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Examining the presence, consequences, and reduction of implicit bias in health care: A narrative review

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Abstract

Recent evidence suggests that one possible cause of disparities in health outcomes for stigmatized groups is the implicit biases held by health care providers. In response, several health care organizations have called for, and developed, new training in implicit bias for their providers. This review examines current evidence on the role that provider implicit bias may play in health disparities, and whether training in implicit bias can effectively reduce the biases that providers exhibit. Directions for future research on the presence and consequences of provider implicit bias, and best practices for training to reduce such bias, will be discussed.

Keywords

bias reduction, health care, health disparities, implicit bias

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A number of stigmatized social groups face broad and persistent health disparities. Many ethnic/racial groups, such as African Americans and American Indians, have shorter life expectancies than their White peers (e.g., Williams & Mohammed, 2009; but see Ruiz, Hamann, Mehl, & O'Connor, 2016, for an example of the "Hispanic paradox"). Individuals with lower socioeconomic statuses face increased risk of disease, and women are more likely to be the victims of rape and intimate partner violence and suffer from depression than men (e.g., Coker et al., 2002; Nolen-Hoeksema, 2001). Sexual orientation may also be another key factor in continued health disparities such that gay men, lesbian women, and bisexuals tend to have poorer health than their heterosexual counterparts (e.g., Dilley, Wynkoop Simmons, Boysun, Pizacani, & Stark, 2010).[1]

The causes for such disparities are linked to three broad factors: Genetic/biological antecedents, socioeconomic predictors, and psychological processes that contribute to biased health care (e.g., Adler & Rehkopf, 2008; Sankar et al., 2004; Schnittker & McLeod, 2005). Prominent among

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the psychological biases that have been discussed are the nonconscious or implicit prejudice and stereotypes held by health care providers. Despite their explicit commitment to providing equal care, some studies suggest that implicit prejudice and stereotyping can impact the judgment and behavior of health care providers when they interact with stigmatized patients (e.g., Green et al., 2007; see Chapman, Kaatz, & Carnes, 2013, for a review). To address this problem, several health care organizations have proposed, and in some cases tested, new approaches to raising awareness and providing skills for reducing implicit bias in patient care. Not surprisingly, most of the research on implicit bias in health care draws heavily from the theories and research methods developed by social psychology for the study of intergroup processes. Indeed, many social psychologists directly collaborate on the work being done to document and prevent implicit bias in health care.

The purpose of this paper is to provide an overview of the research on implicit bias among health care providers and the steps being taken to develop interventions to reduce such bias using articles found on the PsycINFO, PubMed, and Google Scholar search databases. We also highlight gaps in the scientific literature, and suggest future directions for research on the role of implicit bias in creating disparities for stigmatized patients.

Persistent Concerns About Bias in Health Care Delivery

One of the more troubling explanations for continuing health disparities is bias on the part of health care providers (Smedley, Stith, & Nelson, 2002; van Ryn & Fu, 2003). Although bias seems anathema to the profession, this has not always been the case. For example, the *Tuskegee Syphilis Study of Untreated Syphilis in the Negro Male* (1932 to 1972) was a long running study conducted by the United States Public Health Service in which hundreds of African American men infected with syphilis were studied to understand the life history of the disease. Not only were the men unaware that they had the disease, but they were never given treatment to cure it—even though the treatment had become commonplace while the study was being conducted. The effects of the Tuskegee study can still be seen today in that African Americans who have knowledge of the study report greater medical and research mistrust (Freimuth et al., 2001; Shavers, Lynch, & Burmeister, 2000).

Three converging lines of evidence make it difficult to dismiss provider bias as playing some role in creating or maintaining health disparities. First, ethnic/racial differences in care have been observed even after economic, educational, and access differences were accounted for, leading some to conclude that bias must be at work (e.g., Kressin & Petersen, 2001; Sheifer, Escarce, & Schulman, 2000). Second, careful examinations of providers' perceptions of actual patients showed that African American patients were perceived in more negative terms than White patients (e.g., Finucane & Carrese, 1990; van Ryn & Burke, 2000). Finally, controlled experiments have found that providers' perceptions and treatment recommendations for hypothetical Black patients differed significantly from those made for hypothetical White patients with the exact same symptoms (for a review see Paradies, Truong, & Priest, 2013).

Another source of evidence that cannot be ignored is the consistent finding that ethnic/racial minorities report greater dissatisfaction with their health care providers—especially when the providers are not of the same ethnicity (i.e., typically White)—and they perceive significantly more bias in health care compared to Whites (e.g., Cooper, Johnson, Ford, Steinwache, & Powe, 2003; Cooper-Patrick et al., 1999; LaVeist, Nickerson, & Bowie, 2000; Saha, Komaromy, Koepsell, & Bindman, 1999). A national survey by The Commonwealth Fund (Collins et al., 2002) found that compared to Whites, Hispanics and African Americans were nearly twice as likely to report problems communicating with their providers, 14 times more likely to believe that they would receive better health care if they were of a different ethnicity, and nearly twice as likely

to feel that they had been treated with disrespect during a recent health care visit.

Based on this evidence and increasing awareness of the subtle ways in which bias may affect judgment and behavior, a ground-breaking report by the Institute of Medicine (IOM; Smedley et al., 2002) concluded that unrecognized or implicit bias among health care providers may contribute to health disparities, but additional research was needed to provide more direct evidence on the processes at work.

Direct Evidence of Biased Attitudes and Stereotypes Among Health Care Providers

The IOM report was based on inferences drawn from observational or survey data within the field of medicine, and evidence provided by (nonmedical) social psychology studies. The latter providing the strongest evidence that implicit (if not explicit) intergroup bias is implicated in worse interpersonal interactions and biased behavior (e.g., Dovidio, Kawakami, & Gaertner, 2002; Fazio, Jackson, Dunton, & Williams, 1995). In the time since the IOM report was published, however, numerous studies have provided direct evidence on the attitudes and beliefs of health care providers.

Implicit Attitudes Among Health Care Providers

Consistent with other populations, health care providers demonstrate implicit biases indicative of more negative attitudes toward African Americans than Whites (Blair, Havaranek, et al., 2013; Cooper et al., 2012; Green et al., 2007; Haider, Schneider, Sriram, Dossick, et al., 2015; Haider, Schneider, Sriram, Scott, et al., 2015; Haider et al., 2011; Hausmann et al., 2015; Oliver, Wells, Joy-Gaba, Hawkins, & Nosek, 2014; Sabin, Nosek, Greenwald, & Rivara, 2009; Schaa, Roter, Biesecker, Cooper, & Erby, 2015; Stepanikova, 2012; for null effects, see Penner et al., 2010; Sabin, Rivara, & Greenwald, 2008), more negative attitudes toward Latinos than Whites (Blair, Havaranek, et al., 2013; Blair, Steiner, et al., 2013; Stepanikova, 2012), and somewhat more negative attitudes toward Native Americans than Whites (Sabin, Moore, Noonan, Lallemand, & Buchwald, 2015). Health care providers also exhibit negative implicit biases against overweight/obese individuals (Phelan et al., 2014; Sabin, Marini, & Nosek, 2012; Teachman & Brownell, 2001; Waller, Lampman, & Lupfer-Johnson, 2012), gay and lesbian people (Burke et al., 2015; Sabin, Riskind, & Nosek, 2015), lower social class (Haider, Schneider, Sriram, Dossick, et al., 2015; Haider, Schneider, Sriram, Scott, et al., 2015; Haider et al., 2011), injecting drug users (von Hippel, Brener, & von Hippel, 2008), and wheelchair users with spinal cord injuries (Galli, Lenggenhager, Scivoletto, Molinari, & Pazzagila, 2015).

Implicit Stereotypes Among Health Care Providers

Although the majority of the research has focused on attitudes (i.e., positive/negative associations), a handful of studies have explored specific implicit associations and stereotypes of stigmatized groups. Research suggests that health care providers implicitly hold associations that African American patients are less compliant and less cooperative in medical settings than White patients, despite the fact that the health care providers were not provided with evidence that African American patients are especially noncompliant or uncooperative (Green et al., 2007; Sabin & Greenwald, 2012; Sabin et al., 2008). What is more, research does not support the association that African American patients are more noncompliant in health care settings (e.g., Steiner et al., 2009). Diseases stereotypically associated with African Americans (e.g., sickle cell anemia, HIV, drug abuse) were also recognized faster by providers following subliminal presentation of Black than White faces (Moskowitz, Stone, & Childs, 2012). Although some diseases may possess a genetic component and thus reflect an accurate stereotype, physicians' responses demonstrated inaccurate (e.g., drug abuse) as well as accurate (e.g., sickle cell anemia) disease stereotypes. Bean,

Stone, Badger, Focella, and Moskowitz (2013) further showed stereotypes of Hispanics among nursing and medical students, who were faster to respond to words associated with noncompliance and risky health behavior following subliminal images of Hispanics than Whites. Importantly, Bean and colleagues suggested that these stereotypes may stem from health care providers perceiving communication difficulties as a barrier when treating Hispanic patients (Lipton, Losey Giachello, Mendez, & Girotti, 1998). Health care providers, in the absence of any validating information, have also been found to implicitly stereotype obese people as more lazy, stupid, and worthless than thin people (Schwartz, O'Neal Chambliss, Brownell, Blair, & Billington, 2003).

Explicit Attitudes and Stereotypes Among Health Care Providers

Despite the numerous findings of health care providers showing implicit bias toward stigmatized groups, the findings on explicit or more controlled forms of bias generally show relatively low or even reversed bias. For example, Blair, Havaranek, et al. (2013) found that while doctors held implicit bias against Latino and African American patients, negative explicit attitudes against these groups were virtually nonexistent. In other research, health care providers explicitly reported that African American patients are no more likely than White patients to be noncooperative (Green et al., 2007). However, some studies have found indications of explicit bias by health care providers. Cooper et al. (2012) found that providers explicitly stereotyped African American patients as less cooperative than White patients, even though the providers had similar explicit *attitudes* toward both groups. When asked about what most health care providers believe, Bean et al. (2014) found that medical and nursing students perceived Hispanic and American Indian patients as engaging in more risky health behavior and as more noncompliant than White patients.

In general, then, health care providers appear to have many of the same attitudes and beliefs toward stigmatized groups as found in other populations, with higher levels of implicit than explicit bias (Blair, Havaranek, et al., 2013; Galli et al., 2015; but see Peris, Teachman, & Nosek, 2008, for an example of providers showing less implicit mental health bias than nonproviders). Importantly, although health care providers show mean levels of bias against stigmatized groups, there is wide variance from provider to provider. For example, White, Hispanic, and Asian health care providers exhibited moderate levels of implicit bias toward African Americans whereas African American health care providers showed no such implicit bias (Sabin et al., 2009). Moreover, Sabin and colleagues found that, in general, male health care providers showed greater implicit racial bias than did female health care providers. Other findings show that higher body mass index (BMI), as well as male, health care providers had less implicit bias toward obese individuals (Sabin et al., 2012; Schwartz et al., 2003), and providers with more contact with patients with spinal cord injuries showed less implicit biased toward wheelchair users (Galli et al., 2015).

Associations Between Implicit Bias and Medical Judgments/ Treatment

Does the level of bias of a particular provider matter in the perception and treatment of patients? As noted earlier, previous studies outside of health care have examined how implicit bias relates to biased judgment and behavior in other domains (e.g., Dovidio, Kawakami, & Gaertner, 2002). Based on that work, researchers have developed a general model on the ways in which provider bias may contribute to health disparities (Blair, Steiner, & Havranek, 2011; Dovidio et al., 2008; van Ryn, 2002; van Ryn & Fu, 2003; see Figure 1). As shown in Figure 1, health care providers' implicit bias may contribute to disparities through two paths. In Path A, providers' implicit bias may affect their judgments and medical decisions regarding patients in their care (i.e., worse for stigmatized patients), with downstream consequences for health disparities. In Path B, providers' implicit bias may negatively impact

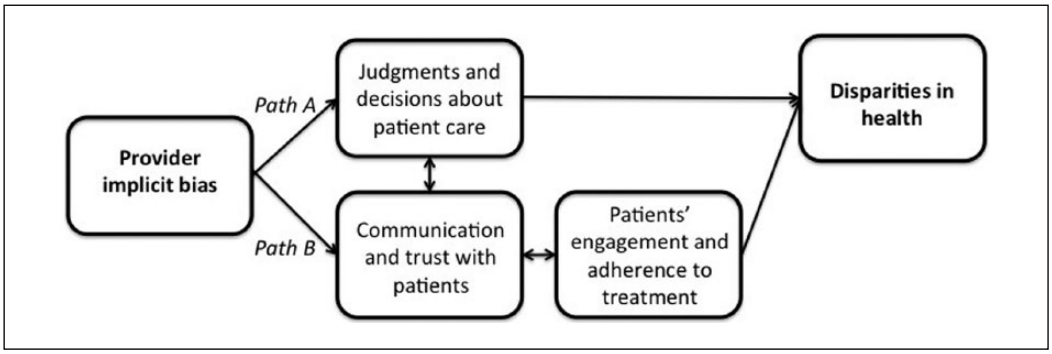

Figure 1. Model of paths through which provider implicit bias may contribute to health disparities.

their communication and interaction with stigmatized patients, impacting the patients' perceptions, judgments, and trust with their provider; this in turn would impact the patients' engagement and adherence to treatment and increase health disparities. Importantly, these two paths may interact with one another such that the poor medical decision-making by the provider in Path A may undergird negative communication and mistrust with the patient (and vice versa).

Most of the research that has been conducted to test Path A has presented health care providers with hypothetical clinical cases that, randomly assigned, vary in the patients' social group membership (e.g., White vs. Black). The researchers then examine the extent to which providers' implicit biases correlate with judgments and decisions, according to the patients' group membership. Consider, for example, a highly cited study by Green et al. (2007), who found that medical residents with greater implicit racial bias were less likely to recommend thrombolysis ("clot-busting") treatment for a Black patient suffering from chest pain in a hypothetical scenario; implicit racial bias did not relate to treatment recommendations for a White patient with the same symptoms.

