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Does Change in Binge Drinking Reduce Risk of Repeat Sexual Assault Victimization? Evidence From Three Cohorts of Freshman Undergraduate Women

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Does Change in Binge Drinking Reduce Risk of Repeat Sexual Assault Victimization? Evidence From Three Cohorts of Freshman Undergraduate Women

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Abstract

Many college students who experience sexual assault experience subsequent (i.e., repeat) sexual assault incidents. There is also an established relationship between sexual assault and binge drinking. The "once bitten, twice shy" (OBTS) hypothesis suggests that those who experience alcohol- or drug related (AOD) sexual assault would reduce how frequently they binge drink in an effort to avoid repeat victimization. We test this hypothesis by analyzing two years of survey data collected from a panel of three cohorts of freshmen women. Supportive of OBTS, our analyses reveal that students who experienced an AOD-related sexual assault at time 1 only reduced the number of days they binge drank from time 1 to time 2 and that this change significantly differed from repeat victims. Implications for efforts to reduce sexual victimization against college women are discussed.

Keywords

sexual assault, repeat victimization, binge drinking, recurring victims, freshmen undergraduates

After decades of studies, a disconcerting reality characterizes women's college tenure—sexual assault is at least as prevalent now (Cantor et al., 2017, 2019) as was reported in early research (Fisher et al., 2000; Kirkpatrick & Kanin, 1957; Koss et al., 1987). Scores of smaller scale studies have reaffirmed the national-level studies' prevalence estimates, that the "one-in-five" statistic is a reasonably accurate average of women's risk of sexual assault during college (Muehlenhard et al., 2017). This is a sizable number of sexual assault victims when considering that the number of undergraduate women has increased from 3.5million in 1970 to over 11million in 2018 and is projected to grow (U.S. Department of Education, 2019).

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Masking another grim reality for college women is mounting evidence that suggests that sexual assault victims have a significant likelihood of becoming repeat victims—that is, to experience two or more incidents of the same type of sexual assault (e.g., two instances of forced penetration) (Daigle et al., 2008). Estimates of repeat sexual assault victims within an academic year range from 20% to 38% of force or incapacitated penetration victims, respectively, to an upward of 50% of forced sexual touching victims who have experienced two or more incidents (Kaasa et al., 2016). Explaining the reoccurrence of a wide range of other types of victimization has become an area of significant research attention within victimology (e.g., Daigle et al., 2008; Farrell & Pease, 1993; Lauritsen & Quinet, 1995; Polvi et al., 1991; Tseloni & Pease, 2003; Turanovic & Pratt, 2014).

Along these lines, the “once bitten, twice shy” (OBTS) hypothesis posits that following an initial victimization, crime victims will reduce their involvement in risky lifestyle activities (which put them at higher risk of victimization initially) and that this change will reduce the likelihood that they will experience a subsequent victimization (Hindelang et al., 1978). Regarding sexual victimization, empirical evidence suggests that alcohol consumption—a potentially risky behavior—is related to sexual victimization of college women (e.g., Abbey, 2002; Dowdall, 2007; Parks & Fals-Stewart, 2004; Weiss & Dilks, 2016). There are far fewer studies, though, that have explored change in alcohol consumption over time as it relates to risks for repeat sexual victimization—a central precept of the OBTS hypothesis. Accordingly, the present study bridges these areas of inquiry by considering the central role that alcohol consumption, and in particular binge drinking, plays in explaining repeat sexual victimization vis-à-vis the OBTS hypothesis.

Sexual Assault of College Women

The magnitude of sexual victimization on college campuses has received significant attention from researchers. Seminal research, while addressing differing types of campus sexual victimization, has found that these crimes occur at high rates (e.g., Fedina et al., 2016; Fisher et al., 2000; Kilpatrick et al., 2007), with a number of studies estimating that up to “one-in-five” college women experience sexual assault during their college years (for a review see Muehlenhard et al., 2017). Findings from the Association of American Universities (AAU) Campus Climate Survey shed light on the extent of campus sexual victimization within 27 American universities (Cantor et al., 2019). According to survey findings, 26% of undergraduate women reported experiencing nonconsensual penetration or sexual touching by force or incapacitation since enrolling at the college (Cantor et al., 2019). Further, the health, social, and academic consequences for victims have been well-researched and found to be negative and serious both short and long term (e.g., Combs et al., 2014; Fisher et al., 2016; Gidycz et al., 2008).

Importantly with respect to the present study, class year also appears to be an important risk factor for sexual victimization against college women. The AAU study reported that freshman students have the highest victimization rates, but also that these rates steadily declined year-by-year, with 16.9% of freshman college women reporting sexual contact by physical force or incapacitation—compared to 11.1% for seniors (Cantor et al., 2017, tables 3–10). The AAU survey results also suggest that alcohol use is a risk factor for campus sexual victimization (Fisher et al., 2016), and our test of the OBTS hypothesis builds from an expansive body of research on campus alcohol use and sexual assault.

Campus Alcohol Use and Sexual Assault

College binge drinking was examined in a now-classic series of studies, beginning with the work of Wechsler et al. (1995), that defined it as having five or more drinks in one episode for men and four or more drinks in one episode for women over the past two weeks (see also, Wechsler & Nelson, 2001). Results of that study suggested that 44% of college students binged, and that adoption of a party lifestyle was a strong predictor of college binge drinking. Subsequent research has reported similar estimates on the extent of binge drinking among college students (e.g., Wechsler et al., 2002). The connection between “partying” and alcohol use also has been reinforced in subsequent scholarship (e.g., Weiss, 2013; Weiss & Dilks, 2016).

Much research has examined the relationship between alcohol and sexual assault (e.g., Dowdall, 2007; Krebs et al., 2009; Parks & Fals-Stewart, 2004), and reportedly approximately half of all sexual assaults involve alcohol in some capacity (e.g., Abbey, 2002). Findings from the Harvard School of Public Health College Alcohol Study indicate that about 5% of college women from 119 schools were raped, and that 72% of these victims were raped while intoxicated (Mohler-Kuo et al., 2004). Among undergraduate college women from the AAU survey who reported being victimized, 98% reported using alcohol prior to experiencing physically forced penetration. Similarly, 99% reported using alcohol prior to experiencing incapacitated penetration, and 99% who were sexually touched used alcohol before being victimized (Fisher et al., 2016).

