

Manner of Drinking as a Mediator in the Association between Emotional Impulsivity and Alcohol-Related Problems



Grace Bujan,¹ Grace Kidd,² Ariana Williams,¹ Anuj H. P. Mehta, BS¹ Stephanie B. Ward, MS¹ Kate Walsh, PhD¹

¹ University of Wisconsin – Madison, ² Mount Mary University

Background

- Heavy drinking has been recognized as a public health problem on American college campuses.
- Deficits in emotion regulation have been associated with alcohol consumption and related consequences (Dvorak et al., 2014).
- Those who tend to use adaptive “reappraisal” strategies are more likely to engage in substance use protective behavioral strategies (PBS) and consequently have lower substance use and associated problems (Blanchard et al., 2018).
- However, other aspects of emotion regulation, including difficulties attending to and differentiating emotions, difficulties engaging in goal-directed behavior and acting impulsively when distressed, may be important to consider in this association.
- Specific PBS (e.g., how students drink or limit their drinking) also have yet to be explored.

Study Aims

The current study seeks to build on prior work by testing the hypotheses that 1) emotion dysregulation will inhibit the use of alcohol protective behavioral strategies, and 2) limited use of alcohol protective behavior will be associated with alcohol-related problems through alcohol protective behaviors.

Procedure

Data were drawn from an online Qualtrics survey completed by undergraduates in the Psychology subject pool who reported any alcohol consumption in the past 12 months. Participants completed a baseline survey as part of a larger 28-day daily diary study about alcohol use and sexual behavior.

Participants (N = 374)

- 68% White
- 17% Asian
- 9% Hispanic or Latino/a/x
- 3% Black
- 63% Women
- 34% Men
- 10% Non-binary⁺
- 87% Hetero
- 7% Bisexual
- 6% Other⁺⁺

⁺incl. Gender non-conforming, ⁺⁺incl: Gay, lesbian, pan, trans, two-spirit, & gender-fluid queer, & questioning

