How Patient and Physician Race-Based Attitudes Influence Clinical Communication

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Overview

- Health disparities 101
- Patient and clinician attitudes and communication as contributors to health disparities
  - With a focus in an oncology context
- Physician attitudes: Implicit bias 101
  - Physicians' implicit and explicit biases
  - Physician communication; patient treatment expectations and perceptions
- Patient attitudes and perceptions
- Solutions to mitigate the influence of bias and other negative attitudes

Cancer Incidence & Mortality Rates 2013-2017

Age-Adjusted Incidence & Mortality Rates per 100,000 by Race/Ethnicity
All Cancer Sites, Men & Women

500
450
400
350
300
250
200
150
100
50
0

Non-hispanic White
Non-Hispanic Black
Asian/Pacific islander
American Indian/Alaska Native
Hispanic

Siegel et al 2021

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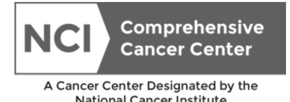
American Indian/Alaska Native
Hispanic

Incidence
Mortality



Siegel et al 2021

Health Disparities across the Cancer Control Trajectory

Prevention	Screening & Early Detection	Treatment	Survivorship & End of Life Care
•Tobacco Use •Body Weight •Physical Activity •Alcohol •UV Light exposure •Diet •Air Quality •Access to healthcare, water, schools, etc •Vaccines (HPV)	•Breast •Colorectal •Cervical •Lung	•Radiotherapy •Surgery •Systemic Tx •Clinical Trials	•Long-term tx effects •Quality of Life •Financial Toxicity •Advanced Care Planning •Access to Palliative & Hospice Care

Racial Disparities in Cancer

Black women are **12%** more likely to die from their cancer, compared to White women

Black men are **19%** more likely to die from their cancer, compared to White men

Siegal et al., 2021

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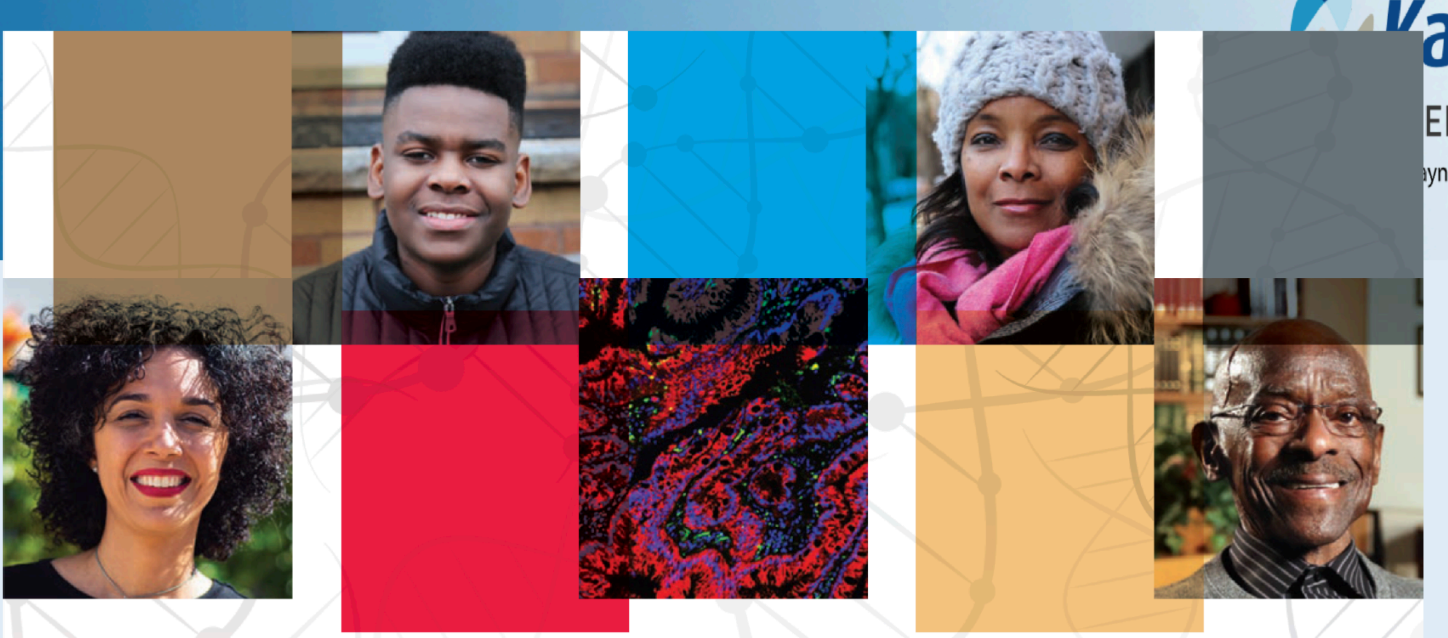

AACR CANCER DISPARITIES PROGRESS REPORT 2020

Achieving the Bold Vision of Health Equity for Racial and Ethnic Minorities and Other Underserved Populations

AACR.org
CancerDisparitiesProgressReport.org
#CancerDisparitiesReport

Why do US Cancer Disparities Exist?

34% of cancer deaths among all U.S. adults ages 25 to 74 could be **prevented if socioeconomic disparities were eliminated** (45).

Among the most important factors are social determinants of health, defined by the NCI as the conditions in which people are born, grow, live, work, and age, including the health system. Social determinants of health, which can be considered at the level of individuals, groups, communities, or societies, are the factors that provide the context within which cancer is prevented, detected, and treated. Structural and systemic racism is a driver of adverse differences in the social determinants of health experienced by racial and ethnic minorities.

