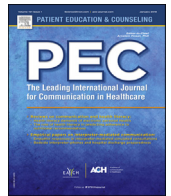




Contents lists available at ScienceDirect

## Patient Education and Counseling

journal homepage: [www.elsevier.com/locate/pateducou](http://www.elsevier.com/locate/pateducou)



# Patient perspectives on racial and ethnic implicit bias in clinical encounters: Implications for curriculum development

Cristina M. Gonzalez<sup>a,\*</sup>, Maria L. Deno<sup>b</sup>, Emily Kintzer<sup>c</sup>, Paul R. Marantz<sup>d</sup>,  
Monica L. Lypson<sup>e</sup>, M. Diane McKee<sup>d</sup>

<sup>a</sup> Albert Einstein College of Medicine & Montefiore Medical Center, Montefiore Medical Center- Weiler Division, Bronx, 10461, USA

<sup>b</sup> Albert Einstein College of Medicine & Universidad Iberoamericana, Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx, 10461, USA

<sup>c</sup> Montefiore Medical Center, Bronx, NY 10467, USA

<sup>d</sup> Albert Einstein College of Medicine, 1300 Morris Park Avenue, Bronx, 10461, USA

<sup>e</sup> George Washington University School of Medicine and Health Sciences, University of Michigan Medical School & Office of Academic Affiliations, Department of Veterans Affairs, 1500 E Medical Center Dr, Ann Arbor, MI, 48109, USA

### ARTICLE INFO

#### Article history:

Received 1 December 2017

Received in revised form 6 May 2018

Accepted 19 May 2018

#### Keywords:

Implicit bias

Unconscious bias

Health disparities

Healthcare disparities

Qualitative research

### ABSTRACT

**Objective:** Patients describe feelings of bias and prejudice in clinical encounters; however, their perspectives on restoring the encounter once bias is perceived are not known. Implicit bias has emerged as a target for curricular interventions. In order to inform the design of novel patient-centered curricular interventions, this study explores patients' perceptions of bias, and suggestions for restoring relationships if bias is perceived.

**Methods:** The authors conducted bilingual focus groups with purposive sampling of self-identified Black and Latino community members in the US. Data were analyzed using grounded theory.

**Results:** Ten focus groups (in English (6) and Spanish (4)) with N = 74 participants occurred. Data analysis revealed multiple influences patients' perception of bias in their physician encounters. The theory emerging from the analysis suggests if bias is perceived, the outcome of the encounter can still be positive. A positive or negative outcome depends on whether the physician acknowledges this perceived bias or not, and his or her subsequent actions.

**Conclusions:** Participant lived experience and physician behaviors influence perceptions of bias, however clinical relationships can be restored following perceived bias.

**Practice implications:** Providers might benefit from skill development in the recognition and acknowledgement of perceived bias in order to restore patient-provider relationships.

© 2018 Elsevier B.V. All rights reserved.

## 1. Introduction

In North America, after several decades of focus on cultural competency instruction in medical education [1–3], health disparities persist [4,5] and racial and ethnic minority respondents are still more likely to perceive bias when seeking medical treatment than Whites [6]. Implicit bias refers to the unconscious and unintentional assumptions people make about each other. Evidence demonstrates this bias negatively impacts patient's perceptions of the clinical

encounter [7–9] treatment recommendations [10], and trust [11–14]. Although studies from various countries have explored patients' perceptions of race and/or ethnicity and bias in medicine [6,12,14–25], patient perspectives on and suggestions for restoring the clinical and/or therapeutic relationship once bias is perceived are not known. Understanding these perspectives could inform the development of innovations in medical student education addressing implicit bias in clinical encounters.

Implicit bias contributes to health disparities through medical decision-making and interpersonal communication [26]: Evidence demonstrates the influence of physician implicit bias on patient perspectives of encounters [7–9], physician communication patterns [9,27], clinical outcomes [28], and clinical decision-making [29–33]. Implicit bias regarding race has been demonstrated in medical students [34,35]. In an effort to decrease physician contributions to health disparities, curricula have been developed to teach about implicit bias across the continuum from

\* Corresponding author at: Montefiore Medical Center-Weiler Division, 1825 Eastchester Road, DOM 2-76, Bronx, NY, 10461, USA.

E-mail addresses: [Crgonzal@montefiore.org](mailto:Crgonzal@montefiore.org) (C.M. Gonzalez), [mld92@cornell.edu](mailto:mld92@cornell.edu) (M.L. Deno), [emkintze@montefiore.org](mailto:emkintze@montefiore.org) (E. Kintzer), [Paul.Marantz@einstein.yu.edu](mailto:Paul.Marantz@einstein.yu.edu) (P.R. Marantz), [Monica.Lypson@va.gov](mailto:Monica.Lypson@va.gov) (M.L. Lypson), [Diane.Mckee@einstein.yu.edu](mailto:Diane.Mckee@einstein.yu.edu) (M. D. McKee).

undergraduate to graduate and continuing medical education [36–43]. These curricular models have not explicitly provided instruction on detecting the perceptions of bias by patients during the patient–physician encounter, nor in skills to restore the encounter once bias is perceived. Our study addresses this gap in knowledge by exploring patients' perceptions of physician bias and their suggestions for restoring the relationship and the encounter once bias is perceived.

This study is part of a comprehensive needs assessment [44] to inform curriculum development for medical students in implicit bias recognition and management. Patients represent the intended beneficiaries of any successful future curricular interventions, therefore it is critical to maintain a patient-centered perspective [45] in the development of novel curricular interventions. To inform the design of future patient-centered curricular interventions in implicit bias recognition and management, the purpose of this study is to explore patients' perceptions of physician bias and their preferences and suggestions for restoring the relationship if they perceive bias.