Overall, alcohol impairs individuals’ ability to consent to sexual activity, increases their vulnerability to victimization through exposure to high risk situations, and makes it more difficult for victims to resist an attack (CombsLane & Smith, 2002). For these reasons, binge drinking, in particular, has been consistently identified as a strong predictor of campus sexual assault. For example, Weiss and Dilks (2016) recently reported that spending time at bars as part of a party routine doubled college women’s risks for unwanted sexual contact. Research by Parks and Fals-Stewart (2004) found that the odds of college women being sexually victimized increased nine times on heavy drinking days, compared to days without alcohol consumption.

Although alcohol consumption is a clear correlate of sexual victimization among college women, it remains an open question whether experiencing a sexual crime leads victims to change their alcohol use. For example, Combs-Lane and Smith (2002) analyzed two waves of survey data from college women in sororities and found that alcohol use at Time 1 was associated with sexual victimization at Time 2, but Time 2 alcohol use was not assessed, so changes to drinking behaviors could not be examined. They did note, however, that, on average, women who were victimized at both time periods reported three times as many binge drinking days at Time 1 compared to women who were not victimized. In another study, Mouilso et al. (2012) found that binge drinking predicted sexual assault among college women, but that sexual assault did not influence changes in alcohol use. Understanding whether victims adapt to victimization, and potentially change their activities in response to experiencing a sexual assault is at the heart of the OBTS hypothesis and has implications for the repeat victimization of once-victimized individuals.

Repeat Victimization and the "Once Bitten, Twice Shy" Hypothesis

Repeat victimization is a type of recurring victimization that occurs when an individual experiences the same type of crime two or more times, usually within a relatively short period of time (e.g., Farrell & Pease, 1993; Farrell et al., 1995). While most recurring victimization research has focused on property crime (e.g., Johnson et al., 1997; Polvi et al., 1991), researchers have also begun to investigate the extent and nature of repeat sexual victimization (e.g., Combs-Lane & Smith, 2002; Daigle et al., 2008; Fisher et al., 2010). In one such study, Daigle et al. (2008) reported that over 7% of college women in their large national sample were repeat victims of sexual violence during the academic year, and that these victims experienced over 72% of the sexual violence incidents.

With research finding such a strong concentration of victimization within particular individuals, the obvious question has been: why? In developing the lifestyle-exposure theory, Hindelang et al. (1978, p. 127–128) proffered a "once bitten, twice shy" hypothesis for repeat victimization, which suggests that crime victims will change risky lifestyle behaviors after being victimized to minimize future victimization risks. Research has tested this hypothesis with mixed results (e.g., Averdijk, 2011; Bunch et al., 2014; Fisher et al., 2010; Miethe et al., 1990; Turanovic & Pratt, 2014; Xie & McDowall, 2008). For example, Turanovic and Pratt (2014), used data to from the Gang Resistance Education and Training program to examine the choice to make behavioral changes following a victimization, and reported that whether individuals make changes, and the nature of those changes, does impact the risk of repeat victimization. However, this was not a study of sexual victimization. Yet, in another study investigating sexual victimization against college women, Fisher et al. (2010) reported that lifestyles and routine activities generally do not differ between one-time and repeat sexual violence victims— although this was not a panel study.

The mixed support for the OBTS hypothesis may be due to differences in methodology across studies, and because of these differences, it is not clear whether the hypothesis is limited, or whether methodological limitations have precluded a true test. The present study is able to address three noteworthy issues that may have contributed to the unclear results from prior research. First, prior tests of the OBTS hypothesis have often utilized proxy lifestyle measures that are ubiquitous and could be unrelated to the type of victimization under examination, such as frequency of going shopping and number of evenings spent away from home (see e.g., Bunch et al., 2014). In the current study, the focus is on binge-drinking—a well-documented significant predictor of sexual assault. Second, prior research suggests that measures of subtle changes to risky lifestyle behaviors (rather than major changes) predict repeat victimization (see, e.g., Butler et al., 2020; Lasky et al., 2018; Turanovic & Pratt, 2014). Our measure of binge drinking captures a subtle lifestyle change—change in the number of days on which the respondent binge drank in the past 30days. Third, the present study is able to avoid floor and ceiling effects that can bias results toward null findings by examining the effects of changes to binge drinking behavior between individuals who were sexually assaulted at one time point (either time 1 [T1] or time 2 [T2]), sexually assaulted at both time points (T1 and T2), or not victimized at either time. By grouping individuals by their victimization experience at T1 and T2, we are then able to assess change in binge drinking within each group and compare the magnitude of change within in each group across the four victimization status groups.

The Current Study

To investigate changes in behaviors and victimization status over two time periods, we use panel data from three freshman cohorts enrolled at three large, public universities. Prior research that has found support for the OBTS hypothesis suggests that changes to lifestyle behaviors that are risk factors for a particular type of victimization are more likely to predict repeat victimization risk than are lifestyle behaviors that are not inherently risky (e.g., going shopping) or are not related to the type of victimization under study (Averdijk, 2011; Lasky et al., 2018). Because prior research has identified a period during the first year of a student's college experience in which her risk for sexual victimization is at its highest (e.g., Cranney, 2015; Kimble et al., 2008), and given the well-documented relationship between alcohol consumption and sexual victimization among college women, changes in drinking behavior could be key to understanding students' victimization risk. Thus, our first research question is: Is binge drinking a risk factor for sexual assault in college women's freshman (T1) and sophomore (T2) years?

The second and third research questions aim to establish whether there is variation in binge drinking behavior over time and in sexual assault victimization status (i.e., victim/non-victim) over time. Thus, the second research question asks: Does students' alcohol- or drug-related (AOD-related) sexual assault victimization status change (i.e., from victim to non-victim or vice versa) from T1 to T2? And the third

research question asks: Do students change the number of days they binge drink from T1 to T2? Through analysis of the panel data, it is possible to classify students into four groups based on their sexual assault victimization status across time points: (1) those who experienced AOD-related sexual assault only during their freshman year, (2) those who experienced AOD-related sexual assault only during their sophomore year, (3) those experienced AOD-related sexual assault at both time points, and (4) those who did not experience AOD-related sexual assault at either time point.

Fourth, based on findings from the above research questions, we assess whether the OBTS hypothesis—which suggests a victim will change her routines following a crime—applies to repeat AOD-related sexual assault (e.g., Hindelang et al., 1978). In other words, do students change the number of days they binge drink at T2 after being sexually assaulted at T1? And if so, are there differences in the change in binge drinking from T1 to T2 between those assaulted at T1 only and those who were assaulted at T2 only, assaulted at both T1 and T2, or not assaulted? If the OBTS hypothesis is supported, we expect that individuals who were victimized during their freshmen year will reduce their binge drinking behavior during their sophomore year. Ultimately, the question that is addressed is whether a reduction in binge drinking lowers victims' risks for repeat AOD-related sexual assault.

