

Sexual Violence Among College Students: An Examination of Individual and Institutional Level Factors Associated With Perpetration

Carolyn M. Porta, PhD, MPH, RN, SANE-A¹, Michelle A. Mathiason, MS¹, Katherine Lust, PhD, MPH, RD, LD², and Marla E. Eisenberg, ScD, MPH³

Background: Sexual violence incidents involving college students have received media attention and increased awareness of this public health problem in the United States; prevention efforts are needed that target potential perpetrators. We examined characteristics of self-reported perpetrators of sexual violence on campuses.

Methods: This study used a secondary data analysis of the 2015 College Student Health Survey, an annual survey, which was completed by students attending 17 colleges/universities in Minnesota. The analytic sample included 6,548 18-to 24-year-old college students who answered at least one of two questions assessing perpetration in the past 12 months (i.e., sex/sexual touch without consent). Chi-square tests were used to detect associations between perpetration and individual (e.g., age, race, substance use, victimization) and institutional (e.g., school type, location) level characteristics. Multiple logistic regression analyses identified predictive models for being a perpetrator of sexual violence.

Results: Fifty-two students reported perpetration of sexual violence in the past year, including 29 rapes. Overall, self-reported perpetrators of sexual violence are more likely to be men, to have been a victim in his or her lifetime, to have smoked marijuana in the past 12 months (but not the past month), and to be younger (18 or 19 years old). Institutional level characteristics, including school type and location, did not yield significant associations with perpetration.

Discussion: Sexual violence prevention and response efforts toward college students need to be inclusive, especially targeting individual level factors, and considerate of the victimization–perpetration comorbidity experienced by many students.

KEY WORDS:

College; perpetration; sexual violence; victimization; young adult

Sexual assault perpetration among college students in the United States has received national media and public attention in the past year (Fantz, 2016; Koren, 2016). The well-publicized sexual assault of an unconscious young woman by a Stanford athlete (Fantz, 2016)

encouraged public discourse about perpetrator characteristics, rape, and the range of consequences experienced by victims and perpetrators. Stereotypes about who could be, or could not be, a perpetrator of sexual violence were exceedingly evident in recent incidents that drew national

Author Affiliations: ¹School of Nursing, University of Minnesota; ²Boynnton Health, University of Minnesota; and ³Department of Pediatrics, School of Medicine, University of Minnesota.

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under Grant R40MC29445 awarded to PI Carolyn Porta, titled, "Sexual Assault Among College Students: New Insights for Prevention" (co-investigators on this study include Lust, Mathiason, and Eisenberg). The information, content, and/or conclusions are those of the author and should not be construed as

the official position or policy of, nor should any endorsements be inferred by, HRSA, HHS, or the U.S. Government.

The authors declare no conflict of interest.

Correspondence: Carolyn M. Porta, PhD, MPH, RN, SANE-A, School of Nursing, University of Minnesota, 5-140 Weaver Densford Hall, 308 Harvard Street SE, Minneapolis, MN 55455. E-mail: porta@umn.edu. Received February 10, 2017; accepted for publication June 22, 2017. Copyright © 2017 International Association of Forensic Nurses
DOI: 10.1097/JFN.000000000000161

attention, indicating a very real need for understanding more about perpetrators. This study contributes to understanding characteristics of college students who report that they have been a perpetrator of sexual violence.

Sexual Violence Consequences

College students are at a particularly high risk of sexual violence (Collins Fantasia, Fontenot, Sutherland, & Lee-St. John, 2015; Sutherland, Amar, & Sutherland, 2014), and in a recent large-scale survey of college students, almost one quarter of women reported this experience within their lifetime, and over 7% reported sexual assault that occurred in the 12 months preceding the survey (Cantor et al., 2015). Furthermore, over 27% of women in their senior year of college reported unwanted sexual contact since they had entered college; nearly half of those were penetration assaults (vaginal, oral; Cantor et al., 2015). Female college students are at a greater risk of sexual violence than any other female age group, and students attending college as compared with their same-age peers who are not attending college also are at a greater risk (Breiding et al., 2014). In addition, it is well documented that assault is underreported by college-age women, which infers a more serious public health problem than what is represented in the existing data (Wolitzky-Taylor et al., 2011).

Extensive research has focused solely on female victims of sexual violence and characteristics of the victim and the assault (e.g., campus-based drug-related assaults vs. forcible assaults; Lawyer, Resnick, Bakanic, Burkett, & Kilpatrick, 2010). More recently, however, researchers have examined gender differences among college students reporting sexual violence, showing differences in the predictive risk factors associated with sexual assault experienced by men (e.g., sexual orientation, partying, victim of dating violence) and women (year in school, substance use, victim of stalking/domestic violence) as well as some incident similarities for men and women (e.g., most assaults occurred after a party and involved alcohol use before the assault; Hines, Armstrong, Reed, & Cameron, 2012).