## 2. Methods

Given that little is known about patient perspectives on implicit bias we conducted an exploratory focus group interview study using grounded theory, a systematic qualitative methodology involving the discovery of theory through the analysis of data [46]. Recruitment, data collection, and analysis were conducted iteratively to fully capture and explore variation in patients' perspectives. All aspects of the study were approved by the Institutional Review Board of the Albert Einstein College of Medicine.

### 2.1. Sample

Participants were selected through purposive sampling, a useful way to select study subjects that will ensure “information-rich cases for study in-depth [47].” To be eligible, community members spoke English or Spanish, were aged 18–90, had sought medical care for themselves or their child(ren) in the previous year, and lived or sought medical care in New York City, NY, USA. Two investigators recruited participants from community board meetings in Bronx, NY, USA, a borough of New York City. There are eleven community boards in the Bronx representing various neighborhoods. All residents represented by a given community board and who met our study inclusion criteria were eligible to attend. Investigators also pursued referrals from colleagues. Participants were selected to span the socioeconomic spectrum within the United States (US). We sampled for participants who self-identified as Black (African American, Caribbean, and African), and Latino (US-born and immigrants), or as both Black (race) and Latino (ethnicity).

### 2.2. Interview guide development

We developed the interview guide (Appendix 1) based on review of the literature related to racial discordance, trust, and discrimination in clinical encounters [6–25]. Questions focused on racial and ethnic bias, our construct of interest. It was supplemented by our clinical experiences (e.g. patient anecdotes of mistreatment perceived related to race/ethnicity). We revised items through discussion among the investigative team until all investigators agreed to the final questions.

In the US there have been historical differences in societal acceptance and social status between White and racial and ethnic minority populations. Therefore, our open-ended questions explored patient perspectives on how they were treated and/or judged by both individual providers and within the healthcare

system, the consequences of those experiences, and their suggestions for actions physicians can take to restore the relationship if patients perceive bias. The questions served as a starting point for the discussion, and facilitators were able to probe unanticipated lines of discussion that occurred in the focus groups.

### 2.3. Data collection

Focus groups were conducted in English or Spanish with participants in community settings. The bilingual PI (CMG) followed a semi-structured interview guide and a bilingual research assistant (MLD) took field notes of nonverbal behaviors. Focus groups were digitally recorded and professionally transcribed. Spanish focus groups were professionally translated and transcribed. Investigators cross-referenced the transcripts to the audio to check for accuracy. Focus groups continued until data analysis demonstrated we had reached thematic saturation, i.e., no new concepts in subsequent focus groups emerged [48]. Participants received a meal and a \$25 gift card. Written, informed consent was obtained.

### 2.4. Analysis

We conducted the data analysis in three phases [49]. The first phase was to develop the codebook. Three investigators (CMG, MLD, EK) independently read three transcripts each line-by-line to identify phrases that related to patient perspectives on implicit bias. These phrases were discussed and consensus reached on a list of codes and their definitions to create the preliminary codebook. This codebook was applied to three more transcripts and further refined after discussion. During the second phase, the codebook was used to code the remaining transcripts, which were coded independently by two investigators each. Using inductive reasoning, the investigators began with low inference codes, discussed their meaning, and developed conceptual themes. Finally, they met to discuss the relationships between themes and reach consensus on representative quotes. Once the final themes and their representative quotes were identified, these data were presented to select participants to ensure accurate representation of their perspectives, for member checking [50].

## 3. Results

We conducted ten focus groups, six in English and four in Spanish, with N = 74 participants. Demographic data demonstrated successful sampling across the socioeconomic spectrum of the US (Table 1). Our analysis identified four themes relating patient experiences with discrimination to perceptions of bias in their physician encounters, the outcomes of perceived bias, and suggestions for physician actions to restore the relationships within such encounters when bias is perceived.

### 3.1. Racism/discrimination is exhausting

Participants discussed their experiences with racism within society and the healthcare system and voiced frustration with the ubiquitous nature of bias. Previous experiences with both explicit racism and subtle slights were common to many of our participants.

One participant described an example of such a slight:

*“In my profession it happens all the time because in New York City most attorneys aren't of color. So when you come into the court . . . they usually think that you're a litigant, not an attorney. That happens often.”* [Latino Man]

Patients may be experiencing subtle slights in the form of bias and discrimination in their day to day lives, potentially affecting

**Table 1**

Demographic data of participants in focus group study exploring perceptions implicit bias in clinical encounters. \*Educational attainment was scored as 1 = less than high school, 2 = high school, 3 = some college, 4 = bachelor's degree, 5 = master's degree, 6 = doctoral degree. Participants had an average educational attainment of 3.04, equivalent to some college.

Demographic Data	N = 74
<b>Self-identified gender</b>	
Female	44 (59%)
Male	28 (38%)
Transgender M to F	2 (3%)
<b>Age</b>	
Mean	41.8 years
Range	18–81 years
<b>Self-identified race/ethnicity</b>	
Latino	39 (51%)
US born	12/39
Non-Hispanic Black	27 (35%)
African American	24/27
Non-Hispanic White	1 (1.3%)
<b>Preferred language</b>	
English	48 (65%)
Spanish	26 (35%)
<b>Annual household income</b>	
Mean	\$57,356
Range	\$5000–\$300,000
<b>Educational attainment*</b>	
Mean	Some college
Range	Less than high school to doctoral degree
<b>Residency</b>	
Bronx	57 (77%)
<b>Number of medical problems</b>	
Mean	1.04
Range	0–4

their perceptions of bias when interacting with the healthcare system. Being referred to other physicians and not being able to run back in and see the doctor if they forgot something during their appointment are examples of factors that affect all patients. These routine behaviors have more severe consequences when related to being a member of a racial or ethnic minority rather than White.

