

MAJOR ARTICLE



The alcohol contexts of consent, wanted sex, sexual pleasure, and sexual assault: Results from a probability survey of undergraduate students

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ABSTRACT

Objective: To examine, in a probability sample of undergraduate students, characteristics of students' most recent sexual experiences (including alcohol use) as well as their experiences with nonconsensual sex. **Participants:** In January and February 2015, 22,046 students were invited to participate in an anonymous, cross-sectional, Internet-based survey; 7,032 surveys were completed (31.9%). **Methods:** Measures included background characteristics (age, gender, sexual orientation), most recent sexual event items (sexual pleasure, wantedness, alcohol use), and experiences with nonconsensual sex (since college and lifetime). **Results:** Respondents reporting sober consensual sex were more likely to report higher levels of sexual pleasure and wantedness. Nonconsensual oral, vaginal, or anal penetration occurring during college were reported by 15.8% of women and 7.7% of men. Students more often told friends, partners, or family members and rarely disclosed to university faculty or police. **Conclusions:** Implications for campus policy and health education are addressed.

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Rape and sexual assault are prevalent among undergraduate students.^{1–3} Although sexual assault disproportionately affects sexual and gender minority individuals, media often describe victims as women and perpetrators as men.^{4–7} Estimated prevalence ranges from about 1 in 6 to about 1 in 4 college women experiencing sexual assault, with rates varying based on definition and sampling frame.^{1,3,7,8} Sexual assault has been described as “active sexual assault” (involving physical force) and “incapacitated sexual assault” (involving an inability to provide consent, such as due to being asleep, unconscious, or intoxicated). Alcohol use is associated with both types.³

The US federal government has issued numerous communications about campus sexual assault including a now-infamous “Dear Colleague” letter and college resource guides.^{9–12} However, when alcohol is addressed at all in such reports, it tends to be to indicate that (a) sexual assault can include sex when a person is unable to consent due to alcohol or drug use, (b) a victim's alcohol consumption does not make the assault their “fault,” or (c) that alcohol is associated with reported assaults.^{9,10} The complexities of alcohol and sexual behavior are rarely examined despite considerable overlap between *sexual assault* and alcohol as well as *consensual sex* and alcohol.

Findings from the 2009 and 2014 National Survey of Sexual Health and Behavior (NSSHB) indicate that about

1 in 6 US adults report they or their partner used alcohol in connection with their most recent sexual event.^{13,14} This underscores a broader cultural connection of alcohol and sexual experiences that are usually consensual, wanted, and pleasurable.¹⁵ The purpose of this study was to examine, in a probability sample of undergraduate students at a large Midwestern university, characteristics of students' most recent sexual experiences (including alcohol use) as well as their experiences with nonconsensual sex.

Methods

The study measures and protocols were reviewed and approved by the Institutional Review Board Indiana University. In January and February 2015, a campus survey research center emailed an invitation to 22,046 undergraduate students to complete an anonymous, online survey about sexual health and behaviors. All registered sophomores and juniors were invited to participate as were a randomly selected half of freshmen and seniors (all freshmen and seniors had been invited to participate in another campus survey that year and campus administrators wished to minimize student burden). Interested individuals could click a link to read about the study and, if they consented, proceed to take the survey.

Respondents could choose not to answer individual items or exit the survey at any time. They were entered into a drawing to win one of 420 gift cards valued between \$20 and \$100.

Measures

Respondents were asked about their background characteristics, sexual orientation, gender identity, and relationship status. Measures described below that pertain to respondents' most recent sexual event (including sexual behaviors, wantedness, sexual pleasure, and alcohol use) were adapted from the 2009 and 2014 waves of the NSSHB, a US probability-based sample.^{13,14}

Alcohol use. Respondents were asked: "Were you or the other person drinking alcohol just before or during sex? (check all that apply)" (I had a little to drink but was not drunk/I was drunk/my partner had a little drink but was not drunk/my partner was drunk/we were both totally sober/other). Responses were re-categorized to: both were sober; at least one had a little to drink but neither was drunk; only one was drunk; both were drunk.

Wantedness. Respondents were asked, "Which best describes this most recent sexual experience?" (I wanted this sexual experience very much, I wanted this sexual experience moderately, I wanted this sexual experience a little bit, I didn't want to have sex but I agreed/said yes anyway, I was assaulted or raped/I said no). Those who indicated sexual assault or rape were provided with campus and national resources for support and were not asked subsequent event-level questions (eg, about pleasure, alcohol use, etc).

Sexual pleasure. Respondents were asked, "How pleasurable was this most recent sexual event?" (Not at all, a little, moderately, quite a bit, and extremely).

