Implicit Bias

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CONFLICTS OF INTEREST

None of the speakers or advisors of conflicts of interest to declare.
COURSE GOAL

Understand key concepts of implicit bias including the historical context, the underlying psychology that drives implicit associations and affects behavior, and apply this knowledge to effectively improve your clinical decisions and practices.
OVERVIEW

- Module I: Introduction and Historical Context
- Module II: Implicit Bias in Action
- Module III: Self-Awareness and Assessment
- Module IV: Mitigating Bias and Debiasing Strategies
- Module V: Provider Scenarios and Reflections
LEARNING OBJECTIVES

- **Module I: Introduction and Historical Context**
  - Define implicit bias and understand the difference from conscious processes
  - Understand historical context for implicit bias

- **Module II: Implicit Bias in Action**
  - Understand what causes implicit bias and how bias affects behavior
  - Identify at least two clinical scenarios where implicit bias can adversely impact care

- **Module III: Self-Awareness and Assessment**
  - Examine the nature of your own biases
  - Reflect on the possible effects of your biases on yourself and others

- **Module IV: Mitigating Bias and Debiasing Strategies**
  - Describe at least 3 individual-level strategies to mitigate bias in a clinical context
  - Describe at least 2 organizational-level strategies to mitigate bias in a clinical context

- **Module V: Provider Scenarios and Reflections**
  - Describe at least 2 organizational-level strategies to mitigate bias
IMPORTANT INFORMATION

- The video will progress at its own pace.
- Do not attempt to speed up the video.
- The post-test will only unlock after viewing the entire video.
- The video can be paused and resumed later.
MODULE I:

DEFINITIONS AND HISTORICAL CONTEXT
DEFINING IMPLICIT BIAS

- Implicit Bias = Unconscious Bias
- Attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner
- Activated involuntarily without awareness
- *Not* controlled intentionally
- *Not* accessible through introspection
DEFINING IMPLICIT BIAS

• Formed over an individual’s lifetime
  – Based on exposures
  – Based on messaging (direct and indirect)

• Causes us to have attitudes and feelings about others based on
  – Race
  – Ethnicity
  – Physical appearance
  – Age
HISTORICAL CONTEXT
HISTORICAL CONTEXT: 1619 SLAVE TRADE

- Torn from families
- Sold for labor
- Physically abused
- Perceived as genetically inferior
HISTORICAL CONTEXT

1850: James Marion Sims and other physicians begin experimenting on the bodies of Black women.

1807: The importation of humans becomes illegal, forcing Black women to procreate for the economic benefit of slave owners.
THE FATHER OF GYNECOLOGY

James Marion Sims (1836-1883)

"His fame and fortune were a result of unethical experimentation with powerless Black women. Dr Sims, 'the father of gynecology', was the first doctor to perfect a successful technique for the cure of vesico-vaginal fistula, yet despite his accolades, in his quest for fame and recognition, he manipulated the social institution of slavery to perform human experimentations, which by any standard is unacceptable."

Journal of Medical Ethics

James Marion Sims (1836-1883) “Father of Gynecology”
ANARCHA, BETSY, AND LUCY

First encounters with the medical system

- Suffered from vaginal fistulas
- Exposed to painful surgical experimentation; no anesthesia
- Anarcha endured up to 30 procedures
HISTORICAL ORIENTATION TO MEDICAL CARE

- Enslaved people were property
- When they were sick, their options for medical care were limited
- Medical providers perceived them as genetically different (Negro Medicine)
- Unethical experimental procedures were pervasive
- As a people, this was their orientation to the American medical community.

The effect of this legacy shows up today.
MEDICAL FALLACIES ABOUT BLACKS

In comparison to Whites, Blacks:

- Had thicker skin
- Faster blood coagulation
- Possessed higher pain tolerance
- Were predisposed to violence
- Had smaller brains
- Less respiratory capacity
PRESENT DAY EXAMPLES IN PAIN PRESCRIBING

• Blacks are systematically undertreated for pain relative to whites\(^1\)
  o Less likely to be given pain medications
  o If given, receive lower quantities

• Individuals with at least some medical training hold and may use false beliefs about biological differences between Blacks and whites to inform medical judgements
  o May contribute to disparity in pain assessment and treatment
    ▪ Black patients found significantly less likely than whites to receive analgesics for extremity fractures in the ED (57% vs. 74%)\(^2\)

PRESENT DAY EXAMPLES IN PAIN PRESCRIBING

National Hospital Ambulatory Medical Care Survey (2015)

• Large cross-sectional study of patients aged <21 in the ED diagnosed with appendicitis

• Black children significantly less likely to receive any pain medication for moderate pain and less likely to receive opioids for severe pain

Racial bias in pain as recommendations, and differences between

Kelly M. Hoffman\textsuperscript{a,1}, Sophie Trawalter\textsuperscript{a}, Jordan P. Graft\textsuperscript{a}

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Edited by Susan T. Fiske, Princeton University, Princeton, NJ.

