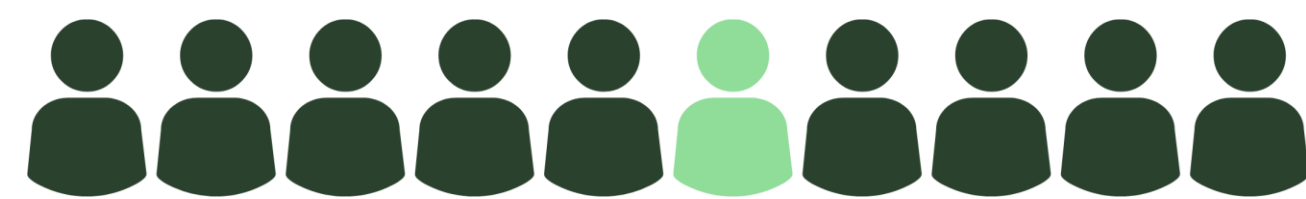


The Evolution of Attitudes Towards Substance Use Disorder Throughout Medical Education

INTRODUCTION

More than 1 in 10 adults in the United States report having a substance use disorder in their lifetime.¹



Widespread practitioner bias towards SUD

Reduced quality of healthcare for those with SUDs²

- Prior studies have shown that physician bias against individuals with SUDs increases throughout specific residency training.^{3, 4}
- There is limited research looking at how bias evolves throughout medical school and residency, across all specialties.

Goal of Study: To examine the evolution of medical trainees' attitudes towards SUDs from the first year of medical school through the end of residency.

METHODS

Recruitment

- A survey invite was sent to all medical students at the Robert Larner M.D. College of Medicine at the University of Vermont and all residents at the University of Vermont Medical Center (N=834).
- Participants received a \$25 electronic gift certificate for completing the survey.

Survey

Consisted of:

- Demographic information
- Medical Condition Regard Scale (MCRS) for individuals with 10 different conditions
 - MCRS is a validated non-condition-specific 11 question survey to assess biases, expectations and emotions evoked by medical conditions.
 - A higher score indicates a more positive attitude towards the condition.

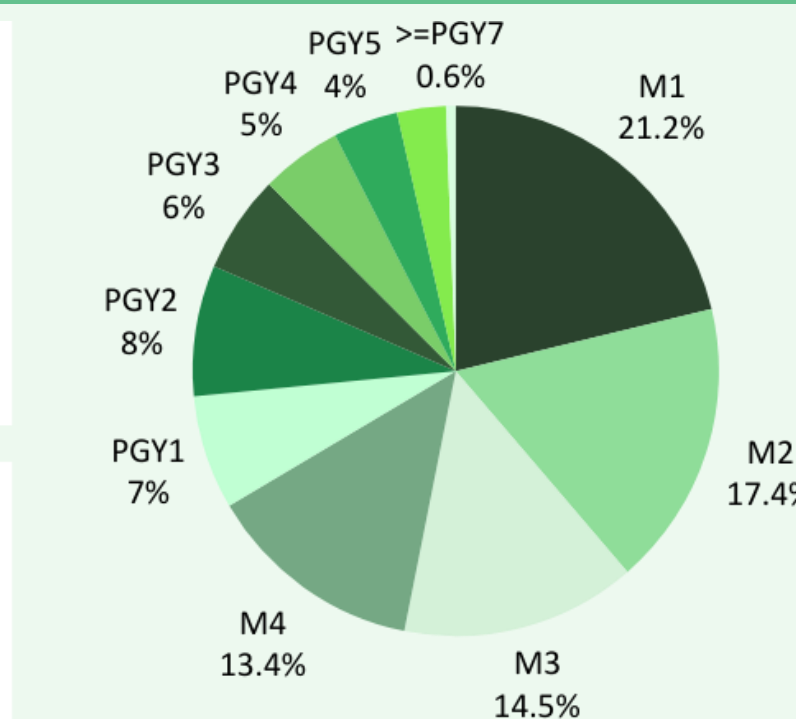
Analysis

- Mean MCRS score magnitude was estimated for MCRS condition and educational year using a general linear mixed effects model.
- Post-hoc pairwise comparisons are presented using a Sidak correction for p-values.
- Analysis was performed using SPSS.

