Investigating the Need for Implicit Bias Training on a Labor and Delivery Unit

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Background

- The U.S. is the only industrialized nation where the maternal mortality rate has been on a growth trajectory since 2000
- U.S. Black women are 3-4x more likely to die from birth complications than White women, regardless of education or socioeconomic status
- Implicit bias (unconscious attitudes/stereotypes affecting understanding, actions, decisions) is a contributing factor to this health disparity
- No implicit bias training currently exists within the labor and delivery unit of a large, urban medical center

Purpose

- To examine implicit bias among healthcare providers working on a labor and delivery unit
- To determine provider interest in implicit bias training

Theoretical Model

Theory of Culture Care and Universality
- Delivers culturally congruent care to meet diverse needs of patients
- Identifies external forces such as implicit bias that negatively impact health outcomes

Methods

Design
- A survey design was used

Setting and Participants
- A large, private, urban medical center with 10-bed, Level III Labor and Delivery unit
  - 2,300 deliveries annually
 - Providers include 47 nurses and 53 physicians

Measures

The Harvard Skin Tone Implicit Association Test (IAT)
- A validated measure of attitudes and beliefs that people may be unwilling or unable to report
- Measures the strength of bias based on the speed at which a participant assigns positive/negative concepts to images of people with varying skin tones

## Methods, contd.

Steps to Administering the IAT
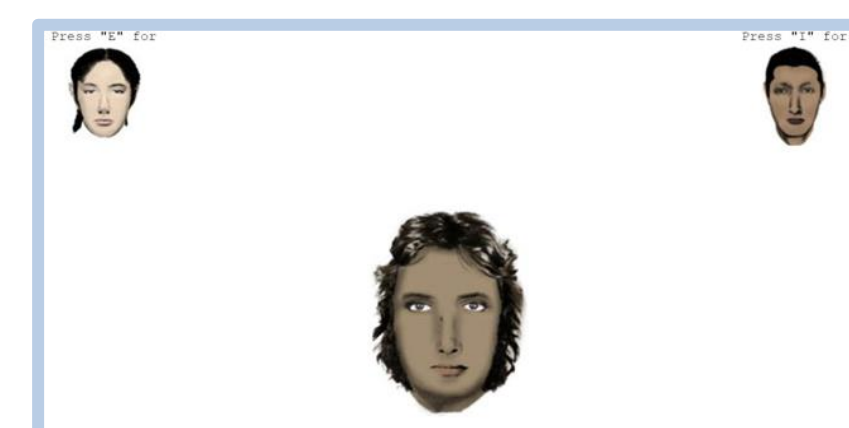
1. Light skin appears in the left corner of the screen and dark skin in the right corner. Quickly assign positive and negative connotations to images of various skin tones that rapidly appear in the center screen by pressing one key for dark and another key for light.