*"Then when I told the nurse please get me a doctor—I couldn't walk, I was bent over—this doctor that came to my bed, 'Oh Miss [NAME] who is the president'. I said, 'I know who the president is. I know what you're doing. I didn't call for a head doctor. I called for a doctor.'" [Black Woman]*

Frequent experiences of discrimination may lead to patient perceptions of bias in otherwise routine clinical practice behaviors.

Discrimination based on limited English proficiency was a commonly voiced concern among the Spanish-speaking participants.

*"The first thing they ask me, 'Do you speak English?' That's where the discrimination steps in, that's where we begin. Where I tell you that this woman [the doctor] wants to hit me because I don't know English." [Spanish Speaker]*

Members of minority groups who perceive discrimination in the course of their routine day may be more primed to notice non-verbal behaviors and identify them as biased behaviors [51].

Participants described instances in which they felt they were treated differently based on their race, ethnicity, or the language they spoke. Frequently described behaviors included varying levels of courtesy, respect, how gently patients were treated if they were in pain, and how efficiently they were seen by the physician.

*"When the doctor came in [after a surgery] she proceeded to show me how I had to get up because I'm being released that day 'whether I like it or not' . . . She yanked the first snap on the left leg . . . So I'm thinking, 'I'm human!' And she was courteous to the White lady [in the next bed], and I've got just as much age as her. I qualify on the level and scale of human being as her, but I didn't feel that from the doctor." [Black Woman]*

The suggestion of disparate treatment affecting the core of humanity is profound and adds an additional challenge for patients in already difficult situations.

In response to these insults to their humanity some participants utilize compensatory strategies.

*"You need a doctor. That's why you tolerate it. I go [to the encounter] in a very nice way in order to get the same response from them [as compared to a White patient]. And I practically make a face, like a sad face, to get them to feel pity for me and to get treated well and to avoid conflict. Because if not, I will lose." [Spanish Speaker]*

Patients may avoid conflict with their physician because they perceive a power imbalance and prioritize their need for medical care [52]. Our participants suggest they are even willing to bear an additional burden and overcompensate in order to avoid potential conflicts in anticipation of perceived bias and racism in their medical encounters.

### 3.2. Meaning of privilege in society

Participants identified effects of privilege based on race or ethnicity, socioeconomic status, language, and documentation status for immigrants. They felt that in clinical situations, from checking in at the front desk to the outcome of the visit with the physician that they would have been treated differently if they were White.

*"I was in the ER, and a guy came in . . . He was Caucasian and I do not know what his medical problem was, but I know that he was in and out of there within an hour. Triage, doctors, everything. We are just sitting here, all the Black people, Puerto Rican people, we are just looking at each other, 'Did you see that?' It was unbelievable . . . Almost started a riot in there . . . This is Manhattan. Wow, that is all it takes huh? . . . I have got to bleach my skin then." [Latino Man]*

Other participants described perceived differential treatment prior to seeing the physician in the office setting.

*"You ask [the front desk staff], 'Where do I sign in?' You get dismissed. They're like, 'I'm on the phone,' or whatever. Then you turn around for a second and you have a Caucasian that comes in and they are like, 'Hello, how can we help you?'" [Black Man]*

Patients may feel slighted within healthcare settings prior to actually seeing the physician. Such experiences may have a negative synergistic effect with discrimination in society and prime patients to perceive bias in their physician encounters.

Participants who identified themselves as having privilege based on socioeconomic status and education lamented their perceived lower status when interacting with the healthcare system.

*"They put me sort of in the corner [in the ER] and I can't talk very well because I can't breathe so well. The nurse comes over to me and actually says, 'Tu tiene tu Medicaid?' I whispered out, 'I'm a doctor . . . and I have insurance.' I said it in perfect English. Literally, the color on her face went completely white, like whiter than it already was . . . Within two minutes there was an orthopedic team around me . . . I kept wondering about what if I hadn't been a doctor, you know? Pretty eye opening and very sad." [Latino Man]*

Different types of privilege may not always confer the same benefits. The protective effect of socioeconomic privilege may be nullified when minority patients are being judged solely on their minority status.

### 3.3. Perceived bias influences the outcome of present and future clinical encounters

Many behaviors that were perceived as bias or discrimination were based on things physicians and staff should be doing for all patients, such as showing respect, having common courtesy, avoiding jargon, and being patient centered. Physician and staff behaviors, both verbal and nonverbal, contributed to the participant's perception of the presence or absence of bias in a clinical encounter.

*"Sometimes the doctor will see you walking in and as soon as they see who you are, their head goes down. Like you have to say 'Excuse me . . .'"* [Black Woman]

Patients can be sensitive to verbal and nonverbal cues to bias resulting in feeling dismissed or belittled by physicians, nurses, and support staff. Reactions for many of our participants included, "Well what's wrong with me?," "I was feeling like he was trying to belittle me and my intellect," "So, I'm thinking like I'm human," and "Well, to me he embarrassed me." These perceptions and their effects demonstrate the centrality of the effects of the dehumanizing nature of bias and discrimination.

When participants did perceive bias in a clinical encounter, trust in their physician suffered, they delayed seeking medical care, or they subsequently avoided medical care altogether, as one participant describes in her encounter with a surgeon.

*"You know what I did? I got up, put my coat on, went to the reception desk, and told them, 'Take my name off, I'm never coming back here.' I had a kidney stone. I told my primary doctor, she got the paperwork done for me and I went to another doctor in a week. Yeah, that kidney stone was kicking my butt."* [Black Woman]

Perceived bias can have significant consequences. Patients may even endure painful conditions in order to preserve their dignity.