Methods

The current study analyzes data from a larger panel study of interpersonal violence among college students collected at three large, public, four-year universities (one in the Midwest and two in the Southeast). We analyze data from the T1 and T2 surveys completed at each wave across three cohorts (2010, 2011, and 2012) of freshmen undergraduates (N=2,748). At each wave, the respective university's Institutional Review Board approved the research protocol and granted a waiver of written consent and The National Institute of Child Health and Human Development granted a certificate of confidentiality. In the following sections, we describe the methodology of the current study (for a detailed description of the methodology of the larger panel study, see Coker et al., 2016).

Sampling Design and Sample

In each wave, each school's Registrar's office provided the names and email addresses for a stratified random sample of 18- to 24-year old matriculating students from their annual data for the Spring term. Equal proportions of males and females were sampled from each school at each time point. In the first year of the study (2010), equal proportions of students were invited from each undergraduate class; 4,000 total students were invited from each of two schools and 8,000 total students were invited from one school. In 2010, a total of 4,000 freshmen were included in the sample.

In each subsequent year of the study, all those who had participated in the survey the previous year received an invitation to participate in the subsequent survey. The sample for the current study includes those who completed a survey in both their

freshman and sophomore years. The rate of attrition (i.e., the response rate at T2 for those who had completed a survey at T1) was 48.53% in 2011, 43.52% in 2012 and 47.57% in 2013.

Data Collection

Data were collected annually at each university during the Spring term over approximately a two- to four-week period. Students were emailed a link to complete the survey and reminder emails were sent to students who had not yet completed the survey over the field period. Each university used an identical recruitment protocol, survey administration method, and participation incentives ranging from two $1 bills to a $5 Amazon gift certificate depending on the survey year.

Measures

In the following sections, we describe the measurement of the within-subjects factor, between-subjects factor, and covariates that are included in the multivariate analysis. For each measure, we report its variable name, coding, and descriptive statistics (for all respondents and for the subset of respondents who were victims of AOD-related sexual assault at either or both time points).

Within-subjects factor: Binge drinking. The within-subjects factor, binge drinking, was measured with the question “In the past month, on how many days did you have 5 or more drinks of alcohol in a row (within a couple of hours)?”. The ordinal survey responses were recoded to the median of the range (e.g., 1.5=“1–2 days”). A similar response set for binge drinking in the past month is used by the Youth Risk Behavior Surveillance System (YRBSS) and the practice of recoding ordinal response categories to the median of the range has been used to allow for more substantively meaningful interpretation of results (Personal communication with Dr. Heather Bush [co-principal investigator of panel study], August 27, 2019). The two levels of binge drinking are the number of days the respondent reported binge drinking in the past month at T1 (T1 binge drinking) and at T2 (T2 binge drinking).

Between-subjects factor: AOD-Related Sexual Assault Victimization Group. The between-subjects factor, AOD-Related Sexual Assault Victimization Group, was measured with the question “Since the beginning of the Fall [2010/2011/2012/2013] term, how many times have you. . .Had unwanted sexual activities with someone because you were too drunk or high on drugs to stop them?” asked at each time point. The following definition of unwanted sexual activity was provided to survey participants: “Unwanted sexual activity means touching private areas of the body, oral or anal sex, or intercourse that you didn’t want.” The four groups are those who reported (1) not having been sexually assaulted at T1 or T2 (“Not Sexually Assaulted at T1 or T2”), (2) having been assaulted one or more times at T1 but not assaulted at T2 (“Sexually Assaulted T1 Only”), (3) having been assaulted one or more times at T2 but not assaulted at T1 (“Sexually Assaulted T2 Only”), and (4) having been assaulted at both T1 and T2 (“Sexually Assaulted at T1 and T2”). As shown in Table 1, 19% of those in the sample

experienced at least one incident of AOD-related sexual assault at either time point. Among those victims, 15% were minority or multi-racial, 15% were nonheterosexual, 30% were Greek life members, 5% were athletic team members, and 23% had used drugs in the previous month.

Covariates. Eight covariates are included in the analyses. This includes three demographic control variables, three control variables that capture exposure to campus party culture, and two control variables for cohort year. The first four covariates are demographic measures that have been associated with binge drinking and/or sexual assault victimization and therefore may confound the relationship between binge drinking and repeat sexual assault—race (Warner et al., 2018), sexual attraction (Cantor et al., 2017, 2019), and parents' education (Harrell et al., 2013). Minority or multi-racial is measured with the question "How would you describe yourself? (Choose one or more)." Those who identified as White (only) were coded as White, and those who identified as American Indian or Alaska Native, Asian, Black or African American, Hispanic or Latino/Latina, Native Hawaiian or other Pacific Islander, Other, or more than one race were coded as minority or multi-racial. Non-heterosexual is measured with the question "People are different in their sexual attraction to other people. Which best describes your feelings?". Those who report being attracted to members of the opposite sex (based on the sex the respondent reported) are coded as heterosexual and all other combinations of sex and sexual attraction (e.g., mostly attracted to [males/females]) were coded as non-heterosexual. Parents' education is measured with the question "What is the highest level of schooling your mother or father has completed (select whichever is higher)?". The responses ranged from "some schooling" to "doctorate or professional degree," with higher values indicating higher levels of parental education.

Three covariates are included to capture students' exposure to party culture—Greek member (Cashin et al., 1998; Wechsler et al., 1995) Athlete (Ford, 2007; Nelson & Wechsler, 2001) and Drug use (Johnston et al., 1986). Greek member at T1 is measured by asking respondents if they are in a Greek fraternity/sorority or not. Athlete at T1 is measured with the question "Are you on an athletic team?". Drug use at T1 is measured with the question "In the past month have you used drugs other than those required for medical reasons". The remaining two covariates are included to control for the cohort to which the respondent belonged—2011 cohort and 2012 cohort—with the 2010 cohort being the reference group.

Analytical Strategy

Three stages of data analysis were used to answer our four research questions. In the first stage, we estimated logistic regression models to examine the relationship between AOD-related sexual assault victimization and a dichotomized version of the binge drinking measure (0=0 days, 1=1 or more days) at each time point. As explained above, changes in lifestyle behaviors that are not risk factors for the type of victimization under study are not likely to predict repeat victimization. Thus, it is important to establish that binge drinking is a predictor of AOD-related sexual assault at both T1 and T2.

Table 1. Variable Name, Coding, Value Label and Descriptive Statistics.

