


Implicit Bias Among Health Care Professionals

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Disclosures and Conflict of Interest

- I declare no conflicts of interest, real or apparent, and no financial interests in any company, product, or service mentioned in this program, including grants, employment, gifts, stock holdings and honoraria.



2

Disclosure of AI Use


AI was not used in development of this presentation.



3

Disclaimers

- I am not here to tell you what to believe
- This is a participatory workshop that can help you better understand and address the difficult issue of implicit bias



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Objectives

At the conclusion of this program, the pharmacist and pharmacy technician will be able to:

- Define the mechanisms and manifestations of implicit bias
- Explain the impact of implicit bias in health care and population health
- Review methods for reducing negative impact of implicit bias



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1. Which of the following is true regarding implicit bias?
 - a. Implicit and explicit biases often manifest concurrently
 - b. Implicit bias is an evolutionary mechanism to reduce cognitive load
 - c. One's implicit bias is static
 - d. Stereotyped populations have less implicit bias than majority populations

Pre-Test Questions



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2. Which best describes health care professional (HCP) implicit bias?

- a. HCPs have the same implicit biases as the general population
- b. HCP implicit bias has less impact in the health care system since it is buffered from structural racism/discrimination
- c. HCP implicit bias is higher than the general population due to emotional intensity of their work
- d. HCP implicit bias is mitigated by their scientific training and background

Pre-Test Questions



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3. Which of the following statements is true regarding reducing the impact of implicit bias?

- a. It is not possible to retrain the brain and its implicit bias processes
- b. Only the individual can reduce their own implicit bias
- c. Reducing implicit bias will not positively impact disparities in health care
- d. Self-reflection on one's implicit biases is key to reducing its negative effects

Pre-Test Questions




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4. Cultural competency training has been shown to improve the impact of implicit bias

a) True
b) False

Pre-Test Questions



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Implicit Bias – What Is It?




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Implicit bias

Bias:
“Negative attitude held about one group of people relative to another group of people”

Implicit bias:
“The attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner”



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Implicit bias – alternative terms

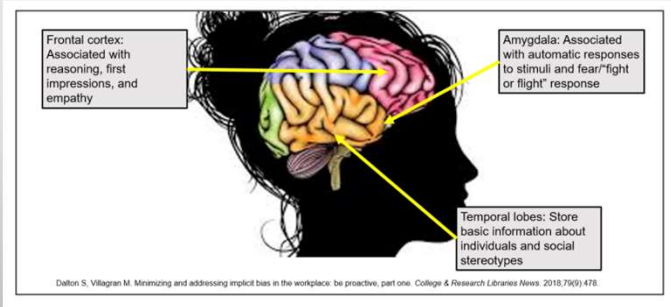
- Unconscious bias
- Implicit prejudice
- Implicit social cognition

“The attitudes or stereotypes that affect our understanding, actions, and decisions in an unconscious manner”



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Evolution of implicit bias



American Academy of Family Physicians, The EveryONE Project 2019.



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How implicit biases work in subconscious mind



Adapted from: from: Matthew, DB. Just Medicine: A Cure for Racial Inequality in American Health Care. 2018



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How implicit biases work in subconscious mind

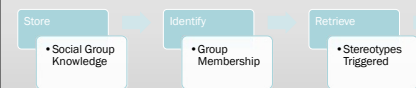


Adapted from: from: Matthew, DB. Just Medicine: A Cure for Racial Inequality in American Health Care. 2018



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How implicit biases work in subconscious mind