2. "Bad" appears in the left corner and "good" appears in the right corner. Quickly sort words that appear in the center into each category (e.g., *Happy, Pleasing, Joyful, Terrific, Selfish, Bothersome, Rotten, Evil*)
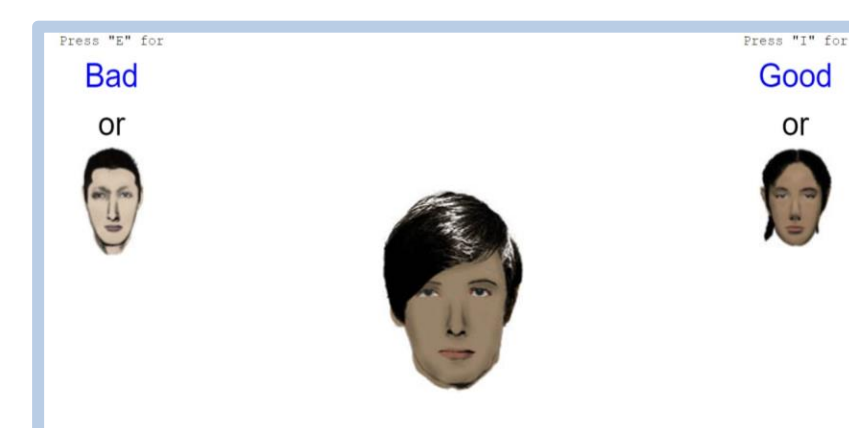
3. The left corner is assigned the "bad" category/light-skinned images while the right corner is assigned the "good" category/dark-skinned images. Continue to quickly assign the images and words that appear in the center to each category.
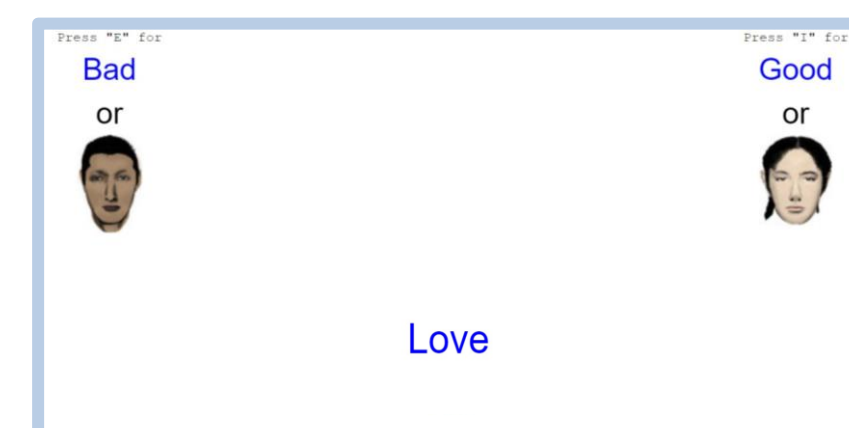
4. The good and bad categories are switched to light-skin skin/good in the left corner and dark-skin/bad in the right corner.

Scoring the IAT
- Scored by an algorithm using the speed that concepts and evaluations are sorted in the first versus the second skin-tone comparisons
- The degree of implicit bias is measured by the strength of association of items to skin tone and the speed the test-taker assigns items
- If the score shows a preference for dark skin, test-taker assigned:
  - Positive items faster to images of dark skin-tone
  - Negative items faster to images of light skin-tone
- Scored on a seven-point scale from strong automatic preference for light skin tone to strong automatic preference for dark skin tone
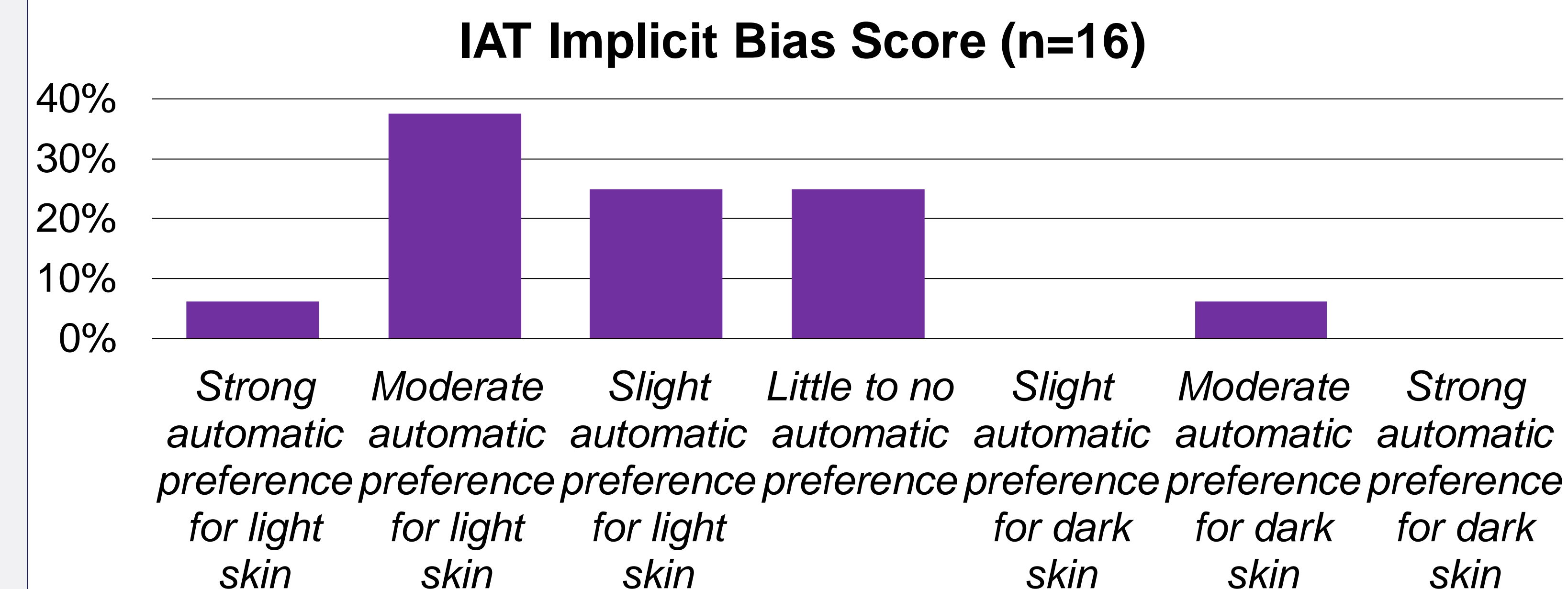
Supplemental Survey
- Provider occupation (physician or nurse)
- Surprised by my IAT score (yes/no)
- Implicit bias could impact clinical decision-making (yes/no)
- Providers would benefit from implicit bias training (yes/no)