Nonconsensual sex. Using items modified from The National Women's Study¹⁶ and National College Women Sexual Victimization (NCWSV) study,¹⁷ respondents were asked to indicate during which periods of their lives, if ever: (a) someone had vaginal, oral, or anal sex with them by drugging them, such as slipping drugs in something they were drinking, (b) someone had vaginal, oral, or anal sex with them when they were too drunk or high to consent or say yes to sex, (c) someone made them have penile-vaginal intercourse by using force or threat, (d) someone made them have oral sex (mouth on genitals) by using force or threat, or (e) someone made them have penile-anal intercourse ("anal sex") by using force or threat. Respondents could indicate occurrence during childhood, middle school/junior high, high school, since coming to college, or never happened to me.

Those reporting one or more college incidents were asked about the most recent incident, including who the

person was who assaulted or raped them (someone you just met or didn't know well, someone you considered a friend, your boyfriend or girlfriend, your husband or wife, a professor or coach, a family member, a stranger, other/describe). They were also asked who they had told, with the option to check all that apply (friend, family member, relationship partner, doctor or nurse, campus police, city or state police, Dean of Students, teacher or professor, counselor or therapist or support group, crisis line, wrote about it online such as Facebook, Twitter, Project Unbreakable, or a blog post, never told anybody about it). These items were taken from the NSSHB,¹⁴ and slightly adapted to be relevant to the college population (for example, including "Dean of Students" as a response option).

Finally, individuals who reported incidents of non-consensual sex occurring since coming to college were asked if they'd ever avoided enrolling in a college class, or dropped a class, because they didn't want to see someone who had sexually assaulted or raped them (yes/no). They were also asked if they'd missed class as a result of feeling sad, depressed, or anxious about being sexually assaulted (yes/no). These items were written by the researchers for the present study.

Statistical analysis

Data were statistically weighted to represent the undergraduate student population of the university utilizing the gender, race/ethnicity, enrollment, and class level variables. The data were thus adjusted for the underrepresentation of key variables due to nonresponse and to accommodate the overrepresentation of sophomores and juniors. Analyses were conducted using the weighted data in Stata 14.0 (StataCorp. 2015. *Stata Statistical Software: Release 14*. College Station, TX: StataCorp LP). Chi-squared tests were used to identify variables that significantly varied between genders ($p < .05$). Ordinal logistic regression was used to assess the effect of alcohol use on degrees of unwanted sex and sexual pleasure, respectively, at the most recent sexual event. Multivariate analyses were conducted on both unwanted sex and sexual pleasure adjusting for partner type (regular, dating, or casual) and sexual orientation (heterosexual, homosexual, bisexual, asexual, or other/not sure). Nonconsensual sex categories were combined into "since college" and "lifetime" (ever occurred).

Results

Of the 22,046 students invited to participate, 7,032 surveys were completed (31.9% complete response rate). Twelve surveys were excluded due to mischievous

responses or data inconsistencies; the remaining 7,020 complete surveys are used in the present analysis (weighted $n = 6,961$). Of these, 48% identified as men ($n = 3,361$), 51% as women ($n = 3,579$), and <1% as transgender ($n = 22$). Given the small proportion of transgender identified students, subsequent analyses were limited to those identifying as men and women. Consistent with campus demographics, most students were white, heterosexual, and about half were living on campus. Detailed sample characteristics are described in Table 1.

Most recent sexual event

A weighted total of 3,038 men and 3,215 women provided data about their most recent sexual event (Table 2). Most (97.1% women, 92.0% men) reported an other-gender partner, 7.2% of men and 2.7% of women reported a same-gender partner, and 0.2% reported a transgender

partner. Few (<1%) reported more than one sexual partner at the last sexual event.

Respondents' sexual partners were most often a boyfriend or girlfriend (47.5% men, 54.6% women), someone they were dating (19.3% men, 21.4% women), or a friend (18.4% of men, 14.2% of women). About 12.1% ($N = 364$) of men and 7.0% ($N = 225$) of women said their most recent sexual event occurred with someone they just met. Most who had just met reported first meeting in person such as at a bar or party (74.8% men, 88.3% women); few reported meeting through an online app such as Tinder or Grindr (18.5% men, 8.9% women), an online dating site (<3%) or other social website (<2% women). The most recent sexual event was described as sexual assault or rape by 0.2% ($N = 8$) of women and no men.