RESULTS

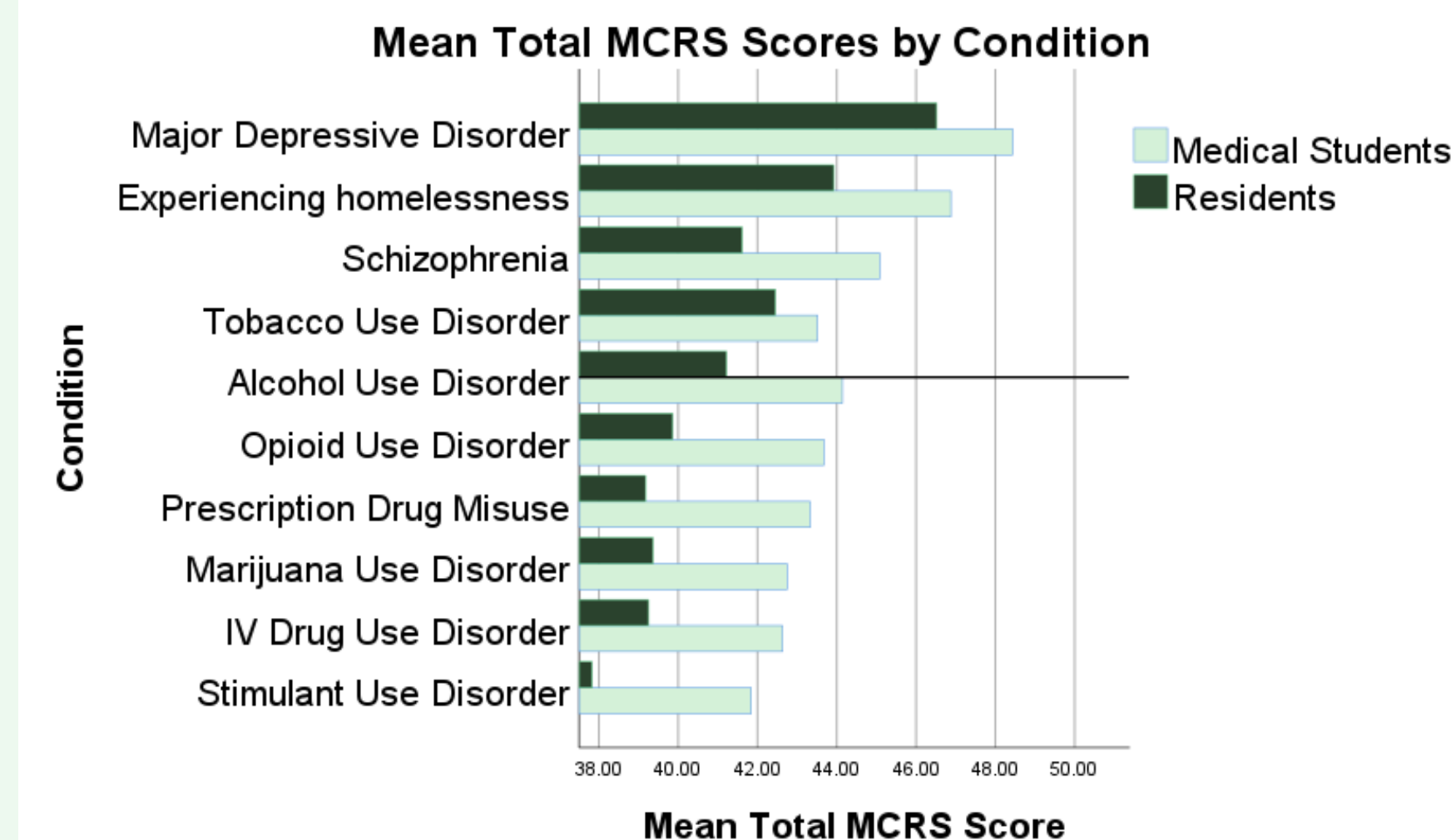
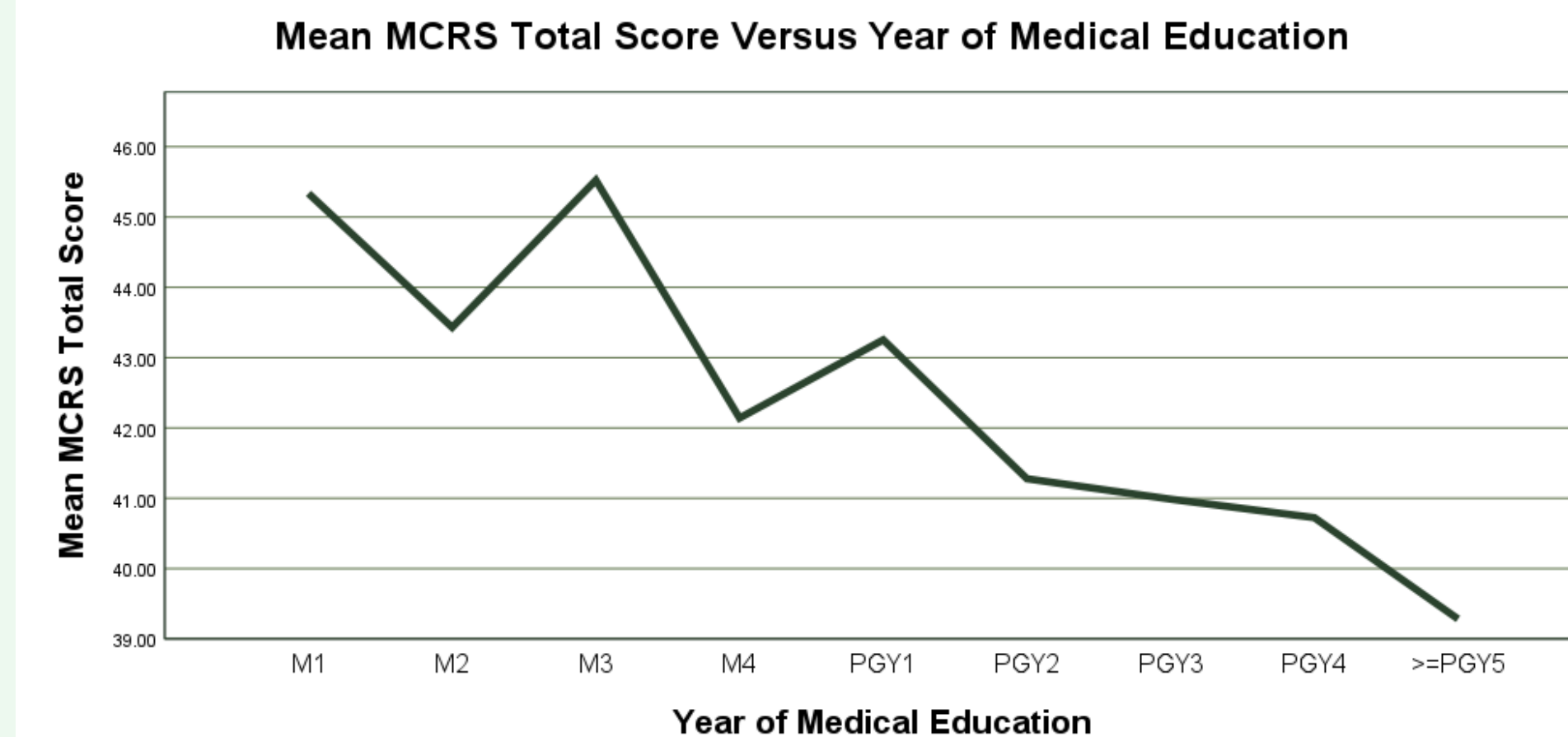
Responses