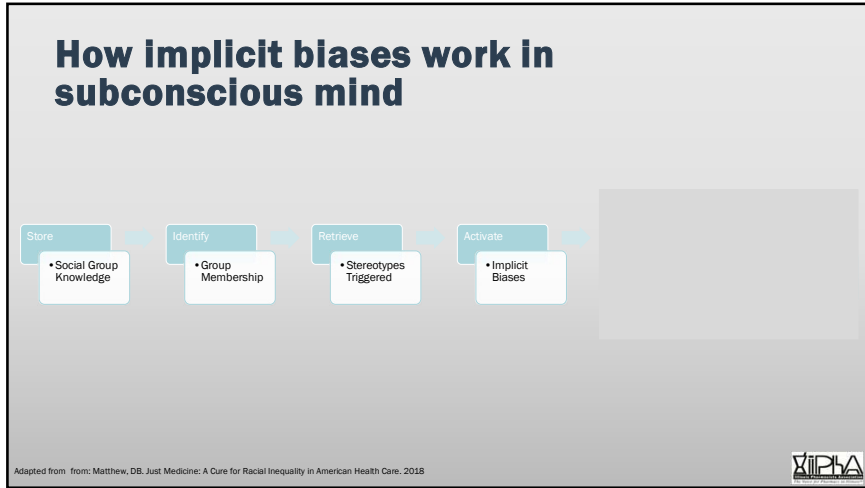


“Unconscious stereotypes are pulled from storage to help sort out the new person or situation before us, *regardless of their accuracy about or applicability to the individual in fact*”

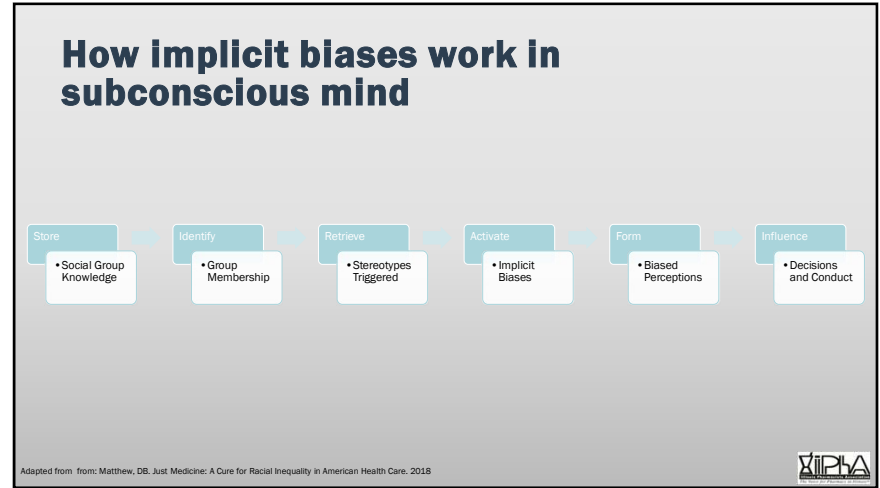
Adapted from: from: Matthew, DB. Just Medicine: A Cure for Racial Inequality in American Health Care. 2018



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Gold standard – Implicit Association Test (IAT)

Measures user's unconscious associations between concepts and evaluations

Implicit Association Test

Next, you will use the 'E' and 'I' computer keys to categorize items into groups as fast as you can. These are the four groups and the items that belong to each:

Category	Items
Good	Smiling, Glad, Laughing, Spectacular, Cherish, Excitement, Glorious, Terrific
Bad	Dirty, Horrible, Gross, Rotten, Disgust, Despise, Yucky, Humili
Fat People	
Thin People	

There are seven parts. The instructions change for each part. Pay attention!

[Continue](#)

Measuring implicit bias – IAT

Project Implicit. Accessed June 2025

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Press "E" for
Bad words

or

Press "I" for
Good words

or

Thin people

or

Fat people

Part 3 of 7

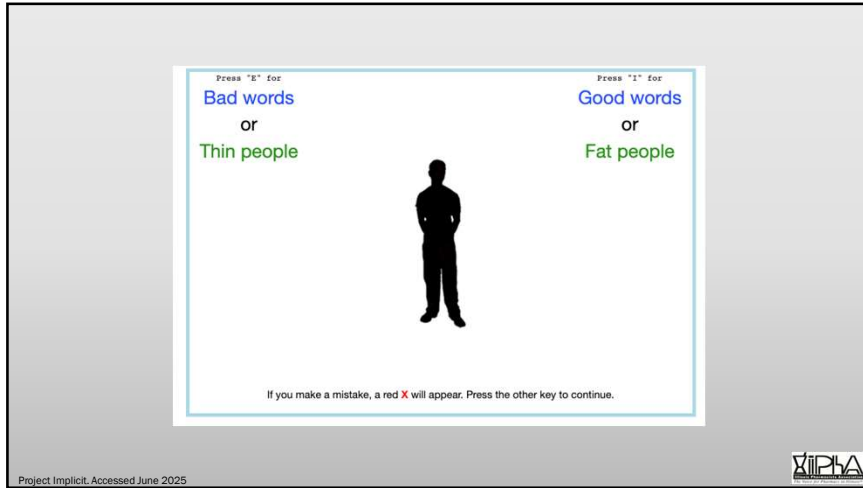
Use the **E** key for **Thin people** and for **Bad words**.
Use the **I** key for **Fat people** and for **Good words**.
Each item belongs to only one category.

