

# Evaluating the Impact of Medical School Diversity Initiatives on Student Perceptions of Inclusion in Preclinical Curriculum

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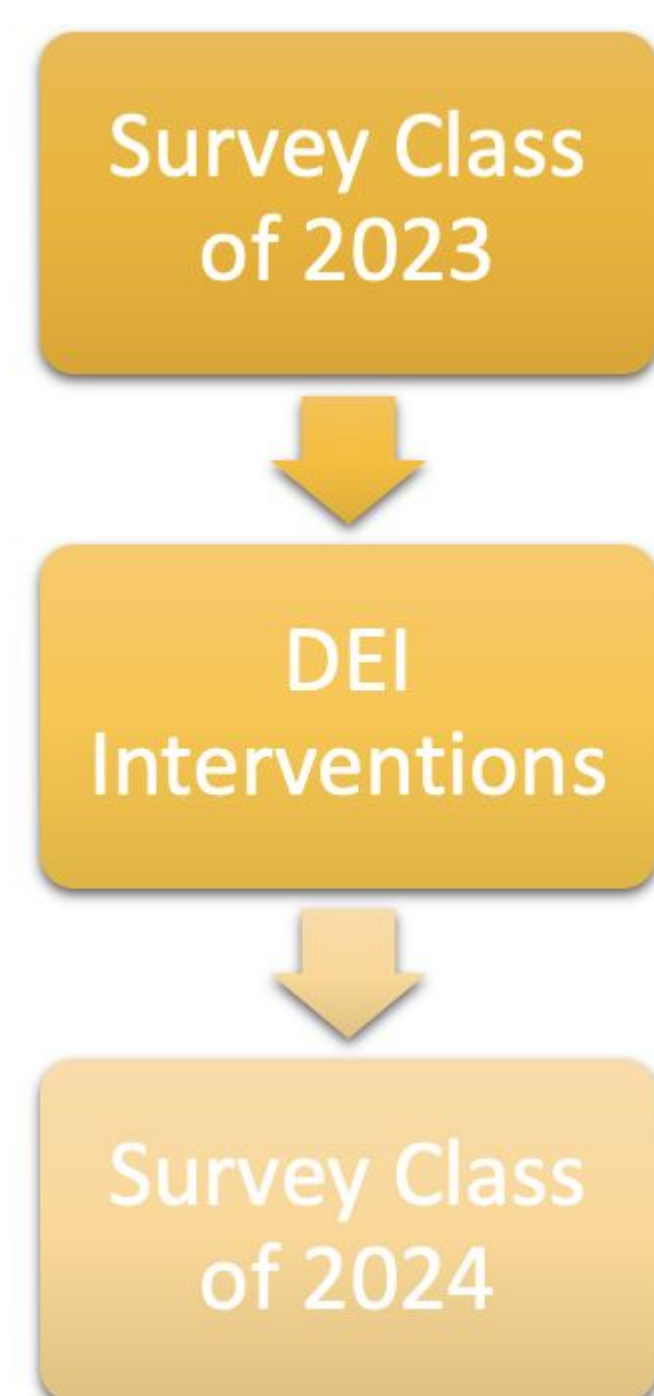
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## Introduction

There is growing recognition in the U.S. of the role medical schools play in educating physicians about determinants of health such as race, culture, gender, and sexual orientation.<sup>1-2</sup> In July 2020, Oakland University William Beaumont School of Medicine (OUWB) students sent administrators a Call-to-Action letter urging for reform. Several diversity, equity, and inclusion (DEI) initiatives were implemented to address racial disparities in lectures, such as faculty training, purchasing VisualDx software for inclusive images, and redesigned curriculum guidelines. Studies have identified the attitudes, behaviors, and implicit biases of health care providers as one of the many factors that contribute to health disparities.<sup>1,3-4</sup> However, no study has investigated the changes in student perceptions regarding racial inclusion in preclinical curriculum following DEI modifications.

## Aims and Objectives

The aim of this study is to evaluate the impact on medical students' perception of racial inclusion in the second year (M2) curriculum at OUWB following intentional DEI actions. The specific objectives are to compare perceptions between the Class of 2023 and 2024 before and after interventions.



**Figure 1.** Methods process. Surveys distributed in the spring of 2021 and 2022, respectively.

## Methods

Medical students in the class of 2023 (N=112) and class of 2024 (N=125) were emailed a survey at the end of their M2 year. The survey consisted of a demographic section and five four-point Likert scale questions that assessed agreement (where 1 = strongly agree and 4 = strongly disagree) of curricular inclusion of different races with respect to image variety, diversity of cases, physical exam skills, barriers towards care, and risk factors for disease. Independent samples T-test and chi-squared were used to compare demographics between cohorts and Mann-Whitney U testing compared Likert responses. Alpha=0.05.