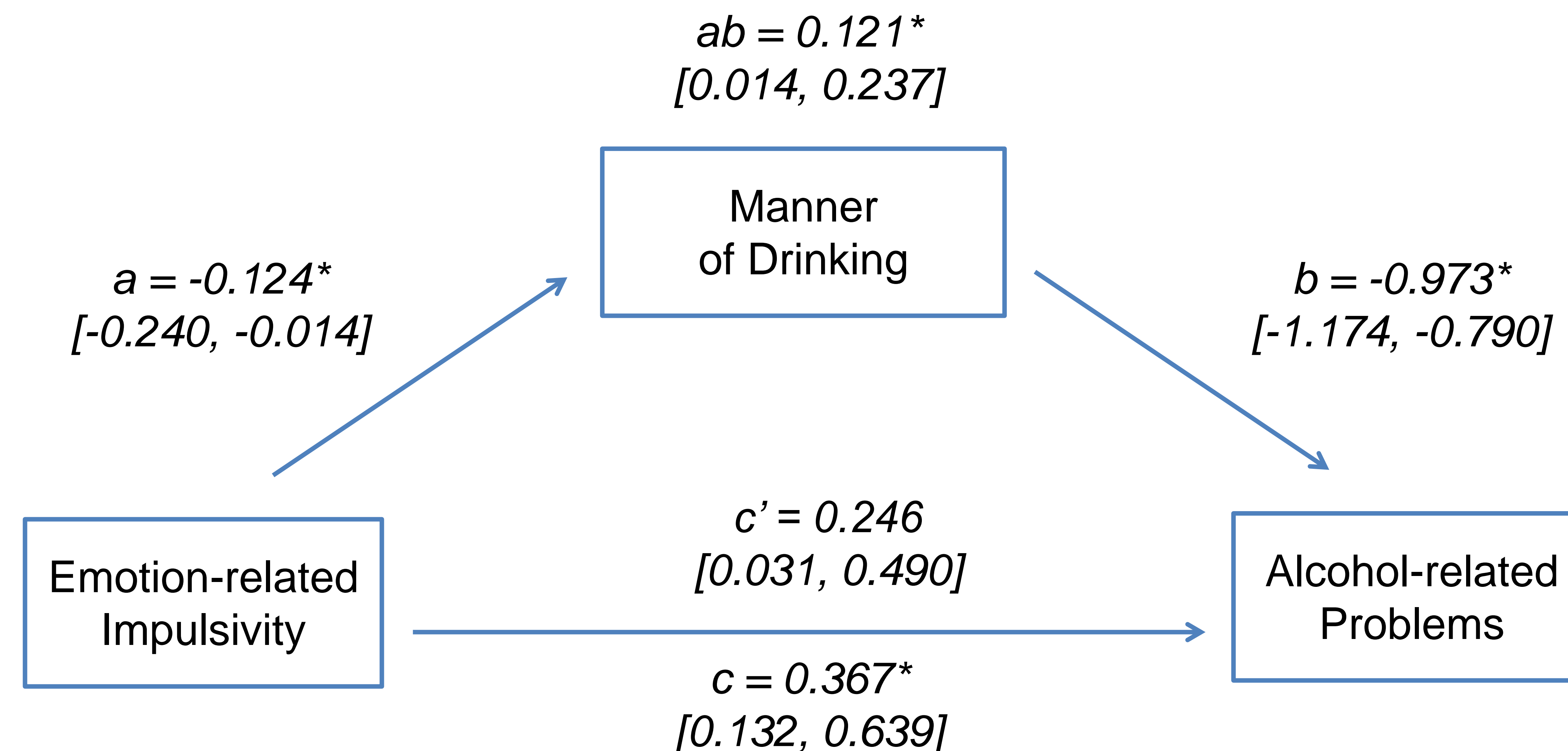


Figure 1: Effect of emotion-related impulsivity on alcohol-related problems, mediated by manner of drinking. Confidence intervals not containing zero indicate a significant effect (* $p < .05$).