Sexual assault is recognized as among the most severe of personal traumas, and its adverse impact on emotional health is well established (Briere & Jordan, 2004; Bryant-Davis, Chung, Tillman, & Belcourt, 2009; Chrisler & Ferguson, 2006; Jordan, Campbell, & Follingstad, 2010; Vazquez, Torres, & Otero, 2012; Zinzow et al., 2011). Indeed, up to half of the victims develop depression or anxiety, and almost one in five attempts suicide (Jordan et al., 2010). The effects of sexual violence are significant and can be long-term; therefore, prevention is critical, and efforts need to be aimed at understanding perpetration.

Perpetration of Sexual Violence

Although much has been done to characterize victims of sexual violence and the context in which the violence occurred,

less focus has been on college-age perpetrators of sexual violence, particularly those who have not necessarily been charged or involved in the legal system. Sutherland et al. (2014) characterized sexual violence perpetration and victimization self-reported by men and women on three college campuses and, not surprisingly, found higher rates of sexual violence perpetration reported by men. Certainly, research has indicated that perpetrators are most commonly male (for offenses against both female and male victims; Lawyer et al., 2010; McLean, 2013), which primarily has perpetuated studies focused on female victims and male perpetrators.

A growing body of literature is now addressing the broad scope and nature of sexual violence, particularly sexual violence involving same-sex or noncisgender individuals, in recognition of documented disparities and high rates of sexual violence among nonheterosexual individuals (Eisenberg, Lust, Mathiason, Porta, in press; Ford & Soto-Marquez, 2016; Long, Ullman, Long, Mason, & Starzynski, 2007; Menning & Holtzman, 2014; Rothman, Exner, & Baughman, 2011; Stotzer, 2009; Walters, Chen, & Breiding, 2013). Furthermore, recent research has examined incidents in which women are the perpetrators of sexual violence against men as well as other women (Turchik, Hebenstreit, & Judson, 2016). Although men represent a very high proportion of sexual violence perpetrators, and logically, this supports the historic focus of perpetrator research on men, there is a need for research that examines characteristics of nonmale perpetrators, particularly in light of what we know regarding underreporting of sexual violence victimization by men, in general, and of same-sex sexual violence. Furthermore, there is a need for examination of the comorbid relationship of perpetration and victimization among young adults; these are rarely focused on in the extant literature, yet this understanding has important implications for healthcare providers and other professionals interacting with them.

Knowledge Gaps

Two important knowledge gaps persist, namely, knowledge about perpetration of sexual violence by male and female college students and possible predictive characteristics among students reporting being perpetrators of sexual violence. Our study addresses these knowledge gaps and examines the characteristics of male and female college students reporting perpetration of sexual violence. Study findings have relevance to professionals providing clinical services and sexual violence prevention programming on campuses by identifying individual and institutional level risk factors associated with being a perpetrator.

Methods

Population and Sample

Data for this study are from the 2015 College Student Health Survey (CSHS), a survey conducted annually by Boynton

Health at the University of Minnesota (see <http://www.bhs.umn.edu/surveys/index.htm>). The CSHS was first developed in 1995 by an interdisciplinary team of experts in health and health-related behaviors at the University of Minnesota. It is a comprehensive survey used to collect surveillance data on health status and health behaviors of college students. The CSHS became the basis for the American College Health Association (ACHA)/National College Assessment (NCHA) survey, which went through pilot testing in 1998–1999. In 2015, 17 colleges and universities participated in the CSHS (seven 2-year and ten 4-year institutions). The [blinded for review] Institutional Review Board and every participating institution approved the study protocol.

Each institution provided student contact information to Boynton Health to do a random sampling of registered students, stratified by institution to ensure adequate representation of respondents from each participating institution. Informed consent was documented online at the beginning of survey administration. There were 38,648 students who received an invitation to participate in the survey; of these, 12,220 completed the survey (31.6% of the total number of students who opened an email invitation). Students who responded to the survey had demographic distributions that were similar to their respective campuses. Students who opened the survey were given the opportunity to be entered into a drawing for prizes, as a modest incentive for participation.

Survey and Measures

The CSHS is administered online and has 124 questions assessing health behaviors and health care access. Students completed the survey in approximately 30 minutes.

Individual Level: Perpetration Measures

Sexual violence perpetration and victimization items were asked for the past 12 months and lifetime experience (yes/no for each question). The survey section introduction included the following text: “When answering the questions please use the following definitions: sexual intercourse—oral, vaginal, or anal penetration; sexual touching—touching of breasts, buttocks, or genitals.”

Sexual violence perpetration was measured with two survey items (yes/no response options): “Within the past 12 months have you: ‘Had sexual intercourse with someone without that person’s consent or against his/her will?’ (forced sex) and ‘Touched someone sexually without that person’s consent or against his/her will?’ (forced touch).”

Individual Level: Victimization Measures

Sexual violence victimization was measured using four survey items: “Have you experienced actual or attempted [sexual touching/sexual intercourse] without your consent or against your will within your lifetime or in the past 12 months?”