Research published since Green et al. (2007), however, has revealed a more complex picture. Studies show that providers' implicit bias predicts some, but not all, medical judgments. For example, Sabin and Greenwald (2012) found that providers' implicit race bias predicted less prescribed postsurgical pain medication for African American than White patients, but implicit race bias did not predict race differences in decisions for other medical issues, such as treatment of urinary tract infections, attention deficit hyperactivity disorder, and asthma. Many other studies have failed to find any association between providers' implicit race or class biases and their medical judgments (Haider, Schneider, Sriram, Dossick, et al., 2015; Haider, Schneider, Sriram, Scott, et al., 2015; Haider et al., 2011; Oliver et al., 2014; Sabin et al., 2008).

Only one study has investigated providers' implicit bias and actual medical treatment, rather than responses to a hypothetical scenario. Blair et al. (2014) assessed implicit bias among experienced providers and then examined the medical records of a random sample of patients diagnosed with hypertension (stratified by ethnicity/race). An analysis of patients' medications showed that increases in treatment intensification—physicians' decisions to start a new medication or increase medication dosage when hypertension persists—for minority (vs. White) patients bore no relation to providers' implicit biases. Furthermore, although hypertension control was worse among African American than White patients, this difference was also unrelated to their providers' implicit biases.

Considering the evidence thus far, it appears that provider bias may play only a limited role in explaining ethnic/racial health disparities through providers' medical judgments and decisions (Pathway A in Figure 1). This finding is consistent with laboratory research that shows stronger

associations between implicit bias and nonverbal behavior than explicit statements or judgments (Dovidio et al., 2002; Fazio et al., 1995). Many decisions about specific medications and treatment options are based on practice guidelines that leave little room for the influence of providers' feelings and beliefs. Additional research is needed that directly compares these types of decisions with those that allow for more discretion in providers' decision-making (e.g., giving narcotics for pain management, recommending a novel treatment that may be more effective but requires strict adherence and follow-up).

In addition, the majority of research on bias in medical decision-making has been conducted through hypothetical scenarios. Although a hypothetical scenario may accurately reflect some types of decision scenarios (i.e., careful consideration of written information, no time limit, and judgments that one knows will be carefully analyzed by researchers), other decisions are made under more stressful and ambiguous conditions (e.g., addressing pain complaints in a busy, understaffed emergency department). The one study to date that examined real patient care by Blair et al. (2014) was conducted under conditions that are likely to mitigate bias: a primary care setting in which patients and providers developed working relationships over the course of many years; processes and outcomes that were made over time, with many opportunities for adjustment; strong organizational expectations for meeting hypertension control guidelines and awareness of the problem of uncontrolled hypertension, particularly among African Americans. Implicit bias may be more likely to affect care delivered outside of established relationships, or in decisions made under time pressure, with limited information, and without the benefit of clear guidelines (Burgess, van Ryn, Dovidio, & Saha, 2007; Stepanikova, 2012).

Evidence on Associations Between Implicit Bias and Patients' Perceptions and Behavior

The second pathway (B) through which provider bias may contribute to health disparities, as shown in Figure 1, focuses on the effect of implicit bias on interpersonal communication. As noted previously, a number of lab studies have shown that people with more implicit ethnic/racial bias have poorer interpersonal interactions with minority individuals, often in very subtle ways (e.g., Dovidio et al., 2002). In the medical context, such interactions may impact the providers' ability to accurately assess the patients' views on treatment plans and curtail productive discussion, especially if the topic is sensitive (e.g., the need for lifestyle changes or the use of drugs and alcohol). On the patient side, a poor interaction due to provider bias could undermine trust and engagement in care, leading to less follow-up and worse adherence to the treatment plan.

Several studies have shown that African American patients report less positive clinical interactions with providers who have higher levels of implicit bias favoring Whites over Blacks (Blair, Steiner, et al., 2013; Cooper et al., 2012; Penner et al., 2010). For example, Blair, Steiner, et al. (2013) examined the association between providers' implicit ethnic/racial bias and their patients' perceptions of the "patient centeredness" of their provider during medical visits. African American patients in this study consistently rated their providers lower on interpersonal treatment, communication, trust, and knowledge of the patient to the extent that the providers had more implicit bias. However, the study found no association between Latino patients' perceptions of their providers and their providers' implicit bias against Latinos, suggesting that implicit bias may not be expressed or may not be perceived in the same way with different groups.

Other researchers have attempted to assess provider behaviors more objectively. For example, Cooper et al. (2012) measured providers' implicit prejudice and stereotyping of African Americans and then audio-recorded their clinical visits with African American and White patients. These recordings were subsequently coded for possible behavioral indicators of bias, such as verbal dominance, amount of patient-centered communication, and length of the clinical visit. Although providers' implicit race bias showed some associations to these behavioral indicators with African American patients, the same bias

also predicted similar outcomes with White patients. Interestingly, African American and White patients differed in their perceptions of providers with greater implicit bias, with African American patients reporting worse interactions with biased providers than White patients. Thus, providers' implicit bias may have a negative impact on clinical visits with both African American and White patients, but the providers' implicit bias may especially damage the perceptions of African American patients.

Another study found a similarly complex view of providers' implicit bias predicting more objective behaviors. In a partial reanalysis of the Penner et al. (2010) data, Hagiwara et al. (2013) measured the amount of time that providers talked during the clinical interaction compared to the amount of time that the patients talked (i.e., talk-time ratio). Results revealed that providers with more implicit bias had higher talk-time ratios (greater dominance) with African American patients. However, this dominance during the interaction was *positively* related to patient adherence with medications 16 weeks later. As speculated by Hagiwara and colleagues, this pattern may reflect the influence of a third variable (past experiences with discrimination) that could have affected how much the patients asserted themselves during the interaction and their subsequent (lower) adherence. Note that while Cooper et al. (2012) provided a White patient reference group, there was no such comparison group included in Hagiwara and colleague's analysis.

To summarize, research shows that providers' implicit bias is a relatively consistent predictor of ethnic/racial differences in patients' subjective experiences with their health care providers, at least for African American patients. However, objective indicators of specific provider behaviors involved in these experiences have been more difficult to pin down (but see Hagiwara et al., 2016). One may certainly argue that the patients' perception of the situation is more important than objective events when it comes to trust and willingness to follow treatment recommendations or engage further with the health care system. Indeed, a vast amount of research shows that perceived discrimination may undermine health among stigmatized groups (for a review see Pascoe & Richman, 2009).

Importantly, additional work is needed on the conditions under which provider bias is more or less likely to affect communication with patients. Basic research suggests a number of moderating conditions that have yet to be mapped on to medical practice (see Perugini, Richetin, & Zogmaister, 2010). Similarly, little is known about the ways in which the effects of provider bias may be exacerbated by patient characteristics. Patients who have experienced many prior episodes of bias in other settings (e.g., school or work) may be particularly sensitive to implicit bias in the medical setting (Hagiwara et al., 2016); or, a patient who is assertive or challenges the providers' judgment may be more likely to activate provider bias. We turn next to examine the work being done to help providers understand the experiences of stigmatized patients.

Reducing Implicit Bias Among Health Care Providers

In response to the evidence that health care providers exhibit implicit bias, and that it may affect patients' perceptions of their care, health care organizations and faculty are developing and testing new training in implicit bias for health care providers. Several papers describe best practices for helping students in health care learn about their biases, and emerging research indicates that adopting approaches developed for reducing implicit bias in science, technology, engineering, and math (STEM) and other fields show promise for reducing implicit bias in health care.

Research suggests that contemporary approaches to teaching cultural competence and minority health are generally insufficient to reduce implicit bias among health care providers. Several reviews, including the previous section, indicate that implicit prejudice and stereotyping is present when students begin training in health care, and that the level of implicit bias remains constant or increases as students matriculate through their training (see Chapman et al., 2013). Rubineau and Kang (2012) reported significant

increases in medical students' disparate behaviors toward Black standardized patients between their first and second years of medical school. Results from the CHANGES project, a 4-year longitudinal study that tracked implicit and explicit bias among 3,959 students across 49 medical schools in the United States, revealed similar shortcomings in medical training. For example, Phelan et al. (2014) found that whereas implicit bias toward obese patients remained constant, explicit bias increased during the 4 years of medical school. Also using the CHANGES data set, van Ryn et al. (2015) identified several factors that predicted increases in implicit bias during medical school, such as having heard negative comments from supervising medical staff about African American patients, and having had unfavorable contact with African American physicians. Although the van Ryn paper reported that formal training in minority health or cultural competence showed small, but significant, relationships to reduced implicit bias during medical school, these effects were eliminated after controlling for other variables.

Most educational interventions designed to reduce implicit bias appear to use a two-step approach that includes (a) making the students aware of their implicit biases, and (b) providing instruction on strategies they can use to either reduce the activation of implicit associations, or control how those associations influence judgment and behavior (Blair et al., 2011; Burgess et al., 2007; Stone & Moskowitz, 2011; Teal, Gill, Green, & Crandall, 2012). At this writing, only a handful of studies have examined whether teaching single or multiple strategies for reducing implicit bias is effective among health care providers.

Bias Awareness Strategies

Self-reflection activities that challenge self-perceptions are a common educational tool for helping students in health care become aware of bias (Teal et al., 2012). However, research suggests that awareness, by itself, may not always change the way health care providers think about stigmatized patient groups (Chapman et al., 2013). For example, Teal et al. (2010) had medical students complete a Black/White race Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998) and then participate in peer discussion groups to discuss their experience with the IAT and their observations about implicit bias during ongoing clinical experiences. The results suggested that whereas students improved their awareness of provider-focused strategies for reducing implicit bias, they reported less interest in using patient-focused strategies like perspective-taking. In a similar approach, Gonzalez, Kim, and Marantz (2014) exposed medical students to a single session about the role of provider implicit bias in health disparities. Participants read papers on the topic, completed an IAT and self-reflection exercises, and discussed their perspectives in class. Whereas the majority of students reported positive attitudes and beliefs about implicit bias, 22% of the sample doubted the validity of the IAT and the existence of health disparities overall. In contrast, van Ryn et al. (2015) reported that having completed an IAT (with feedback) was a significant predictor of decreases in implicit bias after controlling for instruction in cultural competence and minority health. Overall, these results suggest that being made aware of implicit bias through self-reflection activities, like feedback from an IAT, may motivate health care providers to address their implicit biases, but perhaps only if the feedback and reflection activity does not induce the defensiveness that can lead them to deny their bias, or counterargue the issue of disparities.

Control Strategies

One way to reduce provider resistance to learning about implicit bias is by instructing them in strategies for controlling their automatic responses to stigmatized patients, such as affirming egalitarian goals, seeking common-group identities, perspective-taking, and individuation via counterstereotyping (Blair et al., 2011; Burgess et al., 2007; Stone & Moskowitz, 2011). A recent study by Lai et al. (2014) comparing these and other strategies suggests that seeking counterstereotypic and

common-identity information (e.g., shifting group affiliations or boundaries) may be especially effective for reducing implicit bias among a non-health-care sample (also see Prati, Crisp, Pratto, & Rubini, 2016, for an example of cross-categorization as a tool to garner majority support for immigrant access to health services). The authors also concluded that the success of any approach requires active involvement or engagement when using the strategy.

Perspective-Taking Strategies

Perspective-taking is a common clinical skill taught in most health care training programs. Instruction in perspective-taking shows positive effects on implicit bias in laboratory studies (Todd & Galinsky, 2014) and among health care providers (Drwecki, Moore, Ward, & Prkachin, 2011). For example Blatt, LeLacheur, Galinsky, Simmens, and Breenberg (2010) showed that training medical students in perspective-taking improved African American patient satisfaction relative to control training. The authors suggest that learning about perspective-taking increased patient satisfaction across medical schools, clinical disciplines, and for interactions between racially diverse students and patients.

Use of Multiple Strategies

Other research outside of the health care domain suggests that exposing providers to multiple strategies could attenuate implicit bias both immediately after training, and in some cases, the effects might last for several weeks (Rudman, Ashmore, & Gary, 2001). Devine, Forscher, Austin, and Cox (2012) developed a two-step intervention for college undergraduates in which, after making the participants aware of their implicit prejudice toward African Americans through IAT feedback, they instructed participants in the use of stereotype-replacement thinking, counterstereotypic imaging, seeking individuating information, perspective-taking, and how to increase positive contact with out-group members. The results showed that participants who completed the intervention reported significantly lower implicit prejudice toward African Americans at 4 and 8 weeks, compared to participants in a control intervention group.

Stone, Moskowitz, and Zestcott (2016) tested a similar two-step approach in a series of workshops with first-year medical students. The students first completed a Hispanic–White/noncompliance IAT (without feedback) and read an article about implicit bias in medicine. The next week, all attended a lecture on implicit bias and learned about their own implicit biases by completing a classroom IAT demonstration. Two days later, the students participated in a team learning activity during which they discussed and developed implementation intentions for activating egalitarian goals, seeking common-identity and counterstereotypic information, and for taking their patient's perspective during a clinical encounter. When they completed the same IAT 3 to 7 days following the workshops, the results showed that participants demonstrated significantly less implicit stereotyping of Hispanics. The lasting effect of this and the intervention in Devine et al. (2012) supports the call for developing training modules that, in addition to making providers aware of their biases, provide instruction in how to control implicit bias, and features active learning exercises for practicing the new skills.

Promoting Bias Reduction at an Institutional Level

Finally, health care institutions can make changes that facilitate implicit bias reduction. Recent research indicates that positive intergroup contact is associated with reduction in implicit bias in a health care context (Burke et al., 2015; van Ryn et al., 2015). These studies suggest that implicit bias may fade when health care training features opportunities for positive contact across group boundaries (provider–patient; student–faculty).