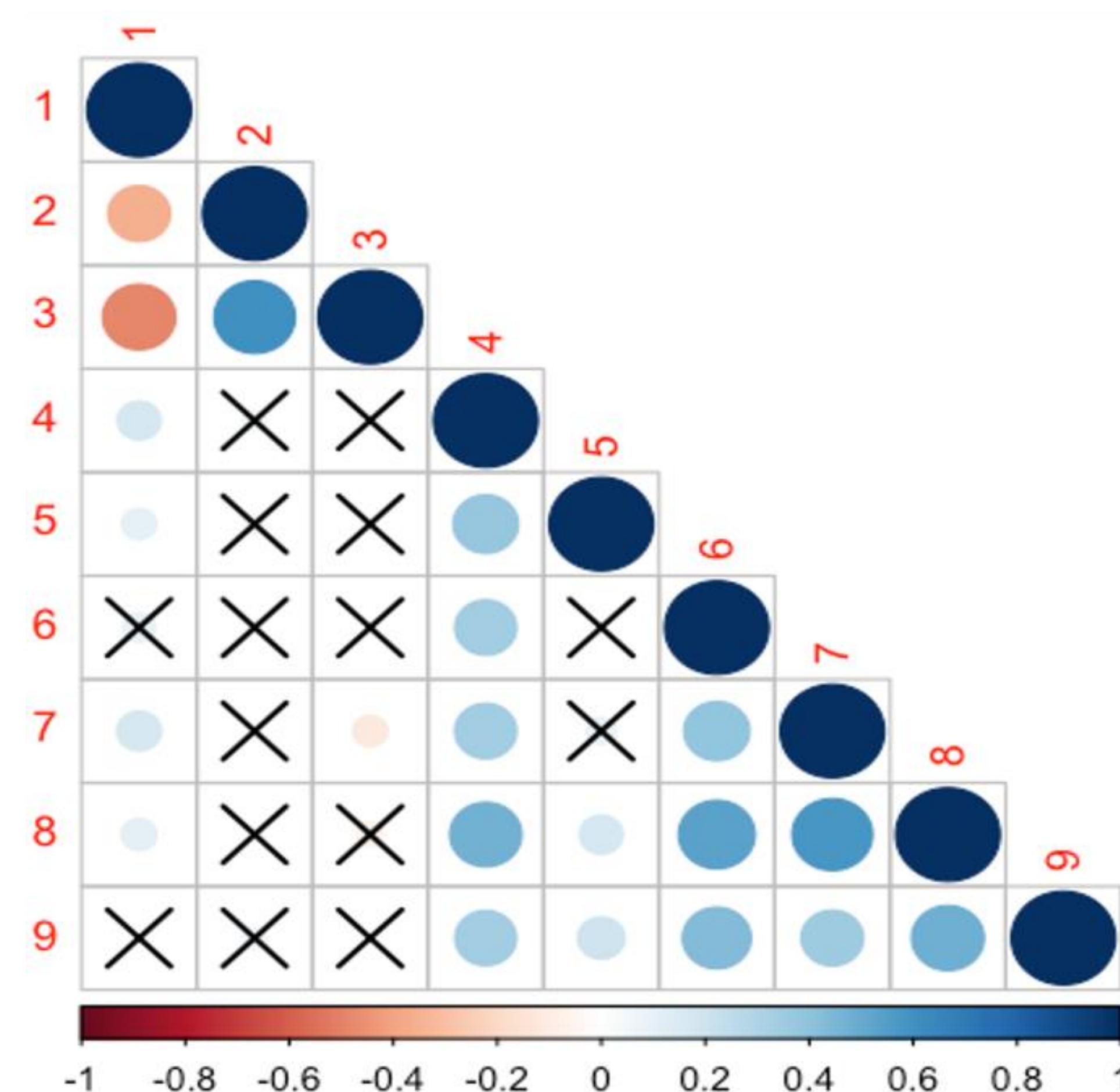


Figure 2: Correlogram. Blue and red circles indicate significant + and - correlation coefficients, respectively.

Measures

Alcohol Use Disorders Identification Test
AUDIT ($\alpha = .79$): Saunders et al., 1993

1. Alcohol-related problems

Alcohol Protective Behavioral Strategies
APBS Scale: Martens et al., 2005

2. Limiting Drinking ($\alpha = .66$)

3. Manner of Drinking ($\alpha = .63$)

Difficulties in Emotion Regulation Scale
DERS-18: ($\alpha = .89$) Victor et al., 2016

4. Emotional Clarity

5. Emotional Awareness

6. Emotional Goal-interference

7. Emotional Impulsivity

8. Emotional Regulation Strategies

9. Emotional Nonacceptance

Methods

- Conducted analyses in R via Rstudio.
- Computed bivariate associations.
- Used the lavaan package to run mediation analyses with the DERS and alcohol PBS subscales predicting AUDIT scores.

Results

- Mediation analyses revealed a significant indirect effect of emotional impulsivity on alcohol problems through manner of drinking.
- Specifically, acting impulsively when distressed was negatively associated with protective behaviors concerning *how* one drinks (e.g., not mixing alcohol types or alcohol with other drugs)
- Lower use of manner of drinking PBS was associated with greater alcohol problem severity.
- This effect was not observed for other emotion regulation deficits or other alcohol PBS.

Conclusions

Our findings reinforce the need for basic and applied research in the affective, behavioral, and addiction sciences to investigate the mechanisms underpinning complex pathways between emotion dysregulation and substance use problems.

Interventions to address emotional impulsivity could improve students' capacity for engaging in PBS while drinking to reduce alcohol-related problems.

Limitations

This research was conducted at a university in the midwestern U.S., limiting the generalizability of our findings to diverse and non-college-educated samples. Data were drawn from a cross-sectional assessment, precluding conclusions related to temporality.

Next Steps

Analyses will be replicated and extended using longitudinal daily diary data to examine event-level associations between state- and trait-level emotions, dysregulation, protective behavioral strategies, substance use, and related harms.