Nonsexual violence victimization was measured using two survey items over two periods (lifetime and past 12 months): “Have you been slapped, kicked, or pushed by your significant other or spouse/partner?” and “Have you been hurt by threats, ‘put-downs,’ or yelling from your significant other or spouse/partner?”

“Victimization, any, lifetime” was measured by combining “sexual violence victimization,” “lifetime,” and “nonsexual violence victimization, lifetime.”

Individual Level: Substance Use Measures

“Diagnosed with alcohol or drug problems” was measured using one item: “Have you been diagnosed with alcohol/drug problems?”; there were three response options: never, within the past 12 months, or more than 12 months ago.

Alcohol use (12 months, 30 days) was measured using two survey items: “During the past 12 months, how often have you used alcohol (beer, wine, liquor)?” and “During the past 30 days, on how many days did you use alcohol (beer, wine, liquor)?”

Marijuana use (12 months, 30 days) was measured using two survey items: “During the past 12 months, how often have you used marijuana (pot, hash, hash oil)?” and “During the past 30 days, on how many days did you use marijuana (pot, hash, hash oil)?”

Any other drug use in the past 12 months was measured using one item: “During the past 12 months, how often have you used [numerous drug options provided, along with frequency options]?”

Individual Level: Demographics

Gender was reported on the survey as male, female, transmale/transman, transfemale/transwoman, genderqueer, prefer not to answer, or something else (check all that apply). Respondent categories for these analyses included male, female, and transgender/other/combo; others who preferred not to answer this demographic question (12%) were excluded from gender analyses.

Race was reported as American Indian or Alaskan Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White (includes Middle Eastern), prefer not to answer, or something else (check all that apply). Respondents were categorized into one the following: multiple races, American Indian/Native American/Native Hawaiian only, Asian only, Black/African American only, or White only; those who did not indicate race (2.5%) were excluded from race analyses.

Year in school was reported as one of the following: first, second, third, fourth, or fifth year or higher undergraduate students. Those who did not indicate year in school or who were master’s degree, graduate/professional, or non-degree-seeking students (13.2%) were excluded from analyses that included this variable.

Institutional Level: Demographics

Institution type was recorded by the Boynton Health research team as 2-year public, 4-year public, or 4-year private. Institution location was recorded by the Boynton Health research team as being in the seven-county Minneapolis-Saint Paul metropolitan area (metro) or elsewhere in the state (nonmetro).

Data Analysis

The analytic sample included 6,548 18- to 24-year-old undergraduate college students who answered at least one of two questions regarding perpetration of sexual violence during the past 12 months. Chi-square tests were used to detect associations between sexual violence perpetration in the past year and individual and institutional level factors (see measures above). Fisher exact tests (FET) were used in place of chi-square tests when the expected cell counts were low. Post hoc comparisons were performed when tests for demographic comparisons were statistically significant and had three or more categories. Multivariate logistic regression models were run to determine the best models of predictors of sexual violence perpetration for men and women, men alone, and women alone. SAS 9.4 was used for all analyses.

Results

Fifty-two students (0.8% of the full sample) indicated being a perpetrator of sexual violence in the past year. Being male (vs. female) or Asian (vs. White), having a history of victimization, and reporting prior substance use were associated with sexual violence perpetration. For example, sexual violence perpetration was reported by 1.9% of Asian students and 0.6% of White students ($p < 0.001$). See Table 1 for associations between individual and institutional level characteristics and sexual violence perpetration, including forced sex and forced sexual touching.

Next, we examined reported sexual violence perpetration separately for men and for women in association with individual and institutional level characteristics (see Table 2). Among men, significant differences were observed with higher rates among those who are Asian or American Indian compared with White ($\chi^2 = 8.1, p < 0.05$ and $\chi^2 = 24.7, p < 0.001$, respectively), have experienced victimization (see Table 2 for all three chi-square results, significant at $p < 0.001$), used marijuana in the past 12 months but not in the past 30 days ($\chi^2 = 14.8, p < 0.001$), and used other drugs in the past 12 months ($\chi^2 = 6.5, p < 0.05$). Among women, significant differences were observed for victimization (see Table 2 for all three chi-square results, significant at $p < 0.001$), diagnosis with alcohol and drug problems more than 12 months ago (Fisher Exact Test, $p < 0.01$), marijuana use ($\chi^2 = 6.0, p < 0.05$), and other drug use in the past 12 months (Fisher Exact Test, $p < 0.05$).

Finally, multivariate logistic regression models of sexual perpetration within the last 12 months were examined, for men and women combined, and for each gender separately, adjusting for age (see Table 3). Overall self-reported perpetrators of sexual violence are more likely to be men (OR = 5.02, 95% CI [2.60, 9.71]), to have been a victim in his or her lifetime (OR = 3.55, 95% CI [1.87, 6.72]), to have smoked marijuana in the past 12 months (OR = 2.61, 95% CI [1.25, 5.42]), to be younger (18/19 years old; OR = 2.68, 95% CI [1.11, 6.48]), and to be Native American (OR = 16.86, 95% CI [3.56, 79.77]) or Asian (OR = 3.29, 95% CI [1.39, 7.79]). The results for men are similar. For women, the predictive model for perpetration simplifies to a history of victimization (OR = 4.31, 95% CI [1.33, 13.99]) and use of other drugs (other than alcohol, marijuana) during the last year (OR = 3.18, 95% CI [1.05, 9.62]).