Most recent sexual event: Sobriety and intoxication

About two-thirds of respondents indicated they and their partner were "totally sober" (63.6% men, 68.9% women) and 18.6% of men and 15.8% of women reported that they or their sex partner had a little to drink but that neither was drunk. A further 7.3% of men and 6.4% of women indicated that one of them was drunk and 10.5% of men and 8.9% of women reported that they and their partner were both drunk. In total, 17.8% of men and 15.3% of women indicated that they and/or their sexual partner were drunk at their most recent sexual event.

Wantedness of sex as related to alcohol

As can be seen in Table 3, among those who reported they and their sexual partner were both sober, most wanted the sexual experience "very much" (62.5% men, 65.8% women) or "moderately" (28.0% men, 24.5% women). Only 8.2% of men and 7.3% of women reporting sober sex said that they wanted the sexual experience "a little bit." Few (1.3% men, 2.2% women) of those reporting sober sex indicated they didn't want sex but agreed anyway.

When one or both had a little to drink but neither was drunk, fewer respondents (compared to those reporting sober sex) wanted sex "very much" (43.0% men, 51.5% women). However, the proportion reporting that they didn't want to have sex but agreed anyway was similar to the sober group (1.3% men, 3.1% women).

When one or both people were drunk, only about one-third of respondents reported wanting sex "very much." Compared to those reporting that neither was drunk, more respondents indicated they didn't want to have sex but agreed to it anyway (about 5–8% of men and 4–6% of women).

After adjusting for partner type and sexual orientation, drunkenness (either one or both) was significantly

Table 1. Weighted demographic characteristics by gender ($N = 6,940$).

Characteristics	Men ($N = 3,361$)		Women ($N = 3,579$)	
	%	(n)	%	(n)
Race				
White	74.7	(2,502)	75.0	(2,678)
Black/African American	3.3	(111)	4.4	(158)
Hispanic/Latino	5.1	(171)	5.1	(180)
Asian	4.2	(141)	4.0	(142)
Nonresident alien	8.9	(297)	8.0	(284)
Other	0.0	(1)	0.2	(7)
Two or more races	3.8	(126)	3.4	(121)
Year in school				
Freshman	15.5	(520)	14.5	(517)
Sophomore	25.5	(857)	24.3	(869)
Junior	23.5	(789)	22.5	(804)
Senior	35.5	(1,195)	38.8	(1,388)
Enrollment status				
Full-time	91.2	(3,063)	92.3	(3,302)
Part-time	8.9	(298)	7.7	(276)
Living conditions				
On campus housing	45.1	(1,508)	45.5	(1,627)
Off campus housing	53.3	(1,708)	51.9	(1,853)
At home	1.5	(49)	2.4	(85)
Other	0.2	(6)	0.2	(8)
Sexual orientation*				
Heterosexual	89.3	(2,988)	88.1	(3,148)
Gay/lesbian	6.0	(199)	1.0	(36)
Bisexual	2.6	(87)	6.7	(238)
Asexual/other	0.9	(30)	1.4	(50)
Not sure	1.3	(42)	2.9	(103)
Relationship status*				
Single, not dating	36.6	(1,227)	34.2	(1,222)
Single, dating multiple people	17.7	(595)	10.2	(364)
Single, dating one specific person	9.7	(326)	11.2	(400)
In a relationship, not living together	30.7	(1,029)	37.5	(1,339)
Cohabiting	4.2	(142)	5.5	(197)
Married	1.1	(37)	1.3	(45)

Note. * $p < .05$ by chi-squared test.

Table 2. Weighted characteristics of the most recent sexual experience.

Characteristics	Men (N = 3,038)		Women (N = 3,215)	
	%	(n)	%	(n)
Gender of sexual partner*				
Man	7.2	(217)	97.1	(3,117)
Woman	92.0	(2,794)	2.7	(88)
Transwoman	0.2	(6)	0.0	(1)
Transman	0.0	(0)	0.0	(2)
More than one person	0.6	(19)	0.0	(3)
Relationship with sexual partner*				
Spouse or domestic partner	2.3	(692)	2.0	(65)
Boyfriend, girlfriend, significant other	47.5	(1,429)	54.6	(1,752)
Someone I was dating/hanging out with	19.3	(580)	21.4	(687)
A friend	18.4	(553)	14.2	(455)
Someone I just met	12.1	(364)	7.0	(225)
Someone who paid/gave me something for sex	0.0	(1)	0.0	(1)
Someone who I paid/gave something to for sex	0.1	(4)	0.0	(1)
Someone who assaulted or raped me	0.0	(0)	0.2	(8)
Other	0.3	(9)	0.4	(13)
Method of first meeting sexual partner [†]				
Met in person	74.8	(272)	88.3	(198)
Met through online dating site	2.3	(8)	1.3	(3)
Met through online dating app	18.5	(67)	8.9	(20)
Met through some other social website	1.2	(4)	0.5	(1)
Other	3.3	(12)	1.0	(2)
Alcohol use*				
Both were totally sober	63.6	(1,908)	68.9	(2,187)
Had a little to drink but neither was drunk	18.6	(557)	15.8	(503)
Only one of us was drunk	7.3	(220)	6.4	(203)
Both were drunk	10.5	(314)	8.9	(284)
Wantedness of sex*				
I wanted this sexual experience very much	53.6	(1,624)	58.8	(1,885)
I wanted this sexual experience moderately	32.7	(992)	27.9	(894)
I wanted this sexual experience a little bit	11.9	(360)	10.0	(321)
I didn't want to have sex but I agreed anyway	1.8	(54)	3.1	(98)
I was assaulted or raped; I said no	0.0	(0)	0.3	(10)
Sexual pleasure				
Not at all pleasurable	2.2	(67)	3.1	(10)
A little pleasurable	10.2	(308)	10.6	(99)
Moderately pleasurable	18.9	(570)	16.3	(339)
Quite a bit pleasurable	35.8	(1,080)	36.0	(519)
Extremely pleasurable	32.8	(987)	34.0	(1,149)