Procedures
- An email flyer introducing the study was sent to all nurse and physician providers with a link to the survey in REDCap
- The REDCap survey included a link to the Skin Tone IAT website
- Weekly email remainders were sent for 3 weeks to non-responders
- Providers were also introduced to the study in-person during shift change 6 times over 4 weeks
  - Provided the flyer with a QR code to access the REDCap survey
  - Given pens as an incentive to participate
- At completion of the Skin Tone IAT measure, participants were given their score and asked to place it in the REDCap survey
- After the survey, a harm mitigation statement was included with a link to implicit bias resource <https://implicit.harvard.edu/implicit/faqs.html>
- Survey was open for 4 weeks from June 21 through July 18, 2021

Results

- 17 providers (10 nurses, 7 physicians) participated in the survey

IAT Implicit Bias Score (n=16)

- 69% of participants' IAT score indicated an automatic preference (bias) for light skin

Supplemental Survey (n=17)	
	n (%)
Surprised by my IAT Score (n=16)	9 (56.3%)
Implicit bias can impact decision making	17 (100%)
Staff would benefit from implicit bias training	17 (100%)

- 56% of participants were surprised by their IAT score
- All participants saw the benefit for implicit bias training

IAT Score by Surprise at IAT Score

IAT Score	Surprised by IAT Score	
	Yes (n=9)	No (n=7)
Strong for light skin	1 (11.1%)	0 (0.0%)
Moderate for light skin	5 (55.6%)	1 (14.3%)
Slight for light skin	3 (33.3%)	1 (14.3%)
Little to none	0 (0.0%)	4 (57.1%)
Slight for dark skin	0 (0.0%)	0 (0.0%)
Moderate for dark skin	0 (0.0%)	1 (14.3%)
Strong for dark skin	0 (0.0%)	0 (0.0%)

- Participants surprised by their score all indicated a bias toward light skin

Conclusions

- Findings show existence of implicit bias with the majority of participants reporting a preference for light skin
- Implicit biases must be addressed to better provide culturally congruent, equitable, maternal health care
- Next steps include examining the patient experience with person-centered care during childbirth
- Recommendation: using a restorative justice framework to develop and implement unit-specific implicit bias training that is informed by input from stakeholders and community members