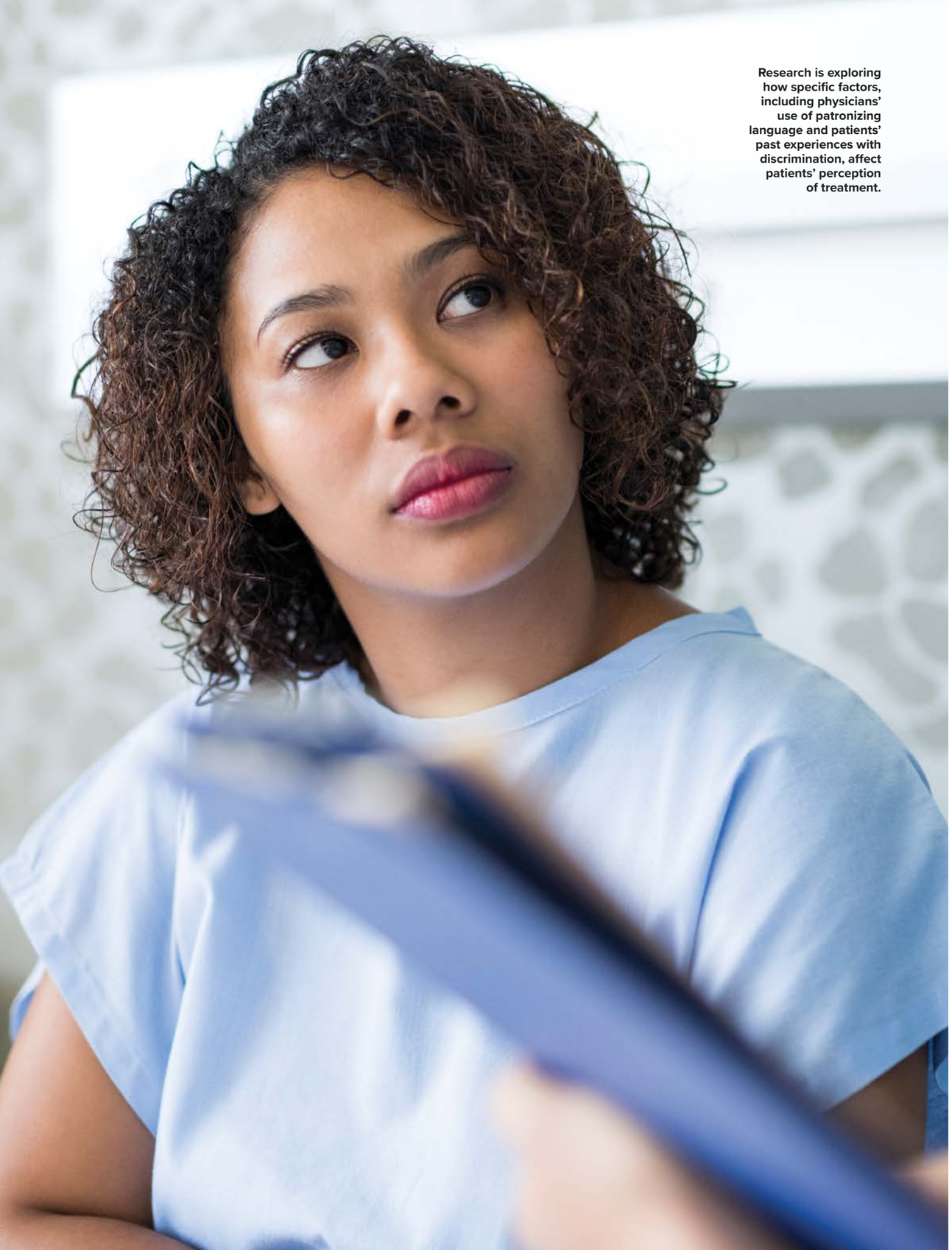


Research is exploring how specific factors, including physicians' use of patronizing language and patients' past experiences with discrimination, affect patients' perception of treatment.

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CE

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HOW DOES IMPLICIT BIAS BY PHYSICIANS AFFECT PATIENTS' HEALTH CARE?

BY TORI DEANGELIS

The theory of aversive racism, first posed in the 1970s, encompasses some of the most widely studied ideas in social psychology. According to theory developers Samuel L. Gaertner, PhD, of the University of Delaware, and John F. Dovidio, PhD, of Yale University, people may hold negative nonconscious or automatic feelings and beliefs about others that can differ from their conscious attitudes, a phenomenon known as implicit bias. When there's a conflict between a person's explicit and implicit attitudes—when people say they're not prejudiced but give subtle signals that they are, for example—those on the receiving end may be left anxious and confused.