Note. * $p < .05$ by chi-squared test.

[†]Restricted to those reporting a recent sexual partner of someone they had just met.

associated with increased levels of unwanted sex at the most recent sexual event among men but not women (Table 4). For both women and men, sex with a dating or casual partner was associated with increased odds of unwanted sex when compared to a regular partner. “Asexual or other” sexual orientation in men was significantly associated with less wanted sex when compared to those self-identifying as heterosexual ($p < .05$), though

the confidence interval was wide. Among women, being unsure of sexual orientation was significantly associated with less wanted sex at the most recent sexual event, adjusting for alcohol use and partner type ($p < .05$).

Alcohol use and sexual pleasure

Sexual events were more often rated as extremely pleasurable by respondents who both were sober than by respondents who reported any amount of alcohol (Table 3). For men, 40.9% in the sober group reported sex as extremely pleasurable compared to 19.9% in the “drinking but not drunk” group, 16.3% of those who said that one of them was drunk, and 15.8% of those who said that both were drunk.

For women, 40.2% of those who reported both being sober reported sex as extremely pleasurable compared to 27.2% in the “drinking but not drunk” group, and about 14% in each of the two drunk categories. Among men,

Table 3. Alcohol use and unwanted sex or sexual pleasure at the most recent sexual experience by gender.

	Alcohol use			
	Both were sober % (n)	A little to drink but not drunk % (n)	One of us was drunk % (n)	Both were drunk % (n)
Unwanted Sex				
Men (N = 2,999)				
Wanted sex very much	62.5 (1,193)	43.0 (240)	34.5 (76)	33.0 (103)
Wanted sex moderately	28.0 (534)	39.8 (222)	37.8 (83)	44.4 (139)
Wanted sex a little bit	8.2 (156)	15.9 (88)	22.8 (50)	19.1 (60)
Didn't want sex but agreed anyway	1.3 (25)	1.3 (7)	4.9 (11)	3.5 (11)
Women (N = 3,177)				
Wanted sex very much	65.8 (1,440)	51.5 (259)	34.3 (70)	38.9 (110)
Wanted sex moderately	24.5 (537)	33.9 (171)	35.4 (72)	37.4 (106)
Wanted sex a little bit	7.4 (162)	11.6 (58)	22.0 (45)	18.3 (52)
Didn't want sex but agreed anyway	2.2 (49)	3.1 (15)	8.3 (17)	5.5 (16)
Sexual pleasure				
Men (N = 2,987)				
Not at all pleasurable	1.5 (28)	2.6 (14)	6.3 (14)	3.3 (10)
A little pleasurable	7.5 (142)	12.4 (69)	18.6 (41)	16.7 (52)
Moderately pleasurable	14.4 (273)	26.9 (149)	22.5 (49)	30.7 (96)
Quite a bit pleasurable	35.8 (680)	38.1 (211)	36.4 (80)	33.6 (105)
Extremely pleasurable	40.9 (778)	19.9 (110)	16.3 (36)	15.8 (50)
Women (N = 3,170)				
Not at all pleasurable	2.1 (46)	3.2 (16)	9.5 (19)	5.2 (15)
A little pleasurable	7.2 (157)	14.0 (70)	26.3 (53)	20.4 (58)
Moderately pleasurable	13.2 (288)	19.8 (100)	21.8 (44)	28.6 (81)
Quite a bit pleasurable	37.4 (816)	35.8 (180)	29.0 (59)	31.3 (89)
Extremely pleasurable	40.2 (876)	27.2 (137)	13.5 (27)	14.4 (41)

Table 4. Multivariate ordinal logistic regression analyses of alcohol use and unwanted sex or sexual pleasure at the most recent sexual experience, stratified by gender.