AACR Cancer Health Disparities 2020

Causes of Treatment Disparities

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Patient-Provider Communication

Patient and Provider Attitudes

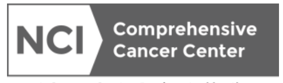
Socio-Economic Status

Access to and Quality of Care

Tumor Biology

Black-White Treatment Disparities

Environment



Unequal Treatment, Institute of Medicine/National Academy of Medicine, 2002

Provider
Background, Experiences, Attitudes, Beliefs, Judgments, Decisions, & Behavior

Patient
Background, Experiences, Attitudes, Beliefs, Judgments, Decisions, & Behavior

Provider Treatment Recommendations
Patient Decisions & Behaviors
Health Outcomes

Clinical Communication with Black Patients

Cooper, et al., 2003; 2012; Eggly, et a. 2015; Elliott et al., 2016; Hamel et al., 2015; Siminoff et al, 2006; Street et al., 2007

Clinical Communication with Black Patients

Physicians

- Less information
- Less patient centered
- More verbally dominant
- More contentious

Patients

- Ask fewer questions
- Less participation in decision making
- Less understanding of diagnosis and treatment plan

Visits are shorter

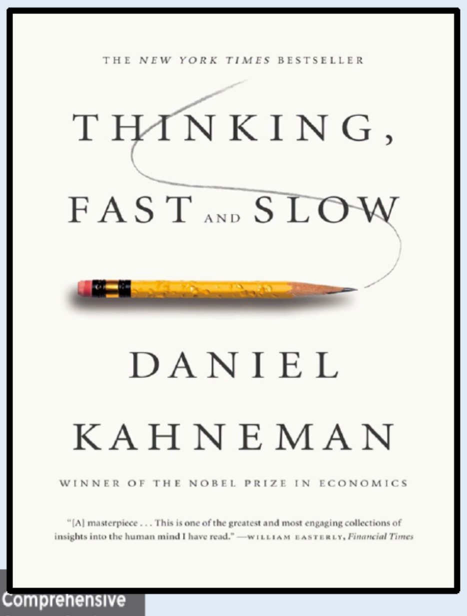
Cooper, et al., 2003; 2012; Eggly, et a. 2015; Elliott et al., 2016; Hamel et al., 2015; Siminoff et al, 2006; Street et al., 2007

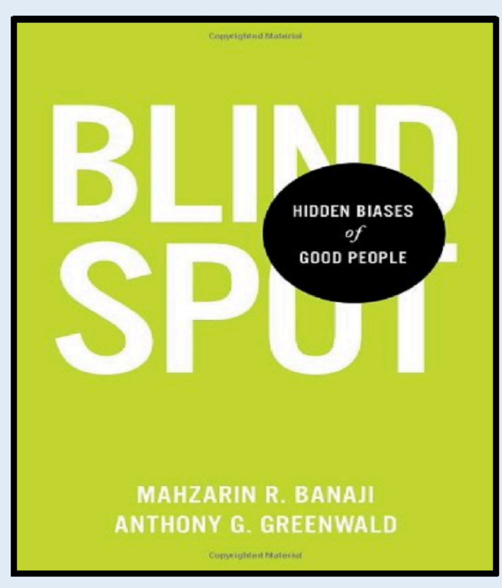
Riddle

- A father and son are in a horrible car crash that kills the father. The son is rushed to the hospital, and the doctor declines to attend to the patient because “that boy is my son!”
- Explain.
- Implicit biases are ASSOCIATIONS that accumulate over time
  - Doctor → Man
  - Nurse → Woman
  - 80%+ respondents can’t come up with the answer that the doctor is a woman/the boy’s mother

Implicit/Unconscious Racial Biases & Implicit Associations Tests

....unconscious attitudes or stereotypes we hold about groups of people that affect our understanding, actions, and decisions about members of those groups





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Implicit Biases

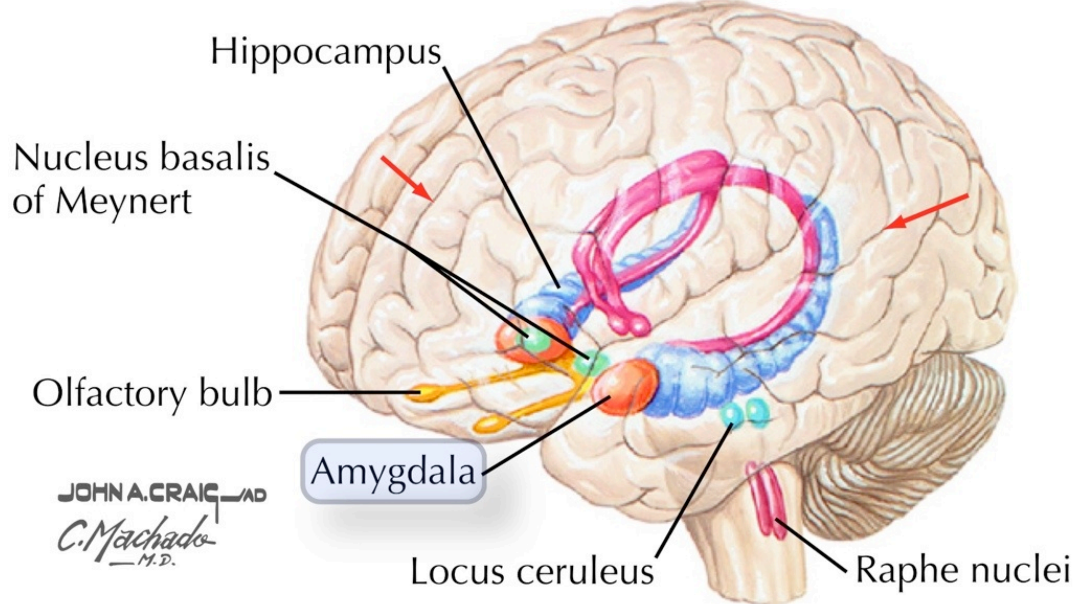
- Pervasive and robust
  - Everyone possesses them, even those with avowed commitments to impartiality
- Related but distinct from explicit biases
- Do not necessarily align with our declared beliefs
- Favor our own ingroup
- Have real-world effects on behavior

Implicit Bias: Enhancing Factors

- Heavy workload
- Incomplete information
- Need for quick decisions
- Think about what professions that describes:
  - Public defenders; police officers; **healthcare providers**

Cognitive Neuroscience and Neurobiology

- **Amygdala:** small structure in the medial temporal lobe of the brain
- Plays role in race-related mental processes and responding to threat and fear



Race-Related Attitudes in Medical Interactions

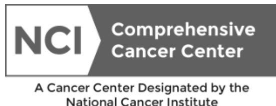
The **physician** recommends treatment, but the **patient** may decide treatment benefits are not worth costs or risks of receiving treatment.

