

DIGNITY

Dignity: A Journal on Sexual Exploitation and Violence

Volume 6 | Issue 1

Article 9

2-2021

Pledged into Harm: Sorority and Fraternity Members Face Increased Risk of Sexual Assault and Sexual Harassment

Melissa L. Barnes

University of Oregon, mbarnes5@uoregon.edu

Alexis Adams-Clark

University of Oregon, aadamscl@uoregon.edu

Marina N. Rosenthal

Saint Mary's University of Minnesota, mrosenth@smumn.edu


Carly P. Smith

Radically Open DBT, carly@abriradicallyopendbt.com

Jennifer J. Freyd

Follow this and additional works at: <https://digitalcommons.uri.edu/dignity>

University of Oregon, jjf@uoregon.edu

 Part of the [Civic and Community Engagement Commons](#), [Clinical Psychology Commons](#), [Community Psychology Commons](#), [Counselor Education Commons](#), [Domestic and Intimate Partner Violence Commons](#), [Family, Life Course, and Society Commons](#), [Inequality and Stratification Commons](#), [Personality and Social Contexts Commons](#), [Politics and Social Change Commons](#), [School Psychology Commons](#), [Social Justice Commons](#), [Social Psychology Commons](#), and the [Sociology of Culture Commons](#)

Recommended Citation

Barnes, Melissa L.; Adams-Clark, Alexis; Rosenthal, Marina N.; Smith, Carly P.; and Freyd, Jennifer J. (2021) "Pledged into Harm: Sorority and Fraternity Members Face Increased Risk of Sexual Assault and Sexual Harassment," *Dignity: A Journal on Sexual Exploitation and Violence*: Vol. 6: Iss. 1, Article 9. DOI: 10.23860/dignity.2021.06.01.09
Available at: <https://digitalcommons.uri.edu/dignity/vol6/iss1/9><https://digitalcommons.uri.edu/dignity/vol6/iss1/9>

This Research and Scholarly Article is brought to you for free and open access by DigitalCommons@URI. It has been accepted for inclusion in Dignity: A Journal on Sexual Exploitation and Violence by an authorized editor of DigitalCommons@URI. For more information, please contact digitalcommons@etal.uri.edu.

Pledged into Harm: Sorority and Fraternity Members Face Increased Risk of Sexual Assault and Sexual Harassment

Abstract

The purpose of this manuscript is to examine the risk of sexual exploitation (both assault and harassment) associated with sorority and fraternity membership on U.S. college campuses. The results from this study come from data collected through an online survey. Participants ($N=883$) at a large Pacific Northwestern university provided information related to their sorority or fraternity membership, experiences of sexual violence (i.e., assault and harassment), and alcohol use. We both replicated and extended past research. Corroborating prior research, Greek-affiliated students experienced higher rates of sexual assault than non-affiliated students. We extended past research by focusing on sexual harassment experiences within the Greek life culture. Both male and female Greek-affiliated students reported higher rates of sexual harassment particularly unwanted sexual attention, compared to their non-Greek-affiliated peers. We also found that both sorority membership and alcohol-related problems predicted unique variance in women's exposure to nonconsensual sexual contact, attempted/completed rape, and unwanted sexual attention. Fraternity membership but not alcohol-related problems predicted unique variance in men's exposure to nonconsensual sexual contact and unwanted sexual attention. Implications discussed include the short- and long-term consequences of Greek-affiliation, institutional betrayal, and addressing sexual exploitation within this culture. Also identified are limitations of the current study and future directions for research on sexual exploitation within Greek life.

Keywords

USA, sexual assault, rape, sexual harassment, sororities, fraternities, Greek life

Creative Commons License



This work is licensed under a [Creative Commons Attribution-NonCommercial-No Derivative Works 4.0 License](https://creativecommons.org/licenses/by-nc-nd/4.0/).


Acknowledgements

Funds for participant compensation were provided by Center for the Study of Women in Society at the University of Oregon and by private donations made to the Fund for Research on Trauma and Oppression at the UO Foundation. The authors would like to thank Monika Lind for useful discussion of figure layouts. Dignity thanks the following people for their time and expertise to review this article: John D. Foubert, Dean, Union University, USA; and Kathryn Quina, Associate Dean, emerita, University of Rhode Island, USA.

**PLEGED INTO HARM:
SORORITY AND FRATERNITY MEMBERS FACE INCREASED RISK
OF SEXUAL ASSAULT AND SEXUAL HARASSMENT**


Melissa L. Barnes

University of Oregon, USA

 <https://orcid.org/0000-0002-8745-0287>

Alexis Adams-Clark

University of Oregon, USA


 <https://orcid.org/0000-0002-2273-1336>

Marina N. Rosenthal

St. Mary's University of Minnesota, USA


Carly P. Smith

Radically Open DBT, USA

 <https://orcid.org/0000-0003-1980-0836>

Jennifer J. Freyd

University of Oregon, USA

 <https://orcid.org/0000-0002-9650-9199>

ABSTRACT

The purpose of this manuscript is to examine the risk of sexual exploitation (both assault and harassment) associated with sorority and fraternity membership on U.S. college campuses. The results from this study come from data collected through an online survey. Participants ($N=883$) at a large Pacific Northwestern university provided information related to their sorority or fraternity membership, experiences of sexual violence (i.e., assault and harassment), and alcohol use. We both replicated and extended past research. Corroborating prior research, Greek-affiliated students experienced higher rates of sexual assault than non-affiliated students. We extended past research by focusing on sexual harassment experiences within the Greek life culture. Both male and female Greek-affiliated students reported higher rates of sexual harassment particularly unwanted sexual attention, compared to their non-Greek-affiliated peers. We also found that both sorority membership and alcohol-related problems predicted unique variance in women's exposure to nonconsensual sexual contact, attempted/completed rape, and unwanted sexual attention. Fraternity membership but not alcohol-related problems predicted unique variance in men's exposure to nonconsensual sexual contact and unwanted sexual attention. Implications discussed include the short- and long-term consequences of Greek-affiliation, institutional betrayal, and addressing sexual exploitation within this culture. Also identified are limitations of the current study and future directions for research on sexual exploitation within Greek life.

