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What pandemic? A multisite study of drinking motives and drinking games participation among college students during a pandemic (COVID-19) academic year

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ABSTRACT

A drinking game (DG) is a widely practiced social activity that tends to encourage rapid alcohol consumption. While social restrictions during the pandemic (COVID-19) academic year were implemented as a health measure across many colleges/universities, the extent to which college student drinkers continued to play DGs in-person is not well understood. Because theory and research suggest that drinking motives are proximal correlates of drinking behaviors, we examined which drinking motives increased the likelihood of playing DGs in-person, and playing DGs in-person in a group of 10+ people during the 2020–21 pandemic academic year. College students (past-year drinkers) from 12 universities completed an online survey (N = 900; M_age = 19.42, Range = 18–25; SD_age = 1.45, White = 73.1%, 69.2% female). Of the students surveyed, 590 students played DGs, with 460 students only playing DGs in-person. Of the students who played DGs in-person, 274 students reported that the maximum number of people they played DGs with in-person exceeded the CDC’s recommended guidelines (10+ people). Accounting for demographics, general alcohol use, and perceived COVID-19 threat, social drinking motives were positively associated with an increased likelihood of playing DGs in-person; the inverse was found for coping motives. Drinking motives were not associated with the likelihood of playing DGs with 10+ people but greater alcohol use and lower perceived threat of COVID-19 were. Given that the pandemic did not deter many student drinkers from playing DGs in-person, further investment in targeted intervention and public health initiatives aimed at substance-free alternatives promoting engagement and enhancement of social activities may be needed.

1. Introduction

Alcohol use and related negative health outcomes peak during young adulthood (Andrews & Westling, 2016). Relative to their non-college attending peers, college attending young adults are also at increased risk for experiencing a negative drinking consequence (Patrick et al., 2020). Before the COVID-19 pandemic, drinking games (DGs) were widely played among college students (e.g., 53% to ~61% played in past...
month, Diulio et al., 2014; Hoyer & Correa, 2022b, respectively; for narrative review, see Zamboanga et al., 2014). By definition, DGs are a social drinking activity that are structured to facilitate heavy alcohol consumption among its players (Zamboanga et al., 2013). DGs participation among young adults is an important health concern given its longstanding link to increased alcohol consumption and elevated risk for negative drinking consequences (for meta-analysis, see Zamboanga et al., 2021). While research among college students showed a decline in the prevalence of alcohol use shortly after the onset of the COVID-19 pandemic compared to the previous non-pandemic year (e.g., Bonar et al., 2021; White et al., 2020), the prevalence and correlates of DGs participation among college students during a pandemic academic year are not known. To our knowledge, only two studies have reported findings pertaining to DGs participation during the pandemic. Pakdaman and Clapp (2021) conducted a qualitative study with legal age (and older) drinkers from different U.S. cities who participated in online happy hour events during the pandemic. The authors found that participants played DGs during these events and noted that “unlike drinking games in other contexts, the purpose here seemed related to augmenting fun,” reducing boredom, or enhancing social connection.” (Pakdaman & Clapp, 2021, p. 10). Similarly, Cerezo et al. (2021) found that a number of participants in their focus groups with sexual minority college women noted playing DGs online to help them cope with boredom and to stay socially connected. Results from these studies shed light on the social appeal of playing DGs, particularly in the context of a pandemic.