If you make a mistake, a red **X** will appear. Press the other key to continue.
Go as fast as you can while being accurate.

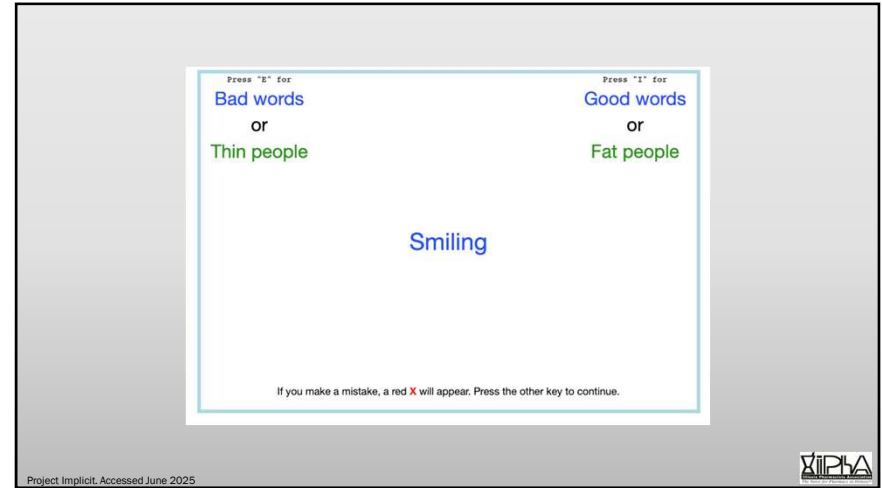
Press the **space bar** when you are ready to start.

Project Implicit. Accessed June 2025

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Do health care professionals have implicit bias?



FitzGerald and Hurst *BMC Medical Ethics* (2017) 18:19
DOI 10.1186/s12910-017-0179-8

BMC Medical Ethics

RESEARCH ARTICLE Open Access

Implicit bias in healthcare professionals: a systematic review

Chloë FitzGerald¹ and Samia Hurst


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Implicit bias in healthcare professionals: a systematic review