Variables	Men		Women	
	aOR [†]	(95% CI)	aOR [†]	(95% CI)
Unwanted sex				
Alcohol use				
Both sober	1.00	—	1.00	—
Had a little to drink	1.22	(0.92–1.62)	1.11	(0.85–1.46)
One drunk	1.50	(1.27–1.77)*	1.75	(0.88–3.49)
Both drunk	1.30	(1.00–1.68)*	1.21	(0.81–1.81)
Partner type				
Regular	1.00	—	1.00	—
Dating	3.38	(2.35–4.87)*	2.09	(1.72–2.54)*
Casual	6.17	(4.20–9.05)*	4.51	(3.54–5.73)*
Sexual orientation				
Heterosexual	1.00	—	1.00	—
Homosexual	1.58	(0.94–2.66)	1.75	(0.58–5.33)
Bisexual	0.98	(0.36–2.71)	1.41	(0.74–2.68)
Asexual/other	4.97	(1.69–14.66)*	1.66	(0.82–3.38)
Not sure	1.20	(0.51–2.85)	2.53	(2.26–2.83)*
Sexual pleasure				
Alcohol use				
Both sober	1.00	—	1.00	—
Had a little to drink	0.72	(0.56–0.92)*	0.85	(0.55–1.32)
One drunk	0.67	(0.51–0.87)*	0.47	(0.27–0.84)*
Both drunk	0.69	(0.51–0.93)*	0.69	(0.42–1.12)
Partner type				
Regular	1.00	—	1.00	—
Dating	0.30	(0.21–0.41)*	0.46	(0.42–0.52)*
Casual	0.17	(0.13–0.23)*	0.21	(0.14–0.31)*
Sexual orientation				
Heterosexual	1.00	—	1.00	—
Homosexual	0.67	(0.50–0.89)*	0.55	(0.15–2.05)
Bisexual	1.14	(0.49–2.62)	0.84	(0.58–1.19)
Asexual/other	0.30	(0.16–0.58)*	0.56	(0.27–1.19)
Not sure	0.57	(0.20–1.61)	0.39	(0.23–0.65)*

Note. * $p < .05$.

[†]Adjusted odds ratio; adjusted for other variables in the table.

having had any alcohol at all was negatively associated with sexual pleasure at the most recent sexual event, adjusting for partner type and sexual orientation (Table 4). Among women, this negative association with sexual pleasure was only observed when one or both partners were drunk.

A dating or casual partner (compared to a regular partner) was negatively and consistently associated with sexual pleasure levels for both women and men. Self-identified gay and asexual/other men were more likely to report lower event-level sexual pleasure ($p < .05$), while women who were unsure of their sexual orientation were significantly more likely to report lower levels of sexual pleasure ($p < .05$).

Nonconsensual sex

As can be seen in Table 5, 15.8% of women and 7.7% of men in our sample reported that they had experienced non-consensual oral, vaginal, or anal penetration since coming to college. However, 22.9% of women and 11.0% of men reported at least one lifetime event of nonconsensual sex.

Few respondents reported that someone had oral, vaginal, or anal sex with them by having drugged them (1.2% men, 1.8% women since college and about 2% lifetime). Similarly, few reported being made to have penile-vaginal intercourse through the use of force or threats to harm them or someone close to them (1.8% of women and none of the men since coming to college; 4.3% women and 1.7% men, lifetime). Further, 0.9% of men and 1.6% of women reported that, since college, someone made them have oral sex through the use of force or threat (1.9% men, 4.7% women lifetime). Anal sex through the use of force or threat was reported by <1% of men and women since coming to college and about 1.4% lifetime. It was far more common for respondents to report that someone had vaginal, oral, or anal sex with them when they were too drunk or high to consent to sex (6.9% men, 14.1% women since college and 9.4% men, 18.1% women lifetime).

Nonconsensual sex and sexual orientation

Reports of oral, vaginal, or anal sex from being drugged, too drunk or high to consent, or through force or threat were highest among women identifying as bisexual (29.6%), followed by heterosexual women (15.0%), women unsure of their orientation (14.2%), those identifying as asexual or other (10.9%), and lesbian/gay women (4.9%).

For men, the highest rates of nonconsensual sex were reported by men identifying as gay/homosexual (15.2%) or bisexual (14.8%), followed by those who were uncertain of their sexual orientation (12.4%). However, 7.0% of heterosexual men also reported nonconsensual sex.