The **patient** may want treatment, but the **physician** may decide the patient is unlikely to adhere /tolerate/benefit from treatment.

Race-related attitudes could be **especially salient** in inter-racial/racially-discordant interactions.

Race-Related Attitudes in Medical Interactions

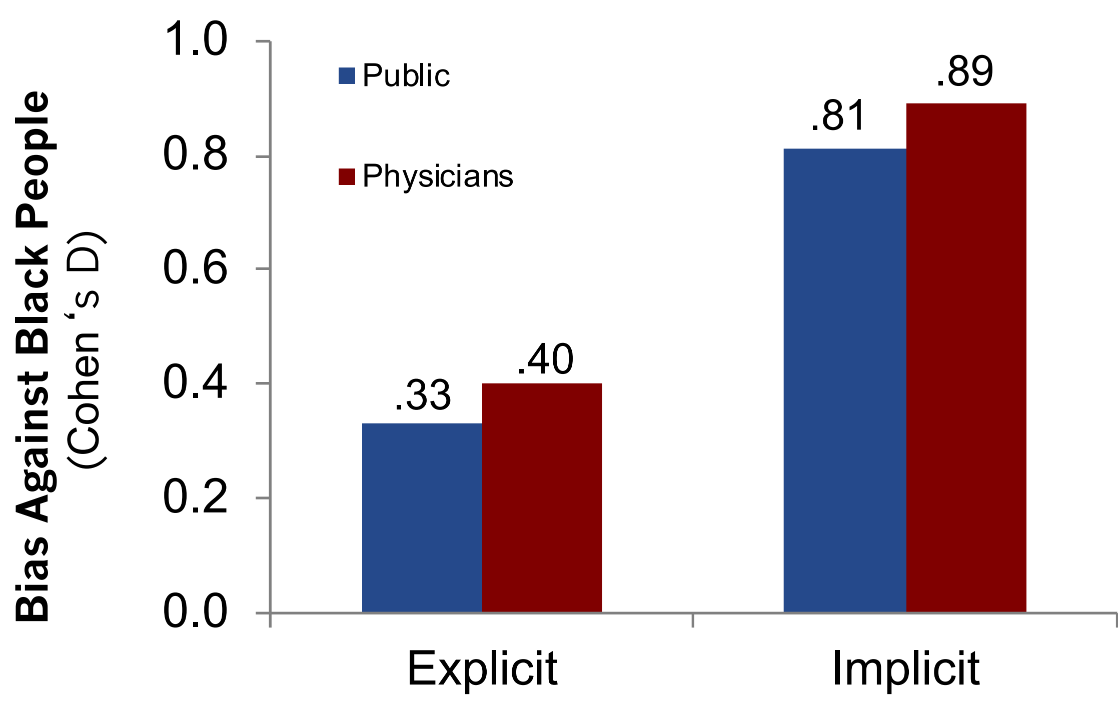
Treatment decisions driven even in part by race-related attitudes are **preventable racial healthcare disparities.**

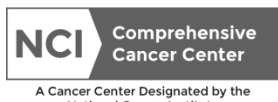


Physician Bias and Communication with Black Patients

White Physicians' Levels of Explicit & Implicit Racial Bias

Compared to the the general public, white physicians have higher levels of both explicit bias and implicit bias





Sabin, et al., 2009, J. Poor & Underserv.

Why Consider Inter-Racial/Racially Discordant Medical Interactions?

- **80%** of Black patients' medical interactions are likely to be racially discordant – with a a provider of a different race
- Very few Black medical oncologists in U.S. (2.3%)
- Black people bear greater cancer burden than White people or any other racial/ethnic group—higher incidence; lower survival
- Greatest racial disparities in survival are for the most treatable cancers

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JOURNAL OF CLINICAL ONCOLOGY — COMMENTS AND CONTROVERSIES

Critical Shortage of African American Medical Oncologists in the United States

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Mary Malloy, *Michigan Society of Hematology and Oncology, Detroit, MI*
Susan Eggly, Louis A. Penner, Anthony F. Shields, Michael S. Simon, Justin F. Klamerus, Charles Schiffer, and Terrence L. Albrecht, *Karmanos Cancer Institute/Wayne State University, Detroit, MI*

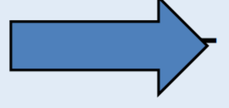
The Association of American Medical Colleges (AAMC) reported that in 2013 only 2.3% of oncologists in the United States were African American.[1] In early 2015, the American Society of Clinical Oncology (ASCO) released 2013 data showing that African Americans oncologists is not keeping pace with the increasing incidence of cancer diagnoses and prevalence of cancer survivors.[9,10] The US population is aging rapidly; the number of people age 65 years and older is expected to increase from 35 million in 2000 to 72 million

National Cancer Institute

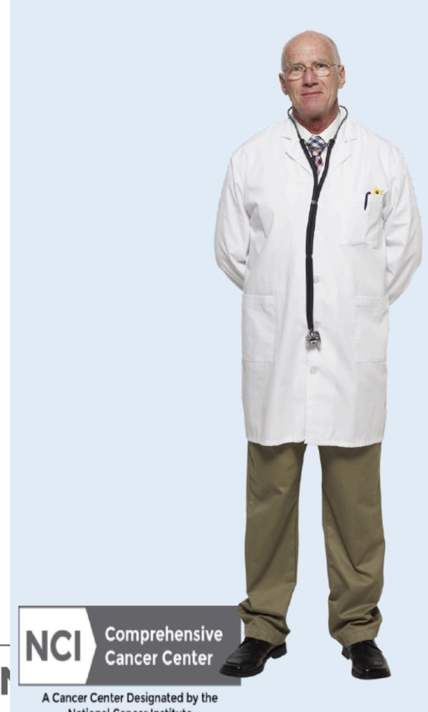
Laveist, Nuru-Jeter & Jones, 2003; Hamel et al., 2015; Tehranifer et al., 2009