		All respondents ($N = 2,748$)		AOD-related sexual assault victims[a] ($n = 541$)	
Type of analysis					
Variable name	Coding and value label	Mean[b]	*SD*	Mean[b]	*SD*
Bivariate analyses					
AOD-related sexual assault victimization status at T1	0 = not sexually assaulted at T1, 1 = sexually assaulted at T1	0.13	0.34	0.68	0.47
AOD-related sexual assault victimization status at T2	0 = not sexually assaulted at T2, 1 = sexually assaulted at T2	0.11	0.31	0.56	0.50
Repeated measures ANCOVA between-subjects factor		0.00	0.80	1.00	0.80
AOD-related sexual assault victimization status group	0 = not sexually assaulted at T1 or T2, 1 = sexually assaulted at T1 only, 2 = sexually assaulted at T2 only, 3 = sexually assaulted at T1 and T2				
Within-subjects factor					
Level 1: binge drinking at T1	0 = 0 days, 1.50 = 1–2 days, 5.50 = 3–9 days, 14.50 = 10–19 days, 25.50 = 20–31 days	2.35	3.84	4.69	4.90
Level 2: binge drinking at T2	0 = 0 days, 1.50 = 1–2 days, 5.50 = 3–9 days, 14.50 = 10–19 days, 25.50 = 20–31 days	2.95	4.79	5.48	5.98

(continued)

Table 1. (continued)

		All respondents ($N = 2,748$)		AOD-related sexual assault victims[a] ($n = 541$)	
Type of analysis					
Variable name	Coding and value label	Mean[b]	*SD*	Mean[b]	*SD*
Covariates					
Minority or multi-racial	0 = white, 1 = minority or multi-racial	0.19	0.39	0.15	0.36
Nonheterosexual	0 = heterosexual, 1 = nonheterosexual	0.13	0.33	0.15	0.35
Parents' education	0 = some schooling, 1 = high school graduate or GED, 2 = vocational school, 3 = some college, 4 = college graduate, 5 = master's degree, 6 = doctorate or professional degree	4.00	1.41	4.00	1.41
Greek member	0 = non-Greek member, 1 = Greek member	0.22	0.41	0.30	0.46
Athlete	0 = not an athletic team member, 1 = athletic team member	0.04	0.19	0.05	0.22
Drug use	0 = never/not in the past month, 1 = yes, in the past month	0.11	0.32	0.23	0.42
2010 cohort[c]	0 = all other cohorts, 1 = 2010 cohort	0.49	0.50	0.50	0.50
2011 cohort	0 = all other cohorts, 1 = 2011 cohort	0.29	0.45	0.29	0.46
2012 cohort	0 = all other cohorts, 1 = 2012 cohort	0.22	0.41	0.21	0.40

[a]AOD-Related Sexual Assault Victims refers all those who were assaulted at T1 only, at T2 only, or at T1 and T2.
[b]The mode is reported for *AOD-related sexual assault victimization category* and the median is reported for *parents' education*.
[c]*2010 cohort* is used as the reference group in analyses.

In stage two, we examined the change in binge drinking from T1 to T2 and the change in AOD-related sexual assault victimization from T1 to T2. This is an essential step in testing the OBTS hypothesis, as the hypothesis rests on there being change over time in both victimization and lifestyle behaviors. We present crosstabulation tables to show the change in binge drinking and in AOD-related sexual assault victimization status across time periods.

Third, we used the generalized linear modeling command in IBM SPSS Statistics 26 to estimate repeated measures ANCOVA models for the number of days on which the respondent binge drank in the past month. This type of model allows us to test for whether, on average, those who were sexually assaulted at T1 and not at T2 changed the number of days on which they binge drank from T1 to T2, controlling for minority or multi-racial, non-heterosexual, parents' education, Greek member, athlete, drug use, 2011 cohort, and 2012 cohort. We also test for whether there are significant differences in change in days spent binge drinking from T1 to T2 between the four sexual assault victimization status groups, controlling for all the covariates.

Results

Research Question 1: Is Binge Drinking a Risk Factor for AODRelated Sexual Assault in College Students' Freshman (T1) and Sophomore (T2) Years?

Before we present our findings regarding the OBTS hypothesis, it is essential to first establish that binge drinking is a risky lifestyle behavior that is related to AOD-related sexual assault victimization. To do so, we estimated two logistic regression models in which whether the respondent experienced AOD-related sexual assault victimization at each time point was regressed on a dichotomized measure of whether the respondent binge drank on one or more days in the past 30 days at each respective time point. In both the T1 and T2 models, we control for minority or multi-racial, non-heterosexual, parents' education, Greek member, athlete, drug use, 2011 cohort, and 2012 cohort.

Table 2. Change in Alcohol- or Drug-Related Sexual Assault Victimization Status from T1 to T2.

Alcohol- or drug related sexual assault victimization status at T1	Alcohol- or drug-related sexual assault victimization status at T2 (% within row)		
	Not assaulted *n* (%)	Assaulted *n* (%)	Total (Column %)
Not assaulted	**2,207 (92.69)**	174 (7.31)	2,381 (86.64)
Assaulted	237 (64.58)	**130 (35.42)**	367 (13.36)
Total (Row %)	2,444 (88.94)	304 (11.06)	2,748 (100.00)

$\chi^2 = 255.46$; $df = 1$; $p = .000$; $N = 2,748$.
Note. Bold values indicate the cases for which alcohol- or drug-related sexual assault victimization status did not change from T1 to T2.

At T1 and T2, binge drinking was significantly related to AOD-related sexual assault victimization (binge drinking at T1: B=1.598, SE=.150; p=.000; binge drinking at T2: B=1.658, SE=0.178, p=.000). Thus, binge drinking is a salient risk factor for AOD-related sexual assault victimization within each time point. Therefore, binge drinking is an appropriate risky lifestyle behavior to use to test whether the OBTS hypothesis explains repeat AOD-related sexual assault victimization.

Research Question 2: Does Students' AOD-Related Sexual Assault Victimization Status Change From T1 to T2?

Table 2 shows the percent of respondents who experienced AOD-related sexual assault at each time point. For a majority of respondents (85.04%), AODrelated sexual assault victimization status remained the same from T1 to T2. A large percentage of respondents (80.31%) were not victimized at either time point. However, the results show that many individuals do change in AODrelated sexual assault victimization status from T1 to T2 (14.96%). Some individuals were victimized at T1 but not at T2 (6.33%), whereas others were victimized at T2 but not at T1 (8.62%). The results indicate also that a considerable percentage of respondents (4.73%) experienced repeat AOD-related sexual assault (i.e., victimized at both T1 and T2). Thus, it is clear that repeat AOD-related sexual assault does occur and that AOD-related sexual assault victimization status does change over time.