Lab studies have long tested these ideas in relation to employment decisions, legal decisions and more.

CE credits: 1
Learning objectives: After reading this article, CE candidates will be able to:
1. Discuss research that suggests some health-care providers have implicit bias toward various patient groups.
2. Discuss how certain combinations of physicians and patients lead to poorer interactions.
3. Describe possible interventions to improve patient-physician interactions.
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In 2003, the concepts received an empirical boost from "Unequal Treatment," a report from an Institute of Medicine (IoM) panel made up of behavioral scientists, physicians, public health experts and other health professionals. The report concluded that even when access-to-care barriers such as insurance and family income were controlled for, racial and ethnic minorities received worse health care than nonminorities, and that both explicit and implicit bias played potential roles.

"The report really opened a lot of doors to further research on bias in care," says Dovidio, who served on the IoM panel.

Psychologists and others are now building on the IoM findings by exploring how specific factors, including physicians' use of patronizing language and patients' past experiences with discrimination, affect patients' perception of providers and care. Research is also starting to look at how implicit bias affects the dynamics of physician-patient relationships and subsequent care for patients with particular diseases, such as cancer and diabetes.

Tackling this topic can be difficult because of the real-world challenges of getting medical professionals to engage in these studies, researchers say. Another problem is that the main measure used to assess implicit bias, the Implicit Association Test (IAT), has come under fire in recent years for reasons including poor test-retest reliability and the argument that higher IAT scores do not necessarily predict biased behavior.

While this disagreement remains to be resolved, researchers are starting to use other measures and techniques to assess implicit bias, as well as new methodologies to track patient attitudes and outcomes. And while the predictive power of the IAT may be relatively small, in the aggregate, even small effects can have large consequences for minority patients (see *Journal of Personality and Social Psychology*, Vol. 108, No. 4, 2015).

Implicit bias is called implicit for a reason—it's not easy to capture or to fix, says Michelle van Ryn, PhD, an endowed professor at Oregon Health & Science University (OHSU). But it is worth a deeper dive because of its implications for patient treatment on both a personal and a health-care level, she says.

"Implicit bias creates inequalities through many difficult-to-measure pathways, and as a consequence, people tend to underestimate its impact," says van Ryn. "This kind of research is essential in making real progress toward health-care equality."

HOW BIAS PLAYS OUT

One of the first psychologists to apply theories of aversive racism and implicit bias in a real-world medical setting is social psychologist Louis

A. Penner, PhD, senior scientist at Wayne State University's Karmanos Cancer Institute. Along with Dovidio, Gaertner and others, he asked patients and physicians before a medical appointment about their race-related attitudes, and measured physicians' implicit bias. The researchers also video-recorded patients and physicians during the appointment and asked them to complete questionnaires afterward.

The team found that black patients felt most negatively toward physicians who were low in explicit bias but high in implicit bias, demonstrating the validity of the implicit-bias theory in real-world medical interactions, says Penner (*Journal of Experimental Social Psychology,* Vol. 46, No. 2, 2010).

Researchers are also examining ways that providers may inadvertently demonstrate such bias, including through language. In a study in *Social Science & Medicine* (Vol. 87, 2013), Nao Hagiwara, PhD, at Virginia Commonwealth University, and colleagues found that physicians with higher implicit-bias scores commandeered a greater portion of the patient-physician talk time during appointments than did physicians with lower scores. Those findings are consistent with research by Lisa A. Cooper, MD, of Johns Hopkins University School of Medicine and colleagues, who found that physicians high in implicit bias were more likely to dominate conversations with black patients than were those lower in implicit bias, and that black patients trusted them less, had less confidence in them, and rated their quality of care as poorer (*American Journal of Public Health*, Vol. 102, No. 5, 2012).

The individual words that physicians use can also signal implicit bias, Hagiwara has found. She looked at physicians' tendency to use first-person plural pronouns such as "we," "ours" or "us" when interacting with black patients. According to social psychology theories related to power dynamics and social dominance, people in power use such verbiage to maintain control over others of lesser power. In line with those theories, she found that physicians who scored higher in implicit bias spoke more of these words than colleagues lower in implicit bias, using language such as, "We're going to take our medicine, right?" (*Health Communication*, Vol. 32, No. 4, 2017).

SPECIFIC DISEASES AND POPULATIONS

Another line of research is investigating physician and patient attitudes among patients with specific diseases. This work is shedding more light on the role that patients may play in poor communication and relationship outcomes, and eventually aims to show whether poor communication affects health outcomes.

