

Lauren Culver¹, Tabitha Moses², Paige Baal¹, Tara Gloystein¹, Shabber Syed¹, Dr. Eva Waineo¹, Dr. Mark K. Greenwald²

Affiliations: 1: Wayne State University School of Medicine, 2: Department of Psychiatry and Behavioral Neurosciences, Wayne State University School of Medicine

BACKGROUND

Drug overdose is the leading cause of accidental death in the United States, resulting in 67,367 deaths in 2018 (CDC), nearly 70% of which involved opioids.

As strategies develop to combat opioid use disorder (OUD) and overdose, research suggests that continued gaps in medical education persist.

Incoming medical students come from diverse settings and backgrounds that can impact their level of understanding of and notions towards OUD. These past experiences can have a strong influence on their approach to patient care. Studies have indicated that prior involvement in healthcare could be a factor in perception of substance use

Our goal was to study how previous paid employment in healthcare impacted knowledge and attitudes of first-year medical students towards opioid overdose.

METHODS

Study Design

- A 15-minute online survey was completed
- Information obtained included demographics, previous experience with naloxone and OUD, and Opioid Overdose Knowledge & Attitudes Scales (OOKS and OOAS, respectively)

Participants

- First-year medical students at WSU-SOM
- Participation was voluntary and confidential

Analyses

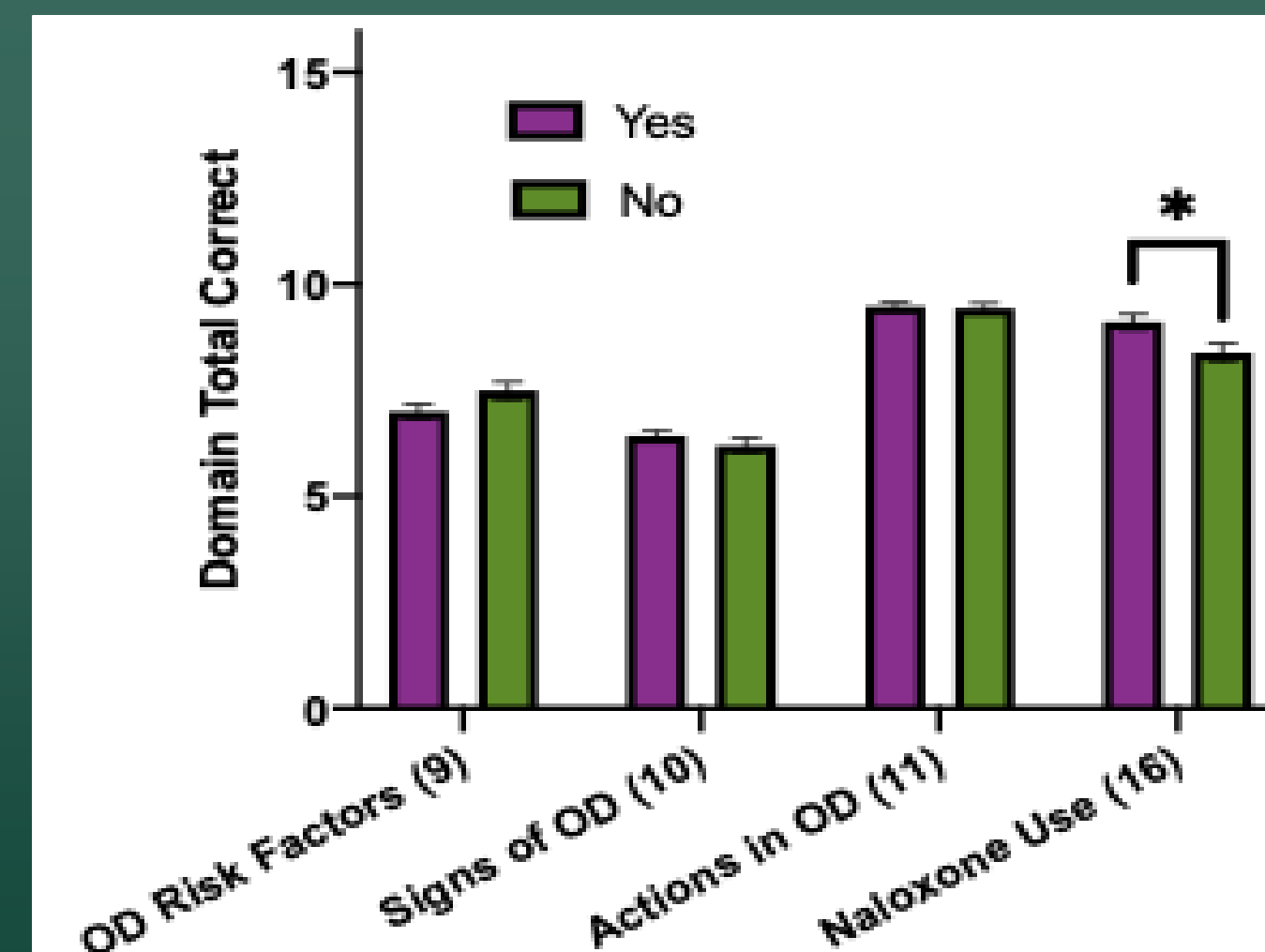
- Independent t-tests were used to compare results between groups (previous vs. no previous healthcare employment)

RESULTS

- 250 students completed the survey (50% female, mean age 23.38 ± 2.49 years).
- Racial distribution was 46.0% white, 10.0% black, 22.8% Asian, 13.2% Middle Eastern, and 8.0% mixed/other.
- 164 participants (65.5%) reported previous paid healthcare experience.

