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Drinking at College Parties: Examining the Influence of Student Host-Status and Party-Location

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Abstract

The present research focuses on the party related drinking behaviors of college students and explores the differences in these behaviors based on students' host status (i.e. party host vs. party attendee). Furthermore, we examine if the differences in party hosts and attendees' drinking behaviors vary as a function of the party location (on-campus vs. off-campus). Multiple regression analyses were conducted using data from 3,796 undergraduates at a Midwestern University. Findings revealed a significant interaction between host status and party location, such that student party hosts reported significantly greater drink consumption and related consequences as compared to party attendees, only when the party was organized *off-campus*. For parties organized *on-campus*, student hosts reported lower drink consumption as compared to attendees. College-based preventive interventions should target students likely to host off-campus parties due to their high risk for involvement in heavy drinking.

Keywords

Hosting college parties; off-campus parties; drinking behaviors; college students

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Contributors

Author Buettner designed the study and wrote the protocol. Authors Buettner and Khurana conducted the literature review. Author Khurana conducted the statistical analysis. Authors Buettner and Khurana wrote the first draft of the manuscript. Author Slesnick provided feedback and editing of the manuscript. Authors Buettner, Khurana, and Slesnick contributed to and have approved the final manuscript.

Statement 3: Conflict of Interest

All authors declare that they have no conflicts of interest.

1. Introduction

High rates of heavy drinking reported among college students (Johnston, O'Malley, Bachman & Schulenberg, 2010; Wechsler et al., 2002) and the associated serious consequences (Hingson, Zha, & Weitzman, 2009; Perkins, 2002; Wechsler, Kuo, Lee, & Dowdall, 2000) have led researchers to study student drinking contexts as a way to better understand the phenomenon and to provide a basis for prevention and intervention work. This literature has contributed to our understanding of the interplay of *individual-level factors* [e.g., athletic involvement (Brenner & Swanik, 2007), athletic designation (Leichliter, Meilman, Presley, & Cashin, 1998), levels of social capital (Theall et al., 2009; Weitzman & Kawachi, 2000)] and *contextual-level factors* [e.g., student's residence location (Wechsler et al., 2002), campus size (Presley, Meilman, & Leichliter, 2002), proximity and density of alcohol outlets (Scribner et al., 2008; Weitzman, Folkman, Folkman, & Wechsler, 2003)], in influencing the drinking behaviors of students.

Parties constitute an integral part of the college culture and serve as primary settings where students engage in heavy drinking, often leading to negative outcomes (Harford, Wechsler, & Muthén, 2003; Wechsler et al., 2000). The pervasiveness of "pre-partying" behaviors (alcohol consumption prior to attending an event where more alcohol may be consumed) has also been documented among collegiate populations (Pedersen & LaBrie, 2007). Further, research has shown that students' drinking behaviors at college parties vary as a result of their own *individual* characteristics like gender (males vs. females) and perceived campus drinking norms, as well as party specific *situational* influences, such as party size, location, duration and level of social control (Demers et al., 2002).

Despite considerable research on college parties as a high-risk drinking context (Beck et al., 2008; Clapp, Shillington, & Segars, 2000; Paschall & Saltz, 2007), no study to date has examined the drinking behaviors of students organizing these events. Student party hosts comprise a salient group for researchers and policy-makers because they play a role in determining the nature of college parties by controlling factors such as the amount and type of alcohol served and by setting parameters for acceptable behaviors by party attendees. Therefore, besides the potential risk that hosting may have on the hosts' own drinking behaviors, hosts can also influence the drinking behaviors of students attending these parties, making hosts an important target for better-informed prevention efforts.

Research suggests that students are more likely to binge drink when presented with the opportunity to "get drunk" without having to worry about safety issues like driving when intoxicated (Lange et al., 2002). Hosting a party at "home" presents the same kind of opportunity for the host student, who could be expected to be at increased risk for engaging in binge drinking. Additionally, given that students are more likely to engage in heavy drinking at off-campus parties (Paschall & Saltz, 2007), it is likely that the drinking behaviors of host students may vary as a function of the party location (on-/off-campus). Understanding the yet unexplored moderating influence of party location on host students' drinking behaviors is also important from a prevention standpoint.