NO SHORTAGE IN HEADLINES...

Some medical students still think black patients feel less pain than whites

By Ike Swetlitz / APRIL 4, 2016

Black patients are systematically undertreated for pain, decades of research have shown. And a study published Monday sheds light on one factor that might contribute to this disparity.
MYTHS OF INNATE RACIAL DIFFERENCES BETWEEN WHITE AND BLACK PEOPLE’S BODIES

The study, published in the Proceedings of the National Academy of Sciences, could help illuminate one of the most vexing problems in pain treatment today: That whites are more likely than blacks to be prescribed strong pain medications for equivalent ailments.

<table>
<thead>
<tr>
<th>Item</th>
<th>General</th>
<th>1st year</th>
<th>2nd year</th>
<th>3rd year</th>
<th>Residents</th>
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</thead>
<tbody>
<tr>
<td>Blacks age more slowly than white</td>
<td>23</td>
<td>21</td>
<td>28</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Blacks’ nerve endings are less sensitive than white</td>
<td>20</td>
<td>8</td>
<td>14</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Black people’s blood coagulates more quickly than whites</td>
<td>39</td>
<td>29</td>
<td>17</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Whites have larger brains than blacks</td>
<td>12</td>
<td>2</td>
<td>1</td>
<td>0</td>
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</tr>
<tr>
<td>Whites have a better sense of hearing than blacks</td>
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<td>7</td>
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<tr>
<td>Blacks have a more sensitive sense of smell than whites</td>
<td>58</td>
<td>40</td>
<td>42</td>
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<td>25</td>
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<tr>
<td>Blacks have a more efficient respiratory system than blacks</td>
<td>20</td>
<td>10</td>
<td>18</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Black couples are significantly more fertile than white couples</td>
<td>16</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>4</td>
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<tr>
<td>Blacks are better at detecting movement than whites</td>
<td>17</td>
<td>10</td>
<td>15</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Blacks have stronger immune systems than whites</td>
<td>18</td>
<td>14</td>
<td>15</td>
<td>5</td>
<td>11</td>
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</tbody>
</table>

Percentage of white participants endorsing beliefs about biological differences between blacks and whites. (Courtesy of PNAS/Hoffman et al)
1865: 13th AMENDMENT ABOLISHES SLAVERY

13th Amendment

Section 1. Neither slavery nor involuntary servitude, except as a punishment for crime wherein the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.

Section 2. Congress shall have power to enforce this article by appropriate legislation.
Myths about physical racial differences were used to justify slavery — and are still believed by doctors today.

By Linda Villarosa
AUG. 14, 2019
MODULE II:

IMPLICIT BIAS IN ACTION
WHAT CAUSES IMPLICIT BIAS?

• Operates on an unconscious level
• Neuroscientists estimate that we are exposed to 11 million pieces of information at any one time
• Our brains are designed to handle ~40
• To improve efficiency, our brains take mental shortcuts and create pathways of association
Human Decision Making: System 1 vs. System 2

Two Decision Making Routes

System 1
- Unconscious Emotion
- Very Fast
- Involuntary
- Associative
- Implicit Responses

System 2
- Conscious Thinking
- Slow
- Controlled
- Rule Following
- Explicit Responses
It’s the natural tendency of the brain to sift, sort, and categorize information about the world that leads to these implicit biases.
IMPLICIT BIAS IN ACTION:

EXERCISES
THE STROOP COLOR AND WORD TEST (SCWT)

• The Stroop Effect
  – “Interference” occurs no matter how hard you try
  – Uncontrollable with even the best conscious effort

• Related to **selective attention**: the ability to respond to certain environmental stimuli while ignoring others.

• Developed in the 1930s but still frequently used to measure how well people can do something that clashes with their typical response pattern.
CNA OYU RAED TIHS?
SCIENTIFIC BASIS OF IMPLICIT BIAS
HOW THE HUMAN BRAIN ADAPTS

• Decision-making, ambiguity, novelty and problem solving require significant cognitive load
• Priority is to conserve energy
• Priority is efficiency
• Human brain has evolved to have mental shortcuts that save time and yield reliable results (most of the time)
WHEN IMPLICIT BIAS SHOWS UP

• Stress
• Time Pressure
• Fatigue
• Multi-Tasking
• Need for closure or solution
WHEN IMPLICIT BIAS SHOWS UP

• Know that it’s part of the human condition
• May not be aligned with our declared beliefs
• Stems from human tendency to gravitate towards, and show preference for things that are more like us, than different (or share similar characteristics)
“While we are physiologically hardwired for these biases and we must realize the world in which we live is a key contributor. Social cognition and mental models play a major role”
Canon™ Australia- “A photograph is shaped more by the person behind the camera than what is in front of it”

Alcoholic? Or Millionaire?
SELF-MADE MILLIONAIRE
EX-CONVICT
ALCOHOLIC
“But you don’t look like a scientist!”