Research Question 3: Do Students Change the Number of Days on Which They Binge Drink From T1 to T2?

Given that the OBTS hypothesis posits that victims will change their lifestyle behaviors after they are victimized in an effort to reduce their risk for subsequent victimization, demonstrating that lifestyle change does occur after victimization is an imperative for any test of the hypothesis. Table 3 displays the crosstabulation of the

number of days the respondent reported binge drinking at T1 and at T2. The main finding from this table is that students do change their binge drinking behavior over time. About one in four students (26.67%) increased the number of days they binge drank in the 30days preceding the survey from T1 to T2 and just over one in five (18.45%) decreased the number of days they binge drank in the past 30 days from T1 to T2. Approximately half (54.88%) of respondents reported binge drinking the same number of days in the past month from T1 to T2 (Table 3).

Research Question 4: Do Students Change the Number of Days on Which They Binge Drink at T2 After Being Sexually Assaulted at T1?

The fourth research question directly tests the OBTS hypothesis. Table 4 lists the marginal mean number of days on which respondents in each AODrelated sexual assault victimization status group binge drank at T1 and T2. These results are displayed in Figure 1. Based on the OBTS hypothesis, we expect that those who were assaulted at T1 would, on average, decrease the number of days on which they binge drank from T1 to T2. As shown in Figure 1, those who were assaulted at T1 only reduced the number of days on which they binge drank by 15.07%, on average. However, those who were assaulted at both T1 and T2 increased the number of days on which they binge drank by 35.11%, on average. Thus, as predicted by the OBTS hypothesis, some students who experience AOD-related sexual assault at T1 decrease the number of days that they binge drink from T1 to T2. The following section describes the testing of whether there are significant differences in change in binge drinking from T1 to T2 between those who were sexually assaulted at T1 Only (the only group that, on average, decreased binge drinking days) and the other three AOD-related sexual assault victimization status groups.

Table 3. Change in Number of Days Binge Drinking in Past Month From T1 to T2.

	Binge drinking at T2 (% within row)					
Binge drinking at T1	0 days *n* (%)	1–2 days *n* (%)	3–9 days *n* (%)	10–19 days *n* (%)	20–31 days *n* (%)	Total (Column %)
0 days	**993 (71.44)**	278 (20.00)	94 (6.76)	20 (1.44)	5 (0.36)	1,390 (50.58)
1–2 days	162 (26.56)	**223 (36.56)**	166 (27.21)	51 (8.36)	8 (1.31)	610 (22.20)
3–9 days	62 (10.23)	190 (31.35)	**249 (41.09)**	86 (14.19)	19 (3.14)	606 (22.05)
10–19 days	10 (7.81)	20 (15.63)	51 (39.84)	**41 (32.03)**	6 (4.69)	128 (4.66)
20–31 days	3 (21.43)	3 (21.43)	2 (14.29)	4 (28.57)	**2 (14.29)**	14 (0.51)
Total (Row %)	1,230 (44.76)	714 (25.98)	562 (20.45)	202 (7.35)	40 (1.46)	2748 (100.00)

$\chi^2 = 1{,}085.35$; $df = 16$; $p = .000$; $N = 2{,}748$.
Note. Bold values indicate the cases for which the range number of days on which the respondent binge drank did not change from T1 to T2.

Table 4. Estimated Marginal Means of Binge Drinking at T1 and T2, by AOD-Related Sexual Assault Victimization Group and Contrast Test Results.

Estimated marginal means	Mean (*SE*)	95% CI Lower	95% CI Upper
Time 1			
Not sexually assaulted at T1 or T2	1.90 (0.07)	1.76	2.05
Sexually assaulted at T1 only	4.18 (0.23)	3.74	4.63
Sexually assaulted at T2 only	3.68 (0.26)	3.16	4.20
Sexually assaulted at T1 and T2	4.87 (0.31)	4.26	5.48
Time 2			
Not sexually assaulted at T1 or T2	2.43 (0.09)	2.25	2.61
Sexually assaulted at T1 only	3.55 (0.28)	3.01	4.09
Sexually assaulted at T2 only	6.05 (0.32)	5.42	6.68
Sexually assaulted at T1 and T2	6.58 (0.38)	5.84	7.32
Contrast test[a]	**Contrast estimate (*SE*)**	**95% CI Lower**	**95% CI Upper**
Not sexually assaulted at T1 or T2	−1.70 (0.22)***	−2.13	−1.27
Sexually assaulted at T2 only	1.00 (0.32)**	0.37	1.62
Sexually assaulted at T1 and T2	1.86 (0.35)***	1.17	2.54

[a]Sexually assaulted at T1 only is the comparison group.
*$p \leq .05$, **$p \leq .01$, ***$p \leq .001$; Overall test: $F = 92.13$, $df = 3, 2736$; $p = .000$.

Are There Differences in the Change in Binge Drinking From T1 to T2 Between the Sexual Assault Victimization Status Groups?

In Figure 1, the 95% confidence interval is shown for each group's line. At T1, the average number of binge drinking days did not significantly differ (p≤.05) between the Sexually Assaulted at T1 Only group, the Sexually Assaulted at T2 Only group, and the Sexually Assaulted at T1 and T2 group. However, at T2, the average number of days on which students in the Sexually Assaulted at T1 Only group binge drank is significantly different from those in the each of the other three groups. Central to the OBTS hypothesis, Figure 1 shows the percent change in binge drinking days from T1 to T2 for each AOD-related sexual assault victimization status group ([(T1−T2)/T1]×100). The bolded percent change values in the figure indicate the groups whose percent change in binge drinking days from T1 to T2 significantly differ (p≤.05) from those in the Sexually Assaulted at T1 Only group based on the contrast test. Table 4 presents the contrast estimates and standard errors for each group's comparison to the Sexually Assaulted at T1 Only group. Thus, those in the Sexually Assaulted at T1 Only group significantly differ in change in binge drinking days from those in the Not Sexually Assaulted group, the Sexually Assaulted at T2 Only group, and the Sexually Assaulted at T1 and T2 group. Perhaps the most striking finding in support of the OBTS hypothesis is that those who were sexually assaulted at T1 but were not sexually assaulted at T2 were the only group who, on average, decreased the number of days on which they binge drank from T1 to T2.

Discussion

The primary purpose of the present study was to consider the “once bitten, twice shy” hypothesis in the context of alcohol- or drug-related sexual assault victimization against college women, specifically three cohorts of freshmen. Along the way, three additional research questions central to assessing the hypothesis also were addressed relating to changes in students’ drinking behavior and victimization status over time.

