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INTRODUCTION

- Implicit bias (IB) is defined as unconscious perceptions or attitudes possessed by an individual. These biases disproportionately impact minority populations, especially within healthcare.⁴
- Research shows that healthcare providers with a higher incidence of IB have poorer patient communication and lower patient satisfaction.⁴ This causes a disproportionate amount of minority patients to feel disconnected from their providers and less willing to return for future care.
- Physician IB especially plays a role in patient's pain management. Studies found doctors are twice as likely to underestimate Black patient's pain compared to all other ethnicities combined.⁶ In comparison to their White counterparts, Black patients are more likely to receive lower doses of analgesics, despite higher pain scores³, and suffer a higher incidence of maternal mortality.⁵ Children are not exempt from these healthcare disparities as research has shown black children are less likely to have pain associated with appendicitis adequately addressed.¹
- Although the complete elimination of IB may not be feasible, it is important to ensure physicians are made aware of their own preconceived notions as they have an immense impact on patient wellbeing.
- Discussing IB amongst healthcare professionals is a crucial step towards ensuring patients receive equitable treatment unaffected by race, gender, socioeconomic status, or other triggers of implicit biases.

AIM STATEMENT

The aim of the study is to develop an IB curriculum to increase trainees' awareness of its existence and impact on patient care.

We hypothesize the curriculum's implementation will increase trainees' awareness of their personal IB along with its impact on patient care.

MATERIALS & METHODS

In total, 20 Drexel Family Medicine/Tower Health Residents participated in this scholarly activity. 33.3% were PGY1, 25% PGY2, and 41.7% PGY3

Drexel Family Medicine/Tower Health Residents were given a 10-question pre-lecture questionnaire that assessed their knowledge of implicit bias within themselves and others along with its impact on patient care.

Interactive IB Lectures

- Define IB
- Define common types of IB

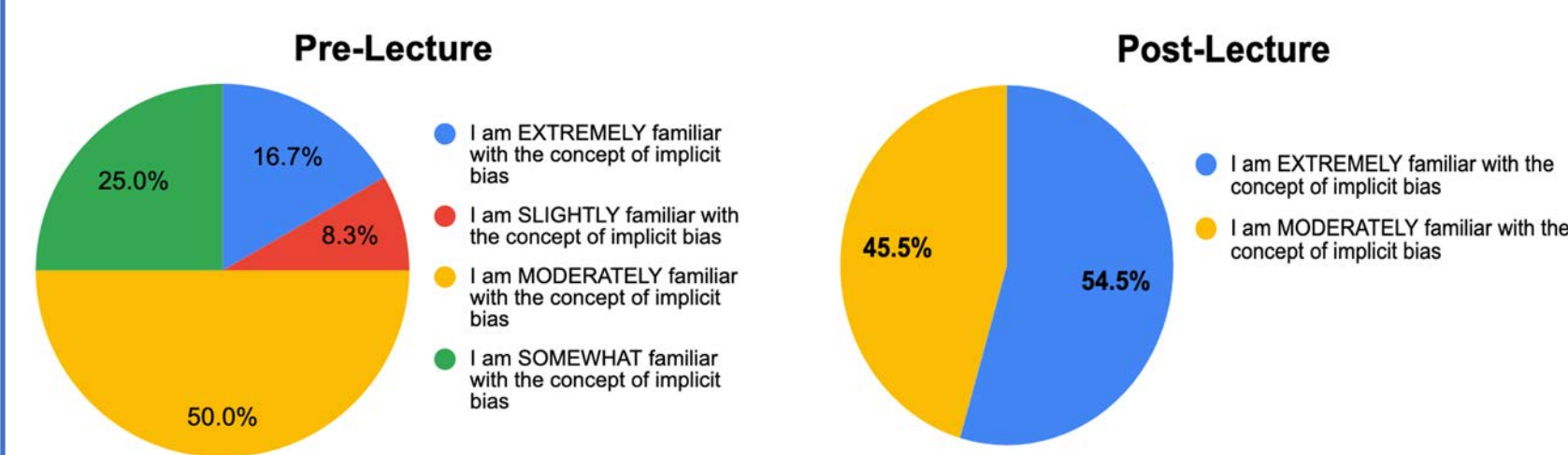
- Contextualize IB in relation to historical and current health disparities and practices (ie. pain management, maternal morbidity/mortality, COVID-19, unethical studies ie Tuskegee Syphilis Study)