Suggestions for Future Reduction Strategies

While the previous research suggests that interventions can reduce implicit bias among health

care providers, more empirical work is needed. One area to investigate is how to provide information and feedback about implicit bias without causing defensive resistance to the issue. The available data suggest that simply confronting providers with evidence of their implicit biases may not, in and of itself, be sufficient to motivate them to change the way they think about, and interact with, stigmatized patients. Students in training may perceive information and feedback about implicit bias as assigning blame and responsibility for health disparities, which is likely inconsistent with their egalitarian goals to provide the best care possible to all patients (Burgess et al., 2007). However, research suggests that students may be more open to learning about their own biases, and accepting responsibility for changing them, if instructors start by activating and affirming their egalitarian goals and commitment to provide equal care, before having them engage in self-reflection activities or receive feedback from an IAT (Harris, Mayle, Mabbott, & Napper, 2007; Howell & Shepperd, 2012). Emphasizing from the start that reducing disparities is a shared responsibility, and that providers can learn to control their implicit responses to stigmatized patients, may also encourage openness and acceptance of the information (Moss-Racusin et al., 2014)

It is also important to examine how best to train health care providers in the use of strategies for reducing implicit bias. The current literature suggests that there are two key elements for success: (a) instructors need to translate the abstract, theoretical concepts and processes that support the effectiveness of the strategies into practical, concrete clinical skills, and (b) instructors need to develop active learning exercises that allow students the opportunity to practice the skills before they use them in the clinic. But it is not clear which strategies, either in isolation or combination, work best for reducing implicit bias in patient care (Devine et al., 2012; Lai et al., 2014). It may be that some strategies (e.g., seeking counterstereotypic information; perspective-taking) are relatively easy to use and more effective in a clinical setting than others (e.g., stereotype-replacement), but that there are clinical settings in which using any strategy would be difficult to employ (e.g., during an emergency room triage). Moreover, examining reduction strategies for patient groups who are not stigmatized due to race/ethnicity (e.g., obese individuals, gay and lesbian people, individuals with physical disabilities) may lend further insight into which type of strategies are more effective for treatment of different patient groups. Understanding the parameters to using implicit bias reduction strategies in a clinical setting and toward a variety of stigmatized patient groups is vital for helping providers adopt them in their practices.

Finally, the ultimate goal of training providers to reduce implicit bias is to reverse the disparities in care that many stigmatized patient groups receive. It is therefore critical to examine if any reductions in implicit bias, observed after providers receive training in bias reduction, subsequently translate into more positive outcomes for stigmatized patient groups. Indeed, real changes in patient care may not occur with a one-time training in the first year of medical or nursing school; students may need continued exposure to an implicit bias curriculum in each year of their training in order to fully integrate the information into the other knowledge and skills they learn for patient care. Naturally, extended training will require a relatively high level of commitment, in terms of instruction time and resources, by health care training programs (Penner, Blair, Albrecht, & Dovidio, 2014). Nevertheless, integrating instruction on implicit bias into existing health care training appears necessary to address the role that providers may play in creating disparate care for stigmatized patients.

Conclusions

The evidence in this review suggests that, similar to the general population, health care providers in the United States have implicit negative attitudes and stereotypes about many stigmatized groups. Only recently have efforts been made to directly investigate whether provider implicit bias contributes to the health disparities experienced by these groups. Whereas some studies suggest that provider bias

may negatively impact clinical interactions with stigmatized patients, provider bias has not been consistently linked to worse medical judgment and decisions. More research is needed to document the conditions under which these processes play out in different clinical settings, with different patient populations.

Research on best practices for addressing and reducing implicit bias in health care is also underway. While recent papers describe several interventions that may effectively translate when training future and current providers, there is an urgent need for more research to test the extent to which these interventions are effective, both immediately and during the course of health care delivery. A stronger understanding of how provider implicit bias influences clinical care, and how to motivate providers to adopt strategies for controlling implicit bias, could play an important role in the reduction of disparities in health care for stigmatized patient groups.

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Note

1. Although the problem of health disparities affect a variety of groups, much of this review will focus on ethnic/racial groups because there is very little research on health care bias with other groups. We include research with other groups where it exists.

References

Adler, N. E., & Rehkopf, D. H. (2008). U.S. disparities in health: Descriptions, causes, and mechanisms. *Annual Review of Public Health*, *29*, 235–252. doi:10.1146/annurev.publhealth.29.020907.090852

Bean, M. G., Focella, E. S., Covarrubias, R., Stone, J., Moskowitz, G. B., & Badger, T. A. (2014). Documenting nursing and medical students' stereotypes about Hispanic and American Indian patients. *Journal of Health Disparities Research and Practice*, *7*, 14–22.

Bean, M. G., Stone, J., Badger, T. A., Focella, E. S., & Moskowitz, G. B. (2013). Evidence of nonconscious stereotyping of Hispanic patients by nursing and medical students. *Nursing Research*, *62*, 362–367. doi:10.1097/NNR.ob013e31829e02ec

Blair, I. V., Havaranek, E. P., Price, D. W., Hanratty, R., Fairclough, D. L., Farley, T., . . . Steiner, J. F. (2013). Assessment of biases against Latinos and African Americans among primary care providers and community members. *American Journal of Public Health*, *103*, 92–98. doi:10.2105/AJPH.2012.300812

Blair, I. V., Steiner, J. F., Hanratty, R., Price, D. W., Fairclough, D. L., Daugherty, S. L., . . . Havranek, E. P. (2014). An investigation of associations between clinicians' ethnic and racial bias and hypertension treatment, medical adherence and blood pressure control. *Journal of General Internal Medicine*, *29*, 987–995. doi:10.1007/s11606–014–2795-z

Blair, I. V., Steiner, J. F., & Havranek, E. P. (2011). Unconscious (implicit) bias and health disparities: Where do we go from here? *The Permanente Journal*, *15*, 71–78.

Blair, I. V., Steiner, J. F., Fairclough, D. L., Hanratty, R., Price, D. W., Hirsh, H. K., . . . Havranek, E. P. (2013). Clinicians' implicit ethnic/racial bias and perceptions of care among Black and Latino patients. *Annals of Family Medicine*, *11*, 43–52. doi:10.1370/afm.1442

Blatt, B., LeLacheur, S. F., Galinsky, A. D., Simmens, S. J., & Breenberg, L. (2010). Does perspective-taking increase satisfaction in medical encounters? *Academic Medicine*, *85*, 1445–1452. doi:10.1097/ACM.0b013e3181eae5ec

Burgess, D., van Ryn, M., Dovidio, J., & Saha, S. (2007). Reducing racial bias among health care providers: Lessons from social-cognitive psychology. *Journal of General Internal Medicine*, *22*, 882–887. doi:10.1007/s11606–007–0160–1

Burke, S. E., Dovidio, J. F., Przedworski, J. M., Hardeman, R. R., Perry, S. P., Phelan, S. M., . . .van Ryn, M. (2015). Do contact and empathy mitigate bias against gay and lesbian people among heterosexual first-year medical students? A report from the medical student CHANGE study. *Academic Medicine*, *90*, 645–651. doi:10.1097/ACM.0000000000000661

Chapman, E. N., Kaatz, A., & Carnes, M. (2013). Physicians and implicit bias: How doctors may unwittingly perpetuate health care disparities. *Journal of General Internal Medicine*, *28*, 1504–1510. doi:10.1007/s11606–013–2441–1

Coker, A. L., Davis, K. E., Arias, I., Desai, S., Sanderson, M., Brandt, H. M., & Smith, P. H. (2002). Physical and mental health effects of intimate partner violence for men and women. *American Journal of Preventive Medicine*, *24*, 260–268. doi:10.1016/S0749–3797(02)00514–7

Collins, K. S., Hughes, D. L., Doty, M. M., Ives, B. L., Edwards, J. N., & Tenney, K. (2002). *Diverse communities, common concerns: Assessing health care quality for minority Americans. Findings from the Commonwealth Fund 2001 Health Care Quality Survey*. New York, NY: The Commonwealth Fund.

Cooper, L. A., Johnson, R. D. L., Ford, D. E., Steinwache, D. M., & Powe, N. R. (2003). Patient-centered communication, ratings of care, and concordance of patient and physician race. *Annals of Internal Medicine*, *139*, 907–915. doi:10.7326/0003–4819–139–11–200312020–00009

Cooper, L. A., Roter, D. L., Carson, K. A., Beach, M. C., Sabin, J. A., Greenwald, A. G., & Inui, T. S. (2012). The associations of clinicians' implicit attitudes about race with medical visit communication and patient ratings of interpersonal care. *American Journal of Public Health*, *102*, 979–987. doi:10.2105/AJPH.2011.300558

Cooper-Patrick, L., Gallo, J. J., Gonzales, J. J., Thi Vu, H., Powe, N. R., Nelson, C., & Ford, D. E. (1999). Race, gender, and partnership in the patient–physician relationship. *Journal of the American Medical Association*, *282*, 583–589. doi:10.1001/jama.282.6.583

Devine, P. G., Forscher, P. S., Austin, A. J., & Cox, W. T. L. (2012). Long-term reduction in implicit race bias: A prejudice habit-breaking intervention. *Journal of Experimental Social Psychology*, *48*, 1267–1278. doi:10.1016/j.jesp.2012.06.003

Dilley, J. A., Wynkoop Simmons, K., Boysun, M. J., Pizacani, B. A., & Stark, M. J. (2010). Demonstrating the importance and feasibility of including sexual orientation in public health surveys: Health disparities in the Pacific Northwest. *American Journal of Public Health*, *100*, 460–467. doi:10.2105/AJPH.2007.130336

Dovidio, J. F., Kawakami, K., & Gaertner, S. L. (2002). Implicit and explicit prejudice and interracial interaction. *Journal of Personality and Social Psychology*, *82*, 62–68. doi:10.1037/0022–3514.82.1.62

Dovidio, J. F., Penner, L. A., Albrecht, T. L., Norton, W. E., Gaertner, S. L., & Shelton, J. N. (2008). Disparities and distrust: The implications of psychological processes for understanding racial disparities in health and health care. *Social Science & Medicine*, *67*, 478–486. doi:10.1016/j.socscimed.2008.03.019

Drwecki, B. B., Moore, C. F., Ward, S. E., & Prkachin, K. M. (2011). Reducing racial disparities in pain treatment: The role of empathy and perspective taking. *Pain*, *152*, 1001–1006. doi:10.1016/j.pain.2010.12.005

Fazio, R. H., Jackson, J. R., Dunton, B. C., & Williams, C. J. (1995). Variability in automatic activation as an unobtrusive measure of racial attitudes: A bona fide pipeline? *Journal of Personality and Social Psychology*, *69*, 1013–1027. doi:10.1037/0022–3514.69.6.1013

Finucane, T. E., & Carrese, J. A. (1990). Racial bias in presentation of cases. *Journal of General Internal Medicine*, *5*, 120–121. doi:10.1007/BF02600511

Freimuth, V. S., Quinn, S. C., Thomas, S. B., Cole, G., Zook, E., & Duncan, T. (2001). African Americans' views on research and the Tuskegee syphilis study. *Social Science & Medicine*, *52*, 797–808. doi:10.1016/S0277–9536(00)00178–7

Galli, G., Lenggenhager, B., Scivoletto, G., Molinari, M., & Pazzagila, M. (2015). Don't look at my wheelchair! The plasticity of longlasting prejudice. *Medical Education*, *49*, 1239–1247. doi:10.1111/medu.12834

Gonzalez, C. M., Kim, M. Y., & Marantz, P. R. (2014). Implicit bias and its relation to health disparities: A teaching program and survey of medical students. *Teaching and Learning in Medicine*, *26*, 64–71. doi:10.1080/10401334.2013.857341

Green, A. R., Carney, D. R., Pallin, D. J., Ngo, L. H., Raymond, K. L., Iezzoni, L. I., & Banaji, M. R. (2007). Implicit bias among physicians and its prediction of thrombolysis decisions for Black and White patients. *Journal of General Internal Medicine*, *22*, 1231–1238. doi:10.1007/s11606–007–0258–5

Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology*, *74*, 1464–1480. doi:10.1037/0022–3514.74.6.1464

Hagiwara, N., Dovidio, J. F., Eggly, S., & Penner, L. A. (2016). The effects of racial attitudes on affect and engagement in racially discordant medical interactions between non-Black physicians and

Black patients. *Group Processes & Intergroup Relations*, *19*, 509–527.

Hagiwara, N., Penner, L. A., Gonzalez, R., Eggly, S., Dovidio, J. F., Gaertner, S. L., . . . Albrecht, T. L. (2013). Racial attitudes, physician–patient talk time ratio, and adherence in racially discordant medical interactions. *Social Science & Medicine*, *87*, 123–131. doi:10.1016/j.socscimed.2013.03.016

Haider, A. H., Schneider, E. B., Sriram, N., Dossick, D. S., Scott, V. K., Swoboda, S. M., . . . Freischiag, J. A. (2015). Unconscious race and social class bias among acute care surgical clinicians and clinical treatment decision. *Journal of the American Medical Association: Surgery*, *150*, 457–464. doi:10.1001/jamasurg.2014.4038

Haider, A. H., Schneider, E. B., Sriram, N., Scott, V. K., Swoboda, S. M., Zogg, C. K., . . . Cooper, L. A. (2015). Unconscious race and social class bias among registered nurses: Vignette-based study using implicit association testing. *Journal of the American College of Surgeons*, *220*, 1077–1086. doi:10.1016/j.jamcollsurg.2015.01.065

Haider, A. H., Sexton, J., Sriram, N., Cooper, L. A., Efron, D. T., Swohoda, S., . . . Cornwell, E. E. (2011). Association of unconscious race and social class bias with vignette-based clinical assessments by medical students. *Journal of the American Medical Association*, *306*, 942–951. doi:10.1001/jama.2011.1248

Harris, P. R., Mayle, K., Mabbott, L., & Napper, L. (2007). Self-affirmation reduces smokers' defensiveness to graphic on-pack cigarette warning labels. *Health Psychology*, *26*, 437–446. doi:10.1037/0278–6133.26.4.437

Hausmann, L. R. M., Myaskovsky, L., Niyonkuru, C., Oyster, M. L., Switzer, G. E., Burkitt, K. H., . . . Boninger, M. L. (2015). Examining implicit bias of physicians who care for individuals with spinal cord injury: A pilot study and future directions. *The Journal of Spinal Cord Medicine*, *38*, 102–110. doi:10.1179/2045772313Y.0000000184

Howell, J. L., & Shepperd, J. A. (2012). Reducing information avoidance through affirmation. *Psychological Science*, *23*, 141–145. doi:10.1177/0956797611424164

Kressin, N. R., & Petersen, L. A. (2001). Racial differences in the use of invasive cardiovascular procedures: Review of the literature and prescription for future research. *Annals of Internal Medicine*, *135*, 352–366. doi:10.7326/0003–4819–135–5–200109040–00012

Lai, C. K., Marini, M., Lehr, S. A., Cerruti, C., Shin, J. L., Joy-Gaba, J. A., . . . Nosek, B. A. (2014). Reducing implicit racial preferences: I. A comparative investigation of 17 interventions. *Journal of Experimental Psychology: General*, *143*, 1765–1785. doi:10.1037/a0036260

LaVeist, T. A., Nickerson, K. J., & Bowie, J. V. (2000). Attitudes about racism, medical mistrust, and satisfaction with care among African American and White cardiac patients. *Medical Care Research and Review*, *57*, 146–161. doi:10.1177/1077558700574007