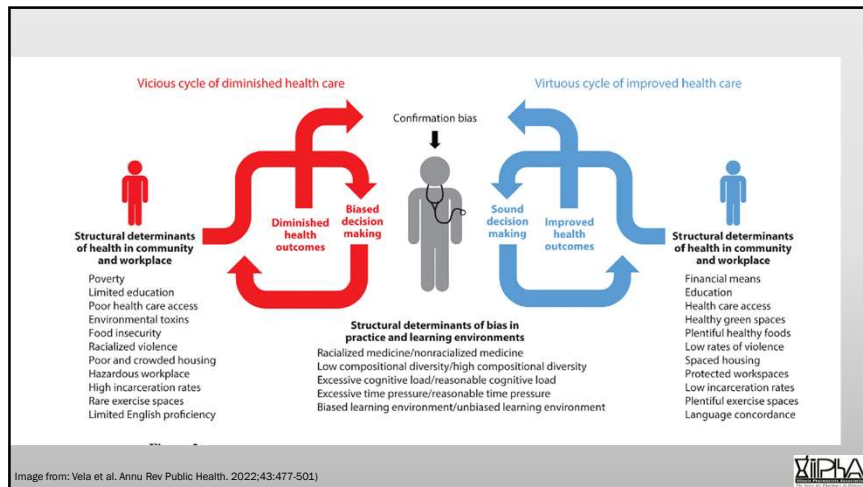
Chloë FitzGerald¹ and Samia Hurst

Year	Author(s)	Country	Assumption Method Biases	Sample	Method	Demographics	Findings
2004	Arber ¹ [27]	US/UK	Assumption Method Biases: Age, Gender, Racial/ethnic and Socio-Economic Status (SES)	256 primary care physicians in the US and the UK	Screening telephone calls	65% in the US and 60% in the UK	Gender and age influenced the doctors' questioning of patients presenting with coronary heart disease (CHD) in both countries. Men were asked more questions overall and middle-aged patients were asked more lifestyle questions.
2006	Arber ¹ [32]	UK and US	Assumption Method Biases: Age, Gender, Racial/ethnic and SES.	256 primary care physicians in the US and the UK	Screening telephone calls	65% in the US and 60% in the UK	The gender of the patient significantly influenced doctors' diagnostic and management activities. Middle women were asked fewer questions and prescribed least medication appropriate for CHD.
2006	Barnhart [66]	US	Assumption Method Biases: Racial/ethnic, Gender, and Social Circumstances.	544 family medicine physicians, internists, cardiologists, and cardiothoracic surgeons	Mail-out.	70%	The patient's race and gender did not significantly affect the physicians' treatment preferences. However, significant differences were found according to social circumstance.
2008	Böner ¹ [31]	US, UK and Germany	Assumption Method Biases: Age, Gender, Racial/ethnic and SES.	384 physicians (internists or family practitioners in the US and Germany or general practitioners in the UK)	Screening telephone calls	64.9% in the US, 59.6% in the UK, and 65% in Germany.	Results showed gender differences in the diagnostic strategies of the doctors.
2010	Dehlendorf [39]	US	Assumption Method Biases: Racial/ethnic and SES.	524 health care providers (96% MD/DO, 4% Nurse Practitioner/Physician Assistant)	Convenience sample from meetings of professional societies.	Not specified.	Low SES whites were less likely to have intrauterine contraception recommended than high SES whites. By race/ethnicity, low SES Latinos and blacks were more likely to have intrauterine contraception recommended than low SES whites, with no effect of race/ethnicity for high SES patients. Low SES patients were judged to be significantly more likely than high SES patients

BMC Medical Ethics (2017) 18:19



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Implicit bias in health care

- Implicit biases manifest in several ways
 - Absence of evidence-based management plans
 - Not prescribing a statin to someone who qualifies because they are homeless and uninsured
 - Not prescribing necessary opioids in an acute pain syndrome in a person of color
 - Not prescribing buprenorphine to a patient with opioid use disorder because of the concern that they are selling it for illicit drug money
 - Encouraging a patient with obesity to lose weight to help with their joint pain instead of offering the standard workup
 - Tone of voice, language, body language
 - Use of incorrect pronouns
 - Speaking in overly simple terms to a female person
 - Standing or sitting far away from a transgender person

Bioethical Inquiry. 2016;13
Matthew, DB. *Just Medicine: A Cure for Racial Inequality in American Health Care*. 2018



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Impact of implicit bias on health care

Lack of analgesia in Black people

Lack of thrombolysis in Black people

Increased weight gain in people who are obese

Suboptimal use of medications for opioid use disorder or appropriate pain management in people with substance use disorder

Society of General Internal Medicine 2007;22
Am J Public Health. 2012;102
American Diabetes Association. 2016;43:1
Substance Use & Misuse. 2014;49:7

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Impact of implicit bias on health care

“While no study has precisely quantified the extent of demonstrated associations between...bias, inferior health care, and poor health outcomes, ***the scientific record is too well developed to ignore that there is more than a mere chance association between implicit bias and health disparities.***”

-Dayna Bowen Matthew

Just Medicine: A Cure for Racial Inequality in American Health Care

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Breaking Barriers to a Brighter Future

Mitigating Implicit Bias's Effects

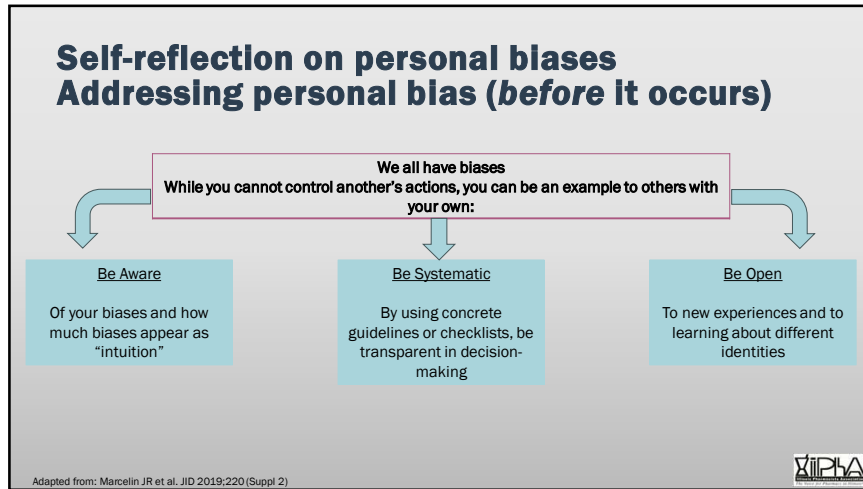
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Mitigating Implicit Bias's Effects