Consequences of Provider Implicit Bias on Clinic Interactions

Physicians with higher implicit bias favoring Whites



- See Black patients as less trustworthy, less educated, and less adherent to treatment recommendations
- Provide less aggressive treatments to Black patients
- More verbally dominant in clinic visits with Black patients
- Perceived by Black patients as less patient-centered and trustworthy



Hagiwara 2013; Blair 2013; Cooper 2012; Penner 2010; Penner 2013

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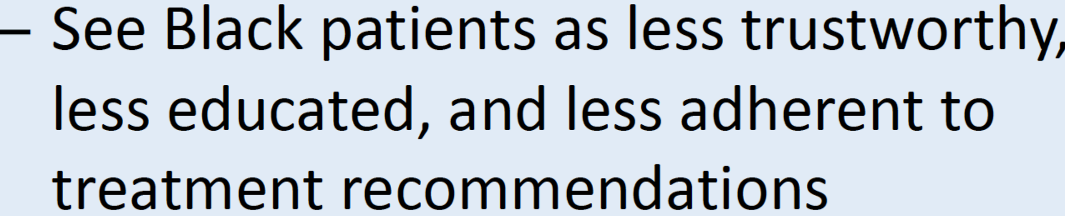

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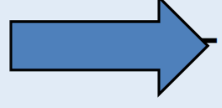

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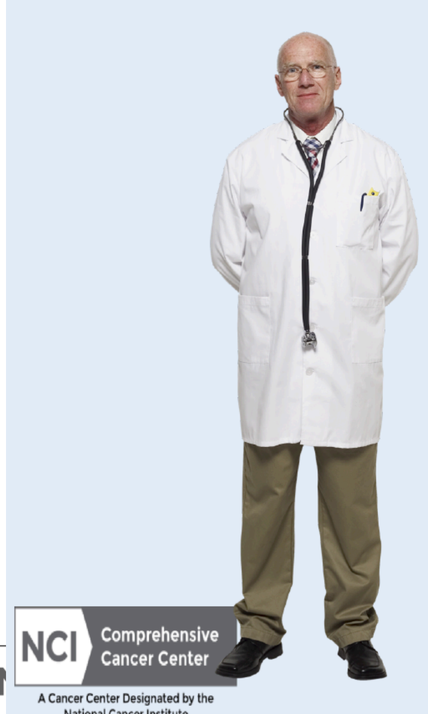


Hagiwara 2013; Blair 2013; Cooper 2012; Penner 2010; Penner 2013

Patient Perceptions and Attitudes

Consequences of Patient Racial Attitudes on Clinical Interactions and Outcomes

Patients with negative racial attitudes

- View physicians and medical institutions as less trustworthy
- Are less likely to engage in health behaviors
  - Cancer screening
  - Genetic counseling & testing
  - Adhere to treatment recommendations
  - Fill prescriptions

Hagiwara 2013; Blair 2013; Cooper 2012; Penner 2010; 2013; Sheppard 2013; Kalichman 2013

Potential Solutions

A Solution That Probably Won't Work

Telling Clinicians to Control Their Bias

May Actually:

"… cause (physicians) to be self-focused, and more oriented toward monitoring their own performance than toward learning about the particular needs and concerns of the patient with whom they are interacting." (Penner & Dovidio, 2016, p. 285)

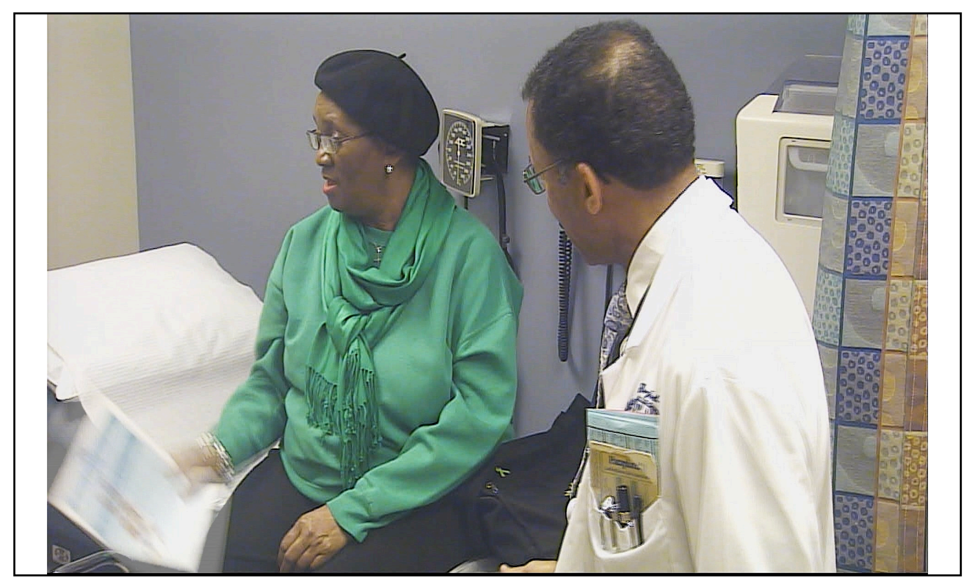
Possible Multi-Level Solutions

- **Clinician-focused approaches**
  - Encourage clinicians to "individuate"– see patients as a unique person, not a representative of a group
  - Encourage perspective-taking and cultural humility
  - Encourage training and use of patient-centered communication skills
- **Patient-focused approaches**
  - Empower patients and families by encouraging their agency, such as strategies to participate actively in clinical interactions and in healthcare relationships
- **Addressing structural racism**
  - Anti-racism training
  - Hiring and promoting a more diverse clinical and administrative staff
  - Engaging the surrounding community in meaningful ways that build trust

Penner, et al., 2014 Policy Insights Beh. & Brain Scie: Penner et al., 2013, J. Gen Intern. Med; Vince 2020 JAMA; Bailey et al 2021 NEJM