### 3.4. Restoring the relationship when bias is perceived

Participants fondly remembered behaviors including respectful communication, rapport building, advocacy behaviors, and appropriate utilization of interpreter services. When bias was not perceived in an encounter, participants felt more trust in their physicians and the medical system in general. Participants made

suggestions for preserving the patient-physician relationship when they did perceive bias in an encounter. Although many participants described events that affected them deeply, most just wanted the incident to be acknowledged and were satisfied with an apology from the physician. Many participants felt that the acknowledgement of an incident of biased behavior (or the perception of biased behavior) followed by an apology was the most important thing. Ignoring or dismissing it could lead to the negative outcomes described above.

*"I'm sorry. I apologize if I made you feel any kind of way. Will you accept my apology? Just be joking with it because most of the time we as patients we want the lightness because we're here in a heavy moment and everything is so heavy. We appreciate that little jokey thing."* [Black Woman]

Suggestions for improving the clinical encounter frequently centered around open communication, courtesy, and respect. Participants also made suggestions addressing nonverbal behaviors that can be perceived as bias.

*"Acknowledge me. Don't just acknowledge the paperwork that the nurse brought in. Don't just go to the computer. Acknowledge me. 'How are you Miss [Name]?' So just common courtesy."* [Black Woman]

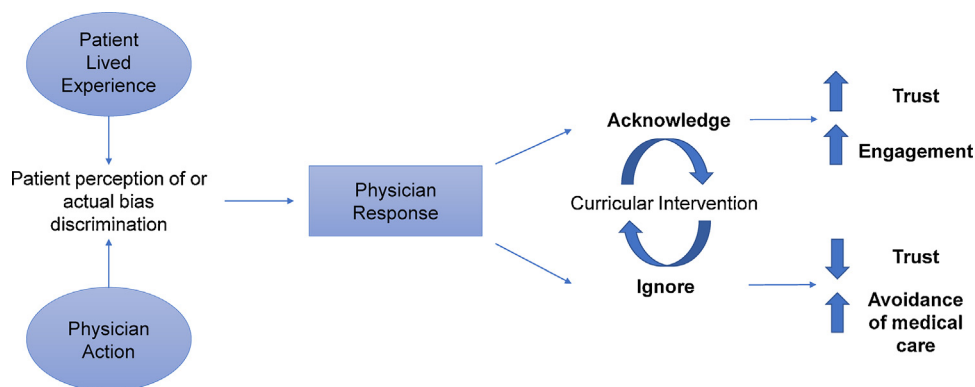
Spanish speaking participants shared similar ideas as English speaking participants for restoring the encounter whether the biased behavior was deemed relative to race/ethnicity or language.

*"Excuse me. I'm sorry," you know? We can all make mistakes."* [Spanish speaker]

## 4. Discussion and conclusion

### 4.1. Discussion

Our analysis revealed the multi-faceted nature of the factors leading to patients perceiving bias in their physician encounters. Their perceptions of bias may be due to actual biased behaviors or interpretations of routine proceedings as based on these multiple factors. The theory emerging from our analysis suggests the outcome of the clinical encounter once bias is perceived can still be positive. Whether the outcome is positive or negative depends on whether the physician acknowledges this perceived bias or not, and his or her subsequent actions. The identification of this opportunity to restore the relationship within the clinical encounter suggests a viable target for future curricular innovations (Fig. 1).



**Fig. 1.** Conceptual model for patient perceptions of bias in clinical encounters and the potential consequences. This conceptual model represents the contributions the patient lived experience to the presence or absence of perceptions of bias in the clinical encounter. If bias is perceived, outcomes may change depending on whether the physician acknowledges this perceived bias or not. The role of the curricular intervention would be to enable the recognition of real and/or perceived bias and help learners recognize and acknowledge it, to improve the outcomes of the clinical encounter.



Our participants' lived experiences often include explicit racism, perceived or real incidents of discrimination, and/or subtle slights. Subtle slights are termed microaggressions. Microaggressions are the "brief and commonplace daily verbal, behavioral, and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial, gender, sexual-orientation, and religious slights and insults to the target person or group [53]." The cumulative effect of microaggressions can lead to increased perception of discrimination, contributing to decreased trust in physicians, as well as a priming effect for patients to perceive bias [51,54].

In addition to their lived experience, treatment by support staff prior to meeting the physician can also prime patients to perceive bias from their physician, even before the physician demonstrates any bias. While some physicians may be acting in a racially biased fashion, other generally negative behaviors, including poor communication and interpersonal skills, may be interpreted as racial bias by the patient even if this poor doctoring is offered to all, irrespective of race or ethnicity. Regardless, the perception exists and according to our participants, can lead to negative outcomes of avoiding or delaying medical care, mistrust, and misperception of routine proceedings, all with potentially detrimental effects on health.

Perceptions of experiencing discrimination in society have been associated with delays in seeking medical care and nonadherence to medical recommendations [18]. The importance of nonverbal behaviors and race-based assumptions by the physician have been described by others as contributing to perceived discrimination in clinical encounters, leading to mistrust, negative emotional reactions, changing providers, or avoidance/delay in seeking care [14,15]. Perceived prejudice by providers along racial, ethnic, and immigration status cause patients to worry that they will receive lower quality of care [17,19,20]. Minority patients have described episodes of disrespect, and feeling that they would be treated differently if they were of a different race [6,21]. Patients with trust in their physician and/or the system are more likely to continue to engage in medical care, continue with the same physician, and adhere to treatment recommendations [55].

