



How Medical Education Reframes Perceptions of Substance Use Disorder: A Study of Evolving Student Attitudes

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Introduction

According to the Substance Abuse Mental Health Services Administration (SAMHSA), in 2022 about 50 million people had experienced a substance use disorder (SUD) in the past year.¹ Despite the alarming prevalence of SUD, stigma remains a major barrier to seeking and obtaining high quality treatment. Understanding how medical students view SUD and how perceptions change across their educational journey is essential for improving patient care. While previous studies have investigated SUD stigma among medical students, the effect of study year on attitudes remains largely mixed and unclear.² This project compares attitudes across educational levels to understand how medical training influences perception and aims to improve SUD curriculum by more effectively targeting medical students in their specific stage of education.

Specific Aims

Aim I: Compare the attitudes of OUWB medical students to OU undergraduate students towards substance use disorder.

Aim II: Compare the attitudes of pre-clinical (M1/M2) to clinical (M3/M4) OUWB medical students towards substance use disorder.

Methods

An anonymous, cross-sectional survey targeting medical students and undergraduates at Oakland University was conducted. A modified version of the previously validated Substance Abuse Attitudes Scale (SAAS)³ was utilized. The survey examined overall attitude toward SUD as well as five predefined attitude subgroups: treatment intervention, permissiveness, stereotypes, treatment optimism, and non-moralism. Higher scores represented more positive/less stigmatizing attitudes. Survey data was collected from September 2024 to March 2025.

Results

There were 68 individuals comprised of 14 UG, 39 pre-clinical (M1/M2), and 15 clinical students (M3/M4) that participated in this survey. Results demonstrated that medical students held less stigmatizing attitudes than undergraduates (113 vs 103, $p < 0.001$). Additionally, clinical medical students scored higher on the *treatment* subscale than pre-clinical medical students (29 vs 26, $p < .009$). Overall, we found that clinical medical students and pre-clinical medical students showed no significant difference in overall attitude towards SUD and other attitudinal subscales.

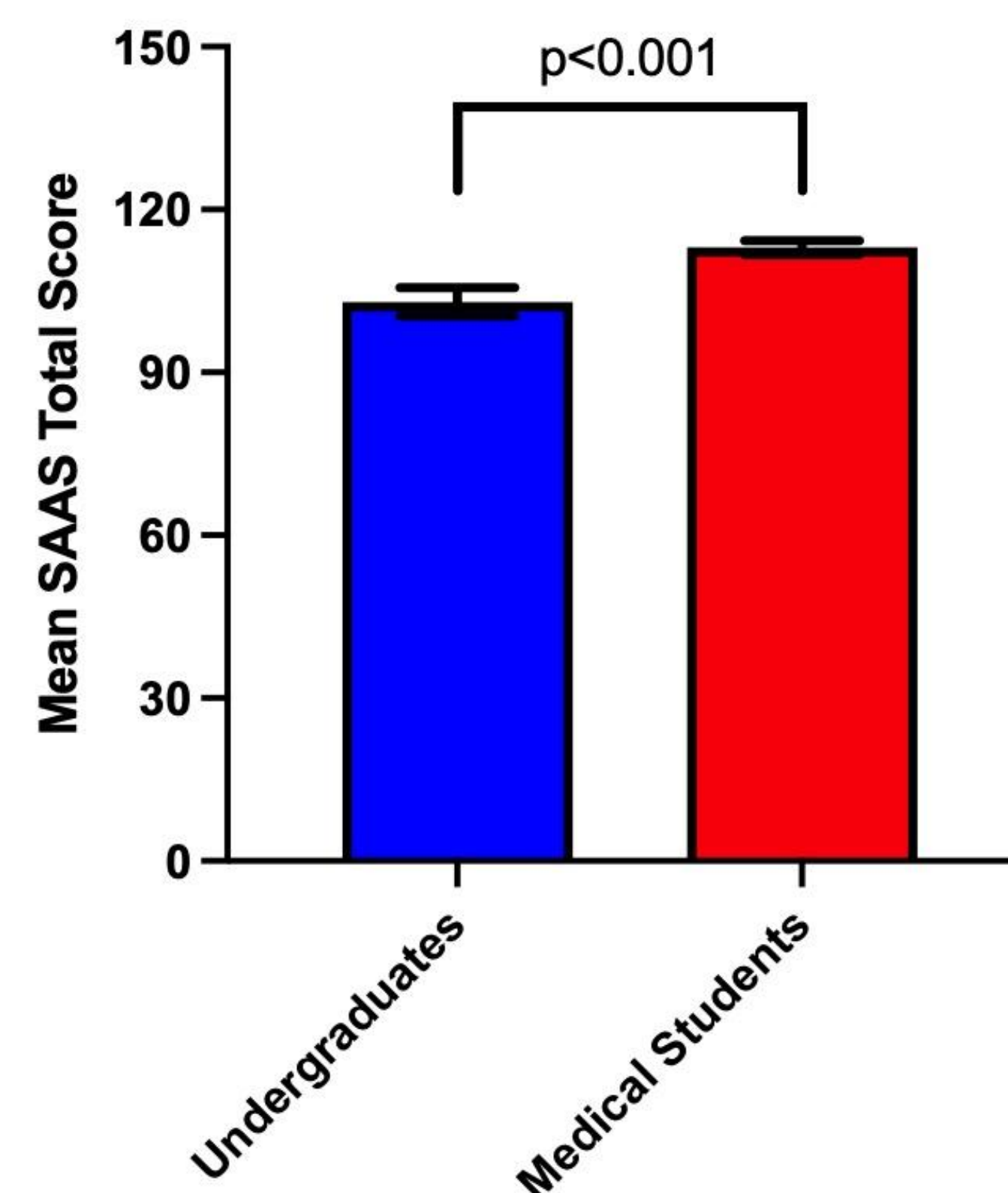


Figure 1: Medical Students demonstrate slightly but significantly less stigmatizing attitudes toward SUD than undergraduates

