



**RESEARCH SUMMARY**  
Date Compiled: January 2023

**Key takeaways from included research:**

- A new study examined the associations of simultaneous alcohol and cannabis (SAC) use and whether simultaneous use has more negative consequences than independent substance use. They found that alcohol-related contextual characteristics, like quantity of alcohol consumed, are associated with SAC use among underage drinkers therefore stricter laws should address social host liability and sales to minor laws which may also decrease simultaneous cannabis use.
- Another study looked at the relationship between alcohol-related negative consequences (ARNC) among college students and their history of adverse childhood experiences (ACEs). It was determined that students with 1-3 ACEs experienced significantly more types of ARNCs than those with no ACEs and students with four or more ACEs experiences statistically significantly more types of ARNCs. The relationships did not vary by drinking frequency.
- A different study of college students and negative alcohol-related consequences examined whether drinking norms and the location are strong predictors of drinking behavior. They found that participants were more approving of negative consequences at social events that took place at someone's home/dorm relative to bars/clubs.
- Researchers assessed associations between alcohol availability and consumption, drinking to drunkenness, and negative drinking consequences among individuals with elevated depressive symptoms. They found that elevated depressive symptoms did not alter associations between alcohol availability, use, and problems, however, they are associated with these outcomes in the general U.S. population.

## **CHARACTERISTICS OF DRINKING EPISODES ASSOCIATED WITH SIMULTANEOUS ALCOHOL AND CANNABIS USE AMONG UNDERAGE DRINKERS IN THE UNITED STATES**

January 2023

**Background:** Simultaneous alcohol and cannabis (SAC) use is associated with more negative consequences than independent use of alcohol or cannabis. Contextual characteristics of drinking episodes are associated with the quantity of alcohol consumed and related risk. This study examined whether drinking contexts may also be associated with SAC use.

**Methods:** National Survey on Drug Use and Health (NSDUH) 2010–2019 data from past 30-day drinkers aged 12–20 ( $n = 39,456$ ) were used. A weighted multivariable logistic regression model examined associations between contextual characteristics (alcohol source, number of people, drinking location) and SAC use during their most recent drinking occasion. Models adjusted for survey year, heavy episodic drinking, age, sex, race/ethnicity, student status, and metropolitan area status.

**Results:** More than one-in-five drinkers reported SAC use. Compared to getting alcohol from parents/family, those who took it from a home (OR = 1.51, 95 %CI = 1.24, 1.84), got it for free another way (OR = 2.30, 95 %CI = 2.05, 2.59), paid someone else for it (OR = 2.83, 95 %CI = 2.46, 3.25), or purchased it themselves (OR = 3.12, 95 %CI = 2.66, 3.67) had higher odds of SAC use. Compared to drinking alone, drinking with more than one person was associated with higher odds of SAC use (OR = 1.36, 95 %CI = 1.12, 1.66). Compared to drinking in their home, drinking in a bar (OR = 0.51, 95 %CI = 0.41, 0.64) had lower odds of SAC use, whereas drinking in someone else's home (OR = 1.12, 95 %CI = 1.02, 1.22), a car (OR = 1.36, 95 %CI = 1.04, 1.77), or multiple locations (OR = 1.29, 95 %CI = 1.09, 1.53) had higher odds of SAC use.

**Conclusions:** Findings suggest that alcohol-related contextual characteristics are associated with SAC use among underage drinkers. Laws addressing underage alcohol consumption, including social host liability and sales to minors laws, may also decrease simultaneous cannabis use.

**Source:** LoParco, C. R., Webb, N., Subbaraman, M. S., Lin, H. C., Trangenstein, P. J., Yockey, R. A., & Rossheim, M. E. (2023). Characteristics of drinking episodes associated with simultaneous alcohol and cannabis use among underage drinkers in the United States. *Addictive Behaviors*, 136, 107501. <https://doi.org/10.1016/j.addbeh.2022.107501>

## **ADVERSE CHILDHOOD EXPERIENCES AND ALCOHOL RELATED NEGATIVE CONSEQUENCE AMONG COLLEGE STUDENT DRINKERS**

January 2023

**Objective:** Despite increasing college campus prevention efforts, and identification of effective strategies to reduce drinking, reducing alcohol related negative consequences (ARNC, e.g., regrets, blackouts, self- and other- injury, law enforcement exposure, sexual assault, and considering suicide) continues to be a challenge. While college students with a history of adverse childhood experiences (ACE) are at greater risk for alcohol misuse, research regarding the association between ACE and ARNC remains limited.

**Methods:** Data are responses of currently drinking students on the American College Health Association-National College Health Assessment (ACHA-NCHA II) and College Student Health Survey (CSHS), administered in 2018 to students in California and Minnesota ( $N = 6,667$ ).

**Results:** On average, students reported one ARNC ( $SD = 1.30$ ) although 13 % experienced three or more different types of ARNC in the past year. Every ACE was associated with a 19 % to 41 % increase in the IRR of ARNC. Students with 1–3 ACE experienced significantly more types of ARNC events (IRR 1.55, 95 % CI: 1.44–1.67) than students with no ACE and students with  $\geq 4$  ACE

experienced statistically significantly more types of ARNC events (IRR 2.04, 95 % CI: 1.82–2.31) than their peers with 1–3 or no ACE. The ACE-ARNC relationship did not vary by drinking frequency or binge drinking.

