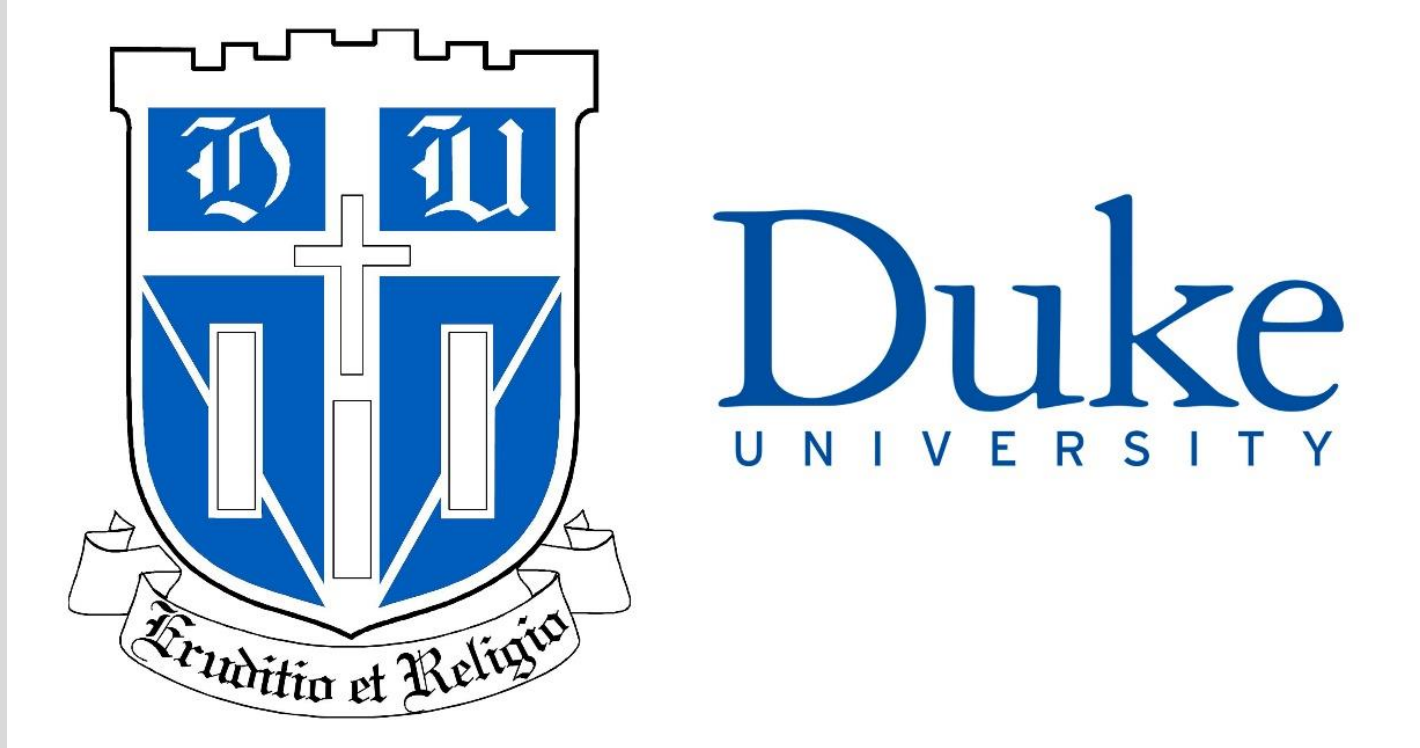


# Associations of coping strategies with stress, alcohol, and substance use among college athletes: A cross-sectional analysis

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## Introduction

- In their efforts to overcome college-related stressors, students employ “approaching” coping strategies, such as problem solving and social support, or “avoidant” strategies such as denial or substance use.
- College athletes experience high levels of emotional distress and substance use (Brown et al., 2014; Knettel et al., 2021). Those with emotional distress are less likely to seek mental health support (Kern et al., 2017).
- The aims of the current study were to evaluate the correlates of substance use coping, and to assess whether specific coping strategies are associated with substance use among a sample of college athletes.
- Hypothesis: Higher stress and avoidant coping (e.g., substance use coping, denial, behavioral disengagement) would be associated with greater substance use and substance-related risk behaviors.