Discussion

This study examined the individual and institutional level characteristics and substance use behaviors associated with college student self-reported perpetration of sexual violence in the past year. Our study shows that college students are perpetrating sexual violence and supports national data documenting this problem (National Center for Victims of Crime, 2015).

Our study found that men were five times more likely to be a perpetrator of sexual violence than women; this disparity is well supported in the literature (Breiding et al., 2014; Cantor et al., 2015). Consistent with previous research showing correlations among other drug use and sexual aggression (which included controlling for alcohol use; Swartout & White, 2010), our study showed that men were four times more likely to report being a perpetrator of sexual violence if they also reported marijuana use in the past year. It is possible that this is an area of opportunity for screening and interventions that might not yet be in place on most college campuses; further research and intervention testing are needed.

Select differences in perpetration by race/ethnicity were also detected here. These findings should be interpreted with caution, however, because the number of cases in each racial/ethnic group aside from Whites was very small ($n_s \leq 10$), which might contribute both to unstable estimates as well as inadequate power to identify other relationships. Future research with large and diverse samples of college students is warranted to replicate findings and probe reasons for significant differences, such as culturally specific gender roles, differential exposure to community violence, and interpretations of "force."

Higher education professionals and healthcare providers in college settings could benefit from carefully examining their sexual violence prevention strategies and programs, in conjunction with substance use prevention programs, particularly to review what is offered to students at

TABLE 1. Characteristics of Perpetrators of Sexual Violence (%)

	Total		Perpetration of sexual violence (during the last 12 months)					
			Any sexual		Forced sex		Forced touching	
	N	%	n	%	n	%	n	%
Individual level characteristics								
Gender			$\chi^2 = 25.2, p < 0.001$		$\chi^2 = 10.4, p < 0.01$		$\chi^2 = 22.5, p < 0.001$	
Male	2,057	31.7	33	1.6 ^a	16	0.8 ^a	21	1.0 ^a
Female	4,358	67.1	18	0.4 ^a	11	0.3 ^a	8	0.2 ^a
Transgender/other	75	1.2	1	1.3	1	1.3	0	0.0
Race			FET*, $p < 0.001$		FET*, $p < 0.001$		FET*, $p < 0.05$	
White only	5,233	83.0	33	0.6 ^a	15	0.3 ^a	20	0.4 ^a
Asian only	537	8.5	10	1.9 ^a	6	1.1 ^a	5	0.9
Black only	250	4.0	2	0.8	2	0.8	1	0.4
American Indian only	27	0.4	2	7.4	1	3.7	1	3.7 ^a
Multiracial	259	4.1	4	1.5	3	1.2	2	0.8
Victim, any, lifetime			$\chi^2 = 17.8, p < 0.001$		$\chi^2 = 6.9, p < 0.01$		$\chi^2 = 19.6, p < 0.001$	
Yes	1,916	29.7	28	1.5	13	0.7	20	1.1
No	4,539	70.3	21	0.5	11	0.2	10	0.2
Victim, sexual, lifetime			$\chi^2 = 18.4, p < 0.001$		$\chi^2 = 3.5, p = 0.06$		$\chi^2 = 25.8, p < 0.001$	
Yes	1,402	21.7	23	1.6	9	0.6	18	1.3
No	5,047	78.3	26	0.5	15	0.3	12	0.2
Victim, nonsexual, lifetime			$\chi^2 = 32.4, p < 0.001$		FET*, $p < 0.01$		FET*, $p < 0.001$	
Yes	1,168	18.1	21	1.8	11	0.9	13	1.1
No	5,282	81.9	23	0.5	13	0.2	17	0.3
Diagnosed with alcohol or drug problems			FET*, $p < 0.01$		FET*, $p = 0.56$		FET*, $p < 0.01$	
More than 12 months ago	102	1.6	3	2.9	1	1.0	2	2.0
Within the past 12 months	77	1.2	3	3.9 ^a	0	0.0	3	3.9 ^a
Never	6,320	97.3	48	0.8 ^a	28	0.4	26	0.4 ^a
Alcohol			$\chi^2 = 2.9, p = 0.24$		$\chi^2 = 0.4, p = 0.84$		$\chi^2 = 4.7, p = 0.10$	
None	1,420	21.8	7	0.5	5	0.4	3	0.2
Used in the past 30 days	3,817	58.6	37	1.0	18	0.5	24	0.6
Used in the past year but not in the last 30 days	1,273	19.6	10	0.8	6	0.5	4	0.3
Marijuana			$\chi^2 = 24.7, p < 0.001$		$\chi^2 = 3.2, p = 0.20$		$\chi^2 = 34.5, p < 0.001$	
None	4,685	72.2	23	0.5 ^{a,b}	17	0.4	8	0.2 ^{a,b}
Used in the past 30 days	750	11.6	11	1.5 ^a	6	0.8	8	1.1 ^a
Used in the past year but not in the last 30 days	1,057	16.3	20	1.9 ^b	6	0.6	15	1.4 ^b
Other drug use in the past 12 months			$\chi^2 = 23.3, p < 0.001$		$\chi^2 = 4.0, p < 0.05$		$\chi^2 = 26.3, p < 0.001$	
Used	784	12.1	18	2.3	7	0.9	13	1.7
None	5,720	87.9	36	0.6	22	0.4	18	0.3