**Conclusions:** The consistent ACE - ARNC relationship across drinking behaviors suggests alcohol consumption does not fully explain the association between ACE and ARNC and that early adversity heightens vulnerability for ARNC. Implications for future prevention and intervention efforts are discussed.

**Source:** Forster, M., Rogers, C. J., Tinoco, S., Benjamin, S., Lust, K., & Grigsby, T. J. (2023). Adverse childhood experiences and alcohol related negative consequence among college student drinkers. *Addictive behaviors*, 136, 107484. <https://doi.org/10.1016/j.addbeh.2022.107484>

### **WHERE DO HEAVY DRINKING COLLEGE STUDENTS EXPERIENCE ALCOHOL CONSEQUENCES AND WHERE ARE THEY PERCEIVED TO BE NORMATIVE?** January 2023

#### **Abstract**

High levels of alcohol consumption are common among college students and associated with endorsing negative alcohol-related consequences. Research suggests both drinking norms and location are strong predictors of drinking behavior in college students. Yet, normative perceptions of consequences, and whether they are location-specific, are less well-studied. We tested the hypotheses that college students who drink would have the highest levels of descriptive and injunctive norms for negative consequences, and would self-report the greatest number of negative consequences, at large gatherings/parties relative to someone's home/dorm and/or bars/clubs. Additionally, we explored whether specific acute consequences were more likely in some drinking locations versus others. Participants were 96 full-time undergraduate students who engaged in high-risk drinking. At baseline, participants reported descriptive and injunctive norms for negative consequences in three locations (home/dorm, large gathering/party, bar/club). Over a 28-day period, participants self-reported daily experiences of five alcohol-related consequences in these same locations. With repeated measures analyses of variance, we found that participants perceived their peers experienced more negative consequences and were more approving of negative consequences at large gatherings/parties and small gatherings at someone's home/dorm relative to bars/clubs. Likewise, nonparametric analyses demonstrated that the total number of consequences over the 28-day assessment period also differed by location, with participants reporting more consequences at home/dorm and large gathering/party locations than at bars/clubs. Future research is needed to better understand how the impact of norms on behavior differs across drinking location, and whether location-specific intervention content (e.g., normative correction) would be useful.

**Source:** Merrill, J. E., Fox, O. S., Boyle, H. K., Haines, A., & Carey, K. B. (2023). Where do heavy drinking college students experience alcohol consequences and where are they perceived to be normative?. *Addictive behaviors*, 136, 107474. <https://doi.org/10.1016/j.addbeh.2022.107474>

### **DOES THE RELATIONSHIP BETWEEN ALCOHOL RETAIL ENVIRONMENT AND ALCOHOL OUTCOMES VARY BY DEPRESSIVE SYMPTOMS? FINDINGS FROM A U.S. SURVEY OF BLACK, HISPANIC AND WHITE DRINKERS** January 2023

**Aims:** To assess whether associations between alcohol availability and consumption, drinking to drunkenness, and negative drinking consequences vary among individuals with elevated depressive symptoms.

**Methods:** 10,482 current drinkers in 2005–2015 National Alcohol Surveys (50.0% female; 74.4% White, 8.7% Black, 11.1% Hispanic). Elevated depressive symptoms was defined as having symptoms suggestive of major depressive disorder (above CES-D8/PHQ-2 cut-offs) versus no/sub-threshold symptoms (below cut-offs). Inverse probability of treatment weighted and covariate adjusted Poisson models with robust standard errors estimated associations of ZIP-code bar density and off-premise outlet density (locations/1,000 residents), elevated depressive symptoms, and their interaction with past-year volume consumed, monthly drinking to drunkenness, and negative drinking consequences. Models were then stratified by sex and race and ethnicity.

**Results:** Overall, 13.7% of respondents had elevated depressive symptoms. Regarding density, the only statistically significant association observed was between off-premise density and volume consumed (rate ratio = 1.3, 95% confidence interval = 1.0, 1.7). Elevated depressive symptoms were associated with higher volume consumed, prevalence of drinking to drunkenness, and prevalence of negative consequences when controlling for off-premise density or bar density. However, there was no evidence of interaction between symptoms and density in the full sample nor among subgroups.

**Conclusion:** This study suggests that, while elevated depressive symptoms do not alter associations between alcohol availability and alcohol use and problems, they remain associated with these outcomes among past-year drinkers in a U.S. general population sample even when accounting for differential availability. Addressing depressive symptoms should be considered along with other policies to reduce population-level drinking and alcohol problems.

**Source:** Phillips, A. Z., Mulia, N., Subbaraman, M. S., Kershaw, K. N., Kerr, W. C., & Karriker-Jaffe, K. J. (2023). Does the relationship between alcohol retail environment and alcohol outcomes vary by depressive symptoms? Findings from a US Survey of Black, Hispanic and White drinkers. *Addictive behaviors*, 136, 107463. <https://doi.org/10.1016/j.addbeh.2022.107463>