## Key Findings

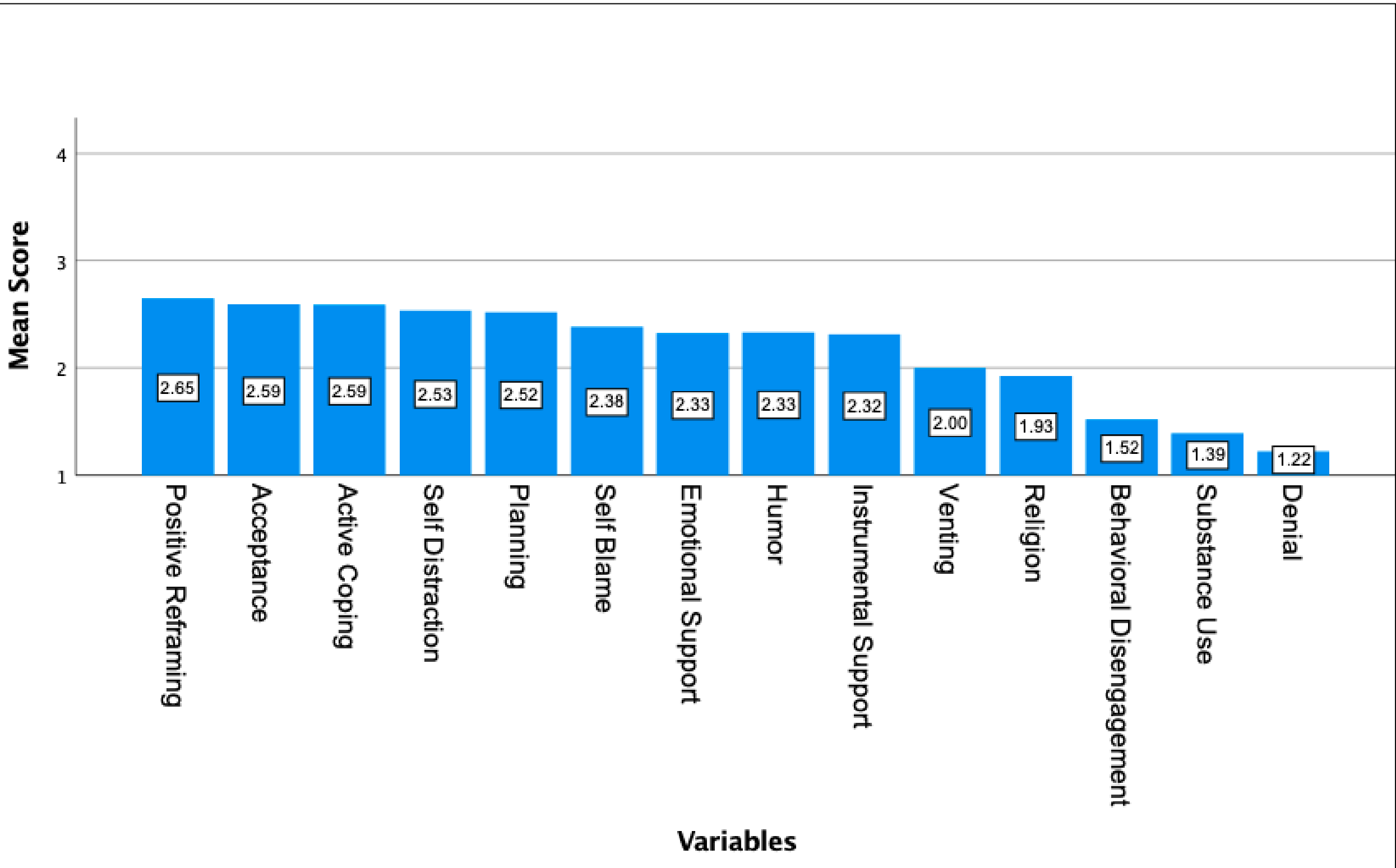
- Older athletes, males, and those with higher stress were more likely to use substances to cope.
- Higher behavioral disengagement, higher substance use coping, and lower religious coping were associated with increased likelihood of binge drinking and substance-related risk behaviors.