According to motivational models of alcohol use and prior research, drinking motives are robust proximal correlates of drinking behaviors (Resin & Mekawi, 2021; Cooper et al., 2016). These include social (e.g., to make social events fun), enhancement (e.g., to get high), conformity (e.g., to fit in), and coping (e.g., to forget worries) motives to consume alcohol. Research has identified unique relations between internal motives and risk-related consumption (Bresin & Mekawi, 2021; Cooper et al., 2016), and has also highlighted that distinct individual differences and contextual factors can play a key role in determining if motives can enhance risk for hazardous use (e.g., conformity motives among socially anxious drinkers; George et al., 2019). Given the prevalence of alcohol use among college students (NIAAA, 2021), drinkers who feel disconnected from their peers may be especially motivated to drink socially. In fact, despite the social restriction measures that were put in place during the pandemic, many university students continued to drink socially in their dorms, parent’s home, or a friend’s dorm (Vanherle et al., 2021). One way for students to socialize and drink (or get inebriated) with their friends is to play a DG. In the context of a pandemic where restrictions on social gatherings were put in place as a public health measure, it stands to reason that college students who are motivated to drink socially or to get intoxicated may elect to play in-person DGs despite their perceived threat of COVID-19 and actual increased risk for COVID-19 exposure and infection. These risks can include being in close physical contact with several players and failing to follow recommended health guidelines (e.g., not washing and/or sanitizing one’s hands, drinking out of the same cup as others) due to intoxication. Thus, given the potential health risks that DG participation can pose during a pandemic, the primary purpose of this study was to examine which drinking motives are associated with an increased likelihood of (a) playing DGs in-person and (b) playing DGs in-person with 10 people or more, which exceeds the CDC’s recommended guidelines (Sandler, 2020), among college students over and above college site, demographics (age/sex), general alcohol use, and perceived COVID-19 threat during a pandemic academic year.

2. Method

2.1. Participants and procedures

A subsample of young adult college students were taken from a larger online survey study (N = 3,681; Hurlocker et al., 2022) of student drinkers from 12 university/campus sites during the 2020–21 academic year. Students from psychology subject pools who reported any past month substance use (e.g., alcohol/tobacco/cannabis/stimulants) were eligible to participate. Participants completed a confidential battery of questionnaires (~1-hour to complete) on Qualtrics in exchange for research credit. A single-site IRB policy was implemented, and all study protocols were approved by the project investigator’s (M.B. Madison) IRB. The sample included past-year drinkers who reported on their DGs participation (N = 900; Mage = 19.42, Range = 18–25; SDage = 1.45, White = 73.1%, 69.2% female; 72.9% pre-pandemic DGs participation).

2.2. Measures

Participants reported their age and biological sex. They also reported their DGs participation with the following questions (0 = Never; 5 = Always): During the pandemic (post-March-2020), have you played DGs, DGs virtually (e.g., Zoom/Facetime/Skype), and DGs in-person. Students also reported the number of people they typically played DGs with in-person and the maximum number of people they played DGs with in-person. We measured general alcohol use with the AUDIT-C (Barry et al., 2015). To measure social, enhancement, conformity, and coping motives to drink (1 = Never/Almost never, 5 = Almost always/Always), we used the Drinking Motives Questionnaire-Revised-Short Form (Kuntsche & Runtsche, 2009). Finally, we used the Perceived Coronovirus Threat Questionnaire to assess perceived COVID-19 threat (e.g., “I have tried hard to avoid other people because I don’t want to get sick”; 1 = Not true of me at all; 7 = Very true of me; Conway et al., 2020). Average scores were computed with higher scores reflecting higher perceived COVID-19 threat.

2.3. Data analytic plan

Given the binary outcome variables (played DGs in-person or did not play DGs; played DGs in-person with 10 + people or < 10 people) and the clustered nature of the data (students nested within colleges), two hierarchical generalized linear models (HGLM) were conducted. Data were modeled in two-levels: level one captured the effect of student-level factors (i.e., demographics, general alcohol use, perceived COVID-19 threat, drinking motives) within each college; level two captured the effect of college site. First, in-person DGs participation and playing DGs with 10 + people were modeled in null HGLMs with no fixed predictors and only college site as a random factor. This model provided an intraclass correlation coefficient (ICC) to determine evidence of clustering by examining the total variance of each outcome that was accounted for by college site alone. All student- and college-level variables were then included in the final HGLMs.

3. Results

Descriptive statistics of the study variables are presented in Table 1. For DGs participation, the null HGLM estimated an ICC = 0.059, passing a conventional threshold (ICC = 0.05; Heck et al., 2013) indicating evidence of clustering, though it did not meet statistical significance, p = .064. Thus, the amount of variability explained by college site was 5.9%, indicating that 94.1% of the remaining variability was due to student characteristics or other factors.