Hence, the present study seeks to add to the literature by 1) identifying background characteristics that can help differentiate between party hosts and attendees; 2) examining differences in the drinking behaviors (number of drinks consumed) and related consequences (e.g., drunk-driving, vandalism) among party hosts and attendees, and 3) assessing variations in hosts' and attendees' drinking behaviors and related consequences as a function of the party location. Participants who responded positively to the question "did you/your roommate host a party during the past three days" were classified as party hosts, while those who did not host a party but reported having attended one during the past three

days were classified as party-attendees. Party location was labeled “on-campus” if the party was organized in a campus dorm or residence hall, and “off-campus” if it was organized in a student-rented apartment/house, outside the university campus. Parties organized in fraternity houses and bars/restaurants were not included in the analyses due to their low representation (< 7%) in the present sample.

2. Methods

2.1 Data and Sampling Procedures

The sample for this study was taken from a multi-year study of drinking behaviors conducted on a large Midwestern university campus. A randomly selected sample of registered students was contacted by e-mail. Students who were 18 years of age or older and had responded to an online survey about party behaviors and alcohol use were eligible to participate in the study. The survey was conducted in 8 waves from 2005 to 2007 that corresponded with 2 weekends each in fall and spring, selected because of their risk potential for excessive drinking and student disturbances. In each wave, the survey was fielded for three days after the targeted weekends, with a different random sample interviewed at each wave. Details about survey design and data collection have been reported elsewhere (see DuRant et al., 2008). All study procedures were approved by the university’s Institutional Review Board.

The present study sample included data from 3,796 students (Mean age = 20.5 years, $SD = 1.84$), collapsed across the eight waves. Inclusion criteria included a positive response to having either hosted or attended a party during the targeted weekends. The sample was balanced in terms of gender (50.4% females), with an over-representation of White youth (87.5%). The majority of the sample (98%) was enrolled in school full-time, with a nearly equal representation of freshman, sophomores, and juniors (24–27%), and a marginally lower representation of seniors (20%).

2.2 Key Variables and Analytical Design

Three separate multiple linear regression models were tested for each of the following dependent variables: (1) ‘Total number of drinks consumed’ –estimated by combining two items that asked respondents about the total number of drinks they had *before* and *at* the party (the standard definition of “drink” was provided); (2) ‘Drinking related consequences’ –estimated by adding positive responses to questions about involvement in nine behaviors, including verbal arguments, public urination, flashing/mooning, vandalism to party location, vandalism to neighboring properties, party related riot, physical fight, driving after drinking, riding with someone else who had been drinking; (3) ‘Observed risky drinking and related consequences’ was coded similarly in terms of whether the respondent observed any of the following nine behaviors among the party attendees – heavy drinking, underage drinking, unwanted sexual advances, verbal arguments, physical assault, public urination, flashing/mooning, vandalism, or spontaneous party related riot. The reliability of these three measures was acceptable (with Cronbach's alpha's ranging from .60 – 0.70).

The focal independent variable included in all models was the respondent’s host status (host vs. attendee), which was dummy coded with attendees as the reference group. The moderator variable, party location, was also dummy coded with on-campus party location being the reference category. On average, the parties attended by respondents included 25 – 60 attendees, with nearly 20% of these parties being organized on-campus. The interaction between the two was modeled using the product-term approach (Jaccard & Turrisi, 2003). Based on the extant literature, the following variables which have been linked to high-risk drinking among college students, were included as covariates in all models – gender, racial/

ethnic background, age at first drink, underage (< 21 yrs), year in school, Greek membership, athletic involvement, amount of disposable money available, number of people who attended the party and the risk status of the weekend. All analyses were conducted in STATA 11.0, using the Huber-White estimation procedures to obtain robust standard errors (Long & Freese, 2006, p.86).

3. Results

Table 1 provides a comparison of the background characteristics and party related drinking behaviors of party hosts and attendees. Results from the bivariate analyses showed that host students in our sample were significantly more likely to be male, of an academic rank other than freshmen, have an off-campus residence, Greek membership, and more money available to spend per month. Party hosts and attendees also differed significantly in terms of the party related drinking behaviors, with host students reporting greater alcohol intake and observing fewer episodes of risky drinking and related consequences among their party attendees as compared to students who attended parties hosted by others.

Multiple regression analyses revealed that the interaction between host status and party location was significant for all three outcome variables, after accounting for the influence of all covariates (see Table 2). For total number of drinks consumed, the conditional main effect of host status was significant at both levels of the moderator variable (i.e. on and off-campus parties). Specifically, the mean number of drinks consumed by party hosts was significantly greater than party attendees for off-campus parties, but the reverse was true for on-campus parties. For drinking related consequences, the conditional main effect of host status was only significant when the party was organized off-campus, with party hosts reporting greater involvement in problem behaviors, as compared to attendees [β (SE) = .11 (.05), $t = 2.36$, $p < .05$]. Finally, for 'observing risky drinking and related consequences', the conditional main effect of host status was only significant when the party was organized on-campus, with student-hosts reporting observation of significantly fewer such behaviors as compared to the attendees.