KEYWORDS

Sexual assault, rape, sexual harassment, sororities, fraternities, Greek life

SEXUAL ASSAULT ON COLLEGE CAMPUSES emerged within the past decade as a high-profile public health issue that was discussed, debated, and explored by news anchors, politicians, and scientists. Although campus sexual assault has only recently become a popularly recognized national issue, research on sexual assault has replicated the prevalence rates of campus sexual assault for decades (e.g., Garrett-Gooding & Senter, Jr., 1987; Koss et al., 1987; Meilman et al., 1990). There is much less research on sexual harassment of college students, but the available research supports student narratives that sexual harassment is an issue on college campuses (e.g., Beaulieu et al., 2017; Klein & Martin, 2019; Wood et al., 2018). Although college is often perceived as a blissful time of intellectual and social growth, the reality is that many college students are sexually exploited and left to cope with a serious trauma that hampers cognitive, physical, and emotional functioning. Understanding why university students, and women in particular, face high rates of sexual assault and sexual harassment while attending college is of importance to both science and policy.

Defining and Identifying Sexual Violence

In this article we use the term *sexual violence* as an umbrella term that includes rape, unwanted sexual contact, and sexual harassment. In line with most empirical and legal definitions, we use *rape* to refer to non-consensual penetration of the vagina or anus and *sexual assault* to refer to non-consensual sexual contact of any kind (Abbey et al., 2004). Sexual harassment is a unique type of sexual violence that is often perceived as a *mild* form of violence. However, sexual harassment experiences for college students have been associated with anxiety, depression, binge drinking, marijuana use, disordered eating, internalized shame, and academic disengagement (Huerta et al., 2006; McGinley, Wolff, et al., 2016; Yoon et al., 2010). Thus, sexual harassment should be taken just as seriously as other types of violence and exploitation. Researchers typically identify three categories of sexual harassment: sexual coercion; unwanted sexual attention; and gender harassment (Cook et al., 2018). Sexual coercion refers to acts that make work conditions contingent on sexual favors. Unwanted sexual attention describes acts of unwanted touching or persistent unwanted advances for a relationship or sex. Gender harassment consists of discrimination based on gender with or without sexual intention. The current study focuses on Greek life members' experiences of sexual violence—both sexual assault and sexual harassment.

College women are at a high risk for sexual assault. Research suggests that approximately one in four women experience attempted or completed sexual assault during their time at college (Gross et al., 2006; Krebs et al., 2009). Women who are in their first year of college are at particularly high risk of experiencing unwanted sexual contact (Norris et al., 2018). Mellins et al.'s (2017) research suggests that this risk accumulates over the duration of college, with 21% of first-year women and 36% of senior women reporting experiences of sexual assault.

Researchers have provided consistent, replicable prevalence rates for campus sexual assault; however, the literature has yet to provide a replicable prevalence rate of campus sexual harassment. A systematic review of the available literature (Klein & Martin, 2019) found that prevalence rates for campus sexual harassment ranged from 9% to 97%, depending on the sample and methodology. Wood et al. (2018) found that, in a combined sample of eight college campuses, 19% of students experienced faculty/staff sexual harassment and 30% of students experienced peer-perpetrated sexual harassment. Additionally, Klein and Martin found that most of the reported sexual harassment experiences were categorized as sexual or gender-based hostility or harassment. Women students are more likely to report instances of sexual harassment than men (Beaulieu et

al., 2017; Klein & Martin). While the prevalence rates may vary, evidence suggests that college campuses are not exempt from sexual harassment.

Sexual Violence and Greek Life Membership

To prevent sexual violence on campus, researchers and university administrators must first understand the role that particular environmental aspects have in perpetuating this violence. One such risky environment in the U.S. is colloquially known as *Greek life*, in which students belong to or participate in activities sponsored by sororities and fraternities that are typically named with Greek letters.

Sorority women are more likely to experience many different types of sexual violence while in college. Prior research indicates that women in Greek life are often exposed to higher rates of attempted or completed rape than women who are not affiliated with Greek life (e.g., Canan et al., 2018; Wiersma-Mosley et al., 2017). One large study found that Greek-affiliated women were nearly six times more likely to be raped than their non-Greek peers (Minow & Einolf, 2009). Results from a dual-site study suggests that sorority women were almost 1.5 times more likely to experience any type of sexual assault, with exposure to unwanted sexual contact (i.e., non-penetrative assault) primarily accounting for the increased odds (Mellins et al., 2017). Therefore, sorority women are more vulnerable to experiencing sexual assault than non-sorority women, which suggests that aspects of campus Greek life increases risk for sexual assault.

The Greek life environment seems to increase the likelihood of sexually aggressive behavior from fraternity members. Men involved in Greek life may subscribe to beliefs and gender norms that cultivate sexual violence (Murnen & Kohlman, 2007). These beliefs could include subscription to rape myths, such as “She wanted to have sex since she was drinking at the party.” Not only are fraternity men more likely to hold these beliefs, but they are more likely to act on these beliefs. Research has found that college fraternity men are more likely to perpetrate sexual assault than college men who are not fraternity members, even though the rates of pre-college sexually coercive behavior were similar for both groups of men (Foubert et al., 2019; Foubert et al., 2007; Murnen & Kohlman, 2007). This suggests that there are likely aspects of the fraternity environment that encourage sexually coercive behavior, including sexual assault. Men and women in Greek life are often expected to cultivate relationships with each other. If fraternity men are more likely to engage in sexually aggressive ways and sorority women are more at risk for experiencing sexual violence, then it is likely that the Greek life environment is playing a role in the victimization of Greek life members.