“But you don’t look like a scientist!”

**FINDINGS**

NO difference in likelihood of being a Scientist or Being a Teacher

* Males = low likelihood of being a teacher
EMPATHY AND BIAS

Some findings might give us some clues on how to best teach empathy

Young women were more accurate in assessing the emotions seen in faces that they judged to be most similar to themselves.

Mitchell, Banaji and Macrae 2005 J of Cognitive Neuroscience 17:1306
Some findings might give us some clues on how to best teach empathy

- Studies of sensorimotor contagion have shown that muscle specific motor-evoked potentials (MEPs) are inhibited when participants observe the physical suffering of another.
- However, this finding is not exhibited when the other is of a different race.
- Combined the use of fMRI with the IAT – Implicit Attitude Test
Intergroup Empathy: How Does Race Affect Empathic Neural Responses?

A Black and White participants observe a needle penetrating a black, white or purple hand.

B- MEPs inhibition is greater (more negative) for ingroup hands. Slightly inhibited for culturally unfamiliar hands.

C - Participants who had greater unconscious racial bias (IAT) showed more ingroup bias as measured by MEP.

MODULE III:

SELF-AWARENESS AND ASSESSMENT
UNDERSTANDING YOUR OWN BIASES

Take the IAT: Project Implicit  http://implicit.harvard.edu
UNDERSTANDING YOUR OWN BIASES

The Implicit Association Test (IAT)

• Measures strength of associations between concepts
• Factors in time taken to make a selection
  – Measures the gap between the conscious and subconscious mind
HOW THE IAT WORKS

• Imperfect
• Indirect measure of implicit social cognition (unconscious attitudes)
• Sort and pair images and words as they flash on a computer screen
• Based on the assumption that response to images that are more easily associated will be faster than response to images that are less easily associated
• Resistant to social desirability
You have completed the African American - European American IAT.

Your Result
Your data suggest a strong automatic preference for European American compared to African American.

Thank you for your participation. Just below is a breakdown of the scores generated by others. Most respondents find it easier to associate African Americans with Bad and European Americans with Good compared to the reverse.

Many of the questions that you answered on the previous page have been addressed in research over the last 10 years. For example, the order that you performed the response pairing is influential, but procedural corrections largely eliminate that influence (see FAQ #1). Each visitor to the site completes the task in a randomized order. If you would like to learn more about the IAT, please visit the FAQs and background information section.

You are welcome to try additional demonstration tasks, and we encourage you to register (easy) for the research site where you will gain access to studies about more than 100 topics about social groups, personality, pop culture, and more.

Percent of web respondents with each score

| Strong automatic preference for White people compared to Black people | 27% |
| Moderate automatic preference for White people compared to Black people | 27% |
| Slight automatic preference for White people compared to Black people | 16% |
| Little to no automatic preference between Black and White people | 17% |
| Slight automatic preference for Black people compared to White people | 6% |
| Moderate automatic preference for Black people compared to White people | 4% |
| Strong automatic preference for Black people compared to White people | 2% |

Click for detailed summary
MODULE IV:

MITIGATING BIAS AND DEBIASING STRATEGIES
EMOTIONAL REGULATION

• “Thinking about thinking”

• The ability to deliberately detach oneself from the immediate context in which the decision is made (in order to reflect on the thinking process used)

• Be aware: recognize states of heightened emotions

• “Manage the meaning”

• Allows to check for conflicting evidence and consider alternatives to the decisions made *

*Cognitive debiasing 2: impediments to and strategies for change. Croskerry P, Singhal G, Mamede S
MANAGING THE UNCONSCIOUS

- Learn to correct our biases
- Use habit breaking routine
- Planned in advance when, where, and how to act
- Uses situational cues
STEREOTYPE REPLACEMENT
COUNTER-Stereotyping

• An imaging strategy to create an opposite image
  – Make a positive association with a counter-stereotypic image

• Makes positive exemplars salient when challenging the validity of a stereotype
INCREASED OPPORTUNITIES FOR CONTACT

• Find reasons to interact with individuals you would not typically come into contact with
  o Age
  o Race/ethnicity
  o Sexual orientation etc.
EXPOSURE AND INTER-GROUP INTERACTION
MINDFULNESS AND AWARENESS
INDIVIDUALISATION

• Requires a conscious effort to avoid making snap decisions
  o Get information about the individual
  o Avoid generalizing about group-based attributes
IDENTIFY HIGH-RISK SITUATIONS

• Proactively identify times when implicit bias is mostly likely to show up
  o Time pressure
  o Stress
  o Fatigue
INSTITUTIONAL- AND SYSTEM-LEVEL STRATEGIES

• Equity as a leader-driven priority
• Evaluate policies and procedures
• Hiring practices
  o Diversity and representativeness
  o Inclusive leadership
• Community partnership
MODULE V:

PROVIDER SCENARIOS AND REFLECTIONS
THANK YOU

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