4. Discussion

With recent national estimates documenting a 3% increase in rates of binge drinking in collegiate populations (Hingson et al., 2009), high-risk drinking among college students continues to be a major public health concern (Wechsler & Nelson, 2008). One of the most pervasive, high-risk drinking contexts for students is college parties. The present study focused on the group of students who host these drinking events, and in doing so examined the differences in background characteristics and drinking behaviors of students who host parties vs. those who attend them. The variations in drinking behaviors of hosts and attendees were also evaluated as a function of the party location (on-/off-campus)

In our undergraduate sample, we found that nearly one out of every ten students reported having hosted a party during the targeted weekends, and student hosts were more likely to be males, non-freshmen, reside off-campus, belong to Greek societies, and have more spending money. Although there were significant differences in party related drinking behaviors among hosts and attendees, these variations were affected by the location of the party. More specifically, student-hosts reported greater alcohol consumption as compared to party attendees, but this held true only when the party was organized off-campus. In the case of on-campus parties, the attendees reported greater drinking than the hosts. Furthermore, hosts and attendees differed in terms of the number of episodes of risky drinking and related consequences observed at the parties, with attendees reporting more such episodes. However, this effect was found to be significant only when the party was hosted on-campus.

Finally, while there was no overall main effect of host status on drinking related consequences, there was a conditional effect of host status when the party was hosted off-campus, with hosts reporting greater drinking related consequences than attendees. On the one hand, these findings suggest that hosting *off-campus* parties is a risk factor associated with high-risk drinking for host students; while on the other hand they also reveal that on-campus party hosts are in fact at lower risk of heavy drinking as compared to on-campus party attendees. As such, these findings have important implications for future research and preventive interventions. By highlighting the salient influence of party location on hosts' and attendees' drinking behaviors, this study presents compelling evidence against interventions that target party hosts or off-campus parties more generally, without paying attention to the unique behaviors of hosts and attendees based on the party location.

Despite its novelty, this study is limited in that the data were collected from a single source – host or attendee. Hence, there was no way for us to compare the drinking behaviors of individual students when in the role of a party host vs. attendee. Also, due to data limitations, we were unable to control for the typical drinking behaviors of students in our analyses, although we controlled for age at first drink in all the models.

These limitations notwithstanding, our findings suggest that prevention efforts aimed at reducing drinking levels among college students and controlling related harms may benefit from using tailoring messages which are based on the unique characteristics of the target population and their drinking context. For example, current mass media campaigns that focus on partying smart (DeJong, 2002), may benefit by specifically informing students who intend to host *off-campus* parties about their increased risk for heavy drinking.

This study also suggests that more research is warranted to tease out the reasons why on-campus party hosts tend to drink less than on-campus party attendees. One possible explanation may be that on-campus hosts recognize a greater likelihood of sanctions as a party host within a residence hall. Recent studies suggest that alcohol risk behavior is modified when students perceive that alcohol laws and policies will be enforced and they are more likely to be caught. Perhaps similar messages may be useful in reducing drinking-related risk behaviors of off-campus party hosts, a population this study finds to be at increased risk for heavy drinking, and who also provide the drinking context for their many guests.

Highlights

- > We examine college student's drinking behaviors based on party host-status and location.
- > Compared to attendees, student hosts drink more when hosting off-campus than on.
- > Interventions should target hosts of *off-campus* parties due to increased bingeing.