There are few studies that include fraternity and sorority membership as a factor in campus sexual harassment. One study provides evidence that men and women in Greek life experience more sexual harassment than non-members (Beaulieu et al., 2017) and another study does not support this hypothesis (McGinley, Rospenda et al., 2016). These two studies utilized different methodologies (e.g., cross-sectional and longitudinal, respectively) and recorded sexual harassment experiences using different measures. One possible drawback of McGinley and colleagues’ longitudinal study is that students who dropped out of the study were more likely to binge drink, drink to intoxication, and report depressive symptoms at the time of the initial data collection. Given the research reviewed in the next section that connects alcohol use with experiences of sexual violence, it is possible that the students who discontinued the longitudinal study might have experienced sexual harassment during college that is not accounted for in their study. The limited research on sexual harassment in the campus Greek life environment calls for a focused effort to understand the prevalence and risk factors for this type of sexual violence.

Sexual Violence and Fraternity/Sorority Party Culture

Party-culture, where heavy alcohol consumption is both normative and expected, supplies an additional layer of risk within the social context of sororities and fraternities. Students in Greek life report consuming up to twice as many drinks weekly as non-members (Alva, 1998; Scott-Sheldon et al., 2008). Fraternity members are likely to engage in risky alcohol consumption regardless of whether they live in houses that allow alcohol or those that do not (Brown-Rice & Furr, 2015). This suggests that party culture in Greek life is normative even when alcohol is prohibited. Fraternities wield significant power in the campus community by hosting highly desirable and visible social events. These same fraternities often select misogynistic party themes (e.g., CEOs and Secretary Hos), prevent unaffiliated men from entering, and actively recruit younger women as attendees (Armstrong et al., 2006; Jozkowski & Wiersma-Mosley, 2017). By fostering an atmosphere where women are outnumbered and objectified, fraternity men seemingly utilize this power to sexually exploit college women. Women students opt-in to party culture for a variety of reasons, one of which is that sorority chapters are typically expected to socialize with fraternity chapters on the same campus. Often this occurs within a party culture that the fraternity chapter has control over party-goers access to alcohol for both sorority members and under-aged students (e.g., Scott Harris & Schmalz, 2016; Jozkowski & Wiersma-Mosley). On the whole, attending Greek life parties locate students in a dangerous environment where alcohol abuse is widespread, perpetrators are present, and sexual violence is normalized.

Given the prevalence of drinking on college campuses, as well as the incapacitating effects of alcohol, it is not surprising that perpetrators of sexual violence frequently use alcohol as a mechanism of coercion in sexual assault. Sexual assaults often occur when either the perpetrator or victim had been drinking, or after both had consumed alcohol (Abbey et al., 2004; Mellins et al., 2017; Mohler-Kuo et al., 2004). Moreover, substance use is both a predictor and an outcome of sexual assault and sexual harassment; longitudinal research suggests that substance use increases women's risk of being sexually assaulted and sexually harassed, and in turn sexual assault and harassment increases the risk of future substance-related problems for women (Kilpatrick et al., 1997; Testa & Livingston, 2000; Wolff et al., 2017). Students who actively participate in the Greek life party culture may be more at risk for both substance-related problems *and* sexual violence.

The combination of sorority membership and alcohol use has been associated with increased sexual violence risk (e.g., Franklin, 2016; Kingree & Thompson, 2017). However, Minow and Einolf found that although alcohol consumption was significantly predictive of sexual assault, controlling for drinking did not eliminate the significant relationship between Greek membership and risk of rape. Fraternities that may attract potential sexual perpetrators (i.e., high-risk fraternities) can be distinguished from low-risk fraternities by group members' endorsement of sexual aggression, hostile sexism, higher drinking frequency, and more intense alcohol consumption (Boyle, 2015). Peer approval of forced sex and high-risk drinking have been found to predict a fraternity member's sexually aggressive behavior (Kingree & Thompson, 2013). Furthermore, fraternity men who perpetrate while consuming alcohol are more likely to become serial perpetrators (Foubert et al., 2019). Again, the Greek life environment seems to play a significant role in the victimization of sorority women, particularly by fraternity men at fraternity-related events.

The scant literature on sexual harassment and alcohol use suggests that while sexual harassment may not directly involve alcohol, there may be a positive correlation between

alcohol use and sexual harassment experiences (Klein & Martin, 2019). The available research suggests that although causal relationships between alcohol consumption and sexual violence are complex, there is an empirical relationship between drinking and a climate of sexual violence. Sexual harassment may, in fact, play an important role in maintaining a particularly hazardous party culture through the assumption that women are at a party solely for the harasser's enjoyment. Though the specific mechanisms are under researched, it is highly likely that the party culture affiliated with Greek life is influenced by a culture of sexual objectification.

The available literature reviewed here indicates that Greek life membership has been associated with perpetration of sexual assault in at least three important ways: 1) sorority membership increases women's risk for sexual assault, 2) fraternity members compared to male non-members are more likely to perpetrate sexual assault, and 3) Greek life party scenes increase students' risk of experiencing sexual assault.

The Current Study

Given the overall threat of sexual assault and harassment on college campuses and the specific risks associated with both drinking and Greek-life affiliation, this research seeks to examine the relationship between these variables. This study is part of a larger research project titled the Sexual Violence and Institutional Betrayal Campus Survey conducted at a large Pacific Northwestern university campus (e.g., Gómez, et al., 2015; Smidt, et al., 2019). The data reported here are from the first wave of that project. Based on the available research summarized above, we sought to test three hypotheses in the current study. First, we hypothesized that both men and women involved in Greek life will experience sexual assault and harassment. Second, we hypothesized that membership in Greek life would be associated with increased risk of sexual assault and harassment for college women. Third, we hypothesized that one contextual factor of Greek life (i.e., alcohol use) would be associated with increased risk of experiencing sexual assault and harassment for college women.