Lipton, R. B., Losey, L. M., Giachello, A., Mendez, J., & Girotti, M. H. (1998). Attitudes and issues in treating Latino patients with Type 2 diabetes: Views of healthcare providers. *The Diabetes Educator*, *24*, 67–71. doi:10.1177/01457219802400109

Moskowitz, G. B., Stone, J., & Childs, A. (2012). Implicit stereotyping and medical decisions: Unconscious stereotype activation in practitioners' thoughts about African Americans. *American Journal of Public Health*, *102*, 996–1001. doi:10.2105/AJPH.2011.300591

Moss-Racusin, C. A., van der Toorn, J., Dovidio, J. F., Brescoll, V. L., Graham, M. J., & Handelsman, J. (2014). Scientific diversity interventions. *Science*, *343*, 615–616. doi:10.1026/science.1245936

Nolen-Hoeksema, S. (2001). Gender differences in depression. *Current Directions in Psychological Science*, *10*, 173–176. doi:10.1111/1467–8721.00142

Oliver, M. N., Wells, K. M., Joy-Gaba, J. A., Hawkins, C. B., & Nosek, B. A. (2014). Do physicians' implicit views of African Americans affect clinical decision making? *Journal of the American Board of Family Medicine*, *27*, 177–188. doi:10.3122/jabfm.2014.02.120314

Paradies, Y., Truong, M., & Priest, N. (2013). A systematic review of the extent and measurement of healthcare provider racism. *Journal of General Internal Medicine*, *20*, 364–387. doi:10.1007/s11606–013–2583–1

Pascoe, E. A., & Richman, L. S. (2009). Perceived discrimination and health: A meta-analytic review. *Psychological Bulletin*, *135*, 531–554. doi:10.1037/a0016059

Penner, L. A., Blair, I. V., Albrecht, T. L., & Dovidio, J. F. (2014). Reducing racial health care disparities: A social psychological analysis. *Policy Insights From the Behavioral and Brain Sciences*, *1*, 204–212. doi:10.1177/2372732214548430

Penner, L. A., Dovidio, J. F., West, T. V., Gaertner, S. L., Albrecht, T. L., Dailey, R. K., & Markova, T.

(2010). Aversive racism and medical interactions with Black patients: A field study. *Journal of Experimental Social Psychology*, *46*, 436–440. doi:10.1016/j.jesp.2009.11.004

Peris, T. S., Teachman, B. A., & Nosek, B. A. (2008). Implicit and explicit stigma of mental illness: Links to clinical care. *The Journal of Nervous and Mental Disease*, *196*, 752–760. doi:10.1097/NMD.0b013e3181879dfd

Perugini, M., Richetin, J., & Zogmaister, C. (2010). Prediction of behavior. In B. Gawronski & B. K. Payne (Eds.), *Handbook of implicit social cognition: Measurement, theory, and applications* (pp. 255–277). New York, NY: The Guildford Press.

Phelan, S. M., Dovidio, J. F., Puhl, R. M., Burgess, D. J., Nelson, D. B., Yeazel, M. W., . . . van Ryn, M. (2014). Implicit and explicit weight bias in a national sample of 4,732 medical students: The medical student CHANGES study. *Obesity*, *22*, 1201–1208. doi:10.1002/oby.20687

Prati, F., Crisp, R. J., Pratto, F., & Rubini, M. (2016). Encouraging majority support for immigrant access to health services: Multiple categorization and social identity complexity as antecedents of health equality. *Group Processes & Intergroup Relations*, *19*, 426–438.

Rubineau, B., & Kang, Y. (2012). Bias in white: A longitudinal natural experiment measuring changes in discrimination. *Management Science*, *58*, 660–677. doi:10.1287/mnsc.1110.1439

Rudman, L. A., Ashmore, R. D., & Gary, M. L. (2001). "Unlearning" automatic biases: The malleability of implicit prejudice and stereotypes. *Journal of Personality and Social Psychology*, *81*, 856–868. doi:10.1037/0022–3514.81.5.856

Ruiz, J. M., Hamann, H. A., Mehl, M. R., & O'Connor, M.-F. (2016). The Hispanic health paradox: From epidemiological phenomenon to contribution opportunities for psychological science. *Group Processes & Intergroup Relations*, *19*, 462–476.

Sabin, J. A., & Greenwald, A. G. (2012). The influence of implicit bias on treatment recommendations for 4 common pediatric conditions: Pain, urinary tract infection, attention deficit hyperactivity disorder, and asthma. *American Journal of Public Health*, *102*, 988–995. doi:10.2105/AJPH.2011.300621

Sabin, J. A., Marini, M., & Nosek, B. A. (2012). Implicit and explicit anti-fat bias among a large sample of medical doctors by BMI, race/ethnicity and gender. *PLoS ONE*, *7*, e48448. doi:10.1371/1/journal.pone.0048448

Sabin, J. A., Moore, K., Noonan, C., Lallemand, O., & Buchwald, D. (2015). Clinicians' implicit and explicit attitudes about weight and race and treatment approaches to overweight for American Indian children. *Childhood Obesity*, *11*, 456–465. doi:10.1089/chi.2014.0125

Sabin, L. A., Nosek, B. A., Greenwald, A. G., & Rivara, F. P. (2009). Physicians' implicit and explicit attitudes about race by MD race, ethnicity, and gender. *Journal of Health Care for the Poor and Underserved*, *20*, 896–913. doi:10.1353/hpu.0.0185

Sabin, J. A., Riskind, R. G., & Nosek, B. A. (2015). Health care providers' implicit and explicit attitudes toward lesbian women and gay men. *American Journal of Public Health*, *105*, 1831–1841. doi:10.2105/AJPH.2015.302631

Sabin, J. A., Rivara, F. P., & Greenwald, A. G. (2008). Physician implicit attitudes and stereotypes about race and quality of medical care. *Medical Care*, *46*, 678–685. doi:10.1097/MLR.0b013e3181653d58

Saha, S., Komaromy, M., Koepsell, T. D., & Bindman, A. B. (1999). Patient–physician racial concordance and the perceived quality and use of health care. *Archives of Internal Medicine*, *159*, 997–1004. doi:10.1001/archinte.159.9.997

Sankar, P., Cho, M. K., Condit, C. M., Hunt, L. M., Koenig, B., Marshall, P., . . . Spicer, P. (2004). Genetic research and health disparities. *Journal of the American Medical Association*, *291*, 2985–2989. doi:10.1001/jama.291.24.2985

Schaa, K. L., Roter, D. L., Biesecker, B. B., Cooper, L. A., & Erby, L. H. (2015). Genetic counselors' implicit racial attitudes and their relationship to communication. *Health Psychology*, *34*, 111–119. doi:10.1037/hea0000155

Sheifer, S. E., Escarce, J. J., & Schulman, K. A. (2000). Race and sex differences in the management of coronary artery disease. *American Heart Journal*, *139*, 846–857. doi:10.1016/S0002–8703(00)90017–6

Schnittker, J., & McLeod, J. D. (2005). The social psychology of health disparities. *Annual Review of Sociology*, *31*, 75–103. doi:10.1146/annurev.soc.30.012703.110622

Schwartz, M. B., O'Neal Chambliss, H., Brownell, K. D., Blair, S. N., & Billington, C. (2003). Weight bias among health professionals specializing in obesity. *Obesity Research*, *11*, 1033–1039. doi:10.1038/oby.2003.142

Shavers, V. L., Lynch, C. F., & Burmeister, L. F. (2000). Knowledge of the Tuskegee study and its impact on the willingness to participate in medical research

studies. *Journal of the National Medical Association*, *92*, 563–572.

Sheifer, S. E., Escarce, J. J., & Schulman, K. A. (2000). Race and sex differences in the management of coronary artery disease. *American Heart Journal*, *139*, 846–857. doi:10.1016/S0002–8703(00)90017–6

Smedley, B. D., Stith, A. Y., & Nelson, A. R. (2002). *Unequal treatment: Confronting racial and ethnic disparities in health care*. Washington, DC: National Academy Press.

Steiner, J. F., Ho, P. M., Beaty, B. L., Dickinson, L. M., Hanratty, R., Zeng, C., . . . Estacio, R. O. (2009). Sociodemographic and clinical characteristics are not clinically useful predictors of refill adherence in patients with hypertension. *Circulation. Cardiovascular Quality and Outcomes*, *2*, 451–457. doi:10.1161/CIRCOUTCOMES.108.841635

Stepanikova, I. (2012). Racial-ethnic biases, time pressure, and medical decisions. *Journal of Health and Social Behavior*, *53*, 329–343. doi:10.1177/0022146512445807

Stone, J., & Moskowitz, G. B. (2011). Non-conscious bias in medical decision making: What can be done to reduce it? *Medical Education*, *45*, 768–776. doi:10.1111/j.1365–2923.2011.04026.x

Stone, J., Moskowitz, G. B., & Zestcott, C. A. (2016). *A brief, active learning workshop for reducing implicit bias among medical students*. Manuscript in preparation.

Teachman, B. A., & Brownell, K. D. (2001). Implicit anti-fat bias among health professionals: Is anyone immune? *International Journal of Obesity*, *25*, 1525–1531. doi:10.1038/sj.ijo.0801745

Teal, C. R., Gill, A. C., Green, A. R., & Crandall, S. (2012). Helping medical learners recognize and manage unconscious bias toward certain patient groups. *Medical Education*, *46*, 80–88. doi:10.111/j.1365-2923.2011.04101.x

Teal, C. R., Shada, R. E., Gill, A. C., Thompson, B. M., Fruge, E., Villarreal, G. B., & Haidet, P. (2010). When best intentions aren't enough: Helping medical students develop strategies for managing bias about patients. *Journal of General Internal Medicine*, *25*, 115–118. doi:10.1007/s11606–009–1243-y

Todd, A. R., & Galinsky, A. D. (2014). Perspective-taking as a strategy for improving intergroup relations: Evidence, mechanisms, and qualifications. *Social and Personality Psychology Compass*, *8*, 374–387. doi:10.1111/spc3.12116

Van Ryn, M. (2002). Research on the provider contribution to race/ethnicity disparities in medical care. *Medical Care*, *40*, 140–150. doi:10.1097/00005650-200201001-00015

Van Ryn, M., & Burke, J. (2000). The effect of patient race and socio-economic status on physicians' perceptions of patients. *Social Science & Medicine*, *50*, 813–828. doi:10.1016/S0277–9536(99)00338-X

Van Ryn, M., & Fu, S. S. (2003). Paved with good intentions: Do public health and human service providers contribute to racial/ethnic disparities in health? *American Journal of Public Health*, *93*, 248–255.

Van Ryn, M., Hardeman, R., Phelan, S. M., Dovidio, J. F., Herrin, J., Burke, S. E., . . . Przedworski, J. M. (2015). Medical school experiences associated with change in implicit racial bias among 3547 students: A medical student CHANGES study report. *Journal of General Internal Medicine*, *30*, 1748–1756. doi:10.1007/s11606–015–3447–7

Von Hippel, W., Brener, L., & von Hippel, C. (2008). Implicit prejudice toward injecting drug users predicts intentions to change jobs among drug and alcohol nurses. *Psychological Science*, *19*, 7–11. doi:10.1111/j.1467–9280.2008.02037.x

Waller, T., Lampman, C., & Lupfer-Johnson, G. (2012). Assessing bias against overweight individuals among nursing and psychology students: An implicit association test. *Journal of Clinical Nursing*, *21*, 3504–3512. doi:10.111/j.1365–2702.2012.04226.x

Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: Evidence and needed research. *Journal of Behavioral Medicine*, *32*, 20–57. doi:10.1007/s10865–008–9185–0

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THE MIND

Q&A — Psychologist Anthony Greenwald

Curbing implicit bias: what works and what doesn't

Psychologists have yet to find a way to diminish hidden prejudice, but they do have strategies for thwarting discrimination

By Betsy Mason 06.04.2020

A quarter-century ago, social psychologist Anthony Greenwald of the University of Washington developed a test that exposed an uncomfortable aspect of the human mind: People have deep-seated biases of which they are completely unaware. And these hidden attitudes — known as implicit bias — influence the way we act toward each other, often with unintended discriminatory consequences.

Since then, Greenwald and his main collaborators, Mahzarin Banaji and Brian Nosek, have used the implicit association test to measure how fast and accurately people associate different social groups with qualities like good and bad. They have developed versions of the test to measure things such as unconscious attitudes about race, gender stereotypes and bias against older people. Those tests have revealed just how pervasive implicit bias is. (Project Implicit offers public versions of the tests on its website here.)

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Psychologist Anthony Greenwald

University of Washington

The researchers' work has also shown how much implicit bias can shape social behavior and decision-making. Even people with the best intentions are influenced by these hidden attitudes, behaving in ways that can create disparities in hiring practices, student evaluations, law enforcement, criminal proceedings — pretty much anywhere people are making decisions that affect others. Such disparities can result from bias against certain groups, or favoritism toward other ones. Today, implicit bias is widely understood to be a cause of unintended discrimination that leads to racial, ethnic, socioeconomic and other inequalities.

Discussions around the role of racism and implicit bias in the pattern of unequal treatment of racial minorities by law enforcement are intensifying following a roster of high-profile cases, most recently the killing of George Floyd. Floyd, an unarmed black man, died in Minneapolis last month after a white

As awareness of implicit bias and its effects has increased, so has interest in mitigating it. But that is much harder to do than scientists expected, as Greenwald told an audience in Seattle in February at the annual meeting of the American Association for the Advancement of Science. Greenwald, coauthor of an overview on implicit bias research in the 2020 *Annual Review of Psychology*, spoke with *Knowable Magazine* about what does and doesn't work to counter the disparities that implicit bias can produce.

This conversation has been edited for length and clarity.

At the Vienna Philharmonic, a musician prepares for a blind audition. The practice has helped counteract implicit bias against female players in the orchestra world.

CREDIT: MARTIN KUBIK / VIENNA PHILHARMONIC

How do you test for associations that people aren't aware they have?

The first implicit association test I created was one involving the names of flowers and insects, and

right hand for both pleasant words and flower names, and the left hand for unpleasant words and insect names, because we typically think of flowers as pleasant and insects as unpleasant.

But then the task is switched to force the opposite associations — one hand for insect names and pleasant words, and the other hand for flower names and unpleasant words. When I first tried that reversed form, my response time was about a third of a second slower compared to the first version. And in psychological work where you're asking people to respond rapidly, a third of a second is like an eternity, indicating that some mental processes are going on in this version of the test that are not going on in the other.