The first HGLM (Table 2) indicated that an increased likelihood of playing in-person DGs during the COVID-19 pandemic was related to younger age (OR = 0.75, 95%CI = 0.61–0.93, p = .008), higher general alcohol use (OR = 1.27, 95%CI = 1.08–1.49, p = .004), lower perceived
COVID-19 threat (OR = 0.95, 95%CI = 0.91–0.99, p = .006), higher social-related drinking motives (OR = 1.68, 95%CI = 1.12–2.53, p = .013), and lower coping-related drinking motives (OR = 0.69, 95%CI = 0.49–0.96, p = .028), but was unrelated to sex (OR = 2.00, 95%CI = 0.97–4.12, p = .067), enhancement-related drinking motives (OR = 1.08, 95%CI = 0.71–1.64, p = .723), or conformity-related drinking motives (OR = 0.90, 95%CI = 0.63–1.28, p = .556). With student level variables included, college site accounted for near zero variance in the model.

The second null model did not indicate evidence of clustering (ICC = 0.003) and did not meet statistical significance (p = .415). The full model indicated that an increased likelihood of playing in-person DGs with 10 + people during the COVID-19 pandemic was related to higher general alcohol use (OR = 1.29, 95%CI = 1.07–1.56, p = .009) and lower perceived COVID-19 threat (OR = 0.57, 95%CI = 0.41–0.80, p = .001), but was not related to age (OR = 0.90, 95%CI = 0.65–1.23, p = .495), sex (OR = 1.37, 95%CI = 0.53–3.49, p = .514), social-related drinking motives (OR = 1.52, 95%CI = 0.90–2.55, p = .114), coping-related drinking motives (OR = 1.07, 95%CI = 0.71–1.62, p = .754), enhancement-related drinking motives (OR = 0.96, 95%CI = 0.56–1.64, p = .872), or conformity-related drinking motives (OR = 0.84, 95%CI = 0.55–1.27, p = .399).

Table 2
Hierarchical Generalized Linear Models for In-Person Drinking Games Participation.

| Variable | Variance | (SE) | t | 95%CI | p-value |
|----------|----------|------|---|-------|---------|
| Model 1  |          |      |   |       |         |
| Fixed effects | College site | 0.21 | 0.08–0.85 | 0.52 |
| Random effects | | | | |
| Model 2  |          |      |   |       |         |
| Fixed effects | Age | –0.28(0.11) | –2.68 | –0.49 to –0.08 | 0.008* |
| | Sex | 0.70(0.37) | 1.88 | –0.04 to 1.43 | 0.062 |
| | General Alcohol Use | 0.24(0.08) | 2.94 | 0.08 to 0.40 | 0.004* |
| | Social | 0.52(0.21) | 2.52 | 0.11 to 0.93 | 0.013* |
| | Enhancement | 0.08(0.21) | 0.36 | –0.34 to 0.49 | 0.723 |
| | Coping | –0.38(0.17) | –2.21 | –0.72 to –0.04 | 0.028* |
| | Conformity | –0.11(0.18) | –0.59 | –0.46 to 0.25 | 0.556 |
| | Perceived COVID Threat | –0.05(0.02) | –2.77 | –0.09 to 0.02 | 0.006* |
| Random effects | College site | 7.59E–9 | | | |

Table 3
Hierarchical Generalized Linear Models for In-Person Drinking Games Participation with 10 or More People (N = 139).

| Variable | Variance | (SE) | t | 95%CI | p-value |
|----------|----------|------|---|-------|---------|
| Model 1  |          |      |   |       |         |
| Fixed effects | Age | –0.11(0.16) | –0.69 | –0.43 to –0.21 | 0.495 |
| | Sex | 0.31(0.48) | 0.66 | –0.63 to 1.25 | 0.514 |
| | General Alcohol Use | 0.25(0.10) | 2.66 | 0.07 to 0.44 | 0.009* |
| | Social | 0.42(0.26) | 1.59 | –0.10 to 0.94 | 0.114 |
| | Enhancement | –0.04(0.27) | –0.16 | –0.59 to 0.50 | 0.872 |
| | Coping | 0.07(0.21) | 0.31 | –0.35 to 0.48 | 0.754 |
| | Conformity | –0.18(0.21) | –0.85 | –0.60 to 0.24 | 0.399 |
| | Perceived COVID Threat | –0.56(0.17) | –3.33 | –0.90 to –2.33 | 0.001* |
| Random effects | College site | 8.64E–7 | | | |