METHOD

Participants

We obtained 5,000 randomly selected university student emails from the Office of the Registrar, with the goal of recruiting 1,000 participants. All 5,000 students were enrolled for the upcoming term of classes, had been enrolled during at least one term of the previous school year, and were over the age of eighteen. These 5,000 students received an invitation via email to participate in this study. The invitation included the following information: the campus department the researchers were from, the study was about sexual violence on campus, their contact information was obtained by the Registrar, and that they were randomly selected to be contacted for recruitment. Additional information in the invitation was similar to information that was included during informed consent (e.g., compensation, type of study, etc.). Participants were compensated with a \$20 Amazon gift card. Of the 5,000 students contacted via email, 1,058 clicked the link to the survey website and completed the survey to some extent. Participants who failed more than two out of four quality assurance questions during the survey were eliminated from analyses, leaving 899 usable responses (e.g., "I will check this item to indicate that I am paying attention to each option."). Additionally, 16 students who identified with a gender that was not man or woman were removed before gender-stratified analyses. Students who identified as either man or woman and who passed the quality assurance items were included in analyses ($N = 883$).

Of the final sample used for data analysis, 66.9% ($n = 591$) identified as women and 33.1% ($n = 292$) identified as men. The majority of participants were White (74.9%, $n = 661$) and heterosexual (90.6%, $N = 800$). Thirteen percent ($n = 144$) of participants were currently fraternity or sorority members. Two women participants did not indicate their Greek life affiliation. Participants had a mean age of 21.18 ($SD = 3.43$) at the time of the study. The sample in this study is relatively representative of the selected university, although women students were overrepresented in this sample (66.9%) compared to the university at large (52.2%).

Procedure

The university Office of Research Compliance (Institutional Review Board) approved this research. After receiving the invitation to participate in this study, students had 10 days to complete the survey online at their convenience. Students received one reminder email about completing the survey five days after their initial invitation. Students who chose to participate clicked the link provided in the recruitment email, which directed them to the online survey via Qualtrics survey software. After consenting to participate, students completed the survey, were thanked for their time, and given instructions on how to receive compensation in the form of a \$20 Amazon.com gift certificate. Participants also received information regarding relevant mental health and community resources and contact information for the research team and the campus Office of Research Compliance.

Measures

Participants in this research responded to a variety of measures assessing constructs relevant to sexual violence. Only the measures used for data analysis in this particular report are detailed below. See <https://dynamic.uoregon.edu/jjf/campus/> for more information about the full study. Internal reliability was not calculated for these measures because these measures consist of single indicators that do not combine to measure an underlying construct; thus, internal reliability is an inappropriate analysis of these measures (Bollen & Lennox, 1991; Netland, 2001).

Sexual Harassment

Sexual harassment experiences were measured using an adapted version (Ormerod et al., 2003) of Stark et al.'s (2002) shortened Department of Defense Sexual Experiences Questionnaire (SEQ-DoD-s), which measures quid pro quo harassment, unwanted sexual attention, creation of a hostile environment, and gender harassment. We modified the measure instructions so that participants indicated their experience with sexual harassment before college, during college, and during college but not while at college. For the purposes of this paper, we only included experiences from the second category of "during college". The anchors of the original scale were Likert scale (0 = *never*, 4 = *very often*). The anchors were modified for this study so that experiences of sexual harassment during college were answered with a dichotomous *Yes/No* response. The anchors were modified so logistic regressions could be conducted on this data.

Sexual Assault

Sexual assault experiences were assessed using the Sexual Experiences Survey – Short Form Victimization (SES-SFV; Koss et al., 2007). Participants were first screened for the following types of sexual assault during college using behaviorally specific descriptions: fondling without consent; attempted or completed oral sex without consent; attempted or completed vaginal penetration without consent; or attempted or completed anal penetration without consent. The anchors of the original scale indicated the number of

times someone has experienced the specific item (i.e., 0, 1, 2, 3+). The anchors were modified for this study so that a dichotomous *Yes/No* response was received for experiences of multiple types of sexual assault. The dichotomous responses were then used to conduct logistic regressions. Two subscales comprise the SES-SFV. The non-consensual sexual contact subscale consists of fondling without consent and attempted or completed oral sex without consent. The attempted or completed rape subscale includes attempted or completed vaginal or anal penetration without consent. These two subscales were also coded as *Yes/No* responses for the purposes of conducting logistic regression.

Participants who had reported sexual assault experiences during the SES-SFV screener were also asked to identify where they were assaulted on a map of the university campus. Responses were coded as *on campus*, *off campus*, and *other location or unsure*. These participants were then asked additional questions about the context of the assault, such as whether it occurred at a fraternity and whether coercive tactics were used during the incident.

Labeling Experiences

While the primary sexual assault and harassment measures used behavioral items (without potentially stigmatizing labels such as “rape” or “sexual harassment”), we also included three items at the end of the survey so that we could compare rates at which Greek women and men and non-Greek women and men identified having experienced “rape,” “sexual assault,” and “sexual harassment” using those labels.

Alcohol Use and Abuse.