## Methods

- Online surveys of 188 athletes from six colleges and universities in Upper Midwest U.S.: Iowa, Minnesota, North Dakota, South Dakota, and Wisconsin.
- Participants competing in each NCAA Division (I, II, and II) and the NJCAA junior/community college level.
- Survey contained 5 measures: coping, substance use, stress, athletics related anxiety, and perceived control of athletics-related anxiety.
- Used (1) linear regression to assess correlates of substance use coping, (2) binary logistic regression to assess coping strategies as correlates of binge drinking, cannabis use, and other substance use, and (3) Poisson regression with robust variance to assess coping strategies as correlates of substance-related risk.

## Results

Figure 1. Endorsement of coping strategies measured by the Brief COPE (N=188)



The most frequently endorsed coping strategies were adaptive, “approaching” strategies and included positive reframing, acceptance, active coping, self-distraction, and planning ahead. Substance use was the second least commonly endorsed coping strategy.

Table 2. Factors associated with alcohol- and drug-related risk behaviors (N=188)

- Substance use coping and behavioral disengagement were associated with higher substance-related risk.
- Religious coping was associated with lower risk.
- Substance use was the only coping strategy significantly associated with binge drinking ( $b=1.229, p<.001$ ), marijuana use ( $b=.904, p<.001$ ), and other substance use ( $b=.603, p=.015$ ).

		Univariable B (95% CI)	Multivariable B (95% CI)
Brief COPE Subscales			
Self-Distraction		.011 (-.019, .041)	
Active Coping		-.016 (-.053, .021)	
Denial		.001 (-.035, .037)	
Substance Use Coping		.117 (.088, .145)***	.101 (.071, .132)***
Emotional Support		.006 (-.025, .036)	
Instrumental Support		-.022 (-.052, .009)	
Behavioral Disengagement		.035 (.004, .065)*	.016 (-.011, .042)
Venting		-.008 (-.041, .025)	
Positive Reframing		-.003 (-.033, .028)	
Planning		-.010 (-.044, .024)	
Acceptance		.007 (-.027, .040)	
Religious Coping		-.033 (-.055, -.011)**	-.020 (-.039, -.001)*
Self-Blame		.024 (-.003, .051)	
Humor		.008 (-.021, .037)	
	# CRAFFT Items Endorsed, mean		
Gender			
Women	2.17	REF	REF
Men	3.13	.082 (.023, .141)**	.029 (-.024, .082)
Age			
<21 years old	2.05	REF	REF
21-25 years old	2.91	.078 (.028, .128)**	.053 (.008, .097)*

	Substance Use Coping, mean	Univariable B (95% CI)	Multivariable B (95% CI)
Gender			
Female	1.32	REF	REF
Male	1.61	.287 (.029, .545)*	.342 (.088, .596)**
Age			
<21 years old	1.29	REF	REF
21-25 years old	1.55	.261 (.032, .490)*	.185 (-.038, .408)
Stress (GSI)		.029 (.014, .044)***	.020 (.004, .037)*
Athletics-Related Anxiety (SAS-2)		.023 (.009, .037)**	.015 (-.001, .030)
Perceived Control of Stressors (PCQ)		-.050 (-.084, -.015)**	-.031 (-.064, .002)

Table 3. Factors associated with using substances as a coping strategy (N=188)

- Men were more likely to use substances to cope compared to women ( $p=.009$ ).
- For each point increase in stress, substance use coping increased by .020 ( $p=.013$ ).

## Discussion

- Male college athletes and those with higher overall college-related stress were most likely to endorse substance use coping.
- Being age 21 or older, higher athletics-related anxiety, and low perceived control of stressors were also related to substance use coping.
- Substance use coping was strongly associated with problematic patterns of substance use, including binge drinking, illicit substance use, and engaging in substance-related risk behaviors such as riding in a car with an intoxicated driver or forgetting things while using substances.
- Higher behavioral disengagement and lower religious coping were related to greater binge drinking and substance-related risk behaviors.

## Implications

- Together, these findings point to the importance of developing interventions to reduce stressors and facilitate healthy coping with stress as strategies to reduce problematic drinking and substance use among college athletes.
- Coping-focused interventions are likely to have the dual benefit of reducing problematic substance use and enhancing problem solving for other stressors common among college athletes.

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