Study #1: Improving Patient-Clinician Communication

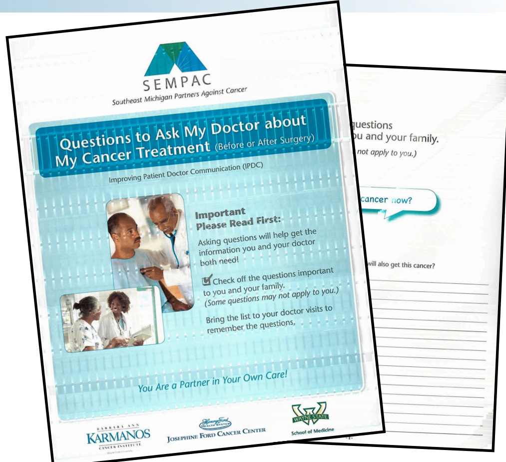
A Patient-Focused Communication Intervention to Improve Patient-Doctor Communication

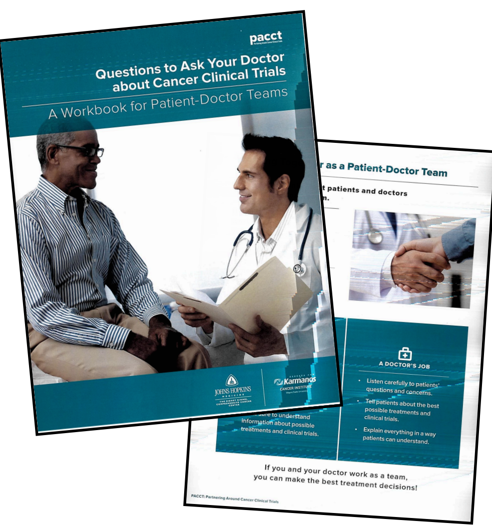


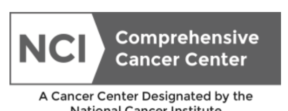
National Cancer Institute U54CA153606 (PI Albrecht & Chapman)
(Full Research Project Co-PI's Eggly & Penner)

Intervention: Question Prompt Lists

- List of questions patients may want to ask
- Empowers patients to participate actively
- Improve patient “active participation”
  - Asking questions, stating concerns
- Active participation influences:
  - Information provided
  - Treatment recommendations & decisions
  - Topics discussed
  - Other psychosocial/physical outcomes
- Never tested in a minority population







Sansoni 2015; Henselmans 2013; Brandes 2015; Cegala 2007; Street 2009; 2014; Clayton 2007; Dimoska 2008; Greene 2012; Barton et al 2020

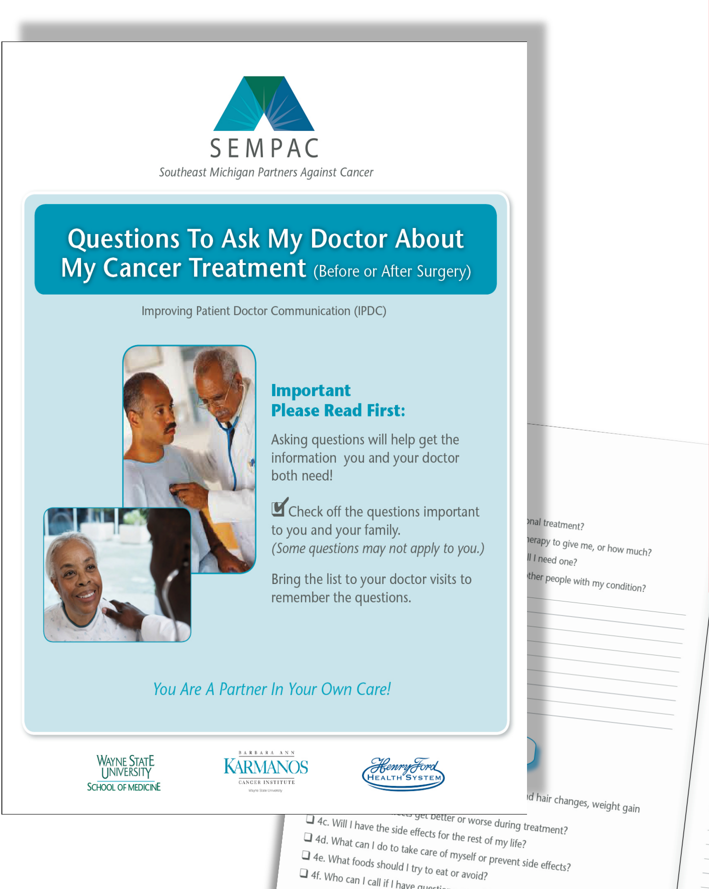
Study Purpose

1. Develop a communication intervention to increase patient active participation during oncology interactions, using a community-engaged research process
2. Conduct an RCT to test the feasibility, acceptability, and effectiveness of intervention with Black patients facing a clinical interaction to discuss medical treatment with a medical oncologist

Study Outcomes

- Outcomes to be assessed:
  - Acceptability with patients
  - Feasibility: Interaction length
  - Quality of communication: patient active participation; physician patient-centered communication
    - Observed, self-reported
  - Post-visit attitudes (e.g., trust)

Development of Question Prompt List



- Developed with stakeholders
  - Community partners, providers, and patients
- Qualitative methods: iterative development process
- Attention to content, design, and literacy level

Eggly et al J Cancer Ed, 2013

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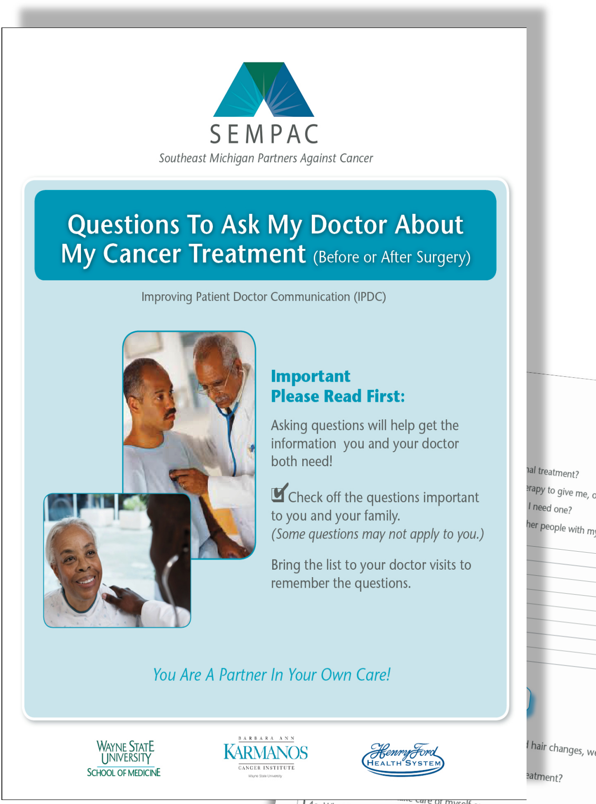
Development of Question Prompt List