On average, both groups scored less than 70% total in the OOKS, with no significant difference between groups ($p=0.403$). (Figure 1)

Figure 1: Total number of items (±SEM) answered correctly for each domain of the OOKS grouped by previous employment in healthcare (yes vs. no). Total items in each domain listed in parentheses. Significant differences between groups indicated by ** $p<0.01$ or * $p<0.05$.



Students with prior paid healthcare experience scored significantly higher overall on the OOAS ($p<0.001$) (Figure 2)

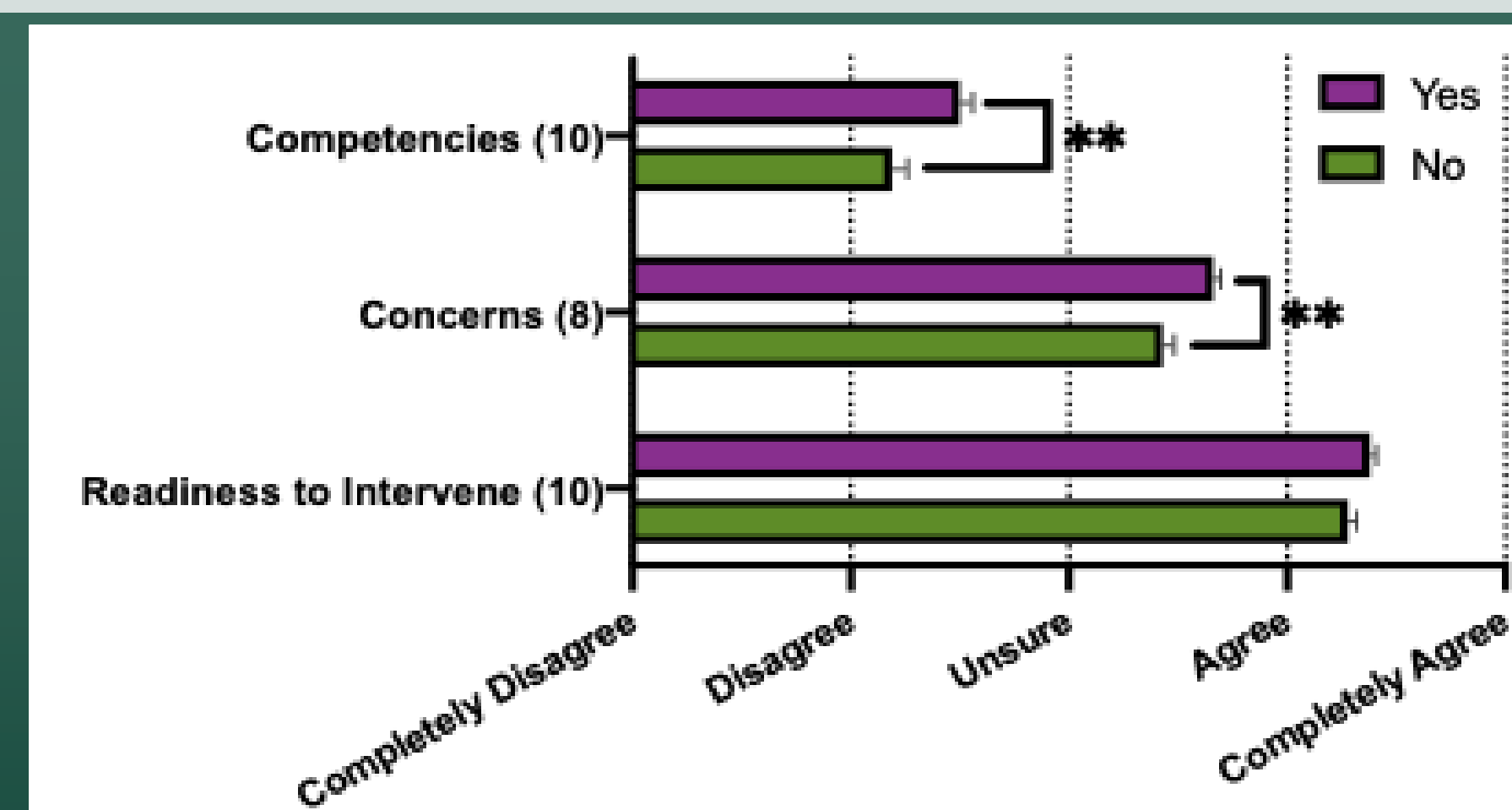


Figure 2: The average score (±SEM) for each domain of the OOAS grouped by previous employment in healthcare (yes vs. no). Total items in each domain listed in parentheses. Note: concerns domain is reverse coded so a higher score equates to fewer concerns

CONCLUSIONS

Students entering medical school with previous paid employment in healthcare were more knowledgeable about naloxone use but did not have higher scores in the other 3 main areas of knowledge (risk factors, signs of overdose, actions to take during overdose).

Despite having minimal differences in knowledge to those without paid healthcare experience, those with paid healthcare experience felt more competent and had fewer concerns about their ability to respond to and manage an opioid overdose.

While these findings emphasize the positive impact of early clinical experience and exposure to patients with OUD, overall the results highlight a deficiency in medical education that merits further attention. Total scores for both groups in OOKS and OOAS were suboptimal, indicating incomplete understanding of OUD and lack of confidence in ability to recognize and treat an overdose. Fortunately, nearly all students who completed this survey indicated interest in receiving further opioid overdose training to supplement the current curriculum.

This study provides information that can inform an expanding curriculum about substance use disorders, demonstrating both the need and interest to do so. As the opioid epidemic remains a major public health concern in the United States, equipping future physicians with the skills to understand and treat OUD can play a vital role in better patient outcomes.

ACKNOWLEDGEMENTS

Supported by Wayne State University School of Medicine. We thank the students of Detroit vs. Addiction for their assistance.

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