First, it was necessary to confirm that binge drinking is a risk factor for AOD-related sexual assault victimization. Having done so, we also investigated whether students change their binge drinking patterns from T1 to T2 and whether their AOD-related sexual assault victimization status changed from T1 to T2 (i.e., from victim to nonvictim or vice versa). Given the relationship between binge drinking and AOD-related sexual assault, and the changes to binge drinking behavior and victimization status from T1 to T2, we examined whether victims at T1 made effective changes to their binge drinking following their victimization. The banner headline to come from these analyses is that the OBTS hypothesis is supported in cases of AOD-related sexual assault. That is, not only is binge-drinking a significant risk factor for victimization, but change in binge drinking over time significantly differed between those who were assaulted at T1 but not at T2 and each of the other three victimization groups, with those in the Sexually Assaulted at T1 Only group being the only group that reduced the number of days on which they binge drank from T1 to T2.

Our findings have implications for policy makers, college administrators, and other stakeholders interested in reducing the high prevalence of sexual victimization against college women. First though, it is crucial to emphasize that speaking of alcohol use or binge drinking as risk factors for sexual violence does not equate with blaming women for drinking and then becoming crime victims. In all cases, it is the perpetrator of the sexual violence who is blameworthy and responsible for the crime—and never the victim. A discussion of risk, though, necessitates a parallel discussion of how to mitigate risk, and in this case, that involves discussing alcohol use and high-risk situations.

It is important to point out that in many instances, those involved in AODrelated sexual assaults are not legally permitted to drink alcohol. Therefore, discouraging underage drinking may have some utility in preventing victimization. Likewise, reducing opportunities for underage students to drink may also have some positive effects on campus victimization. Allen and Jacques (2013) suggest that campus law enforcement oriented around proactive policing strategies may prove to be fruitful crime prevention methods. In particular, community-oriented policing (i.e., meeting with campus organizations), problem-oriented policing (e.g., “pulling levers” strategies), and hot spot policing (e.g., targeting specific addresses) are ways that campus law enforcement may be able to contribute to addressing the high prevalence of alcohol-related sexual victimization on campuses (Allen & Jacques, 2013).

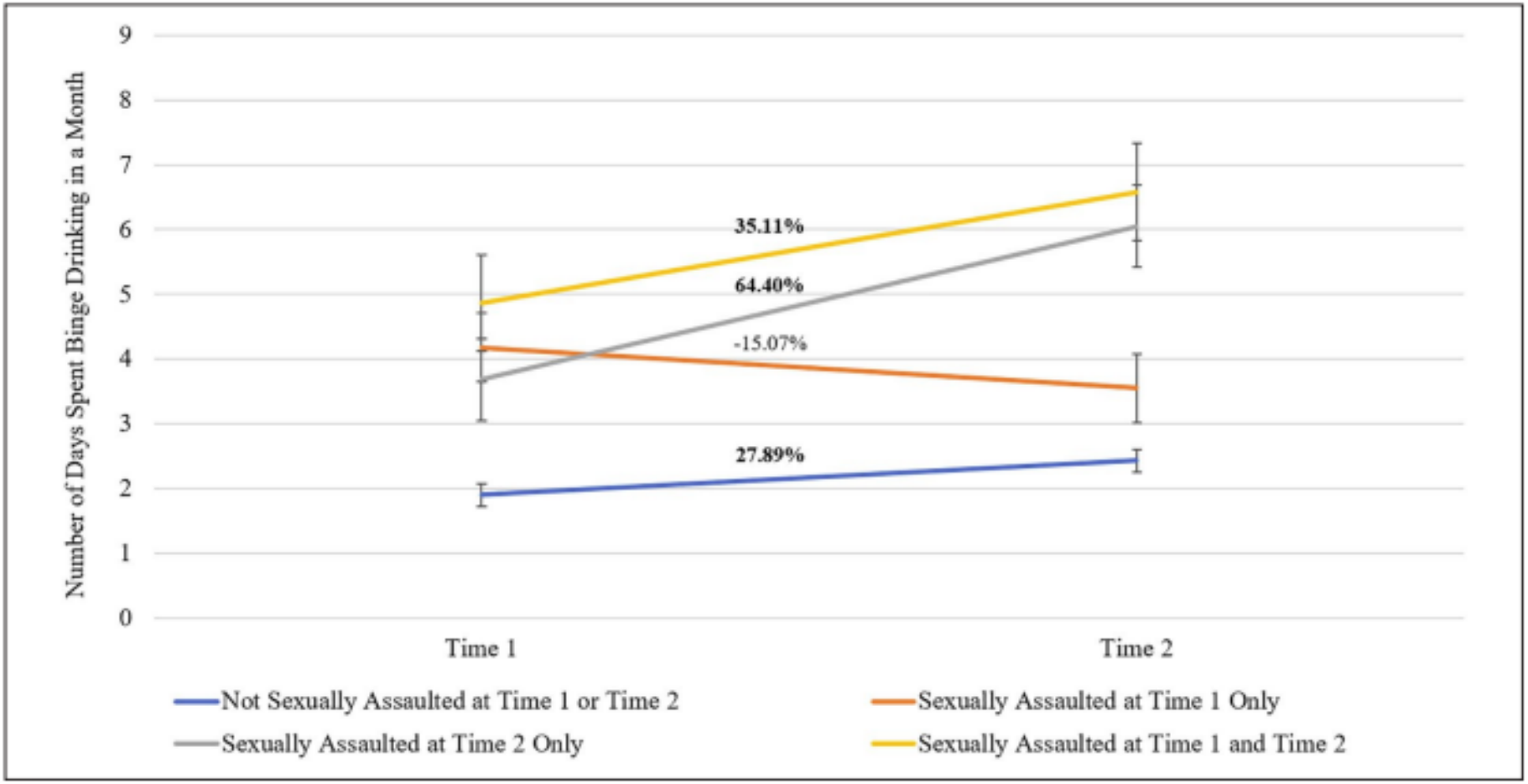

Figure 1. Estimated Marginal Mean Number of Days Spent Binge Drinking at T1 and T2, by Alcohol- or Drug-Related Sexual Assault Victimization Status Group ($N = 2{,}748$).

Note. Percentage values above each line indicate the percent change in binge drinking from T1 to T2 within the group ([(T1−T2)/T1] × 100). Bolded percentages indicate that the group's percent change was significantly different ($p \leq .05$) from the sexually assaulted at time 1 only group based on the contrast test results presented in Table 4.