(continues)

TABLE 1. Characteristics of Perpetrators of Sexual Violence (%), Continued

	Total		Perpetration of sexual violence (during the last 12 months)					
			Any sexual		Forced sex		Forced touching	
	N	%	n	%	n	%	n	%
Year in school			$\chi^2 = 11.2, p < 0.05$		$\chi^2 = 4.0, p = 0.55$		$\chi^2 = 12.6, p < 0.05$	
First	1,763	27.2	17	1.0	8	0.5	9	0.5
Second	1,543	23.9	20 ^a	1.3	10	0.6	14	0.9 ^a
Third	1,402	21.7	12	0.9	7	0.5	17	1.2 ^b
Fourth	1,138	17.6	4 ^a	0.4	3	0.3	1	0.1 ^{a,b}
Fifth or higher	248	3.8	1	0.4	1	0.4	0	0.0
Graduate or professional	368	5.7	0	0.0	0	0.0	0	0.0
Institutional level characteristics								
Institution type			$\chi^2 = 0.2, p = 0.92$		$\chi^2 = 1.4, p = 0.49$		$\chi^2 = 2.4, p = 0.30$	
4-year public	3,375	51.8	27	0.8	17	0.5	15	0.4
4-year private	2,007	30.8	18	0.9	6	0.3	13	0.7
2-year	1,133	17.4	9	0.8	6	0.5	3	0.3
Institution location			$\chi^2 = 0.2, p = 0.64$		$\chi^2 = 0.1, p = 0.73$		$\chi^2 = 0.0, p = 0.91$	
Metro	4,063	62.4	32	0.8	19	0.5	19	0.5
Nonmetro	2,452	37.6	22	0.9	10	0.4	12	0.5

^{a,b}Indicate post hoc comparisons; groups are statistically different. FET = Fisher Exact Test.

various ages. Our study supports the importance of preventive interventions across academic years to reach students of various ages and reinforces the importance of targeting freshmen (18- to 19-year-olds) because being a younger college student was predictive of reporting sexual violence perpetration in our data. This is an interesting finding given that we might expect older students to be more likely to report perpetration as a function of existing longer and having more “opportunity” to perpetrate.

Finally, many types of primary prevention programs aiming to reduce the incidence of sexual violence have been put in place, but evaluations have shown only modest success (DeGue et al., 2012; Tharp, DeGue, & Lang, 2011). A promising online, campus-based, personalized prevention intervention program that addresses marijuana use, which had a significant association with perpetration in our study, is eCheckup to Go (<http://www.echeckuptogo.com/>); this is one of several best practices recommended in a recent review of campus substance use prevention (Maryland Collaborative to Reduce College Drinking and Related Problems, 2013). Few efforts have shown success, however, in effectively targeting and preventing perpetration of sexual violence, in part because data have been lacking to identify and intervene with possible perpetrators. This study contributes insights that can inform and support new efforts to reach potential perpetrators of sexual violence before an incident and to strengthen the sociocultural campus environment in a way that emphasizes intolerance of sexual violence.

Limitations and Strengths

There are some limitations to this research that should be considered. First, comparable with many college student survey-based studies, the response rate was somewhat low; this means our findings might not be generalizable to all college students and should be carefully interpreted and applied to campus contexts. Second, perpetration was self-reported and therefore likely underreported because it is a socially undesirable and criminal behavior. Third, the survey did not collect details regarding perpetration frequency, number of victims, where or when in the last year the incident(s) occurred, or specific incident outcomes, including whether a student was charged for the incident or had any consequences associated with their perpetration, thereby limiting understanding about the context of the perpetration. Fourth, despite the large overall sample size, some demographic groups had only a small number of participants, which may have resulted in unstable estimates and inadequate power for some comparisons. Finally, the nature of a college-based survey is such that respondents are only those currently enrolled in college; this selection strategy eliminates those who have dropped out of or never enrolled in college, further limiting generalizability.