Perpetrator. As some respondents had experienced more than one instance of nonconsensual sex (251 men, 549 women), those who reported multiple instances were asked about the most recent instance. About one-third of men and 44% of women reported that the other person was someone they had just met or didn't know well and about another third reported that the person was someone they had considered a friend. About 8% of men and 9% of women reported that the person was a boyfriend or girlfriend at the time and about 8% of men and 5% of women reported the person was a stranger.

Disclosure and Impact on Academic Life. Students' most common response was to either tell a friend (63.8% men, 72.9% women), a relationship partner (29% women, 17% men), or no one (26.4% women, 20.6% men). Less commonly, 16% of women and 13% of men told a family member. More women than men sought counseling, therapy, or support groups (14% women, 5% men), or told a doctor or nurse (10.3% women, 4.2% men). Only rarely did students disclose to a teacher or

Table 5. Weighted characteristics of nonconsensual sex and sexual assault since coming to college and during lifetime.

Characteristics	Since college				Lifetime			
	Men (N = 3,322)		Women (N = 3,549)		Men (N = 3,317)		Women (N = 3,539)	
	%	(n)	%	(n)	%	(n)	%	(n)
Nonconsensual sex								
Oral, vaginal, or anal sex by being drugged	1.2	(39)	1.8	(64)	2.3	(75)	2.5	(87)
Oral, vaginal, or anal sex when too drunk or high	6.9	(227)	14.1	(497)	9.4	(311)	18.1	(640)
Penile-vaginal sex by using force or threat	0.8	(26)	1.8	(63)	1.7	(55)	4.3	(153)
Oral sex by using force or threat	0.9	(29)	1.6	(58)	1.9	(62)	4.7	(166)
Anal sex by using force or threat	0.6	(21)	0.5	(18)	1.4	(45)	1.4	(50)
Any of the above	7.7	(251)	15.8	(549)	11.0	(358)	22.9	(800)
Sexual assault by sexual orientation*†								
Heterosexual	7.0	(201)	15.0	(458)	9.8	(284)	21.6	(660)
Gay/lesbian	15.2	(30)	4.9	(2)	22.3	(44)	20.8	(7)
Bisexual	14.8	(13)	29.6	(69)	21.2	(18)	41.1	(96)
Asexual/other	3.0	(1)	10.9	(5)	10.9	(3)	26.6	(13)
Not sure	12.4	(5)	14.2	(14)	12.4	(5)	21.8	(22)
Most recent sexual assault perpetrator type*								
Someone just met or didn't know well	36.8	(71)	43.7	(219)	—	—	—	—
Someone considered a friend	38.0	(73)	37.2	(187)	—	—	—	—
Boyfriend or girlfriend	7.9	(15)	9.4	(47)	—	—	—	—
Professor or coach	0.9	(2)	0.1	(1)	—	—	—	—
Family member	1.4	(3)	0.3	(2)	—	—	—	—
Stranger	7.7	(15)	5.0	(25)	—	—	—	—
Other	7.3	(14)	4.2	(21)	—	—	—	—
Most recent sexual assault disclosure*								
Friend	63.8	(122)	72.9	(363)	—	—	—	—
Family member	12.9	(25)	15.9	(79)	—	—	—	—
Relationship partner	16.6	(32)	28.8	(143)	—	—	—	—
Doctor or nurse	4.2	(8)	10.3	(51)	—	—	—	—
Campus police	1.0	(2)	2.3	(11)	—	—	—	—
City/state police	1.4	(3)	2.6	(13)	—	—	—	—
Dean of Students	1.0	(2)	1.4	(7)	—	—	—	—
Teacher or professor	1.7	(3)	2.1	(10)	—	—	—	—
Counselor, therapist, or support group	5.2	(10)	14.1	(70)	—	—	—	—
Someone on a crisis line	1.4	(3)	1.3	(6)	—	—	—	—
Wrote about it online	1.9	(4)	1.9	(9)	—	—	—	—
Haven't told anyone	26.4	(50)	20.6	(102)	—	—	—	—
Avoided enrolling in a college course or dropped a class to not see someone who had sexually assaulted them*	1.8	(4)	4.8	(26)	—	—	—	—
Missed class because of feeling sad, depressed, or anxious about being sexually assaulted*	7.1	(16)	19.0	(101)	—	—	—	—

Note. *Restricted to individuals who reported sexual assault since coming to college (Men N = 251; Women N = 549).