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References

- Beck KH, Arria AM, Caldeira KM, Vincent KB, O'Grady KE, Wish ED. Social context of drinking and alcohol problems among college students. *American Journal of Health Behavior*. 2008; 32(4): 420–430. [PubMed: 18092902]
- Brenner J, Swanik K. High-risk drinking characteristics in collegiate athletes. *Journal of American College Health*. 2007; 56(3):267–272. [PubMed: 18089508]
- Clapp JD, Holmes MR, Reed MB, Shillington AM, Freisthler B, Lange JE. Measuring college students' alcohol consumption in natural drinking environments: field methodologies for bars and parties. *Evaluation Review*. 2007; 31(5):469–489. [PubMed: 17761807]
- Clapp JD, Shillington AM, Segars LB. Deconstructing contexts of binge drinking among college students. *The American Journal of Drug and Alcohol Abuse*. 2000; 26(1):139–154. [PubMed: 10718169]
- Clapp JD, Reed MB, Holmes MR, Lange JE, Voas RB. Drunk in public, drunk in private: The relationship between college students, drinking environments and alcohol consumption. *The American Journal of Drug and Alcohol Abuse*. 2006; 32(2):275–285. [PubMed: 16595328]
- DeJong W. The role of mass media campaigns in reducing high-risk drinking among college students. *Journal of Studies on Alcohol. Supplement*. 2002; (14):182–192. [PubMed: 12022724]
- Demers A, Kairouz S, Adlaf E, Gliksman L, Newton-Taylor B, Marchand A. Multilevel analysis of situational drinking among Canadian undergraduates. *Social Science & Medicine*. 2002; 55(3):415–424. [PubMed: 12144149]
- DuRant RH, McCoy TP, Champion H, Parries MT, Mitra A, Martin BA, et al. Party behaviors and characteristics and serial drunkenness among college students. *Journal of Studies on Alcohol & Drugs*. 2008; 69:91–99. [PubMed: 18080069]
- Harford TC, Wechsler H, Muthén BO. Alcohol-related aggression and drinking at off-campus parties and bars: a national study of current drinkers in college. *Journal of Studies on Alcohol*. 2003; 64(5): 704–711. [PubMed: 14572193]
- Hingson RW, Zha W, Weitzman ER. Magnitude of and trends in alcohol-related mortality and morbidity among U.S. college students ages 18–24, 1998–2005. 2009 Supplement no. 16:12–20.
- Jaccard, J.; Turrissi, R. Sage University Papers Series on Quantitative Applications in the Social Sciences. 2nd ed.. Thousand Oaks, CA: Sage; 2003. Interaction effects in multiple regression.
- Johnston, LD.; O'Malley, PM.; Bachman, JG.; Schulenberg, JE. Monitoring the Future national survey results on drug use, 1975–2009. Volume II: College students and adults ages 19–50. Bethesda, MD: National Institute on Drug Abuse; 2010. p. 305(NIH Publication No. 10-7585). pp.
- Lange JE, Clapp JD, Turrissi R, Reavy R, Jaccard J, Johnson MB, Voas RB, et al. College binge drinking: What is it? Who does it? *Alcoholism: Clinical and Experimental Research*. 2002; 26(5): 723–730.
- Leichliter JS, Meilman PW, Presley CA, Cashin JR. Alcohol use and related consequences among students with varying levels of involvement in college athletics. *Journal of American College Health*. 1998; 46(6):257–262. [PubMed: 9609972]
- Long, SJ.; Freese, J. Regression models for categorical dependent variables using STATA. College Station, TX: Stata Press; 2006.
- Maney DW, Mortensen S, Powell MP, Lozinska-Lee M, Kennedy S, Moore B. Alcohol-free alternative activities for university students: Modeling associated drinking behavior. *American Journal of Health Behavior*. 2002; 33(4):225–233.
- Ohio Parents for Drug Free Youth. Executive summary of “Parents Who Host Lose the Most: Don’t be a party to teen drinking.”. Columbus, Ohio: Ohio Parents for Drug Free Youth; 2005. Available at: <http://www.drugfreeactionalliance.org/pwh.php>
- Paschall MJ, Saltz RF. Relationships between college settings and student alcohol use before, during and after events: a multi-level study. *Drug and Alcohol Review*. 2007; 26(6):635–644. [PubMed: 17943524]
- Pedersen ER, LaBrie J. Partying before the party: Examining prepartying behavior among college students. *Journal of American College Health*. 2007; 56(3):237–245. [PubMed: 18089504]