The similarities among our participants' perspectives and those of patients and participants in other studies demonstrates the pervasive nature of bias, discrimination, and racism affecting patients. These experiences may have an effect on the clinical encounter. Our study extends the prior work of patients' perceptions of bias by eliciting participants' suggestions to mitigate the effect of bias in clinical encounters and restoring the relationship. Restoring the relationship, from our participants' perspective can lead to the same outcome as never having demonstrated bias in the first place. Accounting for this perspective may enhance efforts to provide patient-centered care and decrease health disparities. It has implications for the design of novel curricular interventions in implicit bias recognition and management.

#### 4.2. Practice implications: Implications for curriculum development

From our data analysis we have developed a conceptual framework (Fig. 1) that could inform curriculum development delivering instruction in the knowledge, attitudes, and skills necessary to recognize and manage racial and ethnic implicit bias in clinical encounters. Given the influence of patients' lived experiences on perceptions of bias as articulated by our participants, it may benefit students to participate in perspective taking exercises [56], and other exercises meant to build empathy. Additionally it may help students to realize that the patients perception of bias is not always a direct reflection of provider (e.g. student, physician, etc.) actions within a clinical encounter. This

realization may help mitigate the ego-dystonic reaction [57] that being accused of being biased may engender. For students working hard with good intentions to care for their patients, having implicit bias would be contrary to their perceptions of themselves as good people who would do the right thing. If they are being accused of acting in a biased way, when in fact, they were not, they may become defensive and be unable to effectively care for the patient. If, however, students acquire knowledge of the lived experience's influence and the potential for their patients to be primed to perceive bias, they may be able to acknowledge the perception of bias, and then mitigate its influence in the clinical encounter. Even if students do act in a biased manner, the relationship can still be restored.

A complete absence of bias or biased behavior is unrealistic, and according to our participants, unnecessary. Participants stressed the importance of physicians acknowledging biased behavior and recognizing and managing implicit bias in clinical encounters. Instruction could be designed that moves students from awareness of their implicit biases to skill building so that they could achieve this. The theory emerging from our analysis suggests that a curriculum providing: 1) instruction focusing on the influence of the patient's lived experience will enhance students' ability to partner with their patients to acknowledge perceived bias and 2) skill development in recognizing both perceived and real implicit bias in an encounter will enable students to mitigate its effect on the clinical encounter leading to continued patient engagement in the present and future medical encounters.

#### 4.3. Limitations

Our study has some limitations. We sampled in a large urban center in the United States, purposively for Black and Latino participants; other geographic areas and racial, ethnic, and language minorities may have different perspectives. Bias along with gender, sexual orientation, disability status, among others, may affect the clinical encounter in different ways. Therefore we might have missed the intersectionality of the discrimination as well as the possibility of not uncovering issues related to other races and ethnicities. Given the preponderance of data on physician racial and ethnic bias and its impact on communication patterns and clinical decision-making, and the racial and ethnic diversity of Bronx, NY, USA, we focused on racial and ethnic bias.

#### 4.4. Conclusion

In a patient-physician dyad it is important to consider the dual contributions of the physician's potential implicit biases, and the patient's lived experience, which may augment his or her perceptions of bias during the clinical encounter. Given that patients globally perceive negative aspects of some clinical encounters to be attributed to their race or ethnicity, and the potential influence of physician implicit bias in clinical encounters, medical educators worldwide could consider curricular interventions to improve the outcomes of the patient-physician dyad. Developing curricula to address this interplay in clinical encounters may enable students and physicians at any stage of training and practice to mitigate the effect of their implicit bias and contribute to the reduction of healthcare disparities. For example, improved communication patterns may have immediate and downstream effects as patients would then be more likely to trust their physicians and remain engaged in care [58,59]. To our knowledge, no published interventions exist to help physicians at any stage of training to develop the skills to recognize and manage their implicit bias in clinical encounters. Further research is required to develop such interventions. The patient voice is an important part of this area of investigation. Understanding their

perspective and valuing their input can shape curricular interventions in meaningful ways. Our conceptual model highlighting the effect of the patient's lived experience, the importance of the physician's ability to acknowledge perceived bias, and the potential for positive outcomes even after the perception of bias may facilitate the design of future interventions with the ultimate goal of providing exceptional, equitable care to all patients.

I confirm all patient/personal identifiers have been removed or disguised so the patient/person(s) described are not identifiable and cannot be identified through the details of the story.

## Funding

Dr. Gonzalez was supported by the Harold Amos Medical Faculty Development Program of the Robert Wood Johnson Foundation, Bureau of Health Professions of the Health Resources & Services Administration of US Department of Health and Human Services [grant number D3 EHP16488-03], NIH/NICHD [grant number R25HD068835], and by the Macy Faculty Scholars Program of the Josiah Macy Jr. Foundation. Dr. Marantz was supported in part by NIH/National Center for Advancing Translational Science (NCATS) Einstein-Montefiore CTSA [grant numbers KL2TR001071, TL1TR001072, and UL1TR001073], and by NIH/NICHD [grant number R25HD068835]. Dr. McKee was supported in part by Marantz [grant number 1R25HS023199-01] and Tiley [grant number NIMHHD U2400694102]. Prior presentations: An earlier version of this study was presented as an oral abstract at the Annual Meeting of the Society for General Internal Medicine in Toronto, Ontario, Canada, in 2015.

## Disclosures

"The views expressed in this article are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States government."

## Conflicts of interest

The authors declare no conflict of interest.

## Acknowledgements

The authors wish to thank Drs. William Southern, A. Hal Strelnick, and Clarence Braddock, III for their thoughtful feedback from study inception to completion. Ms. Josephine Rodriguez, Ms. Irene Diaz, and Ms. Yovanna Coupey, for their extensive contributions to participant recruitment efforts. Ms. Veronica Aviles and Ms. Natalia Rodriguez for their generous assistance. Dr. Paula Ross for her thoughtful feedback on previous iterations of this manuscript.

