We do not think the way we think we think. The vast majority of scientists studying the mind agree that humans have at least two separate information-processing systems operating simultaneously. Daniel Kahneman, the Nobel Prize-winning author of Thinking, Fast and Slow, dubbed these simply as **System 1 and System 2**.[45]

We are primarily aware of System 2, which involves deliberative, reasoned, conscious and effortful thought. In contrast, System 1 is an information-processing system that often operates outside of our awareness. With System 1, we learn through visceral association rather than through logical reasoning or persuasion. System 1 stores associations automatically after repeated exposure to connections between things, situations and people and then rapidly, effortlessly and automatically activates and applies these associations when we encounter a similar thing, situation or person in the future. This process serves the need for cognitive efficiency. The cognitive process is common to all humans but the specific associations can vary since by culture and other factors.

FOR EXAMPLE

Most North American readers will automatically associate apple = food. Furthermore, when seeing an apple, will automatically draw on a great deal of stored information about apples, avoiding the need to dissect and study every apple encountered. When we walk into a movie theater, we do not have to consciously think about how to behave. We might ponder where to sit, but through previous experience we effortlessly know that taking a seat (vs. walking the aisles or presenting a talk) is the next thing to do. System 1 helps us navigate the millions of bits of information we are exposed to at any one time by automatically supplying information, guiding our behavior, focusing our attention, and providing a framework for interpreting incoming information. While most of us believe that System 2, conscious and reasoned thought, guides our behavior and understanding of the world, in fact, as Kahneman points out,

> ***"System 1 is really the one that is the more influential … it is steering System 2 to a very large extent."*** [45]

Because we are a social species, System 1 is very well developed and nuanced in guiding us through our social worlds and interactions. Although generally highly adaptive, System 1 sometimes leads us astray.

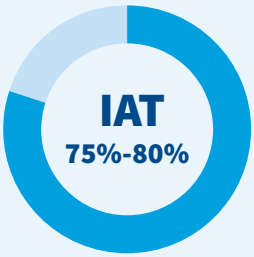
FOR EXAMPLE

If white and Asian doctors are repeatedly exposed to blacks portrayed as criminals, violent, or in other negative ways on television or in film, they might automatically and unconsciously associate black patients with threat and undesirable behavior. These rapidly activated associations can then trigger unwanted negative feelings towards and negative expectations of a black patient. These automatic negative expectations of and attitudes toward people are referred to as implicit (or unconscious, automatic) biases. Implicit attitudes represent the "*Thumbprint of the culture on our minds*"[46] and as such, they can be very different from our genuine, conscious attitudes and motives.

While System 1 may activate a very complex set of implicit expectations and be highly nuanced, one of its core functions is to classify other humans we encounter as potential or actual threats, potential or actual supporters, or neither. System 1 preserves our cognitive resources by guiding our attention such that implicit beliefs and expectations create a "lens" that frames both what we notice and remember, and how we interpret, others' behavior. This automatic guiding of attention, recall and interpretation will be familiar to those who study medical errors because it describes confirmation bias, a well-developed cognitive shortcut that results in noticing and processing information in a way that tends to confirm our prior expectations and beliefs. These beliefs, in turn, then affect the way we respond to others. For example, if we have an implicit association between black patients and mistrust, we may differentially notice, recall, and give more weight to signs of mistrust and overlook indicators of trust. Our response to perceived mistrust can undermine the quality of the encounter in ways that create mistrust, turning our initial belief into a self-fulfilling prophesy.[47] Similarly, the choice of questions during a diagnostic interview can skew assessment to confirm prior expectations. Clinical decisions may be well justified by diagnostic information but the diagnostic information that is available vs. missing may reflect unconscious biases. This is especially true when behavioral factors affect treatment recommendations, such as expectations regarding adherence[48,49] or fears of drug diversion.[50]

Our understanding of implicit attitudes has expanded greatly after the advent of microcomputers that measure reaction time in milliseconds which allows the measurement of implicit (unconscious) associations. The most commonly used and validated is the Implicit Association Tests (IAT).[51-53] The IAT uses a timed categorization task that measures implicit preferences by requiring rapid association responses that bypass conscious processing.[54] Automatic, associative processes are difficult to fake and less susceptible to social desirability bias than survey measures of conscious attitudes.[55-59]

In fact, subjects taking the IAT and instructed to fake positive attitudes towards gay men and African Americans were unable to do so.[55,59] The IAT has been shown to be a superior predictor of discrimination toward a social group, compared to attitudes measured by self-report.[60-64] Over 61 studies (including 86 independent samples, [6,282] subjects), found that the IAT consistently and significantly predicted a wide range of judgments, choices, physiological responses, and behaviors.[60] While white individuals' conscious, explicit attitudes towards blacks have steadily improved over the last few decades, implicit attitudes have not.