- Perkins HW. Surveying the damage: a review of research on consequences of alcohol misuse in college populations. *Journal of Studies on Alcohol. Supplement.* 2002; (14):91–100. [PubMed: 12022733]
- Presley CA, Meilman PW, Leichter JS. College factors that influence drinking. *Journal of Studies on Alcohol. Supplement.* 2002; (14):82–90. [PubMed: 12022732]
- Saltz RF, Paschall MJ, McGaffigan RP, Nygaard PMO. Alcohol risk management in college settings: the safer California universities randomized trial. *American journal of preventive medicine.* 2010; 39(6):491–499. [PubMed: 21084068]
- Scribner R, Mason K, Theall K, Simonsen N, Schneider SK, Towvim LG, DeJong W. The contextual role of alcohol outlet density in college drinking. *Journal of Studies on Alcohol and Drugs.* 2008; 69(1):112–120. [PubMed: 18080071]
- Theall KP, DeJong W, Scribner R, Mason K, Schneider SK, Simonsen N. Social capital in the college setting: the impact of participation in campus activities on drinking and alcohol-related harms. *Journal of American College Health.* 2009; 58(1):15–23. [PubMed: 19592349]
- Wechsler H, Kuo M, Lee H, Dowdall GW. Environmental correlates of underage alcohol use and related problems of college students. *American Journal of Preventive Medicine.* 2000; 19(1):24–29. [PubMed: 10865160]
- Wechsler H, Lee JE, Kuo M, Seibring M, Nelson TF, Lee H. Trends in college binge drinking during a period of increased prevention efforts. Findings from 4 Harvard School of Public Health College Alcohol Study surveys: 1993–2001. *Journal of American College Health.* 2002; 50(5):203–217. [PubMed: 11990979]
- Wechsler H, Nelson TF. What we have learned from the Harvard School Of Public Health College Alcohol Study: focusing attention on college student alcohol consumption and the environmental conditions that promote it. *Journal of Studies on Alcohol and Drugs.* 2008; 69(4):481–490. [PubMed: 18612562]
- Weitzman ER, Folkman A, Kerry Lemieux Folkman MPH, Wechsler H. The relationship of alcohol outlet density to heavy and frequent drinking and drinking-related problems among college students at eight universities. *Health & Place.* 2003; 9(1):1–6. [PubMed: 12609468]
- Weitzman E, Kawachi I. Giving means receiving: the protective effect of social capital on binge drinking on college campuses. *American Journal of Public Health.* 2000; 90(12):1936–1939. [PubMed: 11111272]

Table 1

Descriptive Statistics: Mean (SD)/Frequencies for Party-Hosts and Party-Attendees

Variable Names		Hosts (N = 433)	Non-Hosts (N = 3363)	p value
Total number of drinks consumed (Range: 0 – 30)		8.27 (6.41)	7.44 (6.03)	<.05
On-campus party		4.59 (4.04)	7.56 (6.75)	
Off-campus party		8.84 (6.52)	7.45 (5.90)	
Drinking related consequences reported (Range: 0 – 7)		0.33 (0.71)	0.28 (0.65)	n.s.
On-campus party		0.18 (0.49)	0.26 (0.60)	
Off-campus party		0.37 (0.76)	0.28 (0.66)	
Observed risky drinking and related consequences (Range: 0 – 9)		1.85 (1.72)	2.16 (1.68)	<.001
On-campus party		1.07 (1.20)	1.92 (1.58)	
Off-campus party		2.06 (1.77)	2.21 (1.70)	
Gender	Male	63.3%	47.8%	<.001
	Female	36.7%	52.2%	
Year in school	Freshmen	11.6%	31.5%	<.001
	Sophomore	28.7%	26.5%	
	Junior	34.0%	22.8%	
	Senior	25.7%	19.2%	
Underage (< 21 yrs)		50.0%	46.1%	n.s.
Race	White	90.8%	87.1%	<.05
	Others	9.2%	12.9%	
Residence Location	On-campus	15.5%	43.8%	
	Off-campus	84.5%	56.2%	
Parents education	Less than college	28.4%	29.1%	n.s.
	College graduate	29.5%	31.1%	
	Beyond college	42.1%	39.8%	
Greek membership		18.3%	4.4%	<.001
Athletic team membership		36.6%	34.6%	n.s.
Academic club membership		25.0%	24.4%	n.s.
Religious Group membership		8.3%	9.1%	n.s.
Work for wages		60.1%	57.6%	n.s.
Money available to spend per month	< \$100	30.3%	42.6%	<.001
	\$100 - \$199	38.4%	33.6%	
	> \$200	31.3%	23.8%	

Table 2

Regression output for three drinking behavior related outcomes

	Total drinks consumed			Drinking related consequences			Observed risky drinking and related consequences		
	β	[95% C I]	t	β	[95% C I]	t	β	[95% C I]	t
Host status (DV)	-2.93	[-4.48, -1.39]	-3.73***	-.04	[-.16, .08]	-.66 ^{n.s.}	-.32	[-.59, -.04]	-2.24*
Off-campus party (MV)	-1.76	[-2.93, -.58]	-2.94**	-.10	[-.19, .01]	-2.00*	.19	[-.03, .42]	1.67 ^{n.s.}
Interaction (DV X MV)	4.46	[2.75, 6.16]	5.13***	.15	[.01, .30]	2.02*	.39	[.06, .72]	2.29*
Total variance explained by model including covariates		17.38%			7.15%			18.79%	
Variance explained by DV, MV and their interaction		2.04%			0.65%			1.47%	

* $p < .05$,** $p < .01$,*** $p < .001$