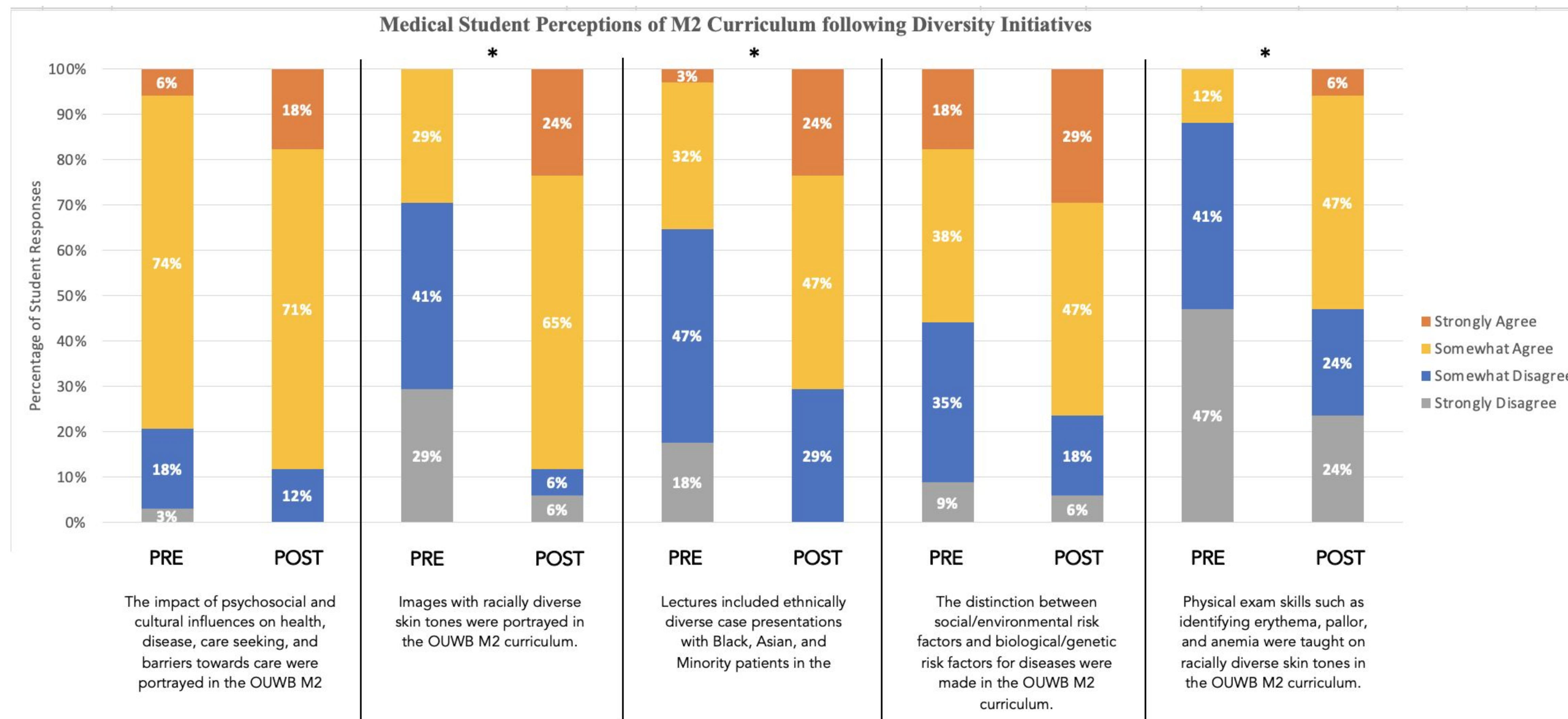
## Results

- Response rates for the class of 2023 and 2024 were 30% and 14%, respectively
- No significant differences (p>0.05) in age, gender, or ethnicity between the cohorts, suggesting demographic equivalency
- Following the intervention, significantly more students agreed that the curriculum included:
  - Racially diverse images in lectures (p<0.001)
  - Ethnically diverse clinical cases (p=0.004)
  - Physical examination skills on diverse skin tones (p=.008)
- All other Likert scale comparisons between cohorts were insignificant (p>0.05).

Participant Demographic Results

	Mean Age	Female	Male	Prefer Not to Answer	Asian or Pacific Islander	Black or African American	White	Middle Eastern	Hispanic or Latino
Class of 2023	24.97	21 female	10 male	3	7	0	23	2	1
Class of 2024	25.71	12 female	5 male	0	5	1	11	0	0

**Table 1.** There were no significant demographic differences between the cohorts for age, gender, and ethnicities.



**Figure 2.** Medical student responses to Likert Scale questions regarding M2 curriculum in the class of 2023 (N=34) compared to class of 2024 (N=17) following implementation of diversity initiatives. Mann-Whitney U test demonstrated significant differences in responses for Likert Scale questions 2, 3, and 5 (p<0.05; <.001, .003, and .008 respectively).

## Conclusions

The study demonstrated that instituting diversity initiatives provided improvements in medical student perceptions of racial inclusion in the M2 curriculum. Notable areas of improvements included the representation of racially diverse skin tones in lecture images, ethnically diverse case presentations, and training on physical exam skills.

The areas that did not significantly change between the cohorts included education regarding psychosocial and cultural influences on health and barriers to care and the distinction between environmental and biological risk factors for disease. These topics can be identified by faculty as areas where further efforts can be continue to be made. Limitations of the study included a small response rate and participants that were majority white ethnicity. Future studies can be conducted with larger, more racially diverse participants to improve representation in results.

The OUWB administration, and medical schools across the U.S., can utilize this research as a template for evaluating the efficacy of diversity interventions. The results demonstrate how modifications, such as faculty training on inclusive curriculum, impact the medical student perceptions of racial inclusion in curriculum in a positive way.

## References

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