- Introduce the Implicit Association Test (IAT)
- Administer IAT
- Discuss results/reaction to the IAT
- Introduce tools to mitigate biases

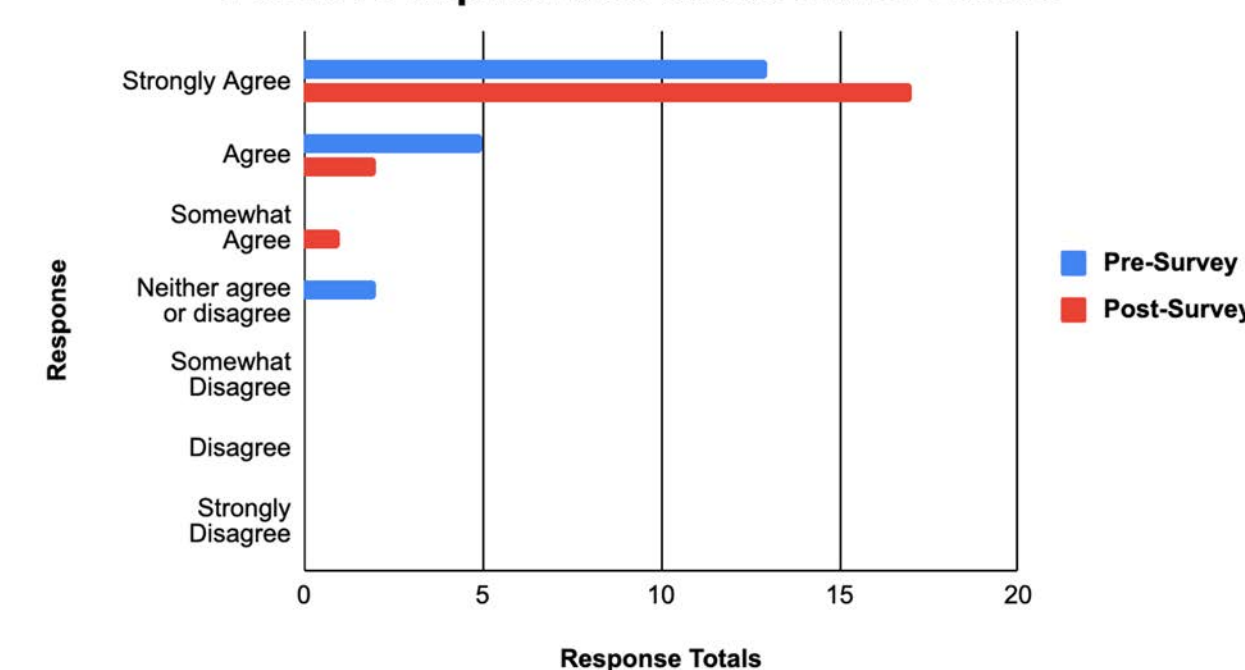
Residents were then administered a post-survey questionnaire that asked the same 10 questions as the pre-lecture survey.