Use of the race IAT test with numerous samples and combined, hundreds of thousands of respondents, consistently find that 75%-80% of white Americans, including white providers, have implicit negative attitudes about blacks as compared with whites. [65,66 67]

How Bias Manifests in the Clinic

These implicit racial and other biases have the potential to influence us in unintentional but powerful ways. Physician implicit racial bias has been shown to influence clinical decision-making,[3 33] ranging from racial disparities in referral rates for patient for thrombolysis[3] to disparities in quality of post-operative pain care for children.[68] Furthermore, implicit biases have been shown to have complex and subtle effects on physician-patient interactions.[69]

FOR EXAMPLE

Physicians' level of implicit racial bias against blacks as assessed by the IAT have been found to be inversely associated with patient-centered behavior,[8,70,71] visit length,[70] and warmth[4] and to be positively associated with rapidity of speech[70,72] and verbal dominance during the encounter.[73] In response to these interactions, black patients reported less respect for, confidence in, and trust in the advice of medical professionals who score higher on measures of implicit bias.[69,70] This distrust predicted lower levels of adherence[74] a finding that is consistent with other evidence that patients' perceptions of being judged, perceived negatively, stigmatized or discriminated against predict adherence[75-79] and likelihood of seeking follow-up or preventive care.[73,80-87]

It is important to bear in mind that this is a society-wide problem and not unique to providers or health care. In one study, fictitious applicants with identical resumes responding to 1300 want ads received 50% more call-backs when they were randomly assigned a white sounding name vs a black sounding name.[88] Another study found that women musicians were significantly less likely than men to be hired for orchestras during open auditions but were equally or more likely to be hired when they auditioned from behind a curtain.[89] In yet another study, science faculty members (both male and female), looking at student lab manager applications that were identical except for the student's gender viewed the male applicant as more competent, were more likely to hire and mentor the male student, and were more likely to offer him a higher starting salary than the female applicant– again, despite identical resumes.[90] Examples of the continued pernicious effects of implicit racial and other biases abound in every sector of our society.

Strategies for Providing Equitable Care

Although our implicit biases can cause us to behave in ways that are inconsistent with our explicit motives, values and beliefs, they do not have to. Recall that unconscious bias can affect care when reflexive attitudes and feelings towards a group are applied to individual patients. Strategies that increase our likelihood of seeing patients in terms of their unique individual characteristics as opposed to in terms of a group category can derail the deleterious impact of negative biases.

Individual strategies to prevent implicit biases from affecting the care you provide

The massive body of evidence for the negative impact of implicit bias has triggered a large number of studies focused on identifying factors that minimize the impact of implicit biases. Recommendations with the strongest supporting evidence are provided below.

1 Numerous studies have found that *perspective-taking* reduces bias and inhibits the activation of unconscious stereotypes and prejudices in encounters with a range of stigmatized groups.[92,93 69,73] Perspective-taking refers to imagining yourself in the other person's shoes, seeing things through his or her eyes. Perspective-taking is the cognitive component of empathy, facilitates emotional empathy, and is a learnable skill that can improve with practice. In addition to its documented benefits for reducing bias and stereotypes, provider empathy has been shown to be associated with overall increased patient satisfaction, adherence to providers' recommendations, self-efficacy and perceptions of control; less emotional distress; and better outcomes.[94,95] Some providers have highly developed perspective-taking skills and others may find they have not yet developed this skill. Even providers who are highly skilled may not be routinely applying these skills during clinical encounters. Conscious routine daily practice can both improve skills and accuracy and over time will make the practice more or less automatic. When perspective-taking becomes an automatic practice – as automatic as closing the door after entering an exam room - it takes very little time or effort to momentarily imagine yourself in your patients' shoes, put yourself in his or her place for just a moment. Many may find it useful to practice this skill with family, friends, colleagues and staff in order to assess accuracy.

SPECIFIC STEPS:

- Imagine yourself in the other persons' shoes. You can think of it as walking in their world or seeing the world through their eyes.
- Seek situations where you can get feedback; check your perceptions.
  - » I am wondering how I might see it if I were looking through your eyes…"
  - » "I was imagining being in your shoes here and it occurred to me that I might (feel/think/be)… Am I close?"
- Don't get discouraged if you have difficulty at first. This skill improves with practice and feedback.
- It is worth noting that sometimes our experiences and circumstances are so different from our patients' that we need help imagining the world through their eyes. Reading essays, narratives and fiction that provides the point of view of others that differ from you in culture, race or ethnicity, socio-economic status or other characteristic can be remarkably helpful.