Problematic use of alcohol was evaluated via the Patient Health Questionnaire (PHQ; Spitzer et al., 1999). Participants’ alcohol use was screened with the question, “Do you drink alcohol?” with the response options of *No* and *Yes*. Participants who endorsed the alcohol screening item were asked to consider whether they had engaged in different types of activities while or after drinking more than once over the past six months. Response options were again *No* and *Yes*. Participants were asked about the following alcohol-related activities: drinking even though a doctor advised them to stop; drinking or being hung over while working, going to school, or attending to responsibilities; missing work, school, or other activities because of drinking or being hung over; having problems getting along with other people while drinking; and driving a car after several drinks. Participants’ *Yes* responses to items from this checklist were summed to create a variable capturing total alcohol-related problems. Participants were also asked to rate the extent to which these experiences had made it difficult for them to do their work, take care of things at home, or get along with other people (response options were on a 4-point scale ranging from *Not at all difficult* to *Extremely difficult*). To capture both the form and impact of problematic drinking behaviors, we created a composite index of difficulty due to these alcohol-related problems by multiplying the summed alcohol-related activities checklist and the negative impact variable. Given that checklist scores ranged from zero to five and the negative impact variable ranged from one to four, participant scores on the composite index of alcohol problems could theoretically range from zero to twenty. In this study, scores ranged from zero to nine. For example, a participant would have a composite index of “0” if they endorsed two checklist behaviors and indicated no significant life impact. A participant who endorsed two checklist behaviors and indicated extreme negative impact would have a composite index of “8.” This variable accounts for both students’ problematic use of alcohol and the corresponding negative impact of problematic usage on daily life and function.

Data Analysis Plan

To test our first and second hypotheses that members of Greek life experience nonconsensual sexual contact, attempted/completed rape, and sexual harassment at higher rates than non-Greek members, we compiled descriptive statistics, ran chi-square tests of independence, and calculated odds ratios via logistic regression. Due to the gendered nature of sexual violence, these analyses were all separated by gender. First, we compiled descriptive statistics to understand the prevalence in our sample of three aspects of sexual violence—nonconsensual sexual contact, and completed/attempted rape, and four types of sexual harassment (sexual hostility, sexist hostility, unwanted sexual attention, and sexual coercion). We then conducted chi-square tests of independence to detect differences in sexual assault and harassment exposure between Greek life members and non-Greek life members. We computed odds ratios to succinctly express the risk conferred by Greek membership for both men and women, which reflect the relative odds of experiencing sexual violence and harassment for Greek students compared to non-Greek students (i.e., an odds ratio of one indicates equal odds of experiencing sexual violence).

To test our third hypothesis that alcohol-related problems and environmental factors within Greek life are associated with increased risk of sexual violence and harassment, we conducted the following analyses on women and men. First, we calculated multiple logistic regression models to analyze the unique associations of both Greek-life affiliation and reported alcohol-related problems with experiences of nonconsensual sexual contact, completed/ attempted rape, and sexual harassment. Finally, we compiled descriptive statistics to summarize the locations in which incidents nonconsensual contact and attempted/completed rape occurred (at a fraternity party vs. another location), as well as the type of coercion used in these instances (substance coercion vs. other type of coercion). Due to low cell counts, we used Fisher's exact test of independence (rather than chi square test of independence) to test the independence of coercion type and assault location among incidents of nonconsensual sexual contact and completed/attempted rape.

Data were analyzed using *R* Version 3.5.2 (*R* Core Team, 2018). Analyses were conducted using *R* packages *stats* (Version 3.5.2; *R* Core Team) and *tidyverse* (Version 1.2.1; Wickham, 2017). Chi-square values were calculated using the *R* package *MASS* (Venables & Ripley, 2002; with Yates' correction). Missing data was handled using pairwise deletion. Continuous predictors were centered in regression analyses. We used a standard significance threshold of $p < .05$.

FINDINGS

Greek membership

Descriptive statistics indicated that women and men frequently reported experiencing nonconsensual sexual contact, attempted/completed rape, and sexual harassment (e.g., sexist hostility, sexual hostility, unwanted sexual attention, and sexual coercion) during college (see Table 1); however, rates of sexual assault and harassment were higher for women than men. Additionally, higher rates of Greek-affiliated women and men reported experiencing nonconsensual sexual contact, attempted/completed rape, and sexual harassment during college than non-Greek-affiliated women and men, respectively (see Figure 1). Endorsement of each sexual harassment item on the SES-DoD-s by gender and Greek status is reported in Table 2.

Table 1. Frequencies and Percentages of College Women (n = 589) and Men (n = 292) Reporting Exposure to Sexual Violence and Harassment, Separated by Greek Status

	Women			Men		
	Greek-Affiliated n = 79	Not Greek-Affiliated n = 510	Total n = 589	Greek-Affiliated n = 38	Not Greek-Affiliated n = 254	Total n = 292
Nonconsensual Sexual Contact						
n (%)	38 (48.1%)	169 (33.1%)	207 (35.1%)	10 (26.3%)	23 (9.1%)	33 (11.3%)
Attempted/Completed Rape						
n (%)	30 (38.0%)	78 (15.3%)	108 (18.3%)	0 (0.0%)	2 (0.8%)	2 (0.7%)
Sexist Hostility						
n (%)	66 (83.5%)	385 (75.5%)	451 (76.6%)	15 (39.5%)	115 (45.3%)	130 (44.5%)
Sexual Hostility						
n (%)	60 (75.9%)	339 (66.5%)	399 (67.7%)	20 (52.6%)	121 (47.6%)	141 (48.3%)
Unwanted Sexual Attention						
n (%)	55 (69.6%)	264 (51.8%)	319 (54.6%)	20 (52.6%)	59 (23.2%)	79 (27.0%)
Sexual Coercion						
n (%)	19 (24.0%)	97 (19.0%)	116 (19.7%)	5 (13.1%)	24 (9.4%)	29 (9.9%)