There are also several strengths to note in this study. The survey contained multiple measures of perpetration, and with the large number of respondents, this allowed for examination of perpetrator characteristics. The survey was administered to a general sample of college students and did

TABLE 2. Perpetration by Individual and Institutional Level Characteristics

	Male perpetrator (last 12 months)		Female perpetrator (last 12 months)	
	n	%	n	%
Individual level characteristics				
Race	$\chi^2 = 27.1, p < 0.001$		$\chi^2 = 3.5, p = 0.49$	
White only	19	1.2 ^{a,b}	13	0.4
Asian only	7	3.8 ^a	2	0.6
Black only	2	2.1	0	0.0
American Indian only	2	18.2 ^b	0	0.0
Multiracial	2	2.6	2	1.1
Victim, any, lifetime	$\chi^2 = 14.6, p < 0.001$		$\chi^2 = 14.6, p < 0.001$	
Yes	13	3.7	12	0.8
No	17	1.0	4	0.1
Victim, sexual, lifetime	$\chi^2 = 17.3, p < 0.001$		$\chi^2 = 17.3, p < 0.001$	
Yes	9	5.1	11	0.9
No	21	1.1	5	0.2
Victim, nonsexual, lifetime	$\chi^2 = 13.5, p < 0.001$		$\chi^2 = 13.5, p < 0.001$	
Yes	10	4.1	8	0.9
No	20	1.1	8	0.2
Diagnosed with alcohol or drug problems	FET*, $p = 0.10$		FET*, $p < 0.01$	
More than 12 months ago	1	2.4	2	3.5 ^a
Within the past 12 months	2	5.3	0	0.0
Never	30	1.5	16	0.4 ^a
Alcohol used	$\chi^2 = 2.7, p = 0.25$		$\chi^2 = 1.9, p = 0.38$	
No use in the last 12 months	4	0.8	2	0.2
Yes, last 30 days	25	1.9	10	0.4
Yes, last 12 months but not 30 days	4	1.4	6	0.6
Marijuana use	$\chi^2 = 14.8, p < 0.001$		$\chi^2 = 6.0, p < 0.05$	
No use in the last 12 months	13	1.0 ^a	9	0.3 ^a
Yes, last 30 days	7	1.9	3	0.8
Yes, last 12 months but not 30 days	13	3.9 ^a	6	0.8 ^a

(continues)

TABLE 2. Perpetration by Individual and Institutional Level Characteristics

	Male perpetrator (last 12 months)		Female perpetrator (last 12 months)	
	n	%	n	%
Any other drug use in the past 12 months	$\chi^2 = 6.5, p < 0.05$		FET*, $p < 0.05$	
Yes	7	3.5	3	1.5
No	22	1.2	15	0.4
Year in school	$\chi^2 = 8.0, p = 0.16$		$\chi^2 = 3.6, p = 0.61$	
First	13	2.2	4	0.4
Second	11	2.2	7	0.7
Third	7	1.6	4	0.4
Fourth	2	0.6	2	0.3
Fifth or higher	0	0.0	1	0.6
Graduate or professional	0	0.0	0	0.0
Institutional level characteristics				
Institution type	$\chi^2 = 1.4, p = 0.50$		$\chi^2 = 0.8, p = 0.66$	
4-year public	19	2.1	7	0.3
4-year private	10	1.6	7	0.5
2-year	4	1.1	4	0.5
Institution location	$\chi^2 = 0.1, p = 0.71$		$\chi^2 = 0.8, p = 0.38$	
Metro	21	1.5	9	0.5
Nonmetro	12	1.7	9	0.3

^{a,b}Indicate statistical differences between groups, by post hoc comparison. *FET = Fisher Exact Test.

not focus narrowly on perpetrators of sexual violence who have been “caught” and/or involved with the criminal justice and legal systems, which yields important findings about female perpetrators in particular and offers insights specific to a general population of young adults. Furthermore, and importantly, the survey included 2-year institutions, which expands the relevance of findings to broad, higher educational environments, which is not typical of national college student surveys.

Implications for Forensic Nursing Practice and Research

Forensic nurses are uniquely positioned to support college administration, staff, and student advocates with evidence-based information about sexual violence prevention and response that can directly inform campus policies and procedures. This study provides forensic nurses with new knowledge about perpetration of sexual violence, self-reported by male and female college students. Forensic nurses have a responsibility to work along the sexual violence continuum,

TABLE 3. Odds of Reporting Being a Perpetrator of Sexual Violence Across Predictive Variables in Each Model (Age Adjusted)

	Male and female			Female only			Male only					
	OR	95% CI	p value	OR	95% CI	p value	OR	95% CI	p value			
Victim, any, lifetime	3.55	1.87	6.72	<0.001	4.31	1.33	13.99	0.015	3.40	1.56	7.40	0.002
Marijuana				0.035								0.008
Use within 30 days	1.52	0.61	3.82						2.38	0.88	6.45	
Use 1–12 months ago	2.61	1.25	5.42						4.01	1.66	9.69	
No use in the past year	Ref								Ref			
Other drug use in the past year	1.99	0.92	4.31	0.079	3.18	1.05	9.62	0.041				
Race				0.001								0.001
Native American	16.86	3.56	79.77						24.76	4.62	132.81	
Asian	3.29	1.39	7.79						3.47	1.22	9.87	
Black	1.58	0.37	6.85						2.61	0.58	11.82	
Multiracial	1.80	0.53	6.10						2.16	0.48	9.75	
White	Ref								Ref			
Gender				<0.001								
Male only	5.02	2.60	9.71									
Female only	Ref											

including supportive preventive efforts that address potential perpetration. These efforts are consistent with shifting away from prevention strategies that focus too heavily on potential victims and, furthermore, on bystanders who are available to intervene after or during a violent sexual act.