RESULTS

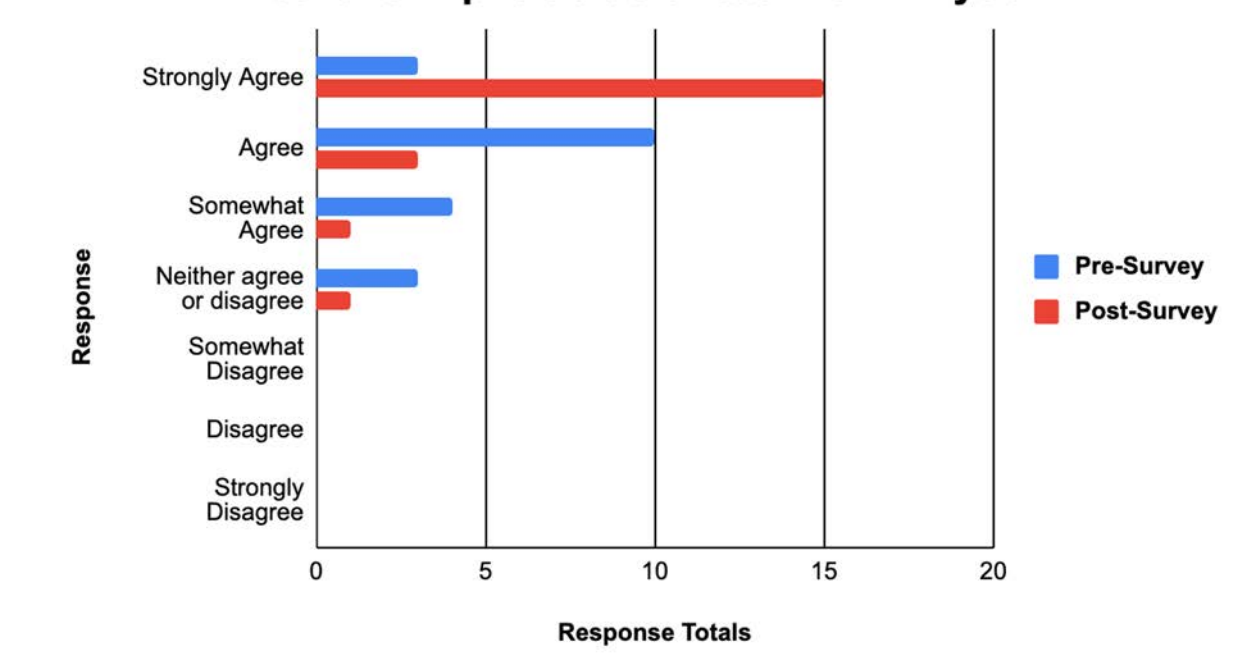
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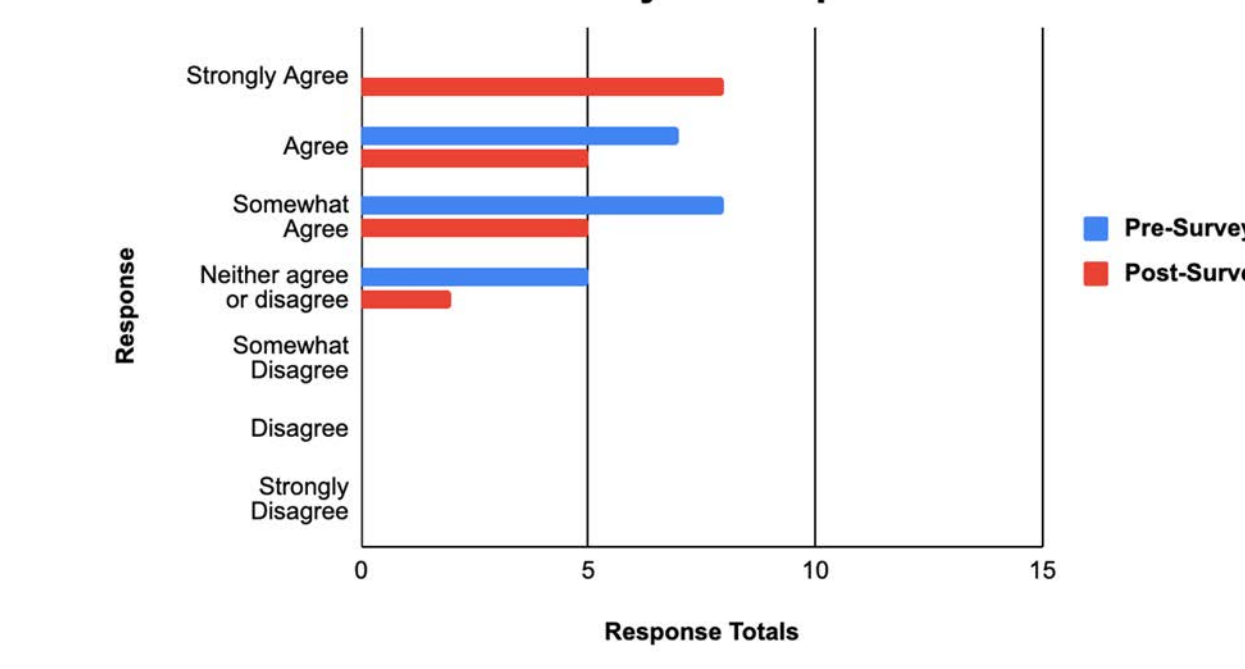
I believe implicit bias exists within others