- Received 456 responses
- Response rate = 54.7%
- Pie chart represents each class years' percentage contribution to total responses



Key Result

- For each increase in year of medical education, mean MCRS scores decreased by 0.67 (p<0.001).



CONCLUSION

- As years of medical education increase, attitudes of medical students and residents towards individuals with SUDs become less positive.
- The data suggests that substance use disorders are generally viewed less favorably than mental health disorders.
 - This pattern is also seen among psychiatry trainees.³

Future Directions

- Design interventions to prevent a decline in attitudes towards SUDs and to reduce stigma towards SUDs throughout medical training
- Expand the study to other medical schools and residencies

Limitations

- Only surveyed one medical school and one residency program
- Not all participants completed all sections of the survey
- There was not an equal number of participants in each class year

AUTHORS & DISCLOSURES

Kettlewell H^{1,A}, Heward B^{1,2,A}, Jackson P^{1,2,A}, Krag D^{1,2,A}
 1. Robert Larner M.D. College of Medicine at the University of Vermont; 2. University of Vermont Medical Center
 A. Nothing to disclose

REFERENCES

- Jones CM, Noonan RK, Compton WM. Prevalence and correlates of ever having a substance use problem and substance use recovery status among adults in the United States, 2018. *Drug Alcohol Depend.* 2020 Sep 1;214:108169. doi: 10.1016/j.drugalcdep.2020.108169. Epub 2020 Jul 12. PMID: 32682218.
- Biancarelli DL, Biello KB, Childs E, Drainoni M, Salhaney P, Edeza A, Mimiaga MJ, Saitz R, Bazzi AR. Strategies used by people who inject drugs to avoid stigma in healthcare settings. *Drug Alcohol Depend.* 2019 May 1;198:80-86. doi: 10.1016/j.drugalcdep.2019.01.037. Epub 2019 Mar 8. PMID: 30884432; PMCID: PMC6521691.
- Avery J, Han BH, Zerbo E, Wu G, Mauer E, Avery J, Ross S, Penzner JB. Changes in psychiatry residents' attitudes towards individuals with substance use disorders over the course of residency training. *Am J Addict.* 2017 Jan;26(1):75-79. Doi: 10.1111/ajad.12406. Epub 2016 Oct 17. PMID: 27749984.
- Avery JD, Taylor KE, Kast KA, Kattan J, Gordon-Elliott J, Mauer E, Avery JJ, Penzner JB. Attitudes Toward Individuals With Mental Illness and Substance Use Disorders Among Resident Physicians. *Prim Care Companion CNS Disord.* 2019 Jan 3;21(1):18m02382. doi: 10.4088/PCC.18m02382. PMID: 30620451.
- Christison, George W. MD; Haviland, Mark G. PhD; Riggs, Matt L. PhD The Medical Condition Regard Scale, *Academic Medicine*: March 2002 - Volume 77 - Issue 3 - p 257-262