Forensic nurses should expand research efforts toward development of evidence-based prevention programs that focus on perpetration of sexual violence. Further understanding of gender identity and perpetration of sexual violence, specifically among gender identities beyond male or female, is needed. In addition, more research into perpetration over time and perpetration patterns will contribute to preventive intervention development and testing with college students.

Conclusions

Attention toward perpetration of sexual violence among college students is needed and appropriately shifts the discourse of sexual violence prevention from the victim to the perpetrator. College students are at the highest risk of experiencing sexual violence than at any other developmental period of life; it is important, timely, and investment worthy to understand and intervene with individual and institutional level resources and strategies that reduce the potential for someone to be a perpetrator of sexual violence.

Acknowledgment

Thank you to Xioahui Yu, an undergraduate nursing research assistant who supported manuscript preparation and editing with excellent contributions.

References

- Breiding, M. J., Smith, S. G., Basile, K. C., Walters, M. L., Chen, J., & Merrick, M. T. (2014). Prevalence and characteristics of sexual violence, stalking, and intimate partner violence victimization—National intimate partner and sexual violence survey. *Morbidity and Mortality Weekly Report, 63*(8), 1–18.
- Briere, J., & Jordan, C. E. (2004). Violence against women: Outcome complexity and implications for treatment. *Journal of Interpersonal Violence, 19*(11), 1252–1276. doi:10.1177/0886260504269682
- Bryant-Davis, T., Chung, H., Tillman, S., & Belcourt, A. (2009). From the margins to the center: Ethnic minority women and mental health effects of sexual assault. *Trauma Violence Abuse, 10*(4), 330–357. doi:10.1177/1524838009339755
- Cantor, D., Fisher, B., Chibnall, S., Townsend, R., Lee, H., Bruce, C., & Thomas, G. (2015). *Report on the AAU campus climate survey on sexual assault and sexual misconduct*. Rockville, MD: Westat.
- Chrisler, J. C., & Ferguson, S. (2006). Violence against women as a public health issue. *Annals of the New York Academy of Sciences, 1087*, 235–249. doi:10.1196/annals.1385.009
- Collins Fantasia, H., Fontenot, H. B., Sutherland, M. A., & Lee-St. John, T. J. (2015). Forced sex and sexual consent among college women. *Journal of Forensic Nursing, 11*(4), 223–231.
- DeGue, S., Holt, M. K., Massetti, G. M., Matjasko, J. L., Tharp, A. T., & Valle, L. A. (2012). A systematic review of primary prevention strategies for sexual violence perpetration. *Aggression and Violent Behavior, 21*(1), 1–3. doi:doi.org/10.1016/j.avb.2014.05.004
- Eisenberg, M. E., Lust, K. A., Mathiason, M. A., Porta, C. M. Sexual assault, sexual orientation, and reporting among college students. *Journal of Interpersonal Violence, in press*.
- Fantz, A. (2016). *Outrage over 6-month sentence for Brock Turner in Stanford rape case*. Retrieved from <http://www.cnn.com/2016/06/06/us/sexual-assault-brock-turner-stanford/>