I believe implicit bias exists within myself

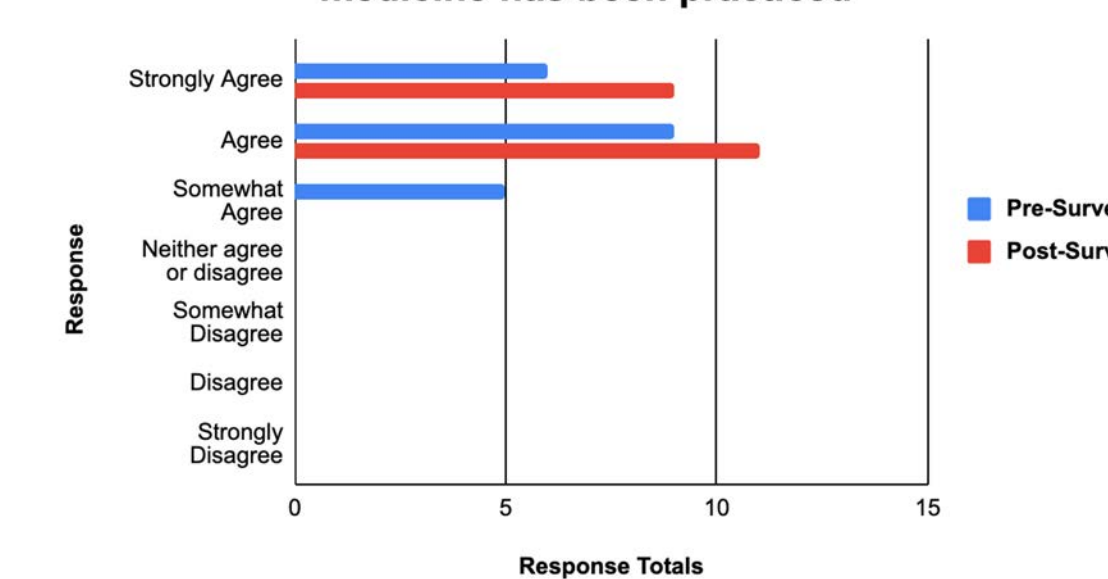


I am aware of my own implicit biases

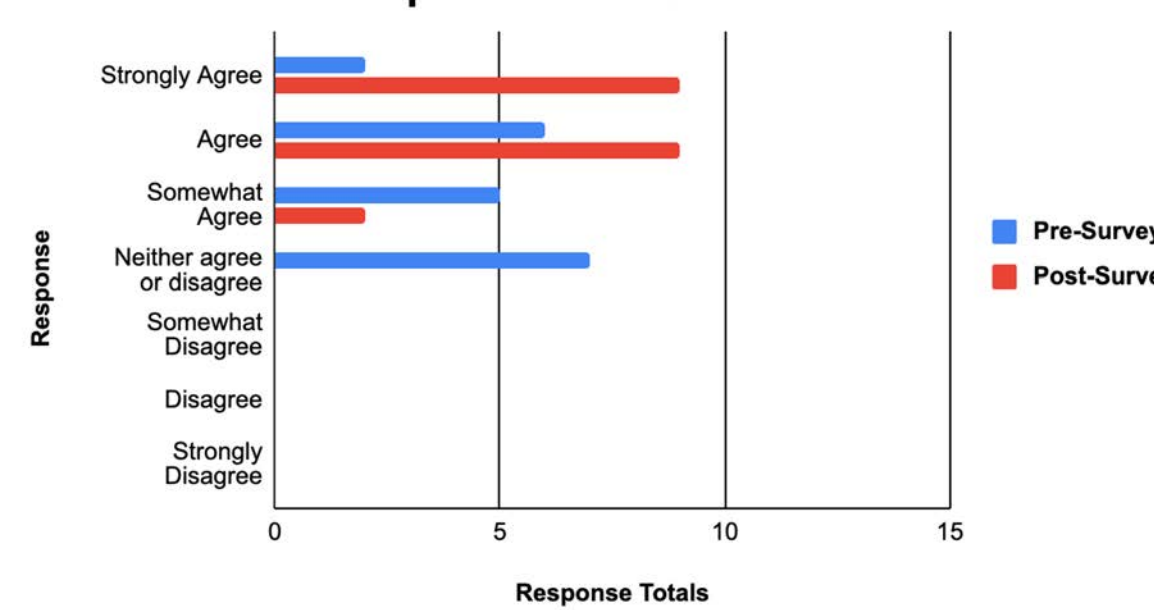