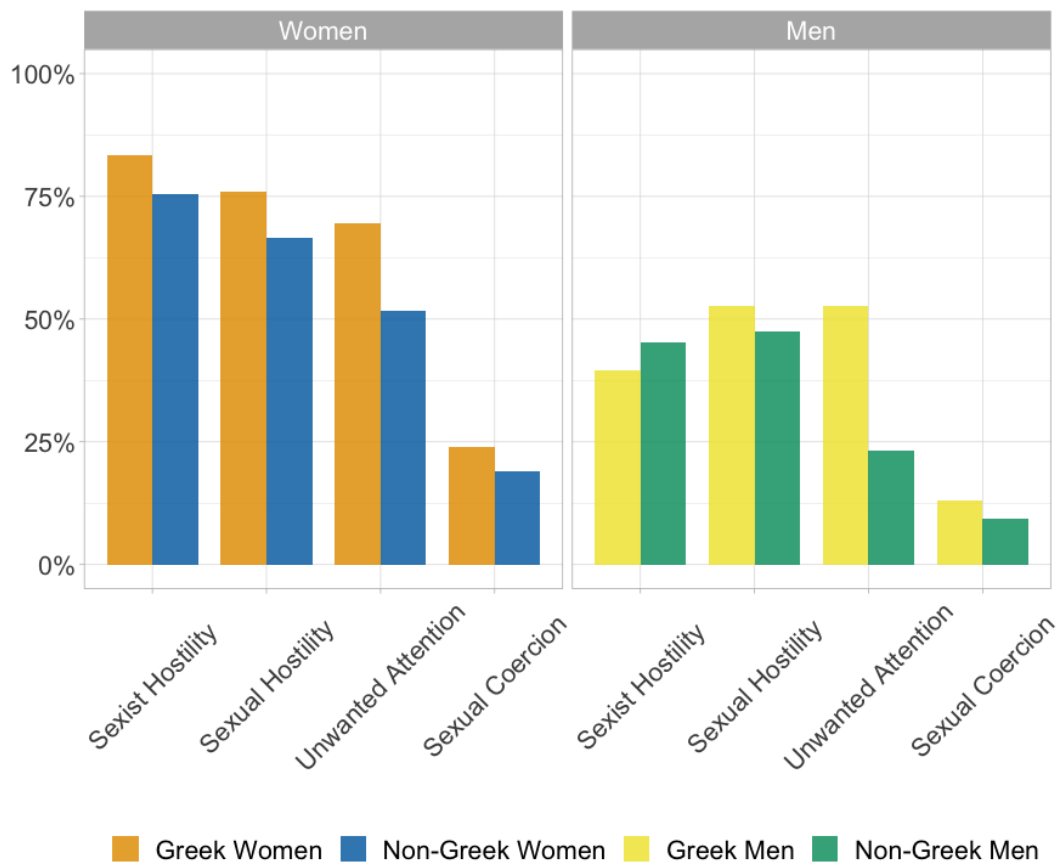


Figure 1. Relative percentages of women and men experiencing at least one instance of Sexist Hostility, Sexual Hostility, Unwanted Sexual Attention, and Sexual Coercion in college, separated by Greek affiliation. Figure created using R packages *ggplot2* (Version 3.1.0; Wickham, 2016) and *colorblindr* (Version 0.1.0; McWhite & Wilke, 2019).

As indicated by chi-square tests of independence, experiences of nonconsensual sexual contact were associated with both sorority membership among women, $X^2(1, N = 589) = 6.08, p = .014$, and fraternity membership among men, $X^2(1, N = 292) = 8.18, p = .004$ (see Figure 2a). According to odds ratios estimates (calculated via binomial logistic regression), women in Greek life were 1.87 times more likely to have experienced any form of nonconsensual sexual contact than their non-Greek counterparts, $p = .010$, 95% *CI*[1.16, 3.02]. Men in Greek life were 3.59 times more likely to have experienced any form of nonconsensual sexual contact than their non-Greek counterparts, $p = .003$, 95% *CI*[1.50, 8.17] (see Figure 3a).

Sorority membership was also associated with experiences of attempted or completed rape among women, $X^2(1, N = 589) = 22.01, p < .001$ (see Figure 2b). According to odds ratios estimates, women in Greek life were 3.39 times more likely to have experienced an attempted or completed rape than their non-Greek counterparts, $p < .001$, 95% *CI*[2.01, 5.65]. No men in Greek life reported experiencing an attempted or completed rape while at the university; thus, no chi square test was conducted, nor an odds ratio calculated (see Figure 3b).

Table 2. Frequencies and Percentages of College Women (n = 589) and Men (n = 292) for each SES-DoD-s Item, Separated by Greek Status

