



# Implicit Bias: Understanding and Attitudes Among Preclinical Undergraduate Medical Students

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## Introduction

**Implicit biases are attitudes toward groups or individuals that one is not necessarily aware they hold but may nonetheless shape their behavior<sup>1,2</sup>.**

- Researchers have established that medical professionals may make decisions that are influenced by their implicit biases, even if these professionals are not aware of the effects of their biases<sup>1,2</sup>.
- Bias-driven decision-making in healthcare has been shown to correlate with unfavorable health outcomes among patients from certain populations<sup>1</sup>.
- Studies have shown that self-awareness of implicit bias, via Implicit Association Testing (IAT)<sup>3</sup>, helps individuals to shape their behaviors in ways that actively seek to mitigate negative effects of their biases<sup>4</sup>.

**Implicit bias self-awareness should be of particular importance to M.D. candidates at Wayne State University School of Medicine (WSUSOM).**

- Not only does WSUSOM have the largest single-campus M.D. program enrollment in America, but the school, being in Detroit, serves an area with a diverse patient population.
- However, beyond brief mentions in the M1 P4 course, there is little structured implicit bias discussion and reflection integrated into WSUSOM's preclinical undergraduate medical curriculum.

### Goals of this study:

- Understand preconceptions and attitudes that preclinical medical students have about implicit bias and its relationship to medical outcomes and their own behaviors.
- Determine if self-awareness of implicit bias alters students' understanding of implicit bias and its relationship to medical outcomes and their own behaviors.
- Determine how self-awareness of implicit bias may inform students' understanding of where their biases may come from and how they may influence their actions or decision-making.

## Conceptual Framework

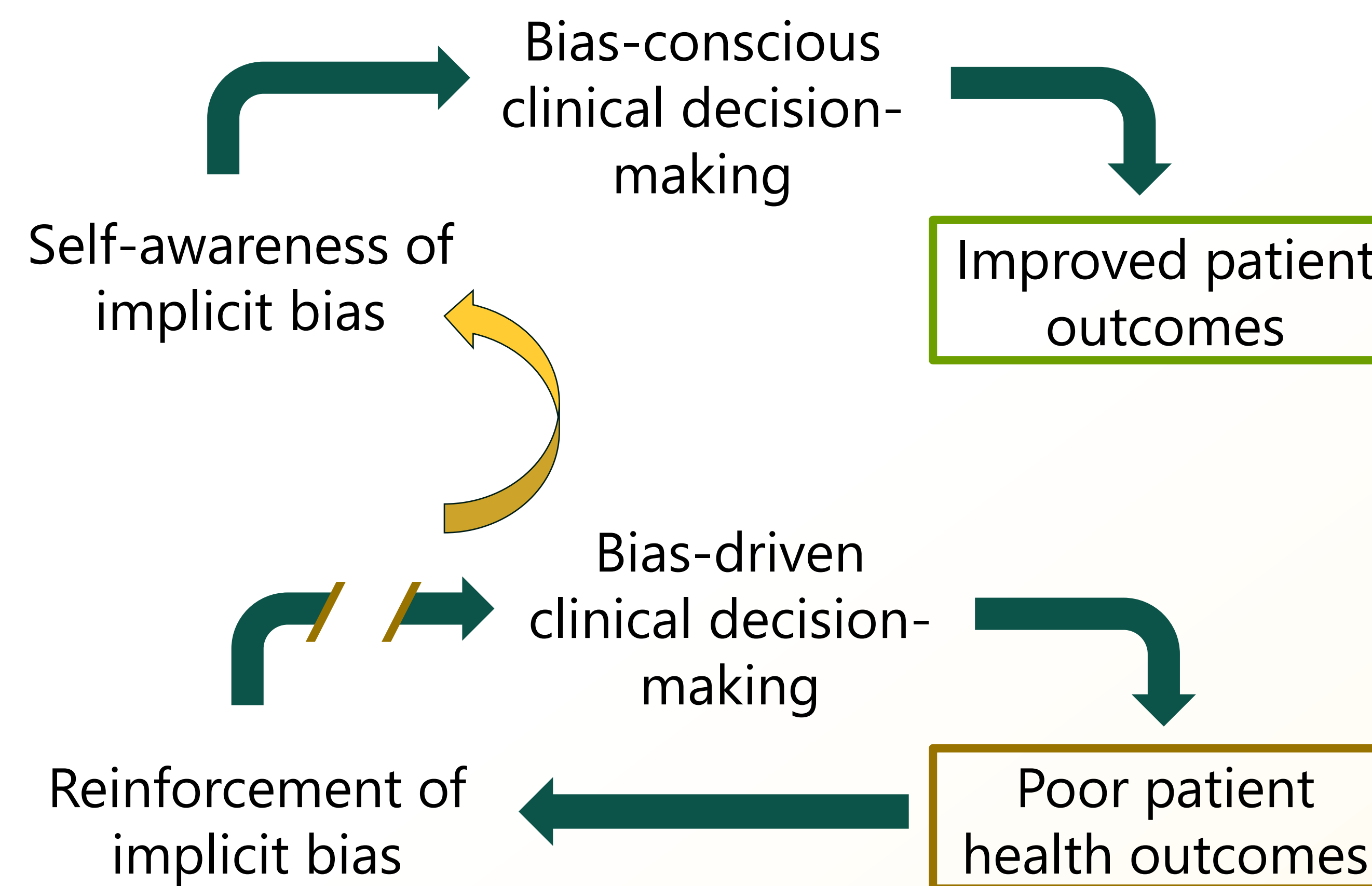


Figure 1: Visualization of the synergy between implicit bias, clinical decision-making, and patient health outcomes.

## Methods

**Stage 1 – Pre-Survey\*:** All first- and second-year medical students at WSUSOM will receive a survey containing questions about implicit bias self-awareness, attitudes, and understanding of medical outcomes. Questions will be formatted in a five-point Likert scale to allow for quantitative analysis. Demographic information will also be collected to allow for stratified analysis.

**Stage 2 – Implicit Association Testing\*:** Participants who complete Stage 1 will be asked to complete the Harvard Implicit Association Test (IAT) for Race, Weight, Sexuality, and Disability<sup>3</sup>. Participants who complete IATs will report their results, which will be linked to their Survey 1 data.

**Stage 3 – Post-Survey\*:** Participants who complete Stage 2 will receive a post-survey with the same questions about implicit bias self-awareness, attitudes, and understanding of medical outcomes included in the Pre-Survey. These questions will be formatted in a five-point Likert scale to allow for quantitative analysis. Additional, open-ended reflective questions will also be included; these may be analyzed qualitatively.

\* Note: Respondent anonymity will be preserved. Methodology TBD.

## Expected Results

Data are to be collected. While we anticipate that most students will have a general grasp of what implicit bias is and how it may affect healthcare outcomes, we anticipate varied responses regarding students' understanding of implicit bias self-awareness and their reflections following IAT.

## Discussion

**This study is a preliminary step in the potential integration of improved implicit bias training at WSUSOM.**

- The goal of this study is to understand the conceptions and attitudes that preclinical medical students have about implicit bias and its relationship to their own behaviors and to healthcare.
- The findings of this study may inform considerations for what future workshops or training may include.
- Further, the findings of this study may be used to advise curriculum updates regarding implicit bias in preclinical undergraduate medical education at WSUSOM.

## References

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2. Dehon E, Weiss N, Jones J, Faulconer W, Hinton E, Sterling S. A Systematic Review of the Impact of Physician Implicit Racial Bias on Clinical Decision Making. *Acad Emerg Med*. 2017;24(8):895-904. doi:10.1111/acem.13214
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