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Implicit Bias Training in Student Registered Nurse Anesthetists

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BACKGROUND

- Healthcare disparities persist and remain as risk factors for increased morbidity and mortality amongst African-Americans and Hispanics
- Racial/ethnic minorities still receive inferior and inequitable quality care when compared to the Caucasian population
- The Institute of Medicine cites healthcare provider implicit bias as a possible contributing factor to healthcare disparities
- Implicit bias (IB) is the automatic assumption, belief, or stereotype about a particular person or group of people that exists outside of one's conscious awareness
- Similar to the general US population, healthcare providers were identified as having appreciable levels of pro-White/ anti-Black and pro-White /anti-Hispanic IB evidenced by Harvard's Race IAT
- Healthcare provider implicit bias negatively impacts patient–provider interactions, treatment decisions, and treatment adherence

PURPOSE & AIMS

PURPOSE:
- To incorporate implicit bias training into Jefferson College of Nursing graduate education as a solution to reducing racial/ethnic implicit bias in our future health care providers

AIMS:
- To develop an implicit bias training activity for first year student nurse anesthetists (SRNAs)
- To evaluate students' awareness and knowledge of implicit bias, as well as its implications in healthcare.
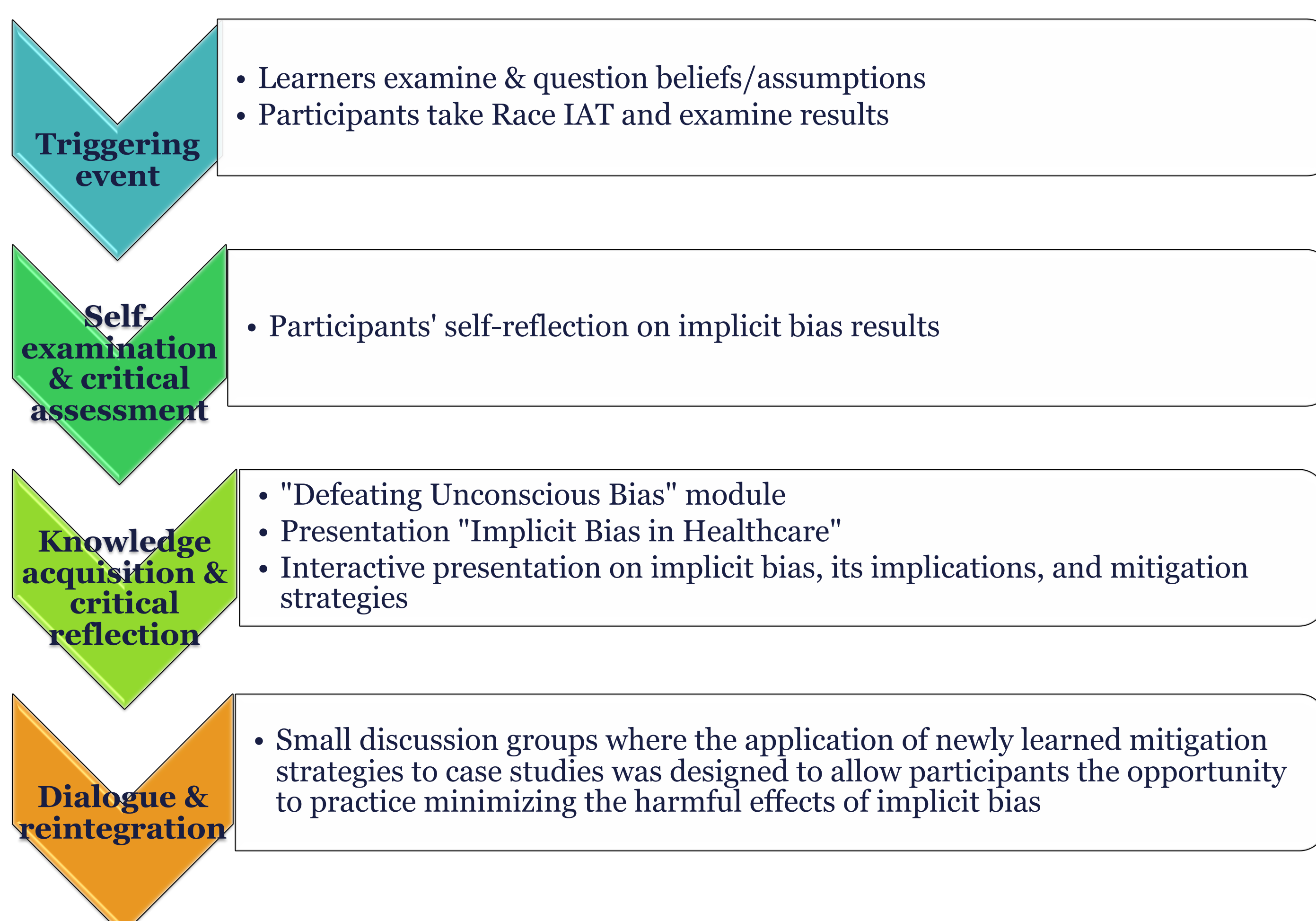
RESEARCH QUESTION