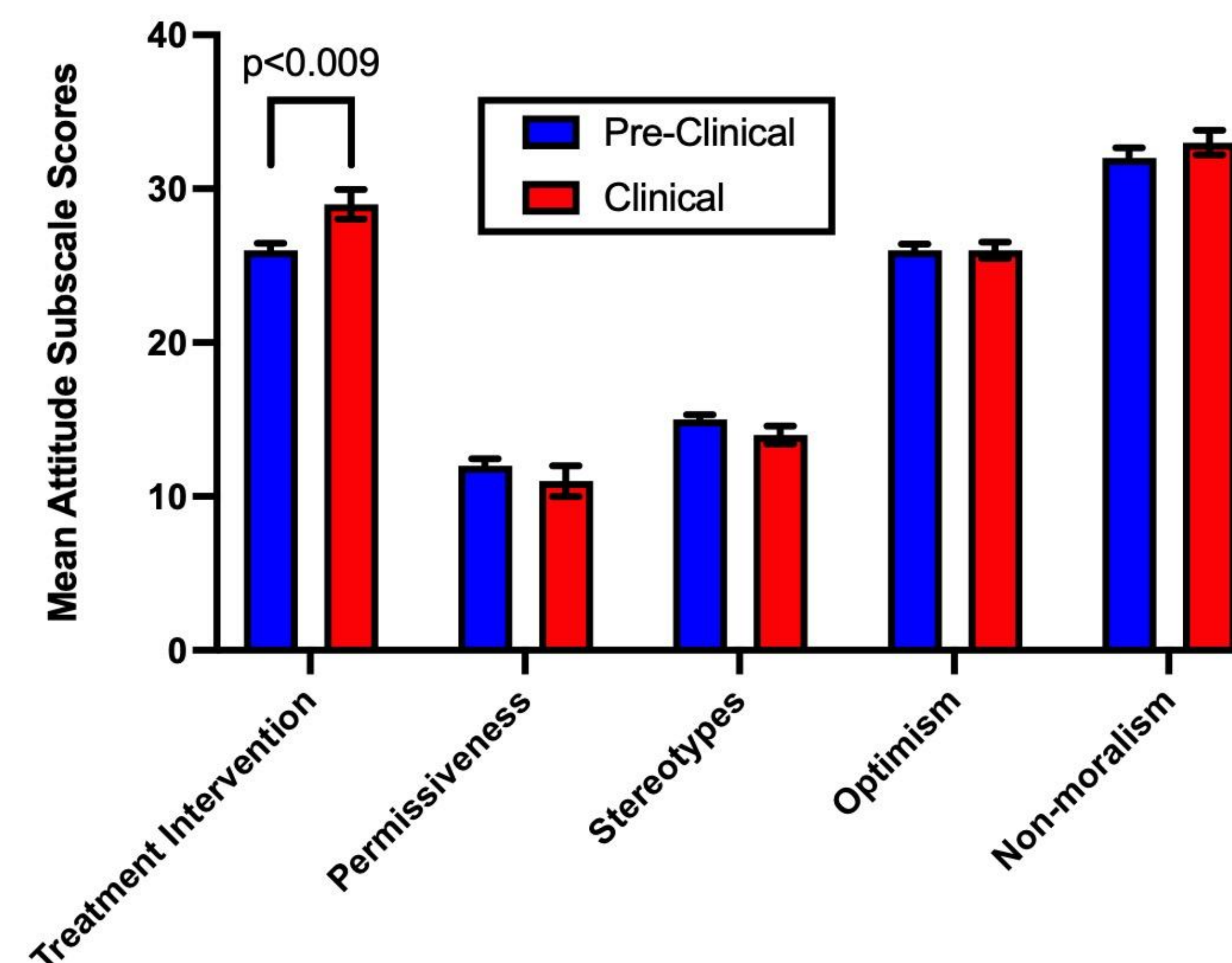


Figure 2: Clinical exposure improves perceptions of SUD treatments, but not other attitudinal factors assessed

Conclusions

We found that postgraduate medical education contributes to less stigmatizing attitudes towards SUD when comparing OU undergraduates to OUWB students. We also found that clinical exposure in the M3/M4 year increased attitude towards treatment intervention in this patient population, suggesting that hands-on patient encounters decrease stigma surrounding treatment. We did not find that clinical exposure had any significant influence on the other subscales including permissiveness, stereotypes, treatment optimism, and non-moralism. These findings suggest that preexisting beliefs about substance use remain relatively stable throughout medical training, and clinical exposure alone is insufficient to shift these biases. These findings highlight the need for bias and stigma targeted educational interventions.

Limitations/Future Directions

One of the limitations with this study is the inability to track how each individual student's attitudes changed longitudinally over their medical school journey. Future studies could further elucidate this with a cohort study design. Future OUWB SUD curriculum development may benefit from targeted interventions, such as bias-focused seminars and interactive workshops, to address identified student biases.

References

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