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Then I replaced the flowers and insects with first names of men and women that are easily classified as European American or African American. For me, giving the same response to pleasant words and African American names took an eternity. But when it was the European American names and pleasant words with one hand, and the African American names and the unpleasant words with the other hand, that was something I could zip through. And that was a surprise to me. I would have described myself at that point as someone who is lacking in biases or prejudices of a racial nature. I probably had some biases that I would confess to, but I actually didn't think I had that one.

How widespread is implicit bias?

That particular implicit bias, the one involving black-white race, shows up in about 70 percent to 75 percent of all Americans who try the test. It shows up more strongly in white Americans and Asian Americans than in mixed-race or African Americans. African Americans, you'd think, might show just the reverse effect — that it would be easy for them to put African American together with pleasant and white American together with unpleasant. But no, African Americans show, on average, neither

Most people have multiple implicit biases they aren't aware of. It is much more widespread than is generally assumed.

Is implicit bias a factor in the pattern of police violence such as that seen in the killing of George Floyd on May 25, which sparked the ongoing protests across the country?

The problems surfacing in the wake of George Floyd's death include all forms of bias, ranging from implicit bias to structural bias built into the operation of police departments, courts and governments, to explicit, intended bias, to hate crime.

The best theory of how implicit bias works is that it shapes conscious thought, which in turn guides judgments and decisions. The ABC News correspondent Pierre Thomas expressed this very well recently by saying, "Black people feel like they are being treated as suspects first and citizens second." When a black person does something that is open to alternative interpretations, like reaching into a pocket or a car's glove compartment, many people — not just police officers — may think first that it's possibly dangerous. But that wouldn't happen in viewing a white person do exactly the same action. The implications of conscious judgment being shaped in this way by an automatic, implicit process of which the perceiver is unaware can assume great importance in outcomes of interactions with police.

Do the diversity or implicit bias training programs used by companies and institutions like Starbucks and the Oakland Police Department help reduce bias?

I'm at the moment very skeptical about most of what's offered under the label of implicit bias training, because the methods being used have not been tested scientifically to indicate that they are effective. And they're using it without trying to assess whether the training they do is achieving the desired results.

I see most implicit bias training as window dressing that looks good both internally to an organization and externally, as if you're concerned and trying to do something. But it can be deployed without actually achieving anything, which makes it in fact counterproductive. After 10 years of doing this stuff and nobody reporting data, I think the logical conclusion is that if it was working, we would have heard about it.

In 2018, Starbucks closed 8,000 stores for a few hours to run an anti-bias training course for employees. The effort followed an incident at this café in Philadelphia, during which an employee called police on two black men who were inside the store but had not ordered anything, and the men were arrested. There's no evidence that such training is effective.

CREDIT: AP PHOTO / RON TODT

Can you tell us about some of the approaches meant to reduce bias that haven't worked?

I'll give you several examples of techniques that have been tried with the assumption that they would achieve what's sometimes called debiasing or reducing implicit biases. One is exposure to counter-stereotypic examples, like seeing examples of admirable scientists or entertainers or others who are African American alongside examples of whites who are mass murderers. And that produces an immediate effect. You can show that it will actually affect a test result if you measure it within about a half-hour. But it was recently found that when people started to do these tests with longer delays, a day or more, any beneficial effect appears to be gone.

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Implicit bias is pervasive

Hundreds of studies have revealed the workings of implicit bias in a wide range of settings. Here are a few examples that demonstrate how it can occur in just about any situation in which people make decisions that affect other people.

In law enforcement: A study found that police in New York City stopped black and Hispanic pedestrians more often than white pedestrians, and a study in Oakland, California, found that black men were far more likely to be handcuffed, searched or arrested than anyone else when stopped by police.

In the office: Hiring managers were less likely to invite an obese applicant for an interview, people see older workers as less valuable and bias against Arab-Muslim men influenced hiring decisions in Sweden.

In the courtroom: Studies found that implicit bias against African Americans affects almost every step in the judicial system, from prosecutors deciding which cases to charge to judges handing down decisions.

In the classroom: Public high school teachers in Sweden gave higher test scores to students with Swedish backgrounds than those with foreign ones, while American psychology students rated young male teachers higher than older men, as well as younger and older women.

In the hospital: Doctors were more likely to offer a blood-clot-busting treatment to white patients with acute coronary disease than to black patients with the same symptoms, and nursing students showed a bias against overweight patients.

In a pandemic? A study showed that when people feel especially

—*Betsy Mason*

Other strategies that haven't been very effective include just encouraging people to have a strong intention not to allow themselves to be biased. Or trainers will suggest people do something that they may call "thinking slow" or pausing before making decisions. Another method that has been tried is meditation. And another strategy is making people aware that they have implicit biases or that implicit biases are pervasive in the population. All these may seem reasonable, but there's no empirical demonstration that they work.

It's surprising to me that making people aware of their bias doesn't do anything to mitigate it. Why do you think that is?

I think you're right, it is surprising. The mechanisms by which our brains form associations and acquire them from the cultural environment evolved over long periods of time, during which people lived in an environment that was consistent. They were not actually likely to acquire something that they would later have to unlearn, because the environment wasn't going to change. So there may have been no evolutionary pressure for the human brain to develop a method of unlearning the associations.

I don't know why we have not succeeded in developing effective techniques to reduce implicit biases as they are measured by the implicit association test. I'm not prepared to say that we're never going to be able to do it, but I will say that people have been looking for a long time, ever since the test was introduced, which is over 20 years now, and this hasn't been solved yet.

Is there anything that does work?

I think that a lot can be achieved just by collecting data to document disparities that are occurring as a result of bias. And maybe an easy example is police operations, although it can be applied in many settings. Most police departments keep data on what we know as profiling, though they don't like to call it that. It's what happens in a traffic stop or a pedestrian stop — for example, the stop-and-frisk policy that former New York City Mayor Michael Bloomberg has taken heat for. The data of the New York City Police Department for stops of black and white pedestrians and drivers were analyzed, and it was very clear that there were disparities.

Once you know where the problem is that has to be solved, it's up to the administrators to figure out

that the police are just operating more in Harlem than in the white neighborhoods?

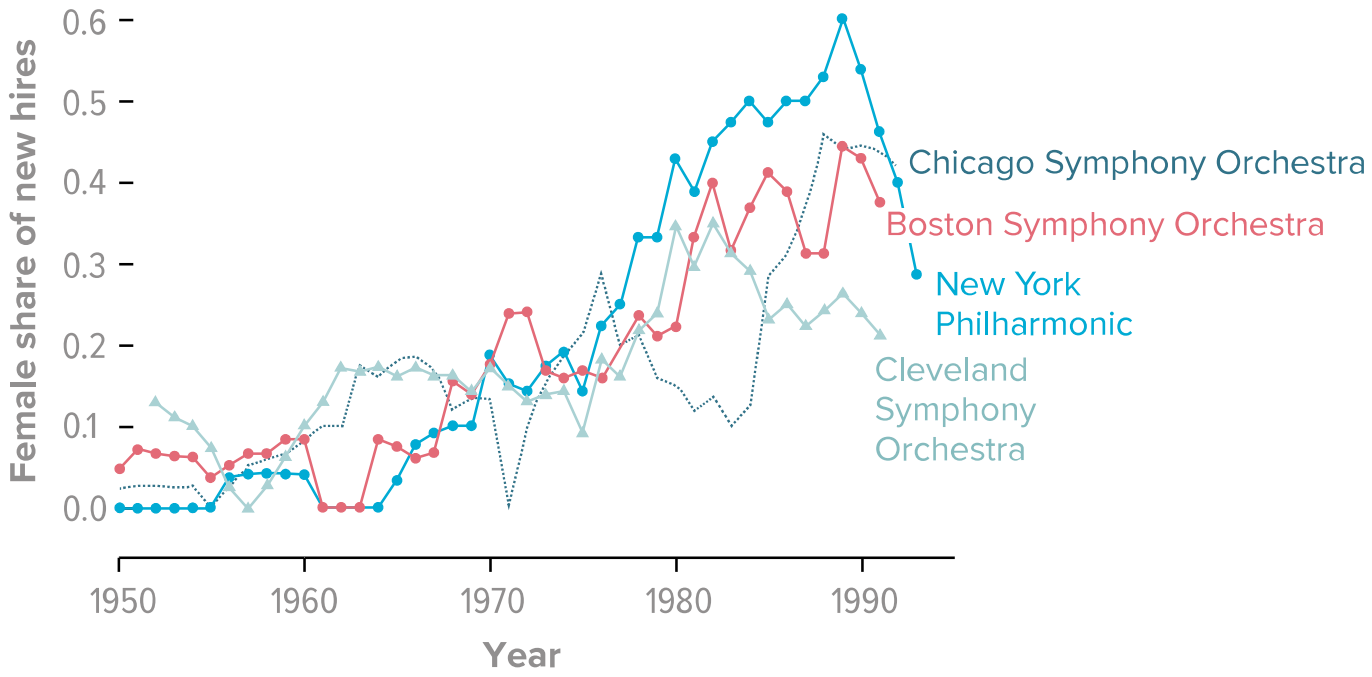
And once you know what's happening, the next step is what I call discretion elimination. This can be applied when people are making decisions that involve subjective judgment about a person. This could be police officers, employers making hiring or promotion decisions, doctors deciding on a patient's treatment, or teachers making decisions about students' performance. When those decisions are made with discretion, they are likely to result in unintended disparities. But when those decisions are made based on predetermined, objective criteria that are rigorously applied, they are much less likely to produce disparities.

Is there evidence that discretion elimination works?

What we know comes from the rare occasions in which the effects of discretion elimination have been recorded and reported. The classic example of this is when major symphony orchestras in the United States started using blind auditions in the 1970s. This was originally done because musicians thought that the auditions were biased in favor of graduates of certain schools like the Juilliard School. They weren't concerned about gender discrimination.

But as soon as auditions started to be made behind screens so the performer could not be seen, the share of women hired as instrumentalists in major symphony orchestras rose from around 10 percent or 20 percent before 1970 to about 40 percent. This has had a major impact on the rate at which women have become instrumentalists in major symphony orchestras.

A classic case of countering implicit bias



SOURCE: C. GOLDIN & C. ROUSE / *THE AMERICAN ECONOMIC REVIEW* 2000 KNOWABLE MAGAZINE

Implementing blind auditions for US symphony orchestras in the 1970s resulted in a sizable increase in the proportion of women being hired as instrumentalists. This graph shows that for four of the country's five top orchestras, the percentage of new hires that were women jumped from around 10 percent before the change to around 40 percent by the early 1990s. (Five-year moving average shown.)

But these data-collection and discretion-elimination strategies aren't commonly used?

Not nearly as often as they could. For example, instructors can usually arrange to grade almost anything that a student does without knowing the identity of the student. In an electronic age when you don't learn to recognize people's handwriting, instructors can grade essays without the students' names on them. I used that approach when I was last grading undergraduates in courses. It's easy to use, but it's often not used at all.

And in many other circumstances it is possible to evaluate performance without knowing the identity of the person being evaluated. But employers and others rarely forgo the opportunity to know the identity of the person they're evaluating.

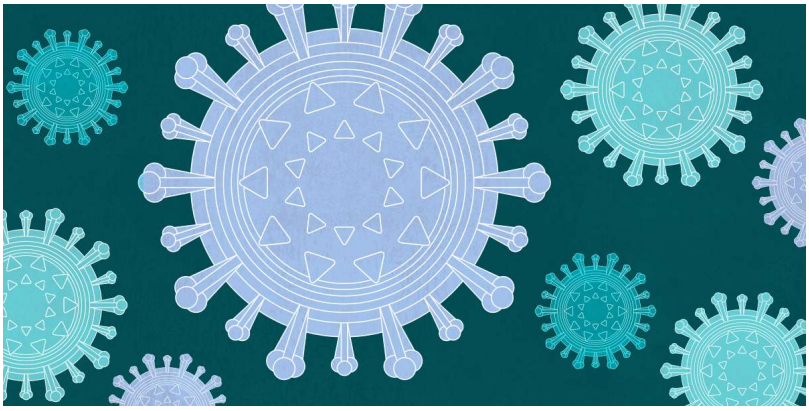
Over the past decades, blind auditions have helped more women secure spots in professional orchestras, presumably by battling biases against female musicians.

CREDIT: EVERT ELZINGA / GETTY IMAGES

Can artificial intelligence play a role?

People are starting to apply artificial intelligence to the task by mining historical records of past employment decisions. This is a way of taking the decisions that involve human discretion and putting them into the hands of a machine. The idea is to develop algorithms that identify promising applicants by matching their qualities to those of past applicants who turned out to be successful employees.

I think it's a great thing to try. But so far, efforts with AI have not succeeded, because the historical databases used to develop the algorithms to make these decisions turn out to be biased, too. They incorporate the biases of past decision-makers. One example is how biases affect facial-recognition technology, which inadvertently categorizes African American faces or Asian faces as criminal more often than white faces.



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This is a problem that computer scientists are trying to cope with, but some of the people in AI that I have spoken to seem not so optimistic that this will be at all easy to do. But I do think that ultimately — and it might take a while — the biases may be expunged more readily from AI decision algorithms than from human decision-making.

Could more be done at the level of an individual company or department?

To help prevent unintended discrimination, the leaders of organizations need to decide to track data to see where disparities are occurring. When they discover disparities, they need to try to make changes and then look at the next cycle of data to see if those changes are improving things.

Obviously, it's easier for them not to do those things. In some cases there's a cost to doing them. And they may think it's like opening up Pandora's box if they look closely at the data. I think this is true of many police departments. They're bound to find things that they'd rather not see.

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Cultural awareness workshops: limitations and practical consequences

Stephane M. Shepherd[1,2]

Abstract

Cultural awareness training for health professionals is now commonplace across a variety of sectors. Its popularity has spawned several alternatives (i.e., cultural competence, cultural safety, cultural humility, cultural intelligence) and overlapping derivatives (diversity training, anti-racism training, micro-aggression training). The ever-increasing reach of cultural awareness initiatives in health settings has generally been well intentioned - to improve cross-cultural clinical encounters and patient outcomes with the broader expectation of reducing health disparities. Yet the capacity of cultural awareness training to accomplish or even impact such outcomes is seldom comprehensively scrutinized. In response, this paper applies a much needed critical lens to cultural awareness training and its derivatives by examining their underpinning philosophies, assumptions and most importantly, verification of their effectiveness. The paper finds cultural awareness approaches to be over-generalizing, simplistic and impractical. They may even induce unintended negative consequences. Decades of research point to their failure to realize meaningful outcomes in health care settings and beyond. Broader expectations of their capacity to reduce health disparities are almost certainly unachievable. Alternative suggestions for improving cross-cultural health care interactions and research are discussed within.