RESULTS

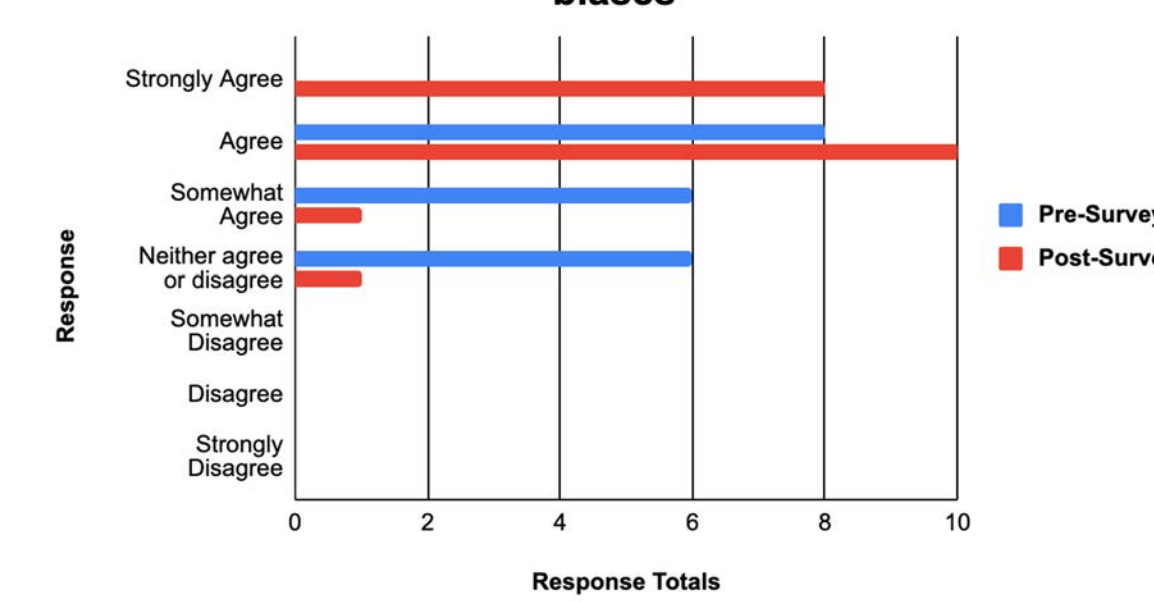
I have seen how implicit biases in others affect how medicine has been practiced