In first-year DNP student registered nurse anesthetists (SRNAs), will an implicit bias training activity increase self-awareness and knowledge of implicit bias and its implications in healthcare?

THEORETICAL FRAMEWORK

- Transformative Learning Theory (TLT) Jack Mezirow 1978
  - Adult learners derive meaning from their past experiences – experiences influenced and framed by social constructs
  - Dynamic process challenges old, dysfunctional views and embraces new ones
  - Future experiences are altered by this process and behavioral paradigm shift

Model Process applied to this project

Triggering event
- Learners examine & question beliefs/assumptions
- Participants take Race IAT and examine results

Self-examination & critical assessment
- Participants' self-reflection on implicit bias results

Knowledge acquisition & critical reflection
- "Defeating Unconscious Bias" module
- Presentation "Implicit Bias in Healthcare"
- Interactive presentation on implicit bias, its implications, and mitigation strategies

Dialogue & reintegration
- Small discussion groups where the application of newly learned mitigation strategies to case studies was designed to allow participants the opportunity to practice minimizing the harmful effects of implicit bias

DESIGN & METHODS

- This project utilized a quantitative, pre and post experimental design to assess the degree of change following implicit bias education
- The activity was determined to be exempt from IRB review by Thomas Jefferson University's Institutional Review Board
- Participation was voluntary and the project was implemented in February 2022
- First year SRNAs from the Jefferson College of Nursing were recruited to participate in our project that included five activities:
  - Taking Harvard's Race Implicit Bias Association Test
  - Taking the pre-intervention survey assessing baseline IB awareness and knowledge
  - Watching a pre-recorded implicit bias educational module titled, "Defeating Unconscious Bias"
  - Participating in a 1.5-hour interactive presentation via Zoom discussing implicit bias and its implications in healthcare and mitigation strategies
  - Taking the post-intervention survey
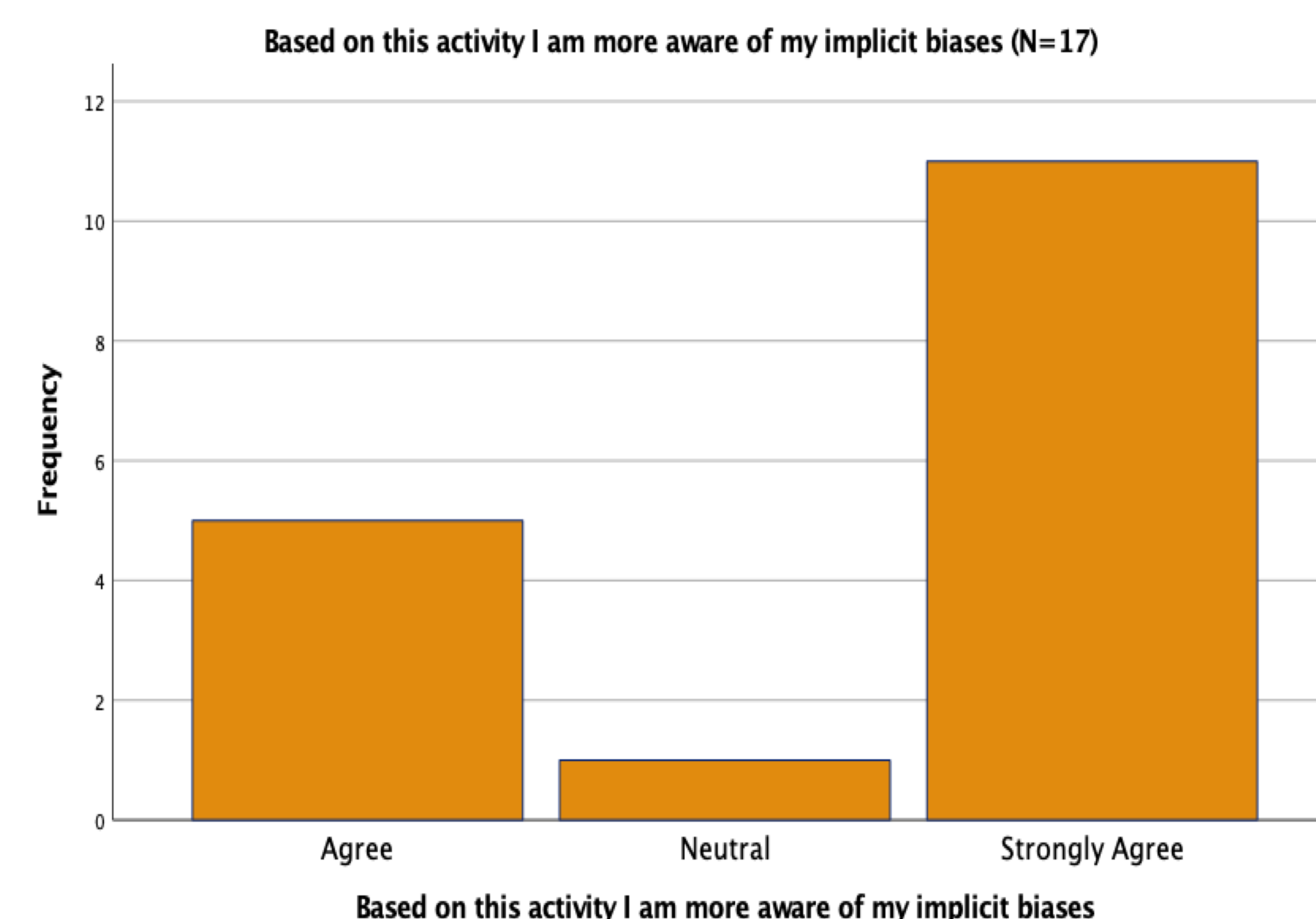
DATA COLLECTION & ANALYSIS