Eight general categories, 45 questions

- *Where do I stand with my cancer?*
- *What treatment is right for me?*
- *How will I feel during treatment?*
- *Where can I get help with costs and coping?*

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Eggly et al J Cancer Ed, 2013

RCT

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Wayne State University

INTERVENTION

Recruit Medical Oncologists (n=35)

Recruit Patients (n=137) (AA, breast colon or lung cancer, first visit)

Patient Baseline (Demographics, race-based and other attitudes)

Usual Care

QPL only

QPL + Communication Coach

Clinic Visit (Video Recorded)

Follow-up Interviews (Patients and Oncologists)

Medical Chart Review

Oncologist Baseline (Demographics, race-based and other attitudes)

QPL

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Eggly et al 2017 Patient Educ and Couns

Findings: Sample (n=114 patients)

Patients (114)	
Age (Mean)	58.9 (SD=10.4)
Female	104 (91.2%)
Education	
< HS	26 (22.8%)
HS Grad	14 (12.3%)
Some College	38 (33.3%)
College Grad	21 (18.4%)
Post-Grad	15 (13.2%)
Annual Income	
<19,999	46 (40.4%)
20-39,000	32 (28.1%)
40-79,999	20 (17.6%)
>80,000	9 (7.9%)

Eggly et al 2017 Patient Educ and Couns

Findings: Feasibility and Acceptability

- Acceptability: Patients in both intervention arms reacted favorably to the intervention
- Feasibility: No significant differences in interaction length between intervention arms and usual care

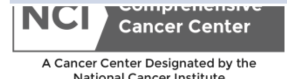
Eggly et al 2017 Patient Educ and Couns

Findings: Effects of intervention

	QPL-Only v. Usual Care	QPL+Coach v. Usual Care
Active Participation (Global) ("This patient asked a lot of questions")		
Active Participation (Number) (questions, assertions, concerns)		
Oncologist—Patient Talk Time Ratio		
Oncologist Patient-Centeredness Observer ratings Patient ratings		
Post-Visit Perceptions (e.g., trust)		

Findings:
Effects of intervention

	QPL-Only v. Usual Care	QPL+Coach v. Usual Care
Active Participation (Global) ("This patient asked a lot of questions")	p=.06	NS
Active Participation (Number) (questions, assertions, concerns)	p=.02 (effect size=0.55)	NS
Oncologist—Patient Talk Time Ratio	p=.01	NS
Oncologist Patient-Centeredness		
Observers	NS	NS
Patients	NS	.02 (LESS)
Post-Visit Perceptions (e.g., trust)	NS	NS



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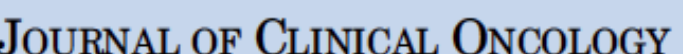

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Social Science & Medicine 191 (2017) 99–108

Contents lists available at ScienceDirect

Social Science & Medicine

The impact of Bl... on racially-disco...

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Randomized trial of a question prompt list to increase patient active participation during interactions with black patients and their oncologists

Measuring the Use of Examination Room Time in Oncology Clinics: A Novel Approach to Assessing Clinic Efficiency and Patient Flow

J Canc Educ (2013) 28:282–289

DOI 10.1007/s13187-013-0456-2

Development of a Question... Intervention to Reduce Ra... Treatment

Susan Eggly · Rifky Tkatch · Louis A. Penner · Lorna Mabunda · Janella Hudson · Robert Ch... Jennifer J. Griggs · Richard Brown · Terrance...

Published online: 26 February 2013

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Abstract Racial disparities have been found in ... chemotherapy as cancer treatment. These disparities may be, in part, due to well-documented differences in the quality of communication during clinical interactions with oncologists and Black versus White patients. In this study using a community-based participatory research approach, academic researchers, community members, and oncologists formed a partnership to develop a communication intervention to address racial disparities in cancer care. Partners developed a question prompt list (QPL), a simple tool that can be used to improve communication, and thus treatment, during clinical interactions in which oncologists and Black patients discuss chemotherapy. Partners endorsed the use of a QPL, provided specific suggestions for content and format, conducted and analyzed qualitative interviews with Black patients receiving chemotherapy, and approved the final version. The feasibility and effectiveness of the QPL that resulted from this research process are currently under evaluation in a separate study

Introduction

The purpose of this study was to develop an intervention designed to improve the quality of communication during interactions in which Black patients and their oncologists discuss adjuvant or neoadjuvant chemotherapy as a treatment for breast, colorectal, or lung cancer. We focused on this type of interaction because racial disparities have been found in the receipt, dosing, regimen, and time to start chemotherapy [1–6]. For example, Griggs and colleagues have found that even after controlling for factors such as stage of cancer, body size, and SES, Black women are more likely to receive reduced initial doses of chemotherapy and/or nonstandard regimens [1, 5]. One factor that clearly contributes to these racial disparities in cancer treatment is differences in the quality of communication during interactions in which treatment is discussed. Studies have shown, for example, that, relative to patient–physician clinical in-...

WILEY

...and treatment goals with patients ... A qualitative analysis of oncologists'

...ntribution | FOCUS ON QUALITY

Do Patients and Oncologists Discuss the Cost of Cancer Treatment? An Observational Study of Clinical Interactions Between African American Patients and Their Oncologists

Lauren M. Hamel, Louis A. Penner, Susan Eggly, Robert Chapman, Justin F. Klamerus, Michael S. Simon, Sarah C.E. Stanton, and Terrance L. Albrecht

QUESTION ASKED: Do African American patients with cancer and medical oncologists discuss cancer treatment costs, and if so, who initiates the discussion and what cost topics are discussed?