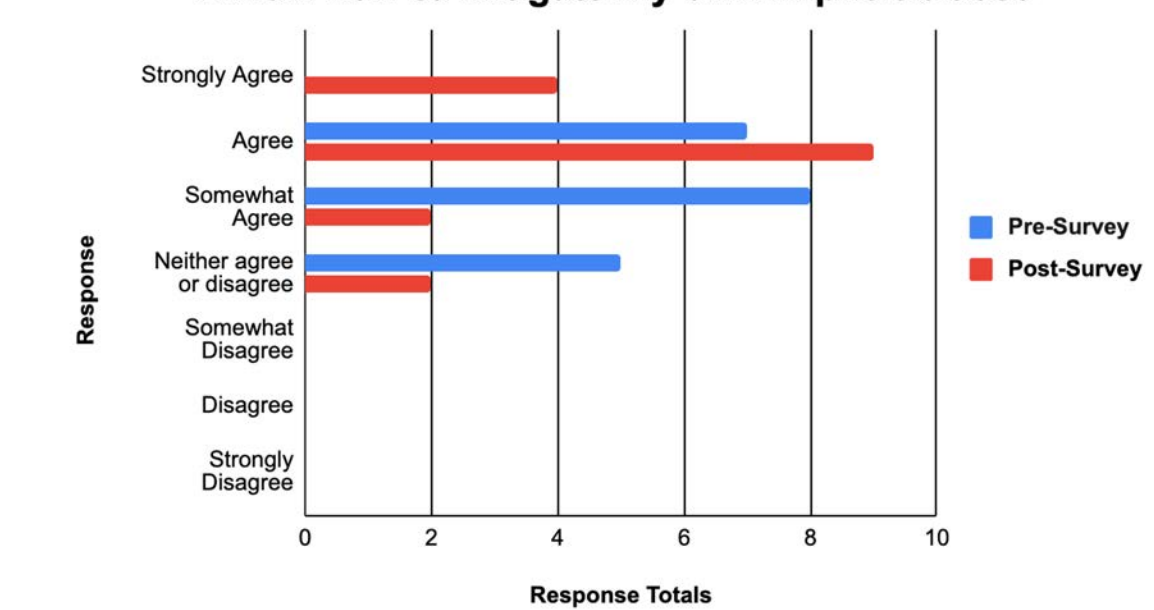
I have seen how my own implicit biases have affected my practice of medicine



I am aware of my barriers to actively overcoming my biases



I know how to mitigate my own implicit biases



CONCLUSIONS

Implementation of IB curriculum increased trainees' knowledge of the topic and the way in which it impacts patient care

The curriculum increased trainees' knowledge of their own IB. By the end of the course, trainees felt equipped with tools to mitigate the impact their bias has on patient care.

Next steps: Re-survey residents 4 -6 months post-curriculum completion to assess intervention's long-term impacts

Future research: Annual presentation of IB topic, pre/post lecture surveys, and 4-6 month follow-up will allow residents to continually improve awareness and mitigation tools against the different biases that may hinder patient care. This will also allow for curriculum improvement to ensure the topic is addressed appropriately.

REFERENCES

- Goyal, M. K., Kuppermann, N., Cleary, S. D., Teach, S. J., & Chamberlain, J. M. (2015). Racial Disparities in Pain Management of Children With Appendicitis in Emergency Departments. *JAMA pediatrics*, 169(11), 996-1002. <https://doi.org/10.1001/jamapediatrics.2015.1915>
- Hall, W. J., Chapman, M. V., Lee, K. M., Merino, Y. M., Thomas, T. W., Payne, B. K., Eng, E., Day, S. H., & Coyne-Beasley, T. (2015). Implicit racial/ethnic bias among health care professionals and its influence on health care outcomes: A systematic review. *American Journal of Public Health*, 105(12), 2588-2588. <https://doi.org/10.2105/ajph.2015.302903a>
- Hoffman, K. M., Trawalter, S., Axt, J. R., & Oliver, M. N. (2016). Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites. *Proceedings of the National Academy of Sciences*, 113(16), 4296-4301. <https://doi.org/10.1073/pnas.1516047113>
- Maina, I. W., Belton, T. D., Ginzberg, S., Singh, A., & Johnson, T. J. (2018). A decade of studying implicit racial/ethnic bias in healthcare providers using the Implicit Association Test. *Social Science & Medicine*, 199, 219-229. <https://doi.org/10.1016/j.socscimed.2017.05.009>
- Saluja B, Bryant Z. How Implicit Bias Contributes to Racial Disparities in Maternal Morbidity and Mortality in the United States. *J Womens Health (Larchmt)*. 2021 Feb;30(2):270-273. doi: 10.1089/jwh.2020.8874. Epub 2020 Nov 25. PMID: 33237843.
- Staton, Lisa J, et al. "When Race Matters: Disagreement in Pain Perception between Patients and Their Physicians in Primary Care." *Journal of the National Medical Association*, National Medical Association, May 2007. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7476900/>