Keywords: Cultural awareness, Cultural competence, Cultural humility, Cultural safety, Cultural sensitivity, Cultural intelligence, Health professionals, Cross-cultural health care, Cross-cultural psychology

Background

Cross-cultural training and education (also known as cultural awareness training) is commonly offered to professionals, students and volunteers across numerous industries for the purposes of enhancing effective cross-cultural interaction. Its origins can be traced back to early diversity training efforts in the United States following civil rights legislation in the 1960s [1]. Soon after, public health administrators sought to address the mechanisms underpinning reported cross-cultural health disparities [2]. Bias and/or cultural differences between health care service providers and migrant/minority populations are believed to contribute to both the poor health care experiences and subsequent unmet health needs of underprivileged minority groups [3–9]. As such, learning about the worldviews, norms and practices of cultural minority clientele is anticipated to not only endow health care professionals with a better capacity to understand and serve their patients, but to also reduce broader health care inequities in the process [8, 10–13]. The cultural awareness industry has now become a global phenomenon and commercial behemoth, grossing billions of dollars annually. Cultural awareness training is commonplace and often mandated in multiple sectors. Its philosophies are embedded in the strategic plans and mission statements of organisations and branches of government. Human resource departments ensure that employees abide by such protocols. Cultural awareness standards and trainings are often components of university course curricula. There are now multiple off-shoots (i.e., cultural competence, cultural safety, cultural humility, cultural intelligence) and overlapping derivatives (diversity training, anti-racism training, micro-aggression training). Some concepts (i.e., cultural competence) have spawned their own academic disciplines, with their own experts, theories and bodies of literature [14].

The ever-increasing reach of cultural awareness endeavours has generally been well intentioned. Improving

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inter-cultural dealings in a paradigm of globalism and growing diversity seems eminently sensible. Perhaps even more so in health settings where clinical encounters can impact patient actions [15–19]. Yet the utility of cultural awareness education has rarely been methodically un packed and scrutinized. A cursory search for academic literature on cultural awareness training will recover hundreds of thousands of papers on the concept(s) and their presumed advantages. In contrast, fewer than two dozen articles offer robust appraisals or critiques of cultural awareness, with half of these proposing that existing trainings should in fact be more trenchant and/or expansive. This ostensible unevenness in the literature warrants some re-visiting. Is this seemingly near-unanimity in the literature a judicious reflection of a robust evidence base? In response, this commentary applies a much needed critical lens to cultural awareness training and its derivatives by examining its philosophies, assumptions and most importantly, verification for its effectiveness. The critiques offered in this paper are partially derived from clinical experiences, and the author's long time professional involvement in the development, oversight and presentation of cross-cultural trainings. The author has also attended over a dozen separate cross-cultural education workshops across two regions (North American and Oceania). Greater consideration in the paper is afforded to the implications for clinical encounters given that cultural awareness initiatives have conventionally been oriented to health care settings.

Main text

The workshop

The flagship component of cultural awareness education is the workshop. These vary in duration ranging from a single session of 1–2 h to full-days held across multiple sessions. The method and intensity of instruction also vary including the array of activities available to attendees. Though cosmetically variable, workshop content which is didactic in nature, encompasses at least one of five overlapping themes – historical matters, belief systems, (clinical) interaction approaches, discrimination and organisa tional issues. *Historical matters* provide a historical backdrop germane to whichever cultural group is the focus of the workshop. Injustices are often emphasized here – colonialism, discriminatory legislation, forced acculturation, land dispossession, oppression. For recent culturally diverse migrant groups, pre and post migratory stressors and re-settlement challenges will be articulated. The rationale is to connect unjust historical episodes and precarious migration experiences to contemporary social circumstances, disadvantages and behaviours. The second theme, *belief systems*, refers to cultural differences in worldview, norms and practices. A cultural group's family structures, social hierarchies and religious/spiritual conventions are outlined with regard to how they shape community/familial expectations and responsibilities. Here, the collectivist orientation of particular cultural groups is often posited to be at odds with Western notions of individualism. This is extended to conceptualizations of health and mental health where it is often emphasized that biomedical app roaches to medicine are embedded in frameworks that epitomize Western values and assumptions. The biomedical model is described as narrowly focused on direct causes and solutions for illness and perceived to be in contrast with holistic models of health that encompass broader notions of personal, community and meta-physical wellbeing. Workshop attendees are to be cognizant of differing explanatory models of health, social meanings of sickness and traditional remedies that may require accommodation in conventional health care settings. Clinicians may also be trained to identify culturally-unique symptom reporting styles and non-verbal cues to allow for a better reading of a client's presentation and perhaps reduce the scope for clinical misinterpretation. The third workshop theme is focused on *interaction approaches*. In health settings, these are essentially guidelines for effective patient-provider communication. Workshop attendees may learn appropriate styles of greeting, an awareness of unique cultural taboos and stigmas, and strategies for rapport development and gaining trust. The roles of interpreters and translators are often described here. The fourth theme, *discrimination* is a key feature and driver of the contemporary cultural awareness workshop. A cultural group's experiences of racism in workplace settings and society at large will be outlined. It is now common for workshops to talk about structural oppression and how dominant norms are entrenched into a profession or an organization's structure, perpetuating dis crimination unintentionally or otherwise. This is often discussed in tandem with power imbalances and privilege. Some workshops will discuss implicit bias and micro-aggressive language and the psychological consequences for cultural minorities. Links between racism and poor health are increasingly made known. A purported aim is to manage clients without demeaning, invalidating or disempowering their cultural identity. A solution commonly offered to address biases and power imbalances is self-reflexivity which requires an ongoing self-interrogation of one's own prejudices. The final workshop theme refers to *organisational/institutional issues*. These are essentially management policies that are implemented to support cultural awareness principles at a systemic level. Initiatives may include engagement/consultation with local multi-cultural communities, hiring strategies to diversify the workforce, staff mentoring, health promotion for underserved groups and the implementation of anti-discrimination procedures. The five workshop themes presented, though not an exhaustive list, are typically canvassed to some extent in the course of cultural awareness education.

The philosophies

The content of a workshop will depend on its underpinning philosophy. Over the past four decades, several popular cross-cultural communication concepts have emerged. These include, but are not limited to cultural awareness, cultural competence, cultural safety, cultural humility and more recently, cultural intelligence. The concepts overlap yet vary in scope and possess differing foci or 'starting points'. The objectives of each concept and their respective alignment with the five workshop themes above, will be briefly examined. The term 'cultural awareness' is often loosely employed to describe all forms of cross-cultural education (as in this article), however it also refers to a particular style of training. *Cultural awareness* was the first structured program of cultural education, originating in the USA in the 1960s and its iterations are still the most common form of training. Although touching on all five workshop the mes, cultural awareness has a specific focus on belief systems (cultural norms and traditions) with some attention on interaction approaches and historical issues [20]. Training is geared towards expanding the cross-cultural knowledge of the individual. *Cultural competence* was developed in the USA in the 1980s [5] to foster improved care for minority children with mental health concerns. It is a more systemic approach focusing on both personal attitudes, communication and organisational policies [4]. Workshop themes 4 (Discrimination) and 5 (Organisational issues) are emphasized. Training at the personal level borrows heavily from cultural awareness however individuals are also encouraged to engage in an ongoing process of self-reflexivity. Strategies to expand an organisation's capacity to support and implement culturally competent protocols are under scored. *Cultural safety* was pioneered by Maori nurses in New Zealand in the 1990s [21]. The focus is primarily on workshop theme 4 (Discrimination) though some consideration is afforded to the other four themes. Cultural safety implores professionals to not just interrogate their own cultural belief systems through self-reflexivity, but to acknowledge how the vocation itself may have built-in or entrenched dominant culture norms and standards that serve to maintain power imbalances and structures of oppression which play out in health service delivery (particularly for Indigenous patients). *Cultural humility* is another US-developed concept originating in the 1990s [22]. Inspiration for cultural humility derived from recognizing the limitations of aspects of cultural awareness and cultural competence. Mastering a client's cultural background was deemed to be unachievable and a commitment to contending with one's own biases (workshop theme 4), favoured. There is considerable overlap with cultural safety, although less effort is expen ded on learning about the 'other' with more emphasis on empowering the client to determine if and how their culture is relevant to a professional encounter. *Cultural intelligence* is the most recent derivative of cross-cultural education and has gained prominence in business management settings [23]. It is a multi-faceted concept encompassing the ability to recognize differences and similarities between cultures in any given situation, the capacity to adjust and cope in unfamiliar cultural contexts, to enhance interest in learning about other cultural groups and the ability to plan and employ these skills in cross-cultural interactions. Workshop themes 2 (belief systems) and 3 (interaction approaches) are canvassed, however these themes are often presented as higher-order skillsets rather than culturally-specific phenomena.

The five cross-cultural education philosophies outlined above have on face-value, a number of potential benefits. They encourage learning about and incorporating into practice, the customs, beliefs and idiosyncrasies of multi-cultural groups, as well as querying one's own personal biases. Anticipated outcomes from these processes include the fostering of tolerance and empathy and avoiding cultural transgressions and misunderstandings. Improved cross-cultural service delivery and workplace relations are the greater objectives. Despite these well-intentioned ambitions, the philosophical and practical shortcomings of cultural education concepts have been rarely scrutinized and warrant some unpacking. Drawing from clinical experience and the relevant health/mental health services literature, a critique of the trainings will be delineated followed by a review of their value in various settings.

The critique

Superficial

Workshops are rarely long enough to absorb meaningful information that can be implemented into practice. While some trainings include more than 30 h of content, they are likely to be condensed across a two or three day period with little continuation beyond the initial workshop. Attendees will spend a part of a workshop participating in various 'icebreaker' games and symbolic inter active activities. For cultural awareness styled trainings, much of the remaining time is exhausted on trading in cultural stereotypes and surface-level information. This is often termed the 'museum approach', whereby attendees are briefly exposed to a catalogue of cultural artefacts and traditions [24]. It is doubtful that such information realistically characterizes the anticipated behaviours of most cultural minorities or the situational nuances typical of cross-cultural encounters. Moreover the artificial adoption of presumed idiosyncratic cultural phrases or traits for rapport development runs the risk of appearing insincere or patronizing. These limitations

were in fact recognized over four decades ago, in one of the first official manualized cross-cultural training programs. The 1970 cross-cultural training guidelines for the United States Peace Corps state that 'a premise of this [cultural awareness] model is that a person does not learn to exist effectively in another culture simply by being provided with information about that culture' [[25] p12]. Contemporary workshops appear to have overlooked or deviated from, this incipient observation.

Essentialized

By definition, cross-cultural training almost has to be essentialized to justify its existence; if there are no obvious distinctions, then training is perhaps redundant. Yet the essentialized workshop is in danger of conveying an exoticized, romanticized or over-traditionalized description of a particular cultural group [26]. This may not accurately portray the living reality of many people from that group whose circumstances will undoubtedly be impacted by other social phenomena [27]. Although some awareness of culturally unique behaviours allows for a nomothetic heuristic, it offers little evidence for a given individual. In reality, attachment to culture varies widely – some may only ascribe to particular aspects of a culture, some may be attached to multiple cultures, others may have only a nominal or symbolic bond to a culture [28, 29]. Moreover, an individual's engagement in non ethno-racial cultures or sub-cultures (i.e., professional, political, religious, sporting, sexual orientation etc.) may trump the importance of their ethno-racial culture. Ironically, historical discrimination against minority clientele in health settings occurred partly because clinicians *held* cultural stereotypes. Today's workshop similarly (and precariously) maintains a 'cultural lens', despite couching the exercise in anti-prejudicial terms.

Cultural overshadowing

Cultural awareness training intentionally places cultural issues at the centre of colleague/client interaction irrespective of their relevance to a given situation. There are several potential consequences of employing a 'cultural first' mentality. First, any behaviour or misunderstanding may be perceived as culturally-oriented when it may not. An adverse cross-cultural interaction may be induced by a whole host of interpersonal or environmental matters that similarly impact intra-cultural encounters. Holding pre-conceived notions of an individual's behaviour based on their cultural background may also lead clinicians to ascertain various (problem) behaviours or personal idiosyncrasies as culturally normative when they may reflect genuine psychopathology and the need for treatment [30]. Second, a focus on culture needlessly diverts attention away from potentially more significant intersecting influences on attitudes, behaviours and communication styles (i.e., age, gender, class, level of education, language proficiency, cognitive disability, personality type, psychological health, etc.). Practitioners may be less inclined to be supportive or provide the full range of treatment services to patients from lower socio-economic status backgrounds, patients deemed to have a lower health literacy, patients who have previously not adhered to treatment, patients with insufficient health care coverage, or patients with serious mental illnesses or are drug users [31]. At times, clinician unresponsiveness may be prompted by difficult/challenging patients or the clinician's own stress levels. These scenarios are best avoided, yet they underscore possible alternative reasons for communication breakdowns between cultural groups. There is a danger in viewing every workplace or service delivery misunderstanding as a symptom of cultural incompetence. It may be the case that poor service delivery or communication is commonplace at a particular organisation and therefore generically incompetent, rather than specifically culturally-incompetent.