†Restricted to individuals who reported sexual assault during their lifetime (Men N = 358; Women N = 800).

professor (<3%), the Dean of Students' office (<2%), campus police (2.3% women, 1.0% men), or city/state police (2.6% women, 1.4% men).

Of those who had experienced nonconsensual sex, about 2% of men and 5% of women had avoided enrolling in a college course or dropped a class because they didn't want to see someone who had sexually assaulted or raped them. About 7% of men and 19% of women who described nonconsensual sex reported having missed class because of feeling sad, depressed, or anxious related to the experience.

Comment

Findings from the present study provide insights into the intersections of sexual behavior, alcohol use, the wantedness of sex, sexual pleasure, as well as nonconsensual sex

among a probability sample of college students at one university. Regarding consensual sex, we also found that – for both women and men – alcohol was linked with sex that was generally rated as less pleasurable and was more likely to be unwanted (albeit consensual). This finding resonates with earlier research demonstrating that people generally report less positive sexual experiences when alcohol is used and yet, paradoxically, often believe that alcohol enhances sexual experiences – despite personal experience to the contrary.¹⁷ These findings would be useful to incorporate into evidence-based sexuality education for adolescents and young adults, particularly as some individuals perceive that alcohol is likely to make sex *more* pleasurable. Also, consistent with other research,^{4–5,18} we found that bisexual women, in particular, as well as heterosexual women and gay and bisexual men reported elevated rates of nonconsensual sex.

About twice as many respondents reported alcohol use in connection with sex compared to the population of 18+ adults in the United States surveyed by the NSSHB.¹⁴ It is perhaps not surprising that young people adopt “adult” behaviors such as sex and drinking in the context of complex structures of social context, cultural mythologies, sexual desire, and even sexual coercion or violence.

However, the high prevalence of drunk sex reported is important in light of current debates related to sexual behavior, consent, assault, and intoxication. Campus policies vary considerably in their definitions of sexual assault and consent. Some schools state that consensual sex is “non-intoxicated,”¹⁹ urge students to obtain a “sober yes,”²⁰ or suggest that intoxication or being “drunk” necessarily makes one unable to provide consent for sex.^{21–22} Yet, findings from this study of thousands of college students indicate that nearly 1 in 5 men and 1 in 6 women reported that they and/or their sexual partner were drunk during their most recent consensual sexual event – most of which were rated as wanted and pleasurable and pleasurable. Similarly, about 1 in 6 Americans across the lifespan^{13–14} report alcohol use – though not necessarily drunkenness – in connection with their recent sexual events. An important inference of our data is that alcohol use itself is not sufficient as a marker of sexual assault or coercion. And yet, numerous college policies conflate sex while under the influence of alcohol with nonconsensual sex. This presents a problem: conflating alcohol and sexual assault allows campus policies to avoid discussions of the complexities of sexual consent that reflect desire, sexual development, and communication. Further, the disconnect of campus policies with adult sexual behavior suggests that many campus policies do not reflect a scientific understanding of sexual behaviors common to, and perhaps normative for, adult Americans.

The fact that most of the reported nonconsensual sex was described as being too drunk to consent (rather than through force, threat, or drugs) further complicates matters. Notably, it is common for college students and adults of all ages to have consensual sex while drinking and even while drunk; yet, nonconsensual sex among college students is most frequently marked by being “too drunk to consent.” Thus, college administrators may better serve their students and be better positioned to meet their goals of reducing sexual assault by helping students learn to navigate the complicated terrain of both alcohol and sex.

Young adults would be better supported if guided through thoughtful, fact-based conversations about alcohol, sex, desire for sex and/or relationship formation, and their lived experiences of how these interact. How do young adults develop into people who can make responsible choices about their sexual behavior, even in the context of intoxication? And, given the lower levels

of pleasure and wantedness of sex associated with alcohol-plus-sex, why do so many college students continue to combine alcohol and sex?

Closer working relationships between scientists who study alcohol use and scientists who study sexual development may help to improve our understanding of these issues. Also, it may be that pleasure needs to be better defined or understood as a reason for or benefit of sex. Perhaps college students are less motivated by sexual pleasure in terms of orgasm and more motivated by the pleasure of possibility (eg, having access to sex at all, seeing a particular person in the nude), self-regard (eg, feeling like an adult), or status (eg, telling one’s friends that they’ve hooked up or had sex). It is also known that some individuals “gamify” sex and thus having sex may be less about their own or their partner’s pleasure or mutual gratification and more about their own “success.” Sex is also an intimate behavior, as is allowing another person to see one’s nude body. Any of these contexts may help explain why young adults continue to have sex they don’t particularly want or find much pleasure in, and perhaps alcohol facilitates sexual situations that otherwise feel anxiety-provoking, overly intimate, or even insufficiently intimate. Further, both men and women reported significantly greater sexual pleasure and wantedness with regular partners compared to casual or dating partners, inviting inquiry into young adults’ development around issues of closeness, intimacy, and connection and their interactions with both sex and alcohol use. Given previous research examining young women’s developing sexual self-concept alongside decreased anxiety and greater comfort with sex, it would be useful too to consider how alcohol may fit into such processes.²³ Finally, gendered aspects of assault disclosure are apparent, with greater proportions of women (compared to men) disclosing to every type of person and particularly to healthcare providers and counselors/therapists. Yet for both men and women, it is clear that most individuals who experience nonconsensual sex do disclose or “come forward” about the experience to someone (usually a friend or relationship partner), even if they don’t file an official report with a campus administrator or with police.