Note. β = standardized coefficient estimates; SE = standard error; *p < .05; AUDIT-C = Alcohol Use Disorders Identification Test-Consumption; DMQ-R-SF = Drinking Motives Questionnaire-Revised-Short Form; Perceived Coronavirus Threat Questionnaire.
4. Discussion

The purpose of the present study was to examine which drinking motives are associated with an increased likelihood of playing DGs in-person and playing DGs in-person with 10 people or more among college student drinkers during an academic pandemic year. There are three key findings worth highlighting. First, we found that most students who played DGs during the pandemic (n = 590) only played in-person DGs (n = 460) compared to 11 students who only played virtual DGs. Of the students who played in-person, over half of the students (n = 274) reported that the maximum number of people they played in-person DGs with was 10 people or more compared to 262 students who reported 9 or less people. Thus, it appears that the pandemic did not deter many college drinkers who play DGs from playing them in-person at least once (e.g., 72.9% pre-pandemic, 65.6% during pandemic), many of whom also played in large groups. It is possible that college drinkers’ participation in DGs in-person in a private setting (e.g., house, dorm room) during an academic pandemic year were driven by feeling socially isolated (Okado et al., 2021), campus-wide restrictions on social gatherings and closure of drinking establishments (e.g., bars), or some combination of these factors.

Second, higher endorsement of social drinking motives was associated with an increased likelihood of playing DGs in-person, over and above demographics, general alcohol use, and perceived threat of COVID-19. Positive bivariate correlations between social drinking motives and DGs participation have also been reported in pre-pandemic research with college students (Zamboanga et al., 2018). Thus, even during an academic pandemic year where restrictions on social gatherings were imposed, college students who drink often for social reasons may do so in the context of a DG. Given that playing DGs is linked to increased alcohol consumption (Zamboanga et al., 2021), participation in this activity can facilitate social disinhibition and increase one’s risk for intoxication. As such, playing in-person DGs during a pandemic may compromise students’ ability to practice the recommended health guidelines (e.g., social distancing, hand washing/sanitizing, avoid sharing drinks) to help reduce their risk for COVID-19 infection. Indeed, research with college students suggests that social drinking motives or consuming alcohol in group settings with friends were associated with an increased odds of COVID-19 exposure (Allen et al., 2021). Although findings from pre-pandemic research suggest that social drinking motives are positively associated with alcohol consumption levels in the context of a DG at the bivariate (Sheehan et al., 2013; Hoyer & Correia, 2022b) and multivariate (Sheehan et al., 2013) levels, we did not examine DGs consumption nor did we investigate the extent to which students engaged in risky health practices while playing DGs, or incidence of COVID-19 diagnoses following such events; thus, we recommend that future research examine these behaviors.

Finally, coping-related drinking motives were negatively associated with the likelihood of playing DGs in-person. This finding aligns with studies conducted with U.S. (Zamboanga et al., 2019) and Australian university students (George et al., 2018) in which coping did not emerge as a motive to play DGs. We also observed a small but statistically significant association between COVID-related fears and coping motives in the current sample (Table 1). This suggests that students reporting higher coping motives also reported greater concerns around COVID exposure and as such, these students may have been less inclined to engage in a high-risk behavior like playing a DG. Notably, feeling less socially connected due to the pandemic has been shown to be associated with drinking to cope in general (Wardell et al., 2020), and this motive has been consistently linked to risk-related (non-DG) patterns of alcohol use among adolescents and young adults (e.g., drinking alone; Skrzynski & Creswell, 2020). Further, one study showed that the students who experienced the most problems from playing DGs drank more frequently for coping motives compared to other students (Hoyer & Correia, 2022a). This limited literature suggests that while drinking to cope broadly may not be uniquely and positively associated with DGs behavior, the relations among coping motives, DGs participation, and negative health outcomes may be more nuanced and merits further study.