In a study of black cancer patients and their physicians, Penner, Dovidio and colleagues found that, overall, providers high in implicit bias were less supportive of and spent less time with their patients than providers low in implicit bias. And black patients picked up on those attitudes: They viewed high-implicit-bias physicians as less patient-centered than physicians low in this bias. The patients also had more difficulty remembering what their physicians told them, had less confidence in their treatment plans, and thought it would be more difficult to follow recommended treatments (*Journal of Clinical Oncology,* Vol. 34, No. 24, 2016).

In another study, Penner and colleagues looked more specifically at how past discrimination may influence black cancer patients' perception of care and their reactions to it. Patients who reported high rates of past discrimination and general suspicion of their health care talked more during sessions, showed fewer positive emotions and rated their physicians more negatively than those who reported less past discrimination and lower suspicion (*Social Science & Medicine,* Vol. 191, 2017).

"Individually and jointly, the race-related attitudes of both nonblack physicians and their black patients negatively affect what transpires during their medical interactions and the outcomes that follow them," Penner says.

Meanwhile, Hagiwara is focusing on black patients with Type 2 diabetes as part of a four-year study funded by the National Institute of Diabetes and Digestive and Kidney Diseases (*BMJ Open,* Vol. 8, e022623, 2018). She and colleagues will assess the role of physician communication behaviors as they relate to patients' trust in and satisfaction with their providers, and then see how those interactions relate to health outcomes.

In addition to using surveys and video recordings of patient-physician interactions, the team will attempt to gain a deeper understanding of patient reactions than previous studies. They'll do this first by having patients view the videos without interruption as the team gathers their physiological responses, including heart rate, skin conductance and eye gaze. Then, patients will watch the video a second time, stop the videos whenever they have a positive or negative reaction to them, and explain why. The team will also stop the videos in places where they recorded patients' physiological responses and ask patients additional questions to ascertain possible nonconscious responses. Six months later, the team will examine how those findings influence health behaviors and outcomes by examining patients' lab values, diabetes complications, and self-reported treatment adherence—the first study to directly assess such health outcomes.

Focusing intensively on one disease "will help our understanding of the role of implicit bias in clinical outcomes," Hagiwara says.

MEDICAL STUDENTS AND MORE

While most implicit-bias studies in health-care treatment have been conducted with black patients and nonblack providers, other researchers are investigating implicit bias in relation to other ethnic groups, people with obesity, sexual and gender minorities, people with mental health and substance use disorders, older adults and people with various health conditions.

Medical school is one arena where this work is taking place. OHSU's van Ryn, who is founder and head of a translational research company called Diversity Science in Portland, Oregon, is principal investigator in a long-term study of medical students and residents examining whether and how the medical school and residency training environments might influence future doctors' racial and other biases. For the past eight years, she, Dovidio and colleagues have been surveying a cadre of 4,732 medical students attending 49 of the nation's 128 allopathic medical schools, who first entered medical school in 2010.

The study, funded by a number of sources, including the National Institutes of Health, asks students on a regular basis about their implicit and explicit attitudes toward racial and other minorities, and how these views might change over time.

In several studies using this data set, the team has found that student reports of organizational climate, contact with minority faculty and patients, and faculty role-modeling were more strongly related to changes in implicit and explicit bias than their experiences with formal curricula or formal training (*Journal of General Internal Medicine,* Vol. 30, No. 12, 2015). These include

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One study has found that physicians with higher implicit-bias scores commandeered more talk time during appointments than physicians with lower scores.

KEY POINTS

1. **Research shows that many providers hold some level of implicit bias toward various patient groups, with most studies examining interactions between black patients and nonblack providers.**
2. **Certain combinations of physicians and patients lead to poorer interactions, specifically those in which physicians are high in implicit bias and patients are high in mistrust of the medical system and reported past discrimination.**
3. **Research on interventions is still developing, but one promising strategy includes helping patients feel that they are on the same team as the provider.**

studies headed by health services researcher Sean Phelan, PhD, of the Mayo Clinic, that examine medical student reactions to patients who are obese and who identify as LGBT. In prospective studies of the initial medical student cohort, he found results similar to those involving race: for example, that students with lower implicit-bias scores were more likely to have had frequent contact with LGBT faculty, residents, students and patients, and that those with higher scores were more likely to have been exposed to faculty who exhibited discriminatory behavior (*Journal of General Internal Medicine,* Vol. 32, No. 11, 2017).

In terms of race, van Ryn's team also found that students who entered medical school with lower implicit-bias scores and many positive experiences with people of different races were likely to build on those experiences during medical school, says Dovidio.