2 Engage in *partnership-building* with patients. This involves building a sense that you and your patient (and perhaps his or her family) are on the same team, working together toward shared goals. Creating a partnership with patients lowers the likelihood of being hijacked by implicit biases because it creates a sense of a "common in-group identity" [96-99] A vast amount of research on in-group bias has shown that we like, trust, and are more motivated to help people we think are like us.[100-102] We tend to attribute problematic behavior of members of our in-group as due to temporary or changeable situational factors (e.g., got confused by instructions) and behavior of members of other groups ("out-group") as due to the individual's characteristics such as their intelligence or personality.

A white provider may describe an African American patient as "non-adherent" but describe her white patient as having "forgot timing" or "needs additional instruction".

Such differential attributions can foreseeably lead a provider to adopt a very different tone in these patients' future encounters. Thus, the value of developing a partnership with patients, their family, and the health care team to create an unconscious sense of the patient as part of ones' "In-group" can reduce categorization and associated implicit biases.[103-105] Partnership-building also promotes rapport building and patient trust, potentially improving adherence and outcomes.

SPECIFIC STEPS:

1. Use the term "we" and us" instead of "I" and "you" are simple strategies that can automatically help create a sense of being partners, working together, on the same team.[97] For example instead of "I am going to order X test" try "We should probably use this test so we can find out…" or "Let's use this test". Instead of "I am going to prescribe X" try "Our best course of action might be to try X." Instead of "If you have X side effects…" try "If we find that X side effects are a problem…"
2. Focus on your common goals strengthens the sense of partnership. It can be helpful to specifically articulate your common goals. "So, it seems as if our most important goal is to… (reduce symptoms, cure X, prevent Y, etc)". This also avoids misunderstandings regarding patients' values and preferences by providing the patient with the opportunity to prevent misconceptions.
3. Seek resources on partnership-building specific to your specialty. Common recommendations are consistent with the principles in 1 and 2 above and include attentive and responsive listening, inviting patients to participate in clinical decision-making, focusing on patient strengths (and helping patients focus on their strengths), validating patient perspectives and concerns, and respecting and honoring patient values.

3 Protect your cognitive resources, reduce stress, and increase positive emotions. Research shows that when providers (as with all people) have sufficient resources, time, information, awareness and the motivation to be unbiased, their clinical decision-making is much less likely to be undermined by implicit biases.[12,14] Conversely, implicit biases and attitudes are most likely to hijack perceptions, expectations of and evaluations of patients when mental (cognitive) processing capacity is compromised because of fatigue, stress illness, anxiety, competing demands or anything else that drains mental resources. Implicit bias can have the most influence on our behavior in those situations because we are less likely to have the energy to engage our explicit, conscious and deliberative motives or reasoning to override it. Unfortunately, stress, competing demands, distraction, heavy workload and time pressure are all too common in clinical settings.[15]

SPECIFIC STEPS:

1. Assess your practice for unnecessary cognitive demands. At the organizational level, this may involve addressing such things as scheduling, high noise levels, inadequate staffing, inadequate training, poor supervision and overcrowding[106] and enhancing protective factors such as adequate time per patient and between patients, established routines, and sufficient staffing.[107]
    - At the individual level, this involves mindfully choosing to do things to protect your mental energy, such as getting sufficient sleep and finding ways to reduce stress.

2. Research suggests that providers who have positive emotions during the clinical encounter are less likely to categorize patients in terms of their racial, ethnic or cultural group and more likely to see them as unique individuals and/or part of their common in-group rather than as dissimilar or members of an "outgroup.[108 102]
    - Strengthen or add new practices associated with positive mental health such as:
        - » Mindfulness-based stress reduction,
        - » Get regular physical exercise – find a fun activity.
        - » Engage in a pleasant hobby or sport,
        - » Make time for friends and family.
        - » If you are someone who benefits from alone time, it's important to structure your weekly schedule to include time alone.
    - Learn rapid emotion-shifting strategies. Examples include abdominal breathing techniques, progressive muscle relaxation, and/or focusing fully for a moment on something you appreciate or feel glad and grateful for.

Providers are notorious for caring for others and the expense of their own well-being. However, converging lines of research suggest that self-care and emotional regulation skills are crucial predictors of providing high quality and unbiased care.

Strategies for Providing Equitable Care

Lowering our actual level of implicit biases is difficult because they reflect repeated experiences that are constantly reinforced in the larger society. However, there are a few strategies that have been shown to lower levels of implicit biases, at least for a time, that you may wish to adopt.

CONCLUSION

Many people, providers included, believe that the problem of implicit bias only applies to other people, even though a significant body of research suggests that most of us have negative implicit attitudes toward people from certain groups. These implicit biases, however, do not have to control our behavior. Actively working to shift our perspective, regulate our emotions, build relationships with people in other groups and take steps to protect our mental energy, we can go a long way toward ensuring that our behavior toward others reflects our true values, goals and motives.

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