One limitation of the current study is that we are only able to examine binge drinking, rather than alcohol consumption in general. Future research should consider the role of changing alcohol consumption in general as well as changes to other related behaviors (e.g., where and with whom a person consumes alcohol). Nonetheless, our findings suggest that a harm-reduction approach to addressing alcohol use may be effective—such as encouraging students to avoid binge drinking when they do drink or to make plans with their friends to help them avoid risky situations that may occur if they become inebriated (what Vander Ven, 2011 refers to as “drunk support”). For example, a recent study found that an alcohol intervention using motivational interviewing with feedback among college women resulted in a significantly lower likelihood to experience an incapacitated alcohol-related sexual violence incident in the three months following the intervention, and that this effect was especially strong for women who had experienced a sexual victimization incident prior to entering college (Clinton-Sherrod et al., 2011). Thus, motivational interviewing, a “client-centered, directive method for embracing intrinsic motivation to change by exploring and resolving ambivalence,” may be one strategy for addressing the relationship between binge drinking and repeat AOD-related sexual assault (Miller & Rollnick, 2002, p. 25).

Another limitation of the current study is its focus on AOD-related sexual assault. Changes in binge drinking frequency may be related to other forms of sexual assault (such as forcible penetration), because binge drinking could place individuals in high risk contexts such as those with a high concentration of motivated offenders. Thus, future research that tests the OBTS hypothesis for repeat forcible sexual assault should aim to include measures of other lifestyle and routine activities factors that are relevant to that particular type of sexual assault. For example, future studies may want to consider risky lifestyle behaviors outside of the college party context that may be related to forcible sexual assault victimization.

In terms of mitigating victimization risk, it is incumbent upon the college community to recognize that sexual victimization is a problem on college campuses, and that community members have the power to make change for the better. One promising approach to community change at the campus level is bystander intervention in crime-prone situations. Bystander intervention involves training community members—in this case, students—to recognize these situations and act to diffuse them. This may involve simply talking to someone, walking them home, or calling them a ride. Bystander training comes in many forms, but generally speaking, research suggests that it can be effective at reducing victimization and perpetration of sexual violence (e.g., Bush et al., 2019; Jouriles et al., 2018). Therefore, a heavy component of bystander training should be educating students on not only the perils of binge drinking, but also how to recognize warning signs for sexual victimization tied to binge drinking.

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References

Abbey, A. (2002). Alcohol-related sexual assault: A common problem among college students. Journal of Studies on Alcohol and Drugs, 14, 118–128.

Allen, A., & Jacques, S. (2013). Alcohol-related crime among college students: A review of research and fruitful areas for future work. Criminal Justice Studies, 26(4), 478–494.

Averdijk, M. (2011). Reciprocal effects of victimization and routine activities. Journal of Quantitative Criminology, 27(2), 125–149.

Bunch, J., Clay-Warner, J., & McMahon-Howard, J. (2014). The effects of victimization on routine activities. Criminal Justice and Behavior, 41(5), 574–592.

Bush, H. M., Coker, A. L., DeGue, S., Clear, E. R., Brancato, C. J., & Fisher, B. S. (2019). Do violence acceptance and bystander actions explain the effects of Green Dot on reducing violence perpetration in high schools? Journal of Interpersonal Violence. Advance online publication. https://doi.org/10.1177/0886260519888206

Butler, L. C., Fisher, B. S., Schilling, R., Lasky, N. V., & Swan, S. C. (2020). Change matters: Binge drinking and drugging victimization over time in three college freshman cohorts. Journal of School Violence. Advance online publication. https://doi.org/10.1080/15388220.2020.1830787

Cantor, D., Fisher, B., Chibnall, S., Harps, S., Townsend, R., Thomas, G., Lee, H., Kranz, V., Herbison, R., & Madden, K. (2019). Report on the AAU Campus Climate on Sexual Assault and sexual misconduct. Westat.

Cantor, D., Fisher, B., Chibnall, S., Townsend, R., Lee, H., Bruce, C., & Thomas, G. (2017). Report on the AAU Campus Climate on Sexual Assault and sexual misconduct. Westat.

Cashin, J. R., Presley, C. A., & Meilman, P. W. (1998). Alcohol use in the Greek system: Follow the leader? Journal of Studies on Alcohol, 59(1), 63–70.

Clinton-Sherrod, M., Morgan-Lopez, A. A., Brown, J. M., McMillen, B. A., & Cowells, A. (2011). Incapacitated sexual violence involving alcohol among college women: The impact of a brief drinking intervention. Violence Against Women, 17(1), 135–154.

Coker, A. L., Bush, H. M., Fisher, B. S., Swan, S. C., Williams, C. M., Clear, E. R., & DeGue, S. (2016). Multi-college bystander intervention evaluation for violence prevention. American Journal of Preventative Medicine, 50, 295–302.

Combs, J. L., Jordan, C. E., & Smith, G. T. (2014). Individual differences in personality predict externalizing versus internalizing outcomes following sexual assault. Psychological Trauma: Theory, Research, Practice, and Policy, 6(4), 375–383.

Combs-Lane, A. M., & Smith, D. W. (2002). Risk of sexual victimization in college women: The role of behavioral intentions and risk-taking behaviors. Journal of Interpersonal Violence, 17(2), 165–183.

Cranney, S. (2015). The relationship between sexual victimization and year in school in US colleges: Investigating the parameters of the “red zone”. Journal of Interpersonal Violence, 30(17), 3133–3145.

Daigle, L. E., Fisher, B. S., & Cullen, F. T. (2008). The violent and sexual victimization of college women: Is repeat victimization a problem? Journal of Interpersonal Violence, 23(9), 1296–1313.

Dowdall, G. W. (2007). The role of alcohol abuse in college student victimization. In B. S. Fisher, & J. T. Sloan, III (Eds.), Campus crime: Legal, social and policy perspectives (2nd ed., pp. 167–187). Charles C. Thomas.

Farrell, G., & Pease, K. (1993). Once bitten, twice bitten: Repeat victimisation and its implications for crime prevention. Home Office.

Farrell, G., Phillips, C., & Pease, K. (1995). Like taking candy-why does repeat victimization occur. British Journal of Criminology, 35(3), 384–399.

Fedina, L., Holmes, J. L., & Backes, B. (2016). How prevalent is campus sexual assault in the United States. National Institute of Justice Journal, 277, 26–30.

Fisher, B. S., Cullen, F. T., & Turner, M. G. (2000). The sexual victimization of college women (Research Report). U.S. Department of Justice.

Fisher, B. S., Daigle, L. E., & Cullen, F. T. (2010). What distinguishes single from recurrent sexual victims? The role of lifestyle-routine activities and first-incident characteristics. Justice Quarterly, 27(1), 102–129.