Notably, the current study included only a single assessment of retrospective self-reports, and the strength of the multi-site approach is somewhat tempered by wide variance in state- and local-level COVID-19 guidelines and mandates which were not captured here. While focused on experiences of the COVID-19 academic pandemic year, the present data also speaks to the broader willingness of (a) socially-motivated drinkers to play DGs in-person, and (b) higher alcohol consumers to play DGs in-person and in large groups, despite additional, acute, risk when faced with a socially-limited context. Study designs incorporating multiple timepoints, real-time assessment, attitudes toward health government agencies (e.g., trust vs mistrust of agency recommendations), and high-risk students (e.g., student-athletes; Zamboanga et al., 2022) will provide important conceptual replications highlighting the nature and bounds of this association (e.g., risky social environments such as with strangers, in unfamiliar environments, and/or without safe transportation home). Taken together, the current data suggest that targeted intervention efforts with students who are socially motivated to drink alcohol, particularly those who are younger in age, have higher levels of alcohol use, or do not perceive the pandemic to pose a health threat, may be needed in the event of another global pandemic. More broadly, public health initiatives increasing the accessibility of public, substance-free, socially-conducive activities (e.g., public/outdoor park infrastructure) could aid in providing meaningful alternatives to engagement in such high-risk DGs participation (e.g., Acuff et al., 2021).

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Byron L. Zamboanga: Conceptualization, Writing – original draft, Writing – review & editing, Methodology, Investigation. Heidemarie Blumenthal: Conceptualization, Writing – review & editing, Formal analysis, Formal analysis, Supervision. Margo C. Hurlocker: Conceptualization, Writing – review & editing, Lucy E. Napper: Writing – review & editing, Investigation. Margo C. Hurlocker: Project administration, Writing – review & editing, Methodology, Investigation. Kayla Ford: Writing – review & editing. Michael B. Madson: Project administration, Writing – review & editing, Methodology, Investigation.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

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References

Acuff, S. F., Tucker, J. A., & Murphy, J. G. (2021). Behavioral economics of substance use: Understanding and reducing harmful use during the COVID-19 pandemic. Experimental and Clinical Psychopharmacology, 29(6), 739–749. https://doi.org/10.1037/pha0004314

Allen, H. K., Cohen-Winans, S., Armstrong, K., Clark, N. C., & Ford, M. A. (2021). COVID-19 exposure and diagnosis among college student drinkers: Links to alcohol use behavior, motives, and context. Transtional Behavioral Medicine, 11(17), 1348–1353. https://doi.org/10.1093/tbm/iba059

Andrews, J. A., & Westling, E. (2016). Substance use in emerging adulthood. In K. J. Sher (Ed.), The Oxford handbook of emerging adulthood (pp. 521–542). New York, NY: Oxford University Press.

Barry, A. E., Chaney, B. H., Stellesfon, M. L., & Dodd, V. (2015). Evaluating the psychometric properties of the AUDIT-C among college students. Journal of Substance Use, 20(1), 1–5. https://doi.org/10.3109/14659891.2013.856799

Bresin, K., & Mekawi, Y. (2021). The ‘why’ of drinking matters: A meta-analysis of the association between drinking motives and drinking outcomes. Alcoholism: Clinical and Experimental Research, 45(1), 38–50. https://doi.org/10.1111/acerv.14518

Hurlocker, M. C., Madson, M. B., Lui, P. P., Dvorak, R., Ham, L. S., Leffingwell, T., ... Okado, Y., Scarzamilla, C., Nguyen, H. M., Mendoza, B., & Watarastoporn, T. (2021). Psychosocial adjustment of U.S. College students in the early months of the COVID-19 pandemic. Journal of American College Health. https://doi.org/10.1080/07448481.2021.1952628

National Institute on Alcohol Abuse and Alcoholism. College Drinking. Retrieved from: https://www.niaaa.nih.gov/sites/default/files/publications/CollegeDrinking.pdf

Okado, Y., Scarzamilla, C., Nguyen, H. M., Mendoza, B., & Watarastoporn, T. (2021). Psychosocial adjustment of U.S. College students in the early months of the COVID-19 pandemic. Journal of American College Health. https://doi.org/10.1080/07448481.2021.1952628

Pakdaman, S., & Clapp, J. D. (2021). Zoom (virtual) happy hours and drinking during COVID-19 in the US: An exploratory qualitative study. Health Behavior and Policy Review, 8, 3–12.