Divisive

By highlighting inter-cultural distinctions, cultural awareness training effectively creates an in-group and an out-group. This might be conveyed in multiple ways: i.e., members of a specific cultural group as distinct from everyone else; minority patients as distinct from majority culture clinicians etc. The undefined outgroup (i.e., the intended target of the workshop) is indirectly (sometimes directly) understood to be Western majority culture or perhaps more pointedly, the White Anglo male. Workshops that accentuate notions of White privilege, structural oppression and power imbalances reinforce this binary [32]. Moreover, instructors occasionally deliver training in a vindictive way, invoking far-reaching social statements (i.e., workplaces are institutionally racist or extensions of colonization; majority culture clinicians are innately privileged and have racial blind-spots). This 'shame and blame' approach unsurprisingly induces resentment and backlash from some workshop attendees who perceive the central message to be accusatory and that they are collectively at fault for cross-cultural predicaments. Many attendees may already feel somewhat patronized as they are obligated to attend a workshop that by definition implies that they require guidance on 'how not to be prejudiced'. The divisive workshop rhetoric can also backfire by increasing bias or by demotivating attendees to commit to improved cross-cultural strategies [33, 34]. In some cases, attendees may subsequently feel reluctant to engage naturally with particular cultural groups, preferring to avoid contact or use prosaic and excessively cautious language [35]. At the extreme end, some may decide to 'de-professionalize' in order to avoid perceived power balances or curtail the impact of their intrinsic privilege of which they are taught,

might be oppressing their colleagues and clients of colour [32]. The divisive framing of cross-cultural interactions as essentially 'culture-clashes' that require behavioural adjustment from the 'out-group' only, appears to indulge our natural impulse for in-group favouritism and ensuing out-group derogation [36]. This may only serve to segregate, heightening unresponsiveness or even animosity towards cultural distinctions, but most of all failing to secure the necessary 'buy-in' from workshop attendees. As described above, attendees relegated to the 'culturally unaware' outgroup may respond with indifference, antagonism, or for those feeling especially paralysed by history, choosing to surrender elements of their expertise. Neither outcome benefits cross-cultural relations.

Infantilizing

Workshops are laden with bleak information about the collective struggles, health discrepancies, historical injustices and suffering endured by the designated cultural group. While this information may provide an indirect backdrop to current disadvantages it does little to help attendees improve their capacity to communicate more effectively with different cultural groups. Worse, such information may only evoke pity, and for some consolidate a view of helplessness or a downtrodden stereotype [37]. This negative portrayal of members from a particular cultural group denies those members personal agency, rendering their survival or personal decision making as entirely subordinate to the abstract vagaries of society, or to the nature of workplace relations and conditions, or even to a group of well-meaning professionals attending a cross-cultural workshop. It is doubtful that the bulk of cultural minorities expect colleagues or health professionals to be entirely well-versed in, or understand their obscure cultural history/background and for those colleagues/professionals to then automatically employ an interactive style reminiscent of this cultural tradition. Migrants anticipate their local associates to have different customs and will often themselves, willingly make the necessary adjustments as they integrate. Locals who over-conform to the cultures of newly arrived migrants may be viewed as insincere.

An unattainable standard arises from describing an entire cultural group as perpetually traumatized, grieving or vulnerable – that is that such a group should expect comfort in all cross-cultural scenarios [38]. And further, if comfort is not sustained, then some form of discrimination must have transpired. This state of affairs is not possible in the course of human interaction which is loaded with miscommunications, faux pas, embarrassment, conflict and feelings of being judged. In mental and general health-care settings, patient discomfort will accompany any intrusive procedure. The idea that cross-cultural communication cannot be enhanced until all workplaces are purged of any vestige of bias and the comfort of protected groups is preserved, is unrealistic and misguided. Moreover, not all cross-cultural communication breakdowns are damaging [39]. Many are positive learning moments as individuals navigate their way through complex, dynamic environments.

Impractical

Professional development training is often critiqued for its limitations as an applied exercise and capacity to effect meaningful change [40]. Alone, a finite workshop is unlikely to change behaviour or an institutional culture. Clinicians who practice in demanding, high-pressure and time-poor clinical settings (especially settings with regular exposure to human suffering) are acutely aware of the constraints these environments have on skills gleaned from short professional development exercises. Moreover, some practitioners will have developed 'empathy-burnout' from practicing in such environments, diminishing their enthusiasm for cultural training. For attendees who are genuinely enlightened by their cross-cultural workshop experience, many will fail to recall, or struggle to implement the knowledge. This is almost inevitable if they work in a system that does not (or does not know how to) support or supervise the administering of the new knowledge [41, 42]. Moreover, workshops for health professionals will often attempt to convey nebulous cultural concepts (i.e., holistic models of health, spirituality and meta-physics, connection to nature). Apart from being difficult to operationalize (and at times fetishized), such cultural esoterica almost certainly cannot be explained in the duration of a workshop, leaving no prospect of being utilized meaningfully in practice. Mechanisms to combat cross-cultural challenges are also vaguely determined in the cultural awareness literature. Self-reflexivity, often touted as an anti dote to personal bias is an entirely subjective exercise with no objective quantification [43]. This inward-looking exercise also presents an obvious conundrum – that is, the circular introspective rabbit-hole that proceeds a biased individual trying to identify their own biases. Ideally, health professionals should focus their full attention on the clinical task at hand, rather than distracting themselves with arbitrary self-corrective exercises. Furthermore, self-reflexivity is pessimistically framed as an activity whereby participants are required to locate and dwell on their own deficiencies. This stationary inward-looking exercise necessitates some reification and evidence of sustained behavioural change to support its bias reduction claims. Efforts to diminish power imbalances also suffer from unclear direction. The assumption that all majority-minority workplace interactions or hierarchical situations constitute problematic power differentials is over-generalizing and unconstructive. Professionally,

power imbalances are expected and are often associated with an advanced skill set and higher levels of authority and responsibility. For example in medical settings, a complete deferral to the clinician and their expertise often trumps rapport development and informality for many minority patients from 'rank conscious' or traditionally hierarchical cultures. Here, a clinician who attempts to flatten hierarchy in order to ingratiate themselves with their (underprivileged) minority patient, may be viewed as amateurish or incompetent. Moreover, cultural minority status should not be considered synonymous with disempowerment. This only serves to entrench the so-called cultural power imbalances the cultural awareness industry is attempting to dismantle.

The evident impracticality of a short-lived workshop on individual and organisational attitudes and behaviours suggests that there are broader financial, political and socio-historical objectives to running the training. A clear motive is for the organisation to give the impression that diversity matters are of importance to them. While this may be genuine in some cases, cultural awareness training often exists symbolically as a corporate 'tick-box', or perhaps even as a protection against litigation [33, 44, 45]. One view is that organisations adopt diversity training mechanisms for 'ceremonial' purposes', with full knowledge of the weak evidence base [46]. This is to give the appearance of organizational legitimacy and alignment with contemporary social movements. Others proffer that diversity initiatives are facilitated by genuine advocates, who ignore or discount the evidence in their zeal for change [46]. For many workshop instructors, there is a strong financial incentive to persist with workshops that have little long-term utility, given the widespread demand for perfunctory training. Some workshops purely exist as an exercise in social justice, described earlier as 'vindictive' in nature. Here, the training is less about practicality and more about stoking guilt and the enforced acknowledgement and rectification of past injustices. These workshops have a tendency to over-politicize thorny workplace relations which in reality, are mostly too mundane to have been spawned from an under-appreciation of historical inequities. Moreover, routine clinical encounters are often not multi-faceted or capacious enough to accommodate vexed broader socio-historical issues. Conventionally, the specific aim of a clinical interaction is to address an immediate medical concern, not address history. Although one may be conscious that the latter might circuitously affect the former, organizational feasibility and resource realities will preclude such grand-scale remedial action.

The evidence

Several systematic reviews and meta-analyses have appraised the effectiveness of cross-cultural training interventions in health care environments over the past 30 years [2, 10, 12, 47–54]. The evidence can be crudely reduced to four key themes. First, there is evidence to suggest that cross-cultural training can improve the know ledge, confidence and attitudes of health professionals, albeit temporarily post-intervention. Second, there is some evidence that patient satisfaction with the clinical encounter improves after health professionals undergo cross-cultural training. Third, evidence for improved patient-related outcomes is decidedly weak. Fourth, the methodological rigor of cross-cultural intervention eva luation research is considerably poor. While some reviews attempt to put a positive spin on these findings, the extant evidence base appears to be unfavourable – particularly in regards to patient outcomes. Evidence for the impact of anti-prejudice or bias reduction interventions is equally weak [41]. Reviews and meta-analyses of both experimental and field studies (in health and non-health related disciplines) have demonstrated that changes in implicit bias (if occurring) did not translate into behavioural change [53, 55, 56]. In fact it has been found that even when physicians hold implicit racial biases, their cross-cultural clinical decision making is not necessarily impacted [57]. Moreover, the evidence for health care professional racial bias on patient outcomes is unclear [58, 59].

Evidence for the efficacy of cross-cultural/diversity initiatives in the corporate domain is also, at best, equivocal [33]. Few programs demonstrate significant value, and of the programs that do, most are developed without diversity necessarily in mind. A further concern is that the bulk of corporate cross-cultural training initiatives are laced with negative messaging which can result in counterproductive outcomes (for e.g., employee animosity; fewer minorities in management positions) [33, 46]. A study investigating which prejudice reduction strategies decrease prejudice discovered that initiatives perceived to employ control or shame and blame tactics actually increase prejudice [34]. Given that cultural awareness training was developed with specific outcomes in mind (i.e., reducing inequalities, meeting patient needs, and increasing diversity) it must be said, that the training has unequivocally failed in achieving these ideals. The literature is clear - cultural awareness training and its derivatives, (let alone its weakest format - the workshop) appear to exist almost entirely on face value. It is hard to imagine another initiative, particularly in health settings, that has persisted as ubiquitously (and often mandatorily) with unrivalled administrative support and resources for numerous decades without any robust confirmation of its practicality.

The future

Culture awareness workshops will linger into in the foreseeable future. Based on the evidence alone, they should

indeed be abandoned. Yet they will continue to be facilitated by organizations (well-intentioned or otherwise) who are keen to demonstrate their commitment to social justice causes. Greater efforts to bring attention to the failures of cultural awareness training are needed. Perhaps this may prompt the development of a 'what works' or 'best practice' literature, as opposed to a 'well-meaning' literature. This must begin with an honest appraisal of the question – 'how do we improve effective cross-cultural communication?' Before diving into cultural tropes and activism, perhaps the first response should be – *how much, if it all does one need to know about an individual's cultural background in order to treat or work effectively with them?* I discussed earlier the pitfalls of overweighing a factor based on cultural demographics. A focus on culture often leads to essentialism. It may first be beneficial to collect localized data on how many minority patients in a designated catchment area are presenting clinically in culturally unique ways – what are the base rates of culturally-bound syndromes? It may be that most cultural minorities in a particular region are 'mainstream' and indistinguishable from the general population which means that cross-cultural workshops, commonly framed from an 'outlier' perspective are irrelevant. Moreover, this distortion is misleading and ignores the various (and more relevant) reasons why a professional encounter or relationship may break down. To fully understand why this occurs, culture must be considered like any other factor - without a predetermined emphasis. Future studies could be conducted with multi-cultural patients to identify the underpinnings of negative perceptions of health service delivery. It is important to delineate whether (or how much) negative perceptions are prompted by mistrust (real or imagined), health service provider discrimination (real or imagined) or other communication barriers (clinician apathy; patient non-compliance, transference/countertransference) and the extent to which these feelings are stimulated by personal/family experiences, historical/pre-migratory experiences or a function of the individual's psychological profile (i.e., neurotic, hypervigilant, given to hostile attribution bias, cognitive difficulties). Any gripes must be compared with majority culture patients who may share similar grievances. As stated earlier, poor cross-cultural communication may be simply universally poor communication. Outside of providing translator/interpreter services (and improved linkage with same-language health professionals, [60]), interventions to enhance communication may be better aimed generically as opposed to select cultural groups which heightens essentialism.

If cross-cultural differences are found to impact the course of a clinical encounter, then other potential corrective approaches should be considered beyond being well versed in historical events or pre-emptively memorizing a list of cultural stereotypes. Cultural workshops currently exist as a deficit model – as in their content was originally derived from instances/complaints of poor practice [39]. This is why workshop content mainly involves the compelled recognition of past injustices. Workshop content was not spawned from rigorous empirical observation of effective cross-cultural practice. Perhaps this is a future direction for research – what defines effective patient/provider communication? It may be that possessing generic clinical traits such as open--ness, flexibility, customer service, listening skills and compassion induce positive experiences cross-culturally as opposed to cultural knowledge [61]. Again, the feasibility of any approach designed to alter clinical attitudes and behaviours will depend on the latitude workplace settings afford. Modifying the increasingly managerial climate in clinical settings - where efficiency and budgetary concerns overburden clinicians and restrict the capacity for longer nuanced assessments – may be nece ssary before realizing (or introducing) efforts to improve patient/practitioner experiences. Such settings often leave patients feeling rushed and with little time for question asking or additional assistance. It is likely that these episodes disproportionately occur among patients who are perceived by clinicians to have little interest, involvement or understanding of their own medical care or are serial non-adherents to treatment. A sensitive cultural minority patient may perceive a crude assessment conducted under these conditions as akin to mistreatment on the basis of their cultural background. Moreover, clinical biases are more likely to manifest when clinicians are stressed, tired and overworked. As such, general changes in broader workplace protocols and habits may improve the clinical encounter at large, and by extension, cross-cultural communication [33, 45].

The encumbrances cultural awareness training inflicts on clinicians are often unreasonable. First, clinical care has been shown to have only a small impact on patient outcomes [15] and on improving population health at large [62]. Second, laying the blame for cultural inequities at the feet of clinicians is misguided. A lack of cultural knowledge does not immediately signal that a clinician is disinterested, incapable or less committed to providing suitable care for a minority patient. Finger pointing will produce inadequate clinicians, some of whom may 'soften' their clinical approach to minorities. Some may avoid making difficult clinical decisions (that they would ordinarily make for mainstream clients) to avoid any possible perception of racism [35]. Others may plunge into confusion when they are told that their objective perceptions of challenging or complex clients, are prejudiced. For example, a recent study found that emergency department clinicians in the Australian

Northern Territory perceived their Indigenous patients to have more complex health problems and that these health concerns were largely because of the patient's lifestyles [63]. These beliefs remained unchanged despite undergoing Indigenous cultural awareness training (which presumably was expected to alter these perceptions). If emergency staff are frequency confronted with Indigenous patients who present with complex health concerns as a result of dysfunctional living circumstances, then why would their perceptions necessarily change, or be derided as culturally incompetent? The focus on clinician deficits appear one-sided. As the clinical encounter comprises both patient and clinician, negative cross-cultural interactions might at times, be patient-induced. In some communities, there exist unhelpful narratives proclaiming that all 'outgroup' clinicians are racist and do not always operate in the minority patients' best interest. Such attitudes may have some historical truth and/or reflect a contemporary isolated incident, yet are harmful when widely and determinedly shared with community members. This works against clinicians who are already saddled with cultural training messaging eagerly informing them of their unbeknownst in-built prejudice towards underprivileged cultural groups. A re-think of clinician-focused initiatives is warranted, and if some derivative of cultural awareness training endures, then community outreach attempts should also be included to ameliorate negative community attitudes.