## Appendix 1 Semi-structured interview guide

### Introduction:

Hello, my name is Cristina Gonzalez. I am a doctor who cares for patients and teaches medical students and residents. I am very interested in helping teach future doctors how to treat all of their patients in an excellent and respectful manner. My particular interest is in implicit bias, which refers to the negative assumptions doctors make about their patients, similar to prejudice and stereotyping. I need your help. I am interested in learning about patients' experiences when they go to the doctor so that when I design the curriculum to teach the medical students, I have your perspective in mind. My goal in incorporating your perspectives and ideas is to develop the most effective curriculum possible.

- 1 Do you ever think you have been treated differently by your doctor than other people get treated?
  - a How do you know it is happening to you?
  - b How do you know if happens to other people like you?
  - c Do you think if something were different about you would get better care?
    - i Prompts might include socioeconomic status, education, race/ethnicity, and/or age.
- 2 Have you ever felt negatively judged in a visit with your doctor?
  - a If so, what made you feel like that.
- 3 When you feel negatively judged, how do you react?
- 4 Do you think your doctor has ever misunderstood you because of your race or ethnicity or something cultural about you?
- 5 What else happens when you go to get healthcare that gives you a negative feeling?
- 6 How does feeling negatively judged affect your view of your doctor?
- 7 How does feeling negatively judged affect your view of the medical system?
- 8 Do you have any suggestions on how we can fix the situation once you feel negatively judged?

General prompts will include, "tell me more," "how did that make you feel," "has anyone else had that experience?" etc. In addition, the opportunity to discuss differential treatment and perceptions of being negatively judged in general society can be explored first if participants are initially hesitant to discuss these constructs within healthcare.

## References

- [1] J.L. Chin, Culturally competent health care, *Public Health Rep.* 115 (1) (2000) 25–33.
- [2] M.C. Beach, E.G. Price, T.L. Gary, K.A. Robinson, A. Gozu, A. Palacio, C. Smarth, M. W. Jenckes, C. Feuerstein, E.B. Bass, N.R. Powe, L.A. Cooper, Cultural competence: a systematic review of health care provider educational interventions, *Med. Care* 43 (4) (2005) 356–373.
- [3] D.L. Gustafson, S. Reitmanova, How are we 'doing' cultural diversity? A look across English Canadian undergraduate medical school programmes, *Med. Teach.* 32 (10) (2010) 816–823.
- [4] M. Marmot, Inequalities in health, *N. Engl. J. Med.* 345 (2) (2001) 134–136.
- [5] Agency for Healthcare Research and Quality, National Healthcare Disparities Report 2012, Agency for Healthcare Research and Quality, 2012 (December 1, 2016).
- [6] R.L. Johnson, S. Saha, J.J. Arbelaez, M.C. Beach, L.A. Cooper, Racial and ethnic differences in patient perceptions of bias and cultural competence in health care, *J. Gen. Intern. Med.* 19 (2) (2004) 101–110.
- [7] I.V. Blair, J.F. Steiner, D.L. Fairclough, R. Hanratty, D.W. Price, H.K. Hirsh, L.A. Wright, M. Bronsert, E. Karimkhani, D.J. Magid, E.P. Havranek, Clinicians' implicit ethnic/racial bias and perceptions of care among Black and Latino patients, *Ann. Fam. Med.* 11 (1) (2013) 43–52.
- [8] S. Eggle, L.M. Hamel, T.S. Foster, T.L. Albrecht, R. Chapman, F.W.K. Harper, H. Thompson, J.J. Griggs, R. Gonzalez, L. Berry-Bobovski, R. Tkatch, M. Simon, A. Shields, S. Gadageel, R. Loutfi, H. Ali, I. Wollner, L.A. Penner, Randomized trial of a question prompt list to increase patient active participation during interactions with black patients and their oncologists, *Patient Educ. Couns.* 100 (5) (2017) 818–826.
- [9] L.A. Cooper, D.L. Roter, K.A. Carson, M.C. Beach, J.A. Sabin, A.G. Greenwald, T.S. Inui, The associations of clinicians' implicit attitudes about race with medical visit communication and patient ratings of interpersonal care, *Am. J. Public Health* 102 (5) (2012) 979–987.
- [10] L.A. Penner, J.F. Dovidio, R. Gonzalez, T.L. Albrecht, R. Chapman, T. Foster, F.W. Harper, N. Hagiwara, L.M. Hamel, A.F. Shields, S. Gadageel, M.S. Simon, J.J. Griggs, S. Eggle, The effects of oncologist implicit racial bias in racially discordant oncology interactions, *J. Clin. Oncol.* 34 (24) (2016) 2874–2880.
- [11] A.D. Thrasher, J.A. Earp, C.E. Golin, C.R. Zimmer, Discrimination, distrust, and racial/ethnic disparities in antiretroviral therapy adherence among a national sample of HIV-infected patients, *J. Acquir. Immune Defic. Syndr.* 49 (1) (2008) 84–93.
- [12] E.A. Jacobs, I. Rolle, C.E. Ferrans, E.E. Whitaker, R.B. Warnecke, Understanding African Americans' views of the trustworthiness of physicians, *J. Gen. Intern. Med.* 21 (6) (2006) 642–647.
- [13] S. Saha, J.J. Arbelaez, L.A. Cooper, Patient-physician relationships and racial disparities in the quality of health care, *Am. J. Public Health* 93 (10) (2003) 1713–1719.
- [14] T.M. Greer, Perceived racial discrimination in clinical encounters among African American hypertensive patients, *J. Health Care Poor Underserved* 21 (1) (2010) 251–263.