Patrick, M. E., Terry-McElrath, Y. M., Evans-Polce, R. J., & Schulenberg, J. E. (2020). Negative alcohol-related consequences experienced by young adults in the past 12 months: Differences by college attendance, living situation, binge drinking, and sex. Addictive Behaviors, 105. https://doi.org/10.1016/j.addbeh.2020.106320

Sander, R. (2020, March 16) Trump Says Crisis Could Last Until July, Recommends No Gatherings Over 10 People. Forbes. https://www.forbes.com/sites/rachelsandler/2020/03/16/cdc-all-americans-should-avoid-gathering-in-groups-of-more-than-10-people/

Sheehan, B. E., Lau-Barraco, C., & Linden, A. N. (2013). An examination of risky drinking behaviors and motivations for alcohol use in a college sample. Journal of American College Health, 61(8), 444–452. https://doi.org/10.1080/10826084.2013.831352

Skrzynski, C. J., & Creswell, K. G. (2020). Associations between solitary drinking and increased alcohol consumption, alcohol problems, and drinking to cope motives in adolescents and young adults: A systematic review and meta-analysis. Addiction, 115(11), 1899–2007. https://doi.org/10.1111/add.15055

Vanherle, R., Kurten, S., Achterhof, R., Myin-Germeys, I., & Beuils, K. (2021). Stay home, drink at home? A daily diary study on college students’ alcohol and social media use during the covid-19 pandemic. Substance Use and Misuse, 57(1), 86–95. https://doi.org/10.1080/10826084.2021.1990336

White, H. R., Stevens, A. K., Hayes, K., & Jackson, K. M. (2020). Changes in alcohol consumption among college students due to COVID-19: Effects of campus closure and residential change. Journal of Studies on Alcohol and Drugs, 81(6), 725–730. https://doi.org/10.15288/jsad.2020.81.725.

Zamboanga, B. L., Pearce, M. W., Kenney, S. R., Ham, L. S., Woods, O. E., & Borsari, B. (2013). Are “extreme consumption games” drinking games? Sometimes it’s a matter of perspective. The American Journal of Drug and Alcohol Abuse, 39(5), 275–279. https://doi.org/10.1080/07448481.2013.831352

Zamboanga, B. L., Olthuis, J. V., Kenney, S. R., Correia, C. J., Van Tyne, K., Ham, L. S., & Borsari, B. (2014). Not just fun and games: A review of college drinking games research from 2004 to 2013. Psychology of Addictive Behaviors, 28(3), 682–695. https://doi.org/10.1037/a0036639

Zamboanga, B. L., Zhang, M., Olthuis, J. V., & Kim, S. Y. (2018). Understanding drinking game behaviors: A consideration of alcohol expectancies and motives to play and drink. Cognitive Therapy and Research, 42(3), 302–314. https://doi.org/10.1007/s10608-017-9861-1

Zamboanga, B. L., Newsom, A. R., & Cook, M. A. (2021). A meta-analysis of drinking game participation and alcohol-related outcomes. Psychology of Addictive Behaviors, 35(3), 263–273. https://doi.org/10.1037/adb0000670

Zamboanga, B. L., Merrill, J. E., Olthuis, J. V., Martin, J. L., Jarrell, J. T., Cannon, M., Meza, A., Milrey, J. L., & Wyrick, D. L. (2022). A national study on drinking game behaviors and related consequences among NCAA student-athletes: Racial, ethnic, and sex differences. Journal of Studies on Alcohol and Drugs, 83, 74–84.