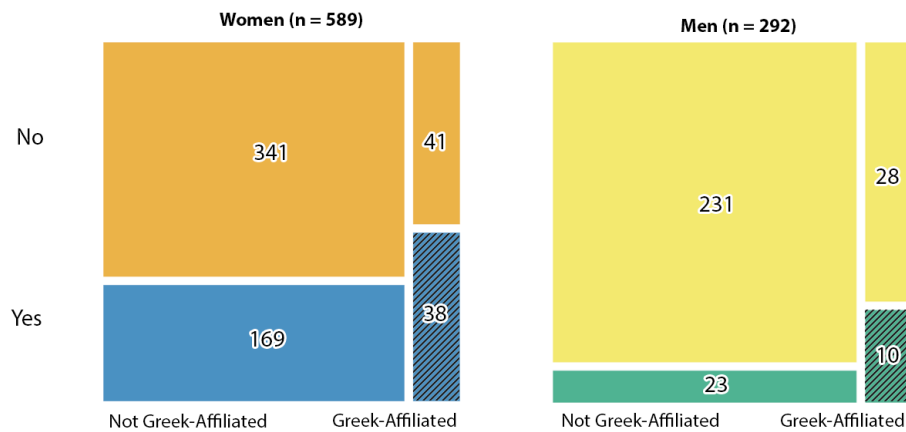
SES-DoD-s Item	Greek Women n = 79	Non-Greek Women n = 510	Greek Men n = 38	Non-Greek Men n = 254
Sexist Hostility				
Referred to people of your gender in insulting or offensive terms?	59 (74.7%)	336 (65.9%)	10 (26.3%)	86 (33.9%)
Treated you "differently" because of your gender?	45 (57.0%)	252 (49.4%)	10 (26.3%)	64 (25.2%)
Made offensive sexist remarks?	46 (58.2%)	275 (53.9%)	9 (23.7%)	60 (23.6%)
Put you down or was condescending to you because of your sex?	29 (36.7%)	224 (43.9%)	6 (15.8%)	51 (20.1%)
Sexual Hostility				
Repeatedly told sexual stories or jokes that were offensive to you?	38 (48.1%)	205 (40.2%)	15 (39.5%)	69 (27.2%)
Made unwelcome attempts to draw you into a discussion of sexual matters?	38 (48.1%)	215 (42.2%)	13 (34.2%)	59 (23.2%)
Made offensive remarks about your appearance, body, or sexual activities?	33 (41.8%)	206 (40.4%)	11 (28.9%)	46 (18.1%)
Made gestures or used body language of a sexual nature which embarrassed or offended you?	30 (42.9%)	168 (32.9%)	5 (13.1%)	37 (14.6%)
Unwanted Sexual Attention				
Made unwanted attempts to establish a romantic sexual relationship?	33 (41.8%)	156 (30.6%)	13 (34.2%)	39 (15.4%)
Continued to ask you for dates, drinks, dinner, etc., even though you said "No"?	33 (41.8%)	134 (26.2%)	8 (21.1%)	15 (5.9%)
Touched you in a way that made you feel uncomfortable?	35 (44.3%)	150 (29.4%)	7 (18.4%)	20 (7.9%)
Made unwanted attempts to stroke, fondle, or kiss you?	36 (45.6%)	146 (28.6%)	14 (36.8%)	27 (10.7%)
Sexual Coercion				
Made you feel like you were being bribed with a reward to engage in sexual behavior?	10 (12.7%)	39 (7.6%)	1 (2.6%)	8 (3.1%)
Made you feel threatened with some sort of retaliation for not being sexually cooperative?	6 (7.6%)	24 (4.7%)	1 (2.6%)	5 (2.0%)
Treated you badly for refusing to have sex?	11 (13.9%)	71 (14.0%)	4 (10.5%)	12 (4.7%)
Implied faster promotions or better treatment if you were sexually cooperative?	2 (2.5%)	15 (2.9%)	1 (2.6%)	4 (1.6%)

Finally, experiences of one type of sexual harassment—unwanted sexual attention—was associated with both sorority membership, $X^2(1, N = 589) = 8.08, p = .004$, and fraternity membership, $X^2(1, N = 292) = 13.03, p < .001$ (see Figure 2c). According to odds ratios estimates, women in Greek life were 2.14 times more likely to have experienced unwanted sexual attention than their non-Greek counterparts, $p = .004$, 95% *CI*[1.30, 3.61]. Men in Greek life were 3.6 times more likely to have experienced unwanted sexual attention than their non-Greek counterparts, $p < .001$, 95% *CI*[1.82, 7.46] (see Figure 3c). There was no statistically significant relationship between Greek affiliation and experiences of sexist hostility for women, $X^2(1, N = 589) = 2.04, p = .153$, or men, $X^2(1, N = 292) = 0.25, p = .620$. There was no statistically significant relationship between Greek affiliation and experiences of sexual hostility for women, $X^2(1, N = 589) = 2.39, p = .121$, or men $X^2(1, N = 292) = 0.16, p = .689$. There was no statistically significant relationship between Greek affiliation and experiences of coercion for women, $X^2(1, N = 589) = 0.80, p = .371$, or men, $X^2(1, N = 292) = 0.18, p = .673$.

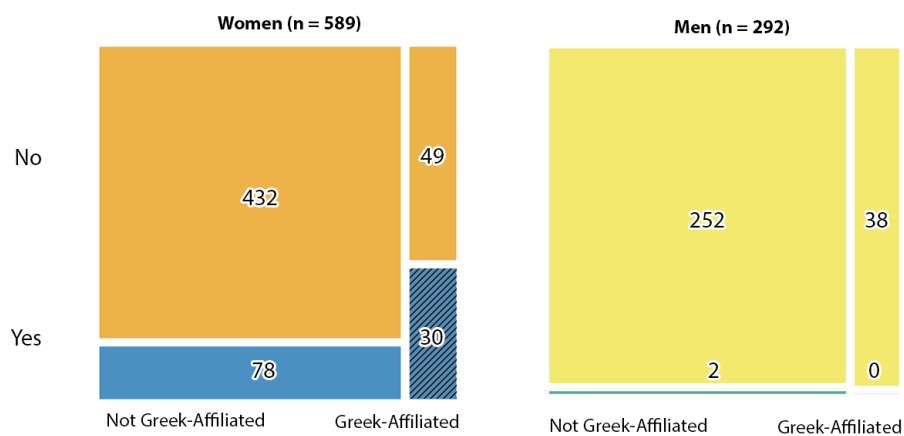
Additional analyses were conducted in order to probe the significant association between Greek status and unwanted sexual attention. Specifically, we wanted to assess whether the significant risk of experiencing unwanted sexual attention was due to two items in the subscale that refer to unwanted physical contact, which could possibly map onto the construct of sexual assault already assessed by the Sexual Experiences Questionnaire (“touched you in a way that makes you feel uncomfortable?”; “Made unwanted attempts to stroke, fondle, or kiss you?”). In a follow-up analysis, we removed these two items and conducted analyses on the remaining two items in the Unwanted Sexual Attention subscale (“Made unwanted attempts to establish a romantic sexual relationship?”; “Continued to ask you for dates, drinks, dinner, etc., even though you said “No”?”). Using only these two items, unwanted sexual attention was still associated with both sorority membership, $X^2(1, N = 589) = 9.40, p = .002$ and fraternity membership, $X^2(1, N = 292) = 15.23, p < .001$. According to odds ratios estimates, women in Greek life were 2.16 times more likely to have experienced these two forms of unwanted sexual attention than their non-Greek counterparts, $p = .002$, 95% *CI*[1.34, 3.52]. Men in Greek life were 4.20 times more likely to have experience these two forms of unwanted sexual attention than their non-Greek counterparts, $p < .001$, 95% *CI*[2.03, 8.66]. The patterns of these results are consistent with the pattern of the results when all four unwanted sexual attention items were included in the analyses.