- [15] C.M. Sims, Ethnic notions and healthy paranoias: understanding of the context of experience and interpretations of healthcare encounters among older Black women, *Ethn. Health* 15 (5) (2010) 495–514.
- [16] T. Janevic, P. Sripad, E. Bradley, V. Dimitrievska, "There's no kind of respect here" a qualitative study of racism and access to maternal health care among Romani women in the Balkans, *Int. J. Equity Health* 10 (2011) 53.
- [17] A.M. Naples-Springer, J. Santoyo, K. Houston, E.J. Perez-Stable, A.L. Stewart, Patients' perceptions of cultural factors affecting the quality of their medical encounters, *Health Expect.* 8 (1) (2005) 4–17.
- [18] S.S. Casagrande, T.L. Gary, T.A. LaVeist, D.J. Gaskin, L.A. Cooper, Perceived discrimination and adherence to medical care in a racially integrated community, *J. Gen. Intern. Med.* 22 (3) (2007) 389–395.
- [19] T. Quach, A. Nuru-Jeter, P. Morris, L. Allen, S.J. Shema, J.K. Winters, G.M. Le, S.L. Gomez, Experiences and perceptions of medical discrimination among a multiethnic sample of breast cancer patients in the Greater San Francisco Bay Area, California, *Am. J. Public Health* 102 (5) (2012) 1027–1034.
- [20] J.D. Piette, K. Bibbins-Domingo, D. Schillinger, Health care discrimination, processes of care, and diabetes patients' health status, *Patient Educ. Couns.* 60 (1) (2006) 41–48.
- [21] J. Blanchard, N. Lurie, R-E-S-P-E-C-T: patient reports of disrespect in the health care setting and its impact on care, *J. Fam. Pract.* 53 (9) (2004) 721–730.
- [22] S.Y. Tang, A.J. Browne, 'Race' matters: racialization and egalitarian discourses involving Aboriginal people in the Canadian health care context, *Ethn. Health* 13 (2) (2008) 109–127.
- [23] R. Harris, M. Tobias, M. Jeffreys, K. Waldegrave, S. Karlens, J. Nazroo, Effects of self-reported racial discrimination and deprivation on Maori health and inequalities in New Zealand: cross-sectional study, *Lancet* 367 (9527) (2006) 2005–2009.
- [24] D. Mellor, M. McCabe, L. Ricciardelli, A. Mussap, M. Tyler, Toward an understanding of the poor health status of indigenous Australian men, *Qual. Health Res.* 26 (14) (2016) 1949–1960.
- [25] K.A. Amirehsani, J. Hu, D.C. Wallace, Z.A. Silva, S. Dick, L.N. West-Livingston, C. R. Hussami, US healthcare experiences of Hispanic patients with diabetes and family members: a qualitative analysis, *J. Community Health Nurs.* 34 (3) (2017) 126–135.
- [26] C.A. Zestcott, I.V. Blair, J. Stone, Examining the presence, consequences, and reduction of implicit bias in health care: a narrative review, *Group Process. Intergroup Relat.* 19 (4) (2016) 528–542.
- [27] N. Hagiwara, R.B. Slatcher, S. Eggly, L.A. Penner, Physician racial bias and word use during racially discordant medical interactions, *Health Commun.* 32 (4) (2017) 401–408.
- [28] L.R. Hausmann, L. Myaskovsky, C. Niyonkuru, M.L. Oyster, G.E. Switzer, K.H. Burkitt, M.J. Fine, S. Gao, M.L. Boninger, Examining implicit bias of physicians who care for individuals with spinal cord injury: a pilot study and future directions, *J. Spinal Cord Med.* 38 (1) (2015) 102–110.
- [29] A.R. Green, D.R. Carney, D.J. Pallin, L.H. Ngo, K.L. Raymond, L.I. Iezzoni, M.R. Banaji, Implicit bias among physicians and its prediction of thrombolysis decisions for black and white patients, *J. Gen. Intern. Med.* 22 (9) (2007) 1231–1238.
- [30] J.A. Sabin, A.G. Greenwald, The influence of implicit bias on treatment recommendations for 4 common pediatric conditions: pain, urinary tract infection, attention deficit hyperactivity disorder, and asthma, *Am. J. Public Health* 102 (5) (2012) 988–995.
- [31] J.A. Sabin, F.P. Rivara, A.G. Greenwald, Physician implicit attitudes and stereotypes about race and quality of medical care, *Med. Care* 46 (7) (2008) 678–685.
- [32] W.J. Hall, M.V. Chapman, K.M. Lee, Y.M. Merino, T.W. Thomas, B.K. Payne, E. Eng, S.H. Day, T. Coyne-Beasley, Implicit racial/ethnic bias among health care professionals and its influence on health care outcomes: a systematic review, *Am. J. Public Health* 105 (12) (2015) e60–e76.
- [33] C. FitzGerald, S. Hurst, Implicit bias in healthcare professionals: a systematic review, *BMC Med. Ethics* 18 (1) (2017) 19.
- [34] A.H. Haider, J. Sexton, N. Sriram, L.A. Cooper, D.T. Efron, S. Swoboda, C.V. Villegas, E.R. Haut, M. Bonds, P.J. Pronovost, P.A. Lipsett, J.A. Freischlag, E.E. Cornwell 3rd, Association of unconscious race and social class bias with vignette-based clinical assessments by medical students, *JAMA: J. Am. Med. Assoc.* 306 (9) (2011) 942–951.
- [35] S. White-Means, D. Zhiyong, M. Hufstader, L.T. Brown, Cultural competency, race, and skin tone bias among pharmacy, nursing, and medical students: implications for addressing health disparities, *Med. Care Res. Rev.* 66 (4) (2009) 436–455.