- Ford, J., & Soto-Marquez, J. G. (2016). Sexual assault victimization among straight, gay/lesbian, and bisexual college students. *Violence and Gender, 3*(2), 107–115. doi:10.1089/vio.2015.0030
- Hines, D. A., Armstrong, J. L., Reed, K. P., & Cameron, A. Y. (2012). Gender differences in sexual assault victimization among college students. *Violence and Victims, 27*(6), 922–940.
- Jordan, C. E., Campbell, R., & Follingstad, D. (2010). Violence and women's mental health: The impact of physical, sexual, and psychological aggression. *Annual Review of Clinical Psychology, 6*, 607–628. doi:10.1146/annurev-clinpsy-090209-151437
- Koren, M. (2016). *Telling the story of the Stanford rape case*. Retrieved from <http://www.theatlantic.com/news/archive/2016/06/stanford-sexual-assault-letters/485837/>
- Lawyer, S., Resnick, H., Bakanic, V., Burkett, T., & Kilpatrick, D. (2010). Forcible, drug-facilitated, and incapacitated rape and sexual assault among undergraduate women. *Journal of American College Health, 58*(5), 453–460. doi:10.1080/07448480903540515
- Long, S. M., Ullman, S. E., Long, L. M., Mason, G. E., & Starzynski, L. L. (2007). Women's experiences of male-perpetrated sexual assault by sexual orientation. *Violence and Victims, 22*(6), 684–701. <https://doi.org/10.1891/088667007782793138>
- Maryland Collaborative to Reduce College Drinking and Related Problems. (2013). *Reducing alcohol use and related problems among college students: A guide to best practices*. Center on Alcohol Marketing and Youth, Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD and the Center on Young Adult Health and Development, University of Maryland School of Public Health, College Park, MD. Retrieved from <http://marylandcollaborative.org/resources/best-practices/>
- McLean, I. A. (2013). The male victim of sexual assault. *Best Practice and Research Clinical Obstetrics and Gynaecology, 27* (1), 39–46. <http://dx.doi.org/10.1016/j.bpobgyn.2012.08.006>
- Menning, C. L., & Holtzman, M. (2014). Processes and patterns in gay, lesbian, and bisexual sexual assault: A multimethodological assessment. *Journal of Interpersonal Violence, 29*(6), 1071–1093. doi:10.1177/0886260513506056
- National Center for Victims of Crime. (2015). *Sexual violence*. Retrieved from http://victimsofcrime.org/docs/default-source/ncvrv2015/2015ncvrv_stats_sexualviolence.pdf?sfvrsn=2
- Rothman, E. F., Exner, D., & Baughman, A. L. (2011). The prevalence of sexual assault against people who identify as gay, lesbian, or bisexual in the United States: A systematic review. *Trauma Violence Abuse, 12*(2), 55–66. doi:10.1177/1524838010390707
- Stotzer, R. L. (2009). Violence against transgender people: A review of United States data. *Aggression and Violent Behavior, 14*(3), 170–179. <http://dx.doi.org/10.1016/j.avb.2009.01.006>
- Sutherland, J. L., Amar, A. F., & Sutherland, M. A. (2014). Victimization and perpetration of sexual violence in college-aged men and women. *Journal of Forensic Nursing, 10*(3), 153–159. doi:10.1097/JFN.0000000000000033
- Swartout, K. M., & White, J. W. (2010). The relationship between drug use and sexual aggression in men across time. *Journal of Interpersonal Violence, 25*(9), 1716–1735.
- Tharp, A. T., DeGue, S., & Lang, K. (2011). Commentary on Foubert, Godin & Tatum (2010): The evolution of sexual violence prevention and the urgency for effectiveness. *Journal of Interpersonal Violence, 26*(16), 3383–3392. doi:10.1177/088626051039301
- Turchik, J. A., Hebenstreit, C. L., & Judson, S. S. (2016). An examination of the gender inclusiveness of current theories of sexual violence in adulthood: Recognizing male victims, female perpetrators, and same-sex violence. *Trauma Violence Abuse, 17*(2), 133–148. doi:10.1177/1524838014566721
- Vazquez, F. L., Torres, A., & Otero, P. (2012). Gender-based violence and mental disorders in female college students. *Social Psychiatry and Psychiatric Epidemiology, 47*(10), 1657–1667. doi:10.1007/s00127-012-0472-2
- Walters, M. L., Chen, J., & Breiding, M. J. (2013). *That national intimate partner and sexual violence survey (NISVS): 2010 findings on victimization by sexual orientation*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Wolitzky-Taylor, K. B., Resnick, H. S., Amstadter, A. B., McCauley, J. L., Ruggiero, K. J., & Kilpatrick, D. G. (2011). Reporting rape in a national sample of college women. *Journal of American College Health, 59*(7), 582–587. doi:10.1080/07448481.2010.515634
- Zinzow, H. M., Amstadter, A. B., McCauley, J. L., Ruggiero, K. J., Resnick, H. S., & Kilpatrick, D. G. (2011). Self-rated health in relation to rape and mental health disorders in a national sample of college women. *Journal of American College Health, 59*(7), 588–594. doi:10.1080/07448481.2010.520175

Instructions:

- Read the article. The test for this CE activity can only be taken online at www.nursingcenter.com/ce/JFN. Tests can no longer be mailed or faxed.
- You will need to create (its free!) and login to your personal CE Planner account before taking online tests. Your planner will keep track of all your Lippincott Professional Development online CE activities for you.
- There is only one correct answer for each question. A passing score for this test is 11 correct answers. If you pass, you can print your certificate of earned contact hours and access the answer key. If you fail, you have the option of taking the test again at no additional cost.
- For questions, contact Lippincott Professional Development: 1-800-787-8985.

Registration Deadline: September 30, 2019**Disclosure Statement:**

The authors and planners have disclosed no potential conflicts of interest, financial or otherwise.

Provider Accreditation:

Lippincott Professional Development, will award 1.5 contact hours for this continuing nursing education activity.

Lippincott Professional Development is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

This activity is also provider approved by the California Board of Registered Nursing, Provider Number CEP 11749 for 1.5 contact hours. Lippincott Williams & Wilkins is also an approved provider of continuing nursing education by the District of Columbia, Georgia, and Florida, CE Broker #50-1223.

Payment and Discounts:

- The registration fee for IAFN members is \$12.50; for nonmembers, \$17.95.
- IAFN members — To obtain the discounted fee online, members can take the test by logging into the secure "Members Only" area of www.iafn.org to get the discount code. Use the code when payment is requested when taking the CE test at NursingCenter.com/CE/JFN.

For additional continuing nursing education activities related to forensic nursing, go to nursingcenter.com/ce.