- Students anonymously completed pre- and post-intervention surveys via RedCap
- Researchers utilized IBM's SPSS Statistics version 28.0 to conduct a paired samples t-test to determine the effect of implicit bias training on the knowledge and awareness of implicit bias for SRNAs
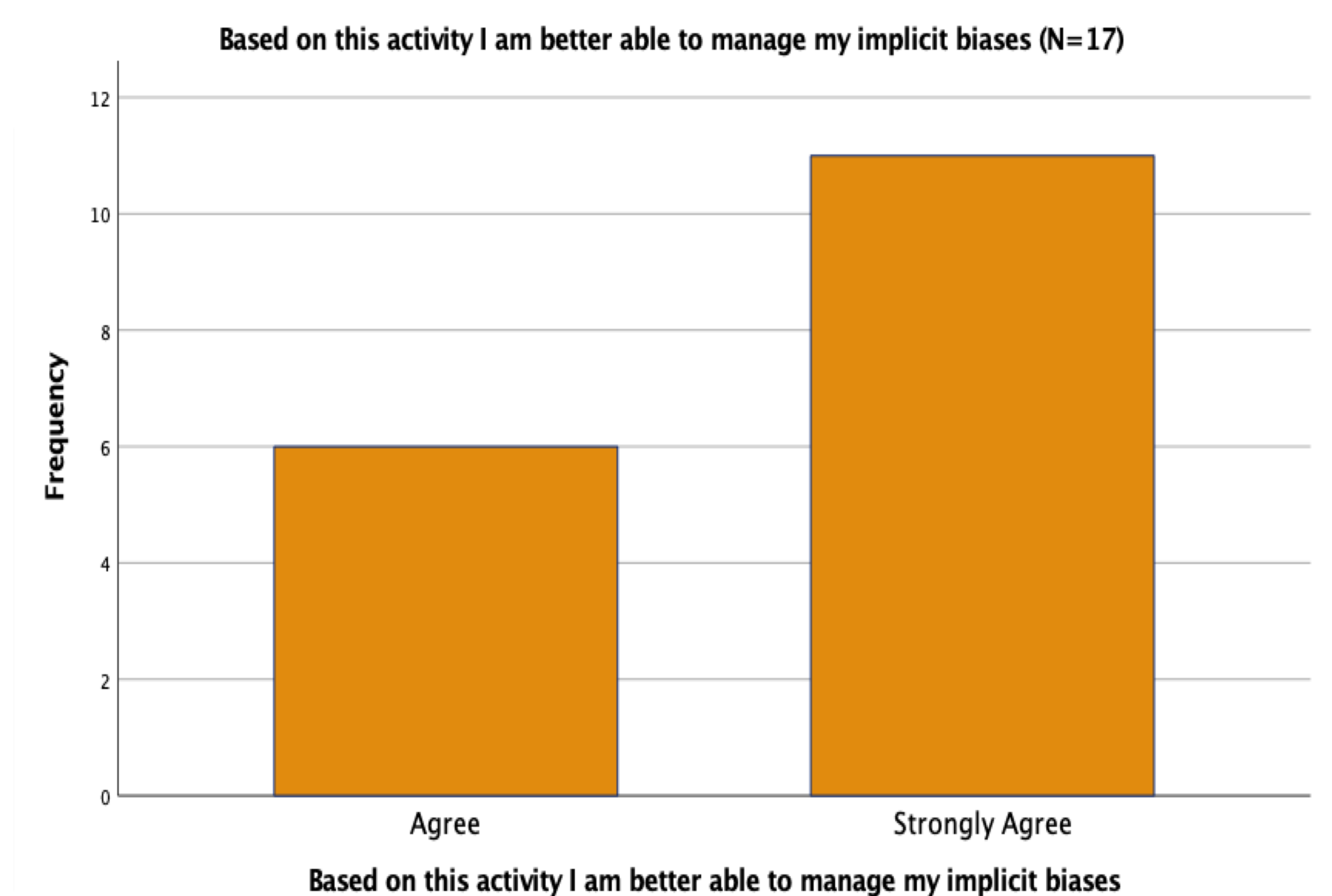
RESULTS

Twenty-one students participated in the pre-intervention survey; however, four students' records were omitted as they did not complete the post-intervention survey. A total of seventeen first year student registered nurse anesthetists completed all five activities and were included in the following results.

The results from the pre-test ($M = 2.38$, $SD = 0.41$) and post-test ($M = 2.65$, $SD = 0.38$) indicate that the implicit bias training activity improved first year SRNAs' awareness and knowledge of implicit bias and its implications in healthcare, $t(16) = 3.2$, $p = .005$, demonstrating a small effect size (Cohen's d=0.34).

Race and ethnicity were self-reported by participants and results are as follows; 15 participants identified as White (88.2%), one participant identified as Mixed (5.9%), and two participants identified as Middle Eastern (11.8%). Only one participant identified as Hispanic (5.9%).

Based on this activity I am more aware of my implicit biases (N=17)

RESULTS (CONT'D)

Based on this activity I am better able to manage my implicit biases (N=17)

Based on this activity I am better able to manage my implicit biases

Discussion of strategies to decrease implicit bias will be helpful in managing the effects of implicit bias in my nursing care (N=17)