Strengths

This study had several strengths including that we utilized a probability sample and had a strong response rate. Specifically, our survey yielded about twice the undergraduate response rate of a survey about sexual assault conducted on the same campus earlier in the academic year (with greater male participation), even though the latter survey offered significantly more monetary value in incentives.²⁴ Subsequent research might explore varied recruitment messages

and/or topical foci (eg, sexual assault versus sexual health more broadly). Also, the present survey largely asked about sexual health, behavior, and relationships rather than only sexual assault. This allows us to understand the landscape of students' sexual lives, rather than focusing only on assault. We also asked about both consent and wantedness rather than conflating the two, as previous research has demonstrated that people often consent to sex they do not want.^{25–26} Finally, many of our event-level items mirrored items from the NSSHB to aid in making population-level comparisons.²⁷

Limitations

Our study had several limitations as well. Data were collected from students at only one university campus, limiting our understanding of these constructs among college students more generally, or at different kinds of universities (eg, smaller schools, more racially diverse schools, or nonresidential schools). We did not ask whether respondents considered their experiences of nonconsensual sex to be sexual assault. This was intentional as the present study was not focused on respondents' subjective appraisals of "assault" or "rape." Rather, given that nonconsensual sex is not always labeled by individuals as sexual assault or rape, we instead chose to simply describe the behaviors of interest.

Another limitation is that we surveyed individuals and not dyads. We do not know, for example, how the people the respondents engaged in sexual activities with perceived the same events. It may be that some respondents described an event as consensual that the other person would have described as nonconsensual (or vice versa). Similarly, respondents may have misjudged whether their sexual partner was indeed drunk or sober at the time they had sex. We were limited to participant self-report. Additionally, we did not ask about the gender(s) of the person(s) who engaged in nonconsensual sex with them and thus cannot identify proportions of same-sex versus other-sex sexual assault. Finally, our sample of trans-identified individuals was small, limiting our ability for analyses among this population. Subsequent research might examine the intersections of alcohol use, sexual pleasure, and wantedness among college students as they pertain to students' race/ethnicity, religion, participation in Greek life, and/or participation in college athletics, as potentially relevant variables.

Conclusions

We understand that many colleges and universities may feel a sense of pressure or professional duty to proactively address sexual assault and/or sexual misconduct on their campuses. However, campus policies are highly

variable in their definitions of assault and misconduct and often do not reflect the current state of knowledge about adolescent or adult sexual behavior. To the extent that university administrators are interested in reducing sexual misconduct and sexual assault, they might consider: (1) identifying evidence-based research related to the common and unproblematic intersections of sexual behavior and alcohol; (2) incentivizing, if not requiring, all college students to take semester-long coursework related to sexual health, sexual behavior, gender roles, and alcohol; and (3) clearly defining sexual assault and sexual misconduct in ways that are consistent with both law and scientific evidence.

Related to the second suggestion (education), as population-based research demonstrates that many adults of all ages combine alcohol with sexual behavior,¹³ it would seem that there would be campus and societal benefit to educating students on how to grapple with sexual behavior and consent in the context of alcohol – well beyond telling students to just stay sober. This may seem challenging given that, in the United States, the legal drinking age remains 21 and educating persons younger than 21 about sexual decision-making while intoxicated may seem fraught for educational institutions. However, understanding how to communicate and make choices about sex and alcohol seems likely to be a helpful life skill benefitting individuals during the college years and beyond. Finally, we encourage subsequent research related to interrogating sexual pleasure and motivation for young adults as a means of improving understanding of what it is that college students seek when they seek out sexual behavior with another person.

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Conflict of interest disclosure

The authors have no conflicts of interest to report. The authors confirm that the research presented in this article met the ethical guidelines, including adherence to the legal requirements, of United States and received approval from the Institutional Review Board of Indiana University.

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