Fisher, B. S., Peterson, S., Cantor, D., Townsend, R., & Sun, H. (2016). Characteristics of nonconsensual sexual contact incidents: Penetration and sexual touching by force or while incapacitated. Westat.

Ford, J. A. (2007). Alcohol use among college students: A comparison of athletes and nonathletes. Substance Use & Misuse, 42(9), 1367–1377.

Gidycz, C. A., Orchowski, L. M., King, C. R., & Rich, C. L. (2008). Sexual victimization and health-risk behaviors: A prospective analysis of college women. Journal of Interpersonal Violence, 23(6), 744–763.

Harrell, Z. A. T., Huang, J. L., & Kepler, D. M. (2013). Brief report: Affluence and college alcohol problems: The relevance of parent- and child-reported indicators of socioeconomic status. Journal of Adolescence, 36(5), 893–897.

Hindelang, M. J., Gottfredson, M. R., & Garofalo, J. (1978). Victims of personal crime: An empirical foundation for a theory of personal victimization. Ballinger.

Johnson, S. D., Bowers, K., & Hirschfield, A. (1997). New insights into the spatial and temporal distribution of repeat victimization. The British Journal of Criminology, 37(2), 224–241.

Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (1986). Drug use among American high school students, college students, and other young adults: National trends through 1985. National Institute on Drug Abuse.

Jouriles, E. N., Krauss, A., Vu, N. L., Banyard, V. L., & McDonald, R. (2018). Bystander programs addressing sexual violence on college campuses: A systematic review and meta-analysis of program outcomes and delivery methods. Journal of American College Health, 66(6), 457–466.

Kaasa, S., Fisher, B. S., Cantor, D., & Townsend, R. (2016). Recurring victimization in the AAU climate survey on sexual assault and misconduct. Prepared for American Association of Universities (AAU).

Kilpatrick, D. G., Resnick, H. S., Ruggiero, K. J., Conoscenti, L. M., & McCauley, J. (2007). Drug-facilitated, incapacitated, and forcible rape: A national study. United States Department of Justice, Washington, DC.

Kimble, M., Neacsiu, A. D., Flack, W. F., & Horner, J. (2008). Risk of unwanted sex for college women: Evidence for a red zone. Journal of American College Health, 57(3), 331–338.

Kirkpatrick, C., & Kanin, E. (1957). Male sex aggression on a university campus. American Sociological Review, 22(1), 52–58.

Koss, M. P., Gidycz, C. A., & Wisniewski, N. (1987). The scope of rape: Incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. Journal of Consulting and Clinical Psychology, 55(2), 162–170.

Krebs, C. P., Lindquist, C. H., Warner, T. D., Fisher, B. S., & Martin, S. L. (2009). College women's experiences with physically forced, alcohol-or other drugenabled, and drug-facilitated sexual assault before and since entering college. Journal of American College Health, 57(6), 639–649.

Lasky, N. V., Fisher, B. S., & Swan, S. C. (2018). Doing things differently: Exploring drugging victims' behavioral changes and risk of recurring victimization. Criminal Justice Review, 43(1), 75–96.

Lauritsen, J. L., & Quinet, K. F. D. (1995). Repeat victimization among adolescents and young adults. Journal of Quantitative Criminology, 11(2), 143–166.

Miethe, T. D., Stafford, M. C., & Sloane, D. (1990). Lifestyle changes and risks of criminal victimization. Journal of Quantitative Criminology, 6(4), 357–376.

Miller, W. R., & Rollnick, S. (2002). Motivational interviewing: Preparing people for change (2nd ed.). Guilford.

Mohler-Kuo, M., Dowdall, G. W., Koss, M. P., & Wechsler, H. (2004). Correlates of rape while intoxicated in a national sample of college women. Journal of Studies on Alcohol, 65(1), 37–45.

Mouilso, E. R., Fischer, S., & Calhoun, K. S. (2012). A prospective study of sexual assault and alcohol use among first-year college women. Violence and Victims, 27(1), 78–94.

Muehlenhard, C. L., Peterson, Z. D., Humphreys, T. P., & Jozkowski, K. N. (2017). Evaluating the one-in-five statistic: Women's risk of sexual assault while in college. The Journal of Sex Research, 54(4–5), 549–576.

Nelson, T. F., & Wechsler, H. (2001). Alcohol and college athletes. Medicine & Science in Sports & Exercise, 33(1), 43–47.

Parks, K. A., & Fals-Stewart, W. (2004). The temporal relationship between college women's alcohol consumption and victimization experiences. Alcoholism: Clinical and Experimental Research, 28(4), 625–629.

Polvi, N., Looman, T., Humphries, C., & Pease, K. (1991). The time course of repeat burglary victimization. The British Journal of Criminology, 31(4), 411–414.

Tseloni, A., & Pease, K. (2003). Repeat personal victimization.'Boosts' or 'Flags'? British Journal of Criminology, 43(1), 196–212.

Turanovic, J. J., & Pratt, T. C. (2014). "Can't stop, won't stop": Self-control, risky lifestyles, and repeat victimization. Journal of Quantitative Criminology, 30(1), 29–56.

U.S. Department of Education. (2019). Digest of education statistics. National Center for Education Statistics.

Vander Ven, T. (2011). Getting wasted: Why college students drink too much and party so hard. NYU Press.

Warner, T. D., Allen, C. T., Fisher, B. S., Krebs, C. P., Martin, S., & Lindquist, C. H. (2018). Individual, behavioral, and situational correlates of the drugging

victimization experience of college women. Criminal Justice Review, 43(1), 23–44.

Wechsler, H., & Nelson, T. F. (2001). Binge drinking and the American college students: What's five drinks? Psychology of Addictive Behaviors, 15(4), 287–291.

Wechsler, H., Dowdall, G. W., Davenport, A., & Castillo, S. (1995). Correlates of college student binge drinking. American Journal of Public Health, 85(7), 921–926.

Wechsler, H., Lee, J. E., Kuo, M., Seibring, M., Nelson, T. F., & Lee, H. (2002). 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, 50(5), 203–217.

Weiss, K. G. (2013). Party school: Crime, campus and community. Northeastern University Press.

Weiss, K. G., & Dilks, L. M. (2016). Intoxication and crime risk: Contextualizing the effects of "party" routines on recurrent physical and sexual attacks among college students. Criminal Justice Review, 41(2), 173–189.

Xie, M., & McDowall, D. (2008). Escaping crime: The effects of direct and indirect victimization on moving. Criminology, 46(4), 809–840.

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