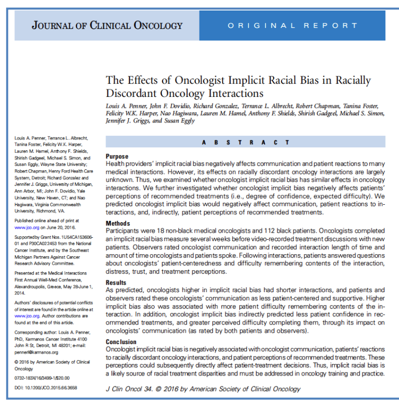
SUMMARY ANSWER: Treatment cost discussions occurred in 45% of clinical interactions between African American patients with cancer and their medical oncologists. Patients initiated 63% of discussions; oncologists initiated 36%. (One discussion was initiated by a patient's companion.) The most frequent topics were concern about time off from work for treatment (initiated by patients) and insurance (initiated by oncologists).

Eggly et al J Cancer Educ 2013; Eggly et al Pat Educ Couns 2017; Penner et al J Clin Onc 2017; Penner et al Soc Sci Med 2017; Hamel et al J Onc Pract 2014; Senft et al Soc Sci Med 2019; Chou et al Health Expect 2017; Hamel et al J Onc Practice 2017Otto et al J Onc Practice in Press

Effect of Oncologist Implicit Bias

Physicians with higher implicit bias…

- had shorter interactions
- used less patient-centered communication (patient-reported and observed)
- had patients report greater difficulty remembering discussion



JOURNAL OF CLINICAL ONCOLOGY — ORIGINAL REPORT

The Effects of Oncologist Implicit Racial Bias in Racially Discordant Oncology Interactions

Louis A. Penner, John F. Dovidio, Richard Gonzalez, Terrance L. Albrecht, Robert Chapman, Tanina Foster, Felicity W.K. Harper, Nao Hagiwara, Lauren M. Hamel, Anthony F. Shields, Shirish Gadgeel, Michael S. Simon, Jennifer J. Griggs, and Susan Eggly

Louis A. Penner, Terrance L. Albrecht, Tanina Foster, Felicity W.K. Harper, Lauren M. Hamel, Anthony F. Shields, Shirish Gadgeel, Michael S. Simon, and Susan Eggly, Wayne State University; Robert Chapman, Henry Ford Health Care System, Detroit; Richard Gonzalez and Jennifer J. Griggs, University of Michigan, Ann Arbor, MI; John F. Dovidio, Yale University, New Haven, CT; and Nao Hagiwara, Virginia Commonwealth University, Richmond, VA.

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Authors' disclosures of potential conflicts of interest are found in the article online at www.jco.org. Author contributions are found at the end of this article.

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ABSTRACT

Purpose
Health providers' implicit racial bias negatively affects communication and patient reactions to many medical interactions. However, its effects on racially discordant oncology interactions are largely unknown. Thus, we examined whether oncologist implicit racial bias has similar effects in oncology interactions. We further investigated whether oncologist implicit bias negatively affects patients' perceptions of recommended treatments (i.e., degree of confidence, expected difficulty). We predicted oncologist implicit bias would negatively affect communication, patient reactions to interactions, and, indirectly, patient perceptions of recommended treatments.

Methods
Participants were 18 non-black medical oncologists and 112 black patients. Oncologists completed an implicit racial bias measure several weeks before video-recorded treatment discussions with new patients. Observers rated oncologist communication and recorded interaction length of time and amount of time oncologists and patients spoke. Following interactions, patients answered questions about oncologists' patient-centeredness and difficulty remembering contents of the interaction, distress, trust, and treatment perceptions.

Results
As predicted, oncologists higher in implicit racial bias had shorter interactions, and patients and observers rated these oncologists' communication as less patient-centered and supportive. Higher implicit bias also was associated with more patient difficulty remembering contents of the interaction. In addition, oncologist implicit bias indirectly predicted less patient confidence in recommended treatments, and greater perceived difficulty completing them, through its impact on oncologists' communication (as rated by both patients and observers).

Conclusion
Oncologist implicit racial bias is negatively associated with oncologist communication, patients' reactions to racially discordant oncology interactions, and patient perceptions of recommended treatments. These perceptions could subsequently directly affect patient-treatment decisions. Thus, implicit racial bias is a likely source of racial treatment disparities and must be addressed in oncology training and practice.

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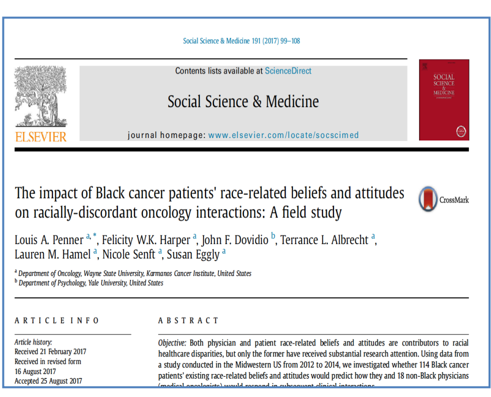
Effect of Patient Negative Attitudes

- When patients had greater negative race-related attitudes…



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The impact of Black cancer patients' race-related beliefs and attitudes on racially-discordant oncology interactions: A field study

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A R T I C L E I N F O

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A B S T R A C T

Objective: Both physician and patient race-related beliefs and attitudes are contributors to racial healthcare disparities, but only the former have received substantial research attention. Using data from a study conducted in the Midwestern US from 2012 to 2014, we investigated whether 114 Black cancer patients' existing race-related beliefs and attitudes would predict how they and 18 non-Black physicians

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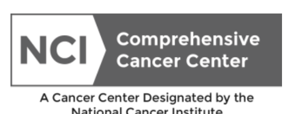
- Patients expected more difficulty completing treatment; talked more; rated physicians lower
- Physicians rated their patients' attributes lower (e.g., intelligence)

Study #2: Patients and Physicians

PACCT: Partnering Around Cancer Clinical Trials

A Multilevel Intervention to Increase the Participation of African Americans In Prostate Cancer Clinical Trials

R01CA200718-01 (Eggly, PI)