"It's like a ripple effect," he says. "They come into medical school with more positive racial attitudes, so during medical school they feel less interracial anxiety and interact in more positive ways with patients. And those experiences of contact in medical school have an additive effect that goes over and above their earlier contact experiences."

HOW TO INTERVENE

Given the nonconscious and emotional nature of implicit bias, it is not easy to overcome. As a result, designing interventions is tricky, Dovidio says. For example, he, van Ryn and their colleagues found that formal diversity training in medical school has little or no effect on students' levels of implicit bias over time. "It doesn't do harm, but it doesn't do anything positive either," he says.

FURTHER READING

Racial Biases in Medicine and Healthcare Disparities
Dovidio, J., et al.
TPM, 2016

Examining the Presence, Consequences, and Reduction of Implicit Bias in Health Care: A Narrative Review
Zestcott, C.A., et al.
Group Processes & Intergroup Relations, 2016

Implicit Bias in U.S. Medicine: Complex Findings and Incomplete Conclusions
Chisolm-Straker, M., & Straker, H.O.
International Journal of Human Rights in Healthcare, 2017

Doing Harm to Some: Patient and Provider Attitudes and Healthcare Disparities
Penner, L.A., et al.
In D. Albarracin & B.T. Johnson (Eds.), The Handbook of Attitudes, 2nd ed., Vol. 2—Applications, 2019



Research is also looking at how situational factors such as stress and time constraints could activate bias and influence treatment decisions.

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Such findings suggest the importance of using psychological methods to address psychological problems, Penner adds. "The goal of interventions shouldn't be to confront physicians with their implicit bias and get them to change it," he says, "but rather to make it less important in their interactions."

Promising strategies include those aimed at getting physicians to see a patient as an individual rather than as a stereotyped member of a group, helping patients become more engaged with their treatment and fostering patients' sense of being "on the same team" as their doctor (*Journal of General Internal Medicine*, Vol. 28, No. 9, 2013).

Researcher Jeff Stone, PhD, a professor of psychology at the University of Arizona, is using some of these ideas in workshops he's developed for medical students. "For them, this is about how to improve their skills as a doctor or nurse," he says. "We don't just expose them to these ideas and leave it at that—we have them practice them."

For example, the workshop uses the strategy of individualizing patients to encourage medical students to question stereotypes about a patient's ethnic group, such as the notion that Hispanics don't adhere to medical advice. Instead, a medical student may be told to ask all patients specific questions about adherence, like whether they have finished all of their medications or have made an appointment for a referral. Stone has just completed a study related to this work and is now examining whether changes in implicit bias correspond with better treatment of patients in the clinic.

Another promising intervention, the prejudice habit-breaking intervention, is based on a theory developed by Patricia G. Devine, PhD, and William T.L. Cox, PhD, of the University of Wisconsin—Madison. The intervention, which adopts the premise that bias, whether implicit or explicit, is a habit that can be overcome with motivation, awareness and effort, includes experiential, educational and training components. A study by Patrick S. Forscher, PhD, of the University of Arkansas, and colleagues found that compared with controls, people who received the intervention were more likely after 14 days to feel concern about the targets of prejudice and to label biases as wrong, though that awareness later declined. However, in a subsample of original participants two years later, those who received the intervention were more likely than controls to object to an online essay endorsing racial stereotyping, the team found (*Journal of Experimental Social Psychology,* Vol. 72, 2017).

WHAT'S NEXT?

Psychologists who study implicit bias in health care acknowledge there is much more to learn. That includes discovering ways that patient-physician interactions might lead to poorer health outcomes down the road, and conducting research on other populations besides black patients and nonblack physicians. On a more discrete level, it includes achieving a better understanding of how situational factors like stress and time constraints could activate bias and influence treatment decisions.

Researchers also acknowledge that individual interventions are just one way to reduce providers' implicit bias. Equally important are systemic interventions, the mission of van Ryn's company, Diversity Science. The company helps organizations apply the best findings and interventions on implicit bias to create inclusive cultures. Ways they do this include conducting climate assessments using evidence-based tools and questionnaires, giving leaders feedback on that data, and providing ongoing training for all employees, including case demonstrations and refreshers.

Also important is conducting this work with other disciplines and recognizing that environmental factors such as access to transportation and proximity to toxic environments can play significant roles in health disparities, says Dovidio.

"When you put together physicians' implicit bias, geography, patient attitudes, the patient-doctor interaction and organizational, historical and structural factors," he says, "you get a holistic picture of what can cause health disparities and specific avenues to remedy them. Understanding how these processes contribute jointly to health-care disparities," he adds, "is necessary for addressing such a persistent and complex problem—one with life-or-death consequences." ■

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