For individuals working in foreign environments, a basic understanding of cultural norms may be necessary, depending on the extent to which the new environment differs from the individual's home culture. However, preliminary information should be restricted to specific local customs, which if transgressed, could put the clinician or their patient in harm's way, or preclude the clinician from capably or safely administering care. Minor cultural differences will be negotiated as a clinician acclimates to their new surroundings. Naturally, individual patients, even in unfamiliar homogenous locations will possess myriad concerns and present idiosyncratically.

Last, the relevance of a patient's culture to a clinical assessment can be established and verified without having pre-conceived expectations. One worthwhile aspect of the cultural humility approach is to allow the patient to determine how much bearing their culture has on their health concern. For mental health clinicians the DSM Cultural Formulation Interview includes prompts for clinicians that may elicit answers to this question [64]. Some of these supplementary questions may assist clinicians in identifying cultural perceptions of illness (i.e., how would you describe your issue to your community?; What does your family/community think is causing your problem?; Why did it start when it did?). Again, the clinician should interpret such responses in the broader context of a patients unique positioning across multiple sub-cultures and other environmental factors without fixating on culture alone.

Conclusions

Cultural awareness workshops and their derivatives are often well-intentioned and genuine efforts to improve cross-cultural engagement in health care settings are a laudable pursuit. Yet these interventions are implemented without evidence and exist on face validity alone. Decades of research point to their ineffectiveness, despite billions of dollars being spent on their operation. Workshop approaches are often over-generalizing, simplistic and impractical. Broader expectations of reductions in health disparities are almost certainly unachievable. It is right to have high expectations for health care practice and clinician performance. But we must also consider that clinical assessment (and human interaction at large) is often a woolly fact-finding endeavour involving trial and error, the generation of numerous mini-hypotheses, pragmatism and micro-decision making, undertaken in an imperfect and sometimes frenzied organizational context. The complexity of interaction and behaviour cannot be reduced to facile insider-outsider, majority-minority, privileged-under privileged narratives. The cross-cultural workshop should be retired until there is sufficient evidence for its necessity, let alone its utility.

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References

1. Anand R, Winters M. A retrospective view of corporate diversity training from 1964 to the present. Acad Manag Learn Educ. 2008;7:356–72.
2. Jongen C, McCalman J, Bainbridge R, Clifford A. Cultural competence in health: a review of the literature. Singapore: Springer; 2018.
3. Ben J, Cormack D, Harris R, Paradies Y. Racism and health service utilisation: a systematic review and meta-analysis. PLoS One. 2017;12:e0189900.
4. Betancourt JR, Green AR, Carrillo JE, Ananeh-Firempong O. Defining cultural competence: a practical framework for addressing racial/ethnic disparities in health and health care. Public Health Rep. 2003;118:293–302.
5. Cross TL, Bazron BJ, Dennis KW, Isaacs MR. Towards a Culturally Competent System of Care: A Monograph on Effective Services for Minority Children Who Are Severely Emotionally Disturbed. Washington DC: CASSP Technical Assistance Center, Georgetown University Child Development Center; 1989.
6. Feagin J, Bennefield Z. Systemic racism and U.S. health care. Soc Sci Med. 2014;103:7–14.
7. Shepherd SM, Willis-Esqueda C, Paradies Y, Sivasubramaniam D, Sherwood J, Brockie T. Racial and cultural minority experiences and perceptions of health care provision in a mid-western region. Int J Equity Health. 2018. https://doi.org/10.1186/s12939-018-0744-x.
8. Smedley BD, Stith AY, Unequal Treatment NAR. Confronting racial and ethnic disparities in health care. Washinton, D.C:the: National Academies Press; 2002.
9. Williams DR, Rucker TD. Understanding and addressing racial disparities in health care. Health Care Financ Rev. 2000;21:75–90.
10. Anderson LM, Scrimshaw SC, Fullilove MT, Fielding JE, Normand J. Task force on community preventive services. Culturally competence healthcare systems: a systematic review. Am J Prev Med. 2003. https://doi.org/10.1016/S0749-3797(02)00657-8.
11. Betancourt JR, Corbett J, Bondaryk MR. Addressing disparities and achieving equity. Chest J. 2014;145:143–8.
12. Brach C, Fraser I. Can cultural competency reduce racial and ethnic health disparities? A review and conceptual model. Med Care Res Rev. 2000;57:181–217.
13. Taylor SL, Lurie N. The role of culturally competent communication in reducing ethnic and racial healthcare disparities. Am J Manag Care. 2004;10:SP1–4.
14. Goode TD, Jones W, Dunne C, Bronheim S. And the journey continues... Achieving cultural and linguistic competence in systems serving children and youth with special health care needs and their families. Washington, DC; National Center for cultural competence, Georgetown University Center for child and. Hum Dev. 2007. Retrieved/accessed from: https://gucchd.georgetown.edu/products/journey.pdf.
15. Kelley JM, Kraft-Todd G, Schapira L, Kossowsky J, Riess H. The influence of the patient-clinician relationship on healthcare outcomes: a systematic review and meta-analysis of randomized controlled trials. PLoS One. 2014. https://doi.org/10.1371/journal.pone.0094207.
16. Stewart MA. Effective physician-patient communication and health outcomes: a review. Can Med Assoc J. 1995;152:1423–33.
17. Stewart M, Brown JB, Boon H, Galajda J, Meredith L, Sangster M. Evidence on patient-doctor communication. Cancer Prev Control. 1999;3:25–30.
18. Thompson L, McCabe R. The effect of clinician-patient alliance and communication on treatment adherence in mental health: a systematic review. BMC Psychiatry. 2012. https://doi.org/10.1186/1471-244X-12-87.
19. Zolnierek KB, Dimatteo MR. Physician communication and patient adherence to treatment: a meta-analysis. Med Care. 2009;47:826–34.
20. Paniagua FA. Multicultural aspects of counseling series, Vol. 4. Assessing and treating culturally diverse clients: A practical guide. Thousand Oaks, CA, US: Sage Publications, Inc; 1994.
21. Papps E, Ramsden I. Cultural safety in nursing: the New Zealand experience. Int J Qual Health Care. 1996;8:491–7.
22. Tervalon M, Murray-Garcia J. Cultural humility versus cultural competence: a critical distinction in defining physician training outcomes in multicultural education. J Health Care Poor Underserved. 1998;9:117–25.
23. Ng KY, Van Dyne L, Ang S. Cultural intelligence: a review, reflections, and recommendations for future research. In: Ryan AM, Leong FTL, Oswald FL, editors. Conducting multinational research: applying organizational psychology in the workplace. Washington, DC: American Psychological Association; 2012. p. 29–58.
24. Shepherd S. Cultural awareness training for health professionals may have unintended consequences. Br Med J Opin. 2018; http://blogs.bmj.com/bmj/2018/01/22/stephane-m-shepherd-cultural-awareness-training-for-health-professionals-can-have-unintended-consequences/. Accessed 4 Apr 2018.
25. Wight AR, Hammons MA, Wight WL. Guidelines for Peace Corps cross-cultural training – Part III. Washington, D.C: Office of Training Support, Peace Corps; 1970.
26. Downing R, Kowal E. A postcolonial analysis of indigenous cultural awareness training for health workers. Health Sociol Rev. 2011;20:5–15.
27. Stuart RB. Multiculturalism: Questions, not answers. Prof Psychol Res Pract. 2004;35:3–9.
28. Paradies YC. Beyond black and white: essentialism, hybridity and indigeneity. J Sociol. 2006;42:355–67.
29. Phinney JS, Ong AD. Conceptualization and measurement of ethnic identity: current status and future directions. J Couns Psychol. 2007;54:271–81.
30. Causadias JM, Vitriol JA, Atkin AL. Do we overemphasize the role of culture in the behavior of racial/ethnic minorities? Evidence of a cultural (mis)attribution bias in American psychology. Am Psychol. 2018;73:243–55.
31. Gregg J, Saha S. Losing culture on the way to competence: the use and misuse of culture in medical education. Acad Med. 2006;81:542–7.
32. Carey M. The limits of cultural competence: an indigenous studies perspective. High Educ Res Dev. 2015;34:828–40.
33. Dobbin F, Kalev A. Why diversity programs fail. Harv Bus Rev. 2016; https://hbr.org/2016/07/why-diversity-programs-fail. Accessed 18 June 2018.
34. Legault L, Gutsell JN, Inzlicht M. Ironic effects of anti-prejudice messages: how motivational intervention reduces (but also increases) prejudice. Psychol Sci. 2011;22:1472–7.
35. Dovidio JF, Gaertner SL. Aversive racism and selection decisions: 1989 and 1999. Psychol Sci. 2000;11:315–9.
36. Brewer MB. The psychology of prejudice: Ingroup love or outgroup hate? J Soc Issues. 1999;55:429–44.
37. Hetey RC, Eberhardt JL. The numbers don't speak for themselves: racial disparities and the persistence of inequality in the criminal justice system. Curr Dir Psychol Sci. 2018. https://doi.org/10.1177/0963721418763931.
38. Lukianoff G, Haidt J. The coddling of the American mind. Atlantic. 2015; https://www.theatlantic.com/magazine/archive/2015/09/the-coddling-of-the-american-mind/399356/. Accessed 19 May 2018.
39. Blasco M, Egholm Feldt L, Jakobsen M. If only cultural chameleons could fly too: a critical discussion of the concept of cultural intelligence. Int J Cross-cult Manag. 2012;12:229–45.
40. Oxman AD, Thomson MA, Davis DA, Haynes RB. No magic bullets: a systematic review of 102 trails of interventions to improve professional practice. Can Med Assoc J. 1995;153:1423–31.
41. Noon M. Pointless diversity training: unconscious bias, new racism and agency. Work Employ Soc. 2018;32:198–209.
42. Shepherd S, Phillips G. Cultural 'inclusion' or institutional decolonisation: how should prisons address the mental health needs of indigenous prisoners? Aust N Z J Psychiatry. 2016;50:307–8.
43. Bouldin AS. Reflection is not reflexive. Am J Pharm Educ. 2017. https://doi.org/10.5688/ajpe6832.
44. Barlow DE, Hickman Barlow M. Cultural diversity training in criminal justice: a progressive or conservative reform? Soc Justice. 1993;20(3–4):69–84.
45. Bregman P. Diversity training doesn't work. Harv Bus Rev. 2012; https://hbr.org/2012/03/diversity-training-doesnt-work#comment-section. Accessed 17 Jan 2018.
46. Dobbin F, Kalev A. Are diversity programs merely ceremonial? Evidence-free institutionalization. In: Greenwood R, Oliver C, Lawrence TB, Meyer RE, editors. The sage handbook of organizational institutionalism. London: Sage; 2017. p. 808–28.
47. Bhui K, Warfa N, Edonya P, McKenzie K, Bhugra D. Cultural competence in mental health care: a review of model evaluations. BMC Health Serv Res. 2007. https://doi.org/10.1186/1472-6963-7-15.
48. Truong M, Paradies Y, Priest N. Interventions to improve cultural competency in healthcare: a systematic review of reviews. BMC Health Serv Res. 2014. https://doi.org/10.1186/1472-6963-14-99.
49. Horvat L, Horey D, Romios P, Kis-Rigo J. Cultural competence education for health professionals. Cochrane Database Syst Rev. 2014. https://doi.org/10.1002/14651858.CD009405.pub2.
50. Lie DA, Lee-Rey E, Gomez A, Bereknyei S, Braddock CH III. Does cultural competency training of health professionals improve patient outcomes? A

systematic review and proposed algorithm for future research. J Gen Intern Med. 2011;26:317–25.
51. Beach MC, Price EG, Gary TL, Robinson KA, Gozu A, Palacio A, et al. Cultural competence: a systematic review of health care provider educational interventions. Med Care. 2005;43:356–73.
52. Downing R, Kowal E, Paradies Y. Indigenous cultural training for health workers in Australia. Int J Qual Health Care. 2011;23:247–57.
53. Paluck EL, Green DP. Prejudice reduction: what works? A review and assessment of research and practice. Annu Rev Psychol. 2009;60:339–67.
54. Renzaho AM, Romios P, Crock C, Sonderlund AL. The effectiveness of cultural competence programs in ethnic minority patient-centered health care – a systematic review of the literature. Int J Qual Health Care. 2013;25: 261–9.
55. Forscher PS, Lai CK, Axt JR, Ebersole CR, Herman M, Devine PG, Nosek BA. A meta-analysis of procedures to change implicit measures. PsyArXiv. 2018. doi.org/https://doi.org/10.31234/osf.io/dv8tu
56. Lai CK, Hoffman KM, Nosek BA. Reducing implicit prejudice. Soc Personal Psychol Compass. 2013;7:315–30.
57. Dehon E, Weiss N, Jones J, Faulconer W, Hinton E, Sterling S. A systematic review of the impact of physician implicit racial bias on clinical decision making. Acad Emerg Med. 2017;24:895–904.
58. Hall WJ, Chapman MV, Lee KM, Merino YM, Thomas TW, Payne BK, 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. https://doi.org/10.2105/AJPH.2015.302903.
59. Maina IW, Belton TD, Ginzberg S, Singh A, Johnson TJ. A decade of studying implicit racial/ethnic bias in healthcare providers using the implicit association test. Soc Sci Med. 2018;199:219–29.
60. Davern M, Warr D, Block K, La Brooy C, Taylor E, Hosseini A. Humanitarian arrivals in Melbourne: a spatial analysis of population distribution and health service needs. Summary report. Melbourne, Victoria: University of Melbourne; 2016.
61. Truong M, Gibbs L, Paradies Y, Priest N, Tadic M. Cultural competence in the community health context: 'we don't have to reinvent the wheel. Aust J Prim Health. 2017;23:342–7. \.
62. Farley TA. Reforming health care or reforming health? Am J Public Health. 2009;99:588–90.
63. Chapman R, Martin C, Smith T. Evaluation of staff cultural awareness before and after attending cultural awareness training in an Australian emergency department. Int Emerg Nurs. 2014;22:179–84.
64. Lewis-Fernandez R, Aggarwal NK, Hinton L, Hinton DE, Kirmayer LJ. DSM–5 handbook on the cultural formulation interview. Washington, DC: American Psychiatric Publishing; 2016.