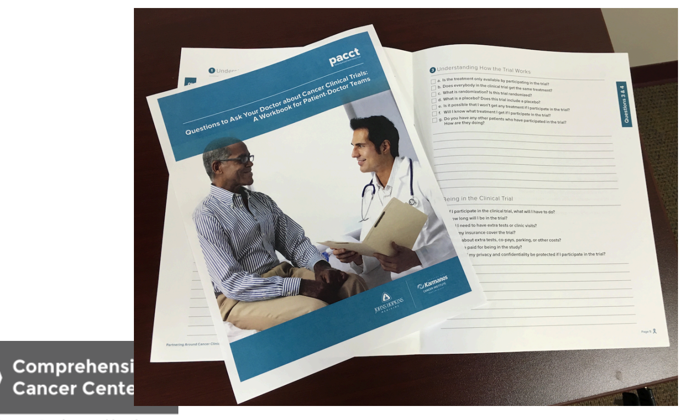
Two Sequential Interventions

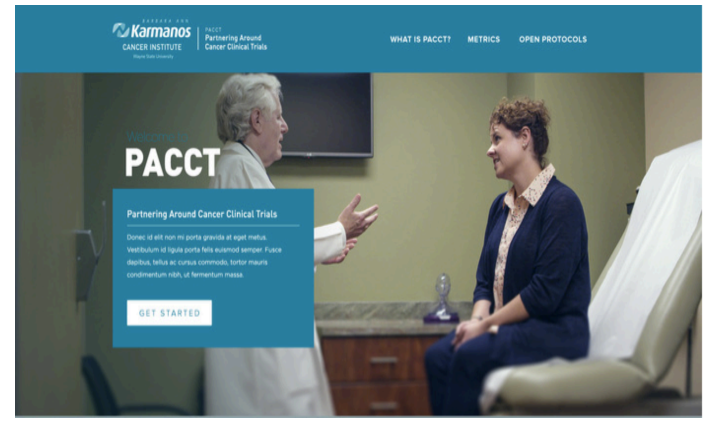
Patients

- Booklet with *questions* for patients to ask about trials
- Designed to encourage patients to participate actively, ask questions, etc. to make informed decisions

Physicians

- Web-based communication training program
- Addresses attitudes and skills to promote patient-centered clinical trial discussions with all patients

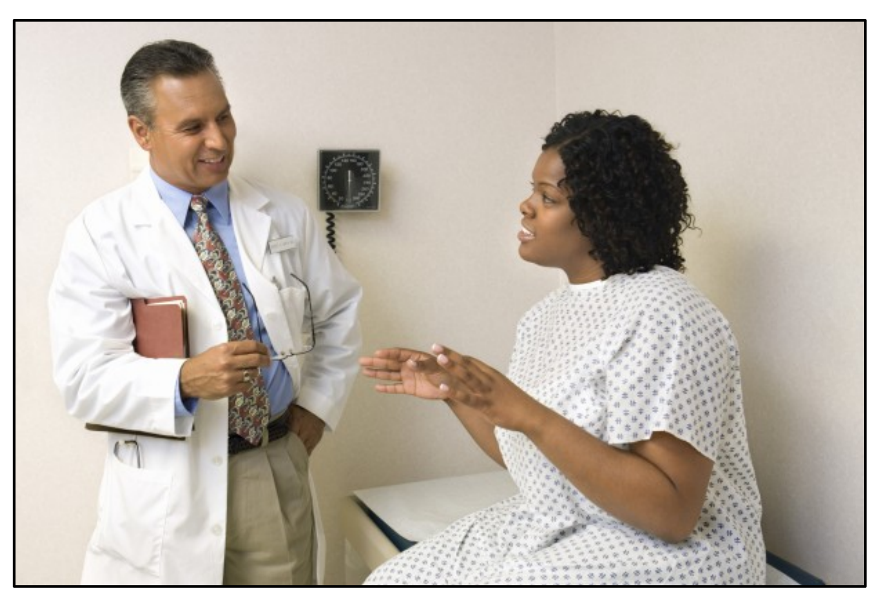




NCI Comprehensi Cancer Cente

A Cancer Center Designated by the National Cancer Institute

Final Thought



Creating an environment where implicit biases are less likely to be activated:

- Individualizing the patient
- Reducing distractions
- Providing time for patient to speak
- Allowing yourself to question assumptions

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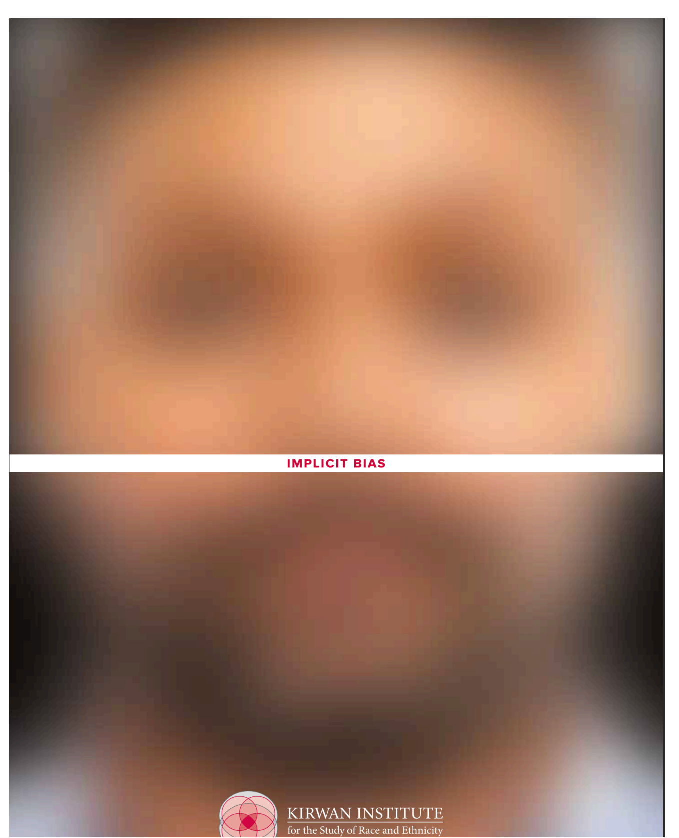
**State of the Science:
Implicit Bias Review 2014**



NCI Comprehensive Cancer Center
A Cancer Center Designated by the National Cancer Institute