Discussion of strategies to decrease implicit bias will be helpful in managing the effects of implicit bias in my nursing care
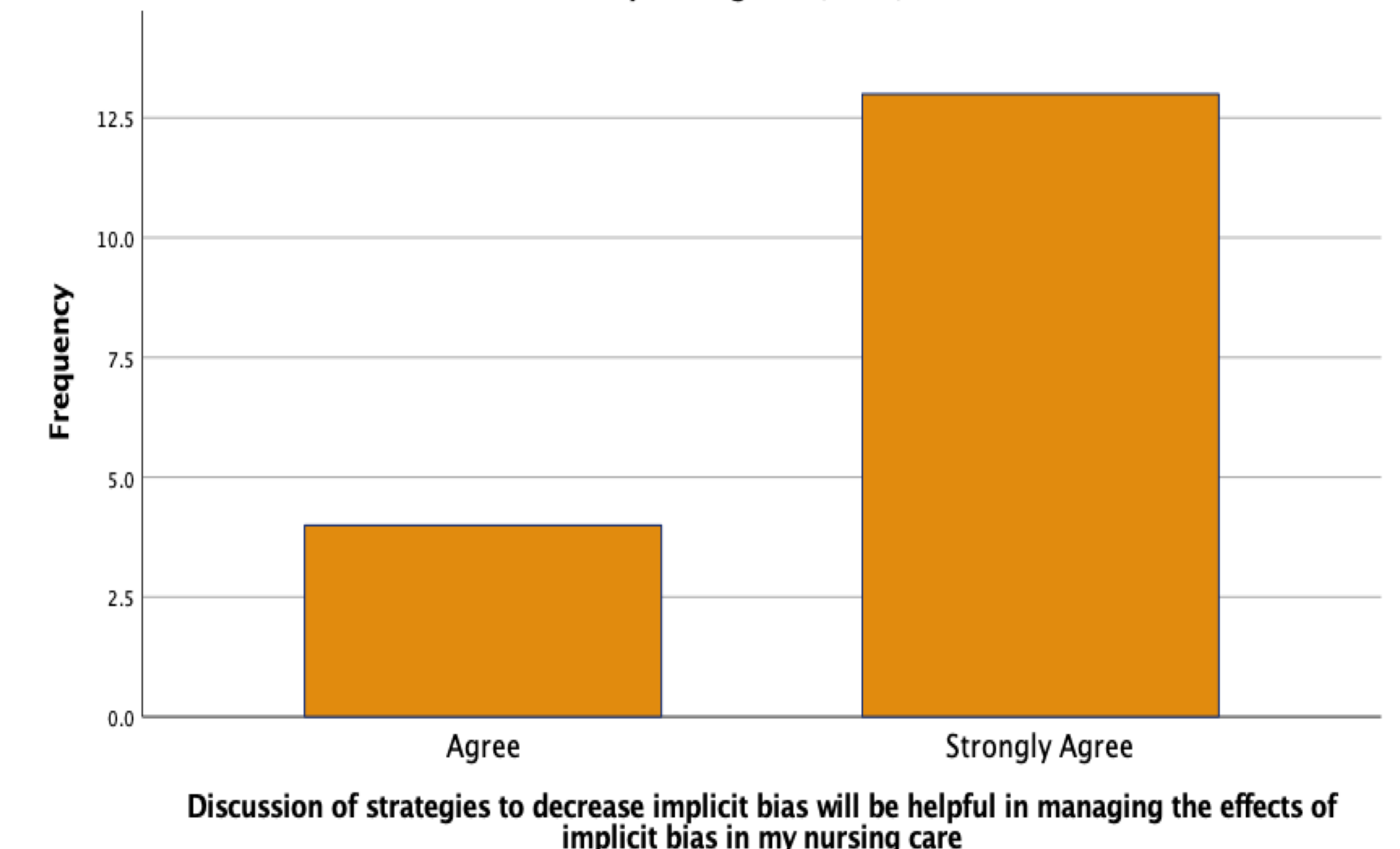
CONCLUSION

Healthcare provider implicit bias can have detrimental effects on the health outcomes of racial/ethnic minorities. For healthcare providers, increasing awareness of implicit bias and its various manifestations is key in combatting some of the disparities faced by minorities. Our results show that incorporating implicit bias training in the graduate nursing curriculum, can be useful in mitigating the harmful effects to patients that arise because of implicit bias.

Limitations of this project include (a) a small sample size (n=17), (b) a single-site study, (c) a limited demographic profile of students, and (d) the Hawthorne effect.

Future studies evaluating the effectiveness of implicit bias training incorporated into the nursing curriculum would benefit from a larger sample size conducted in a multi-site setting. Additionally, it would be beneficial for training to be extended to nurse practitioner students to evaluate generalizability.

ACKNOWLEDGEMENTS

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