- [36] M.B. Vela, K.E. Kim, H. Tang, M.H. Chin, Innovative health care disparities curriculum for incoming medical students, *J. Gen. Intern. Med.* 23 (7) (2008) 1028–1032.
- [37] A.K. Kumagai, M.L. Lyson, Beyond cultural competence: critical consciousness, social justice, and multicultural education, *Acad. Med.* 84 (6) (2009) 782–787.
- [38] C.R. Teal, R.E. Shada, A.C. Gill, B.M. Thompson, E. Fruge, G.B. Villarreal, P. Haidet, When best intentions aren't enough: helping medical students develop strategies for managing bias about patients, *J. Gen. Intern. Med.* 25 (Suppl. 2) (2010) S115–S118.
- [39] C.M. Gonzalez, M.Y. Kim, P.R. Marantz, Implicit bias and its relation to health disparities: a teaching program and survey of medical students, *Teach. Learn. Med.* 26 (1) (2014) 64–71.
- [40] C.M. Gonzalez, A.D. Fox, P.R. Marantz, The evolution of an elective in health disparities and advocacy: description of instructional strategies and program evaluation, *Acad. Med.* 90 (12) (2015) 1636–1640.
- [41] A. Gill, B. Thompson, C. Teal, Best Intentions: Using the Implicit Associations Test to Promote Reflection About Personal Bias, (2010). (Accessed January 22, 2016) <https://www.mededportal.org/publication/7792>.
- [42] M.L. Lyson, P.T. Ross, N. Zimmerman, K.E. Goldrath, D. Ravindranath, Where do soldiers really come from? A faculty development workshop on veteran-centered care, *Acad. Med.* 91 (10) (2016) 1379–1383.
- [43] J.L. Murray-Garcia, S. Harrell, J.A. Garcia, E. Gizzi, P. Simms-Mackey, Dialogue as skill: training a health professions workforce that can talk about race and racism, *Am. J. Orthopsychiatry* 84 (5) (2014) 590–596.
- [44] P.A. Thomas, D.E. Kern, M.T. Hughes, Curriculum Development for Medical Education: A Six Step Approach, 2 ed., The Johns Hopkins University Press, Baltimore, MD, 2009.
- [45] N. Mead, P. Bower, Patient-centredness: a conceptual framework and review of the empirical literature, *Soc. Sci. Med.* 51 (7) (2000) 1087–1110.
- [46] P. Martin, B. Turner, Grounded theory and organizational research, *J. Appl. Behav. Sci.* 22 (2) (1986) 141–157.
- [47] M.Q. Patton, Qualitative Research and Evaluation Methods, SAGE Publications, Thousand Oaks, CA, 2002.
- [48] G.D. Shank, Qualitative Research, Pearson Education, Inc., Upper Saddle River, NJ, 2006.
- [49] J.M. Corbin, A. Strauss, Grounded theory research: procedures, canons, and evaluative criteria, *Qual. Sociol.* 13 (1) (1990) 3–21.
- [50] K. Charmaz, Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis, SAGE Publications, London, Thousand Oaks Calif, 2014.
- [51] L.A. Penner, J.F. Dovidio, T.V. West, S.L. Gaertner, T.L. Albrecht, R.K. Dailey, T. Markova, Aversive racism and medical interactions with Black patients: a field study, *J. Exp. Soc. Psychol.* 46 (2) (2010) 436–440.
- [52] D.L. Frosch, S.G. May, K.A. Rendle, C. Tietbohl, G. Elwyn, Authoritarian physicians and patients' fear of being labeled 'difficult' among key obstacles to shared decision making, *Health Aff. (Millwood)* 31 (5) (2012) 1030–1038.
- [53] D.W. Sue, C.M. Capodilupo, G.C. Torino, J.M. Bucceri, A.M. Holder, K.L. Nadal, M. Esquilin, Racial microaggressions in everyday life: implications for clinical practice, *Am. Psychol.* 62 (4) (2007) 271–286.
- [54] N. Hagiwara, J.F. Dovidio, S. Eggly, L.A. Penner, The effects of racial attitudes on affect and engagement in racially discordant medical interactions between non-Black physicians and Black patients, *Group Process. Intergroup Relat.* 19 (4) (2016) 509–527.
- [55] E.A. Jacobs, I. Rolle, C.E. Ferrans, E.E. Whitaker, R.B. Warnecke, Understanding African Americans' views of the trustworthiness of physicians, *J. Gen. Intern. Med.* 21 (6) (2006) 642–647.
- [56] T.D. Stratton, C.L. Elam, A.E. Murphy-Spencer, S.L. Quinlivan, Emotional intelligence and clinical skills: preliminary results from a comprehensive clinical performance examination, *Acad. Med.* 80 (10 Suppl) (2005) S34–S37.
- [57] K.T. Emerson, M.C. Murphy, Identity threat at work: how social identity threat and situational cues contribute to racial and ethnic disparities in the workplace, *Cult. Divers. Ethnic Minor. Psychol.* 20 (4) (2014) 508–520.
- [58] M.E. Peek, S.C. Wilson, R. Gorawara-Bhat, A. Odoms-Young, M.T. Quinn, M.H. Chin, Barriers and facilitators to shared decision-making among African-Americans with diabetes, *J. Gen. Intern. Med.* 24 (10) (2009) 1135–1139.
- [59] A.M. Bauer, M.M. Parker, D. Schillinger, W. Katon, N. Adler, A.S. Adams, H.H. Moffet, A.J. Karter, Associations between antidepressant adherence and shared decision-making, patient-provider trust, and communication among adults with diabetes: diabetes study of Northern California (DISTANCE), *J. Gen. Intern. Med.* 29 (8) (2014) 1139–1147.