Fisher exact tests of independence were conducted on the proportions of women and men who indicated that they identified themselves as having experienced “rape,” “sexual assault,” or “sexual harassment” using those labels (see Table 3; inferential analyses limited to those who answered “Yes” or No”). Greek-affiliated women were no more likely to identify themselves as experiencing rape, $OR = 1.29$, 95% *CI* [0.23, 4.68], $p = .723$, or sexual harassment than other college women, $OR = 1.20$, 95% *CI* [0.68, 2.11], $p = .493$. Greek-affiliated women did report experiencing sexual assault at higher rates than non-Greek-affiliated women, $OR = 2.22$, 95% *CI* [1.00, 4.63], $p = .029$. Greek-affiliated men were no more likely to identify themselves as experiencing rape, $OR = 0.00$, 95% *CI* [0.00, 276.26], $p = .99$; sexual assault, $OR = 0.00$, 95% *CI* [0.00, 18.42], $p = .99$; or sexual harassment than other college men, $OR = 0.92$, 95% *CI* [0.10, 4.25], $p = .99$.

A. Nonconsensual Sexual Contact



B. Attempted/Completed Rape



C. Unwanted Sexual Contact

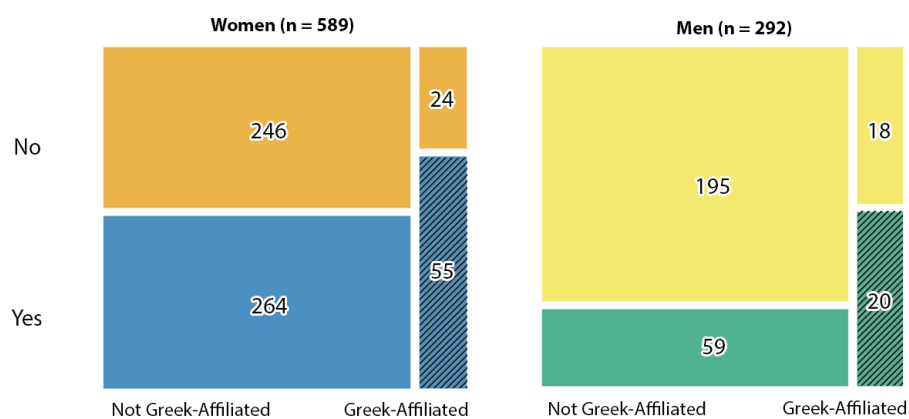
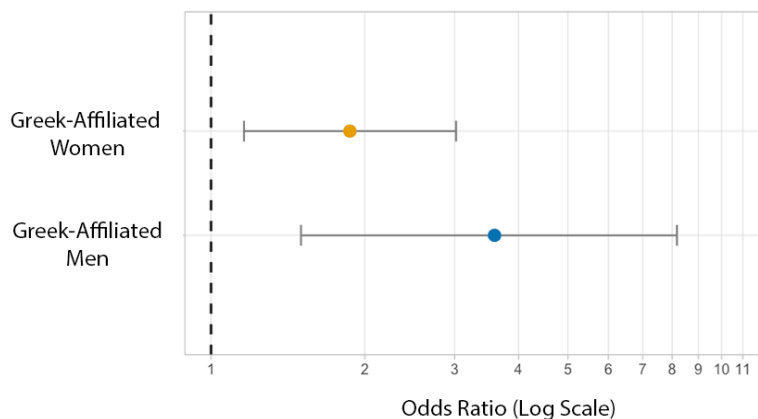
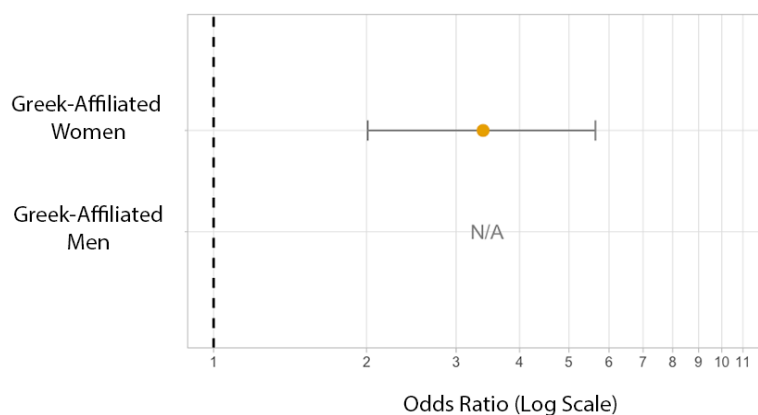


Figure 2. The proportions of Greek-affiliated and non-Greek-affiliated women and men reporting exposure to A) nonconsensual sexual contact B) attempted/completed rape and c) unwanted sexual attention. Figure created using R packages *ggplot2* (Version 3.1.0; Wickham, 2016) and *colorblindr* (Version 0.1.0; McWhite & Wilke, 2019).

A. Nonconsensual Sexual Contact



B. Attempted/Completed Rape



C. Unwanted Sexual Attention