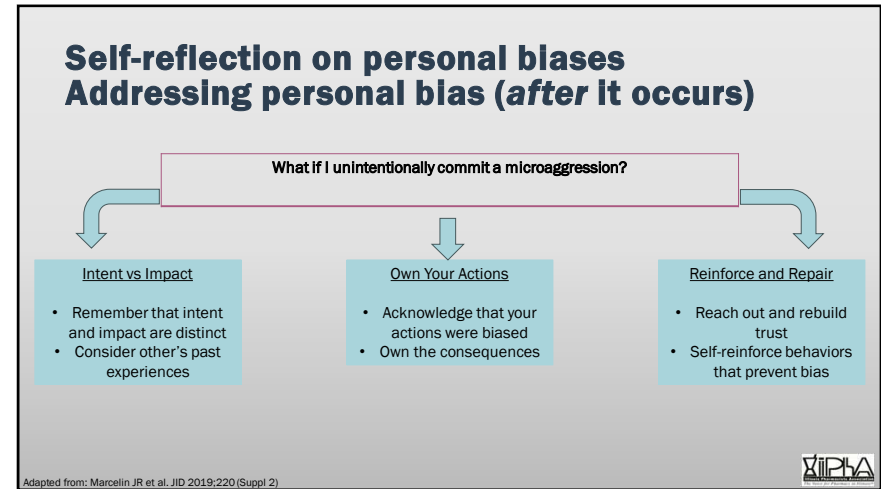
- Leadership commitment to culture change (Organization)
- Intentionally diversify experiences (Both)
- Meaningful diversity training (Organization)
- Cultural humility and curiosity (Both)
- Self-reflection on personal biases (Individual)
- Mentorship and sponsorship (Both)
- Question and actively counter stereotypes (Individual)

Image adapted from: Marcein JR et al. JID 2019;220 (Suppl 2)

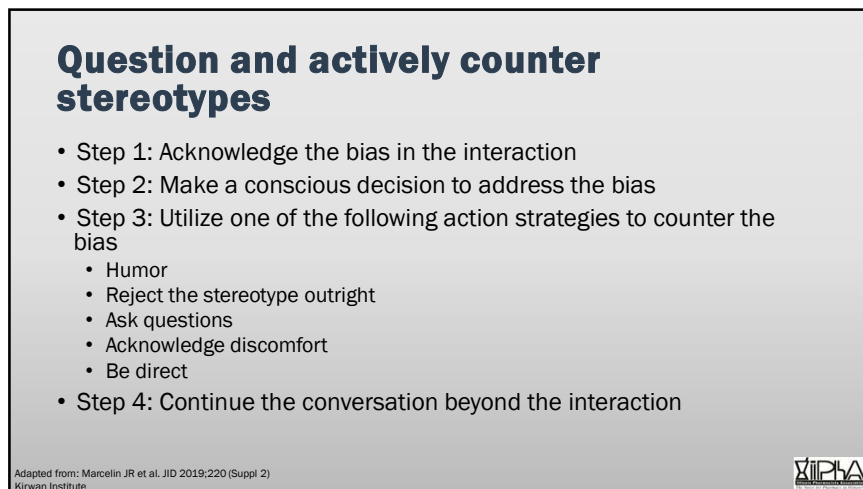
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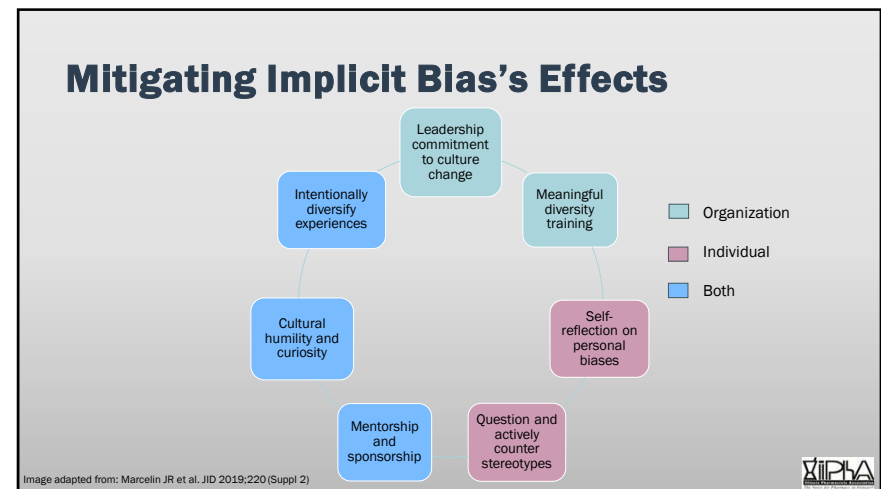
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Let's Discuss

Breaking the prejudice habit. Cognitive Dissonance Exercise

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IAT Results

- First, complete Attitudes Survey
- Next, complete Behaviors Survey

Breaking the prejudice habit. Cognitive Dissonance Exercise

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Cognitive Dissonance Exercise

Attitude Survey

- 1) Texting while driving is dangerous. Yes/No
- 2) It is important to stay informed about proposed legislation that affects my community. Yes/No
- 3) Soft drinks/sodas are unhealthy beverages. Yes/ No
- 4) Poverty is a serious problem that needs to be addressed. Yes/No
- 5) Smoking is an unhealthy behavior. Yes/No

Breaking the prejudice habit. Cognitive Dissonance Exercise

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Cognitive Dissonance Exercise

Behavior Survey

- 1) I text when I am driving. Yes/No
- 2) I am able to name at least one bill affecting my community that was passed in the last year by the legislators in my county or my state. Yes/No
- 3) I drink soft drinks/sodas. Yes/No
- 4) Within the last year I have donated money or engaged in volunteer work to address the problem of poverty. Yes/No
- 5) Within the last year I have smoked a cigarette. Yes/No

Breaking the prejudice habit. Cognitive Dissonance Exercise

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Debrief

1. Did you experience cognitive dissonance? Why or why not?
2. What thoughts were going through your head as you completed the Behavior Survey and had answers that were incongruent with your Attitude Survey
3. What was your emotional reaction to experiencing dissonance?
4. What strategies did you use to try and lessen your experience of dissonance?
5. How does this activity relate to understanding implicit bias?

Breaking the prejudice habit. Cognitive Dissonance Exercise



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COGNITIVE DISSONANCE

an unpleasant state that arises when an individual holds beliefs, attitudes or behaviors that are at odds with one another



CONFLICTING THOUGHTS

"I know it is good for my health to exercise three times a week," and
"I did not exercise at all this week."

CAUSE

Anxiety & discomfort;
Individuals are motivated to move themselves out of dissonance.

COPING STRATEGIES

Rationalization, Denial, Minimization
"That was a long walk from the parking lot, I can count that as my exercise."

RECOGNIZE & CHALLENGE

Recognize and challenge the anxiety and discomfort. Transformational learning occurs when we open our minds and hearts to this work.

Breaking the prejudice habit. Cognitive Dissonance Exercise

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Questions???

Column 1



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Final tips & Take Home Points

- To be human is to have implicit bias
- Implicit bias plays a role in propagating health disparities among disadvantaged and vulnerable populations
- Acknowledging and addressing our implicit bias are key to reducing the negative impact it has on our society at large
- The negative impact of implicit bias *can* be mitigated



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Supplemental Sources

- Kirwin Institute for the Study of Race and Ethnicity. Understanding Implicit Bias. No longer available for viewing outside of OSU, but transcript available here: <https://kirwaninstitute.osu.edu/sites/default/files/documents/video-captions.pdf>
- Take an Implicit Association Test: <https://app-prod-03.implicit.harvard.edu/implicit/takeatest.html> (free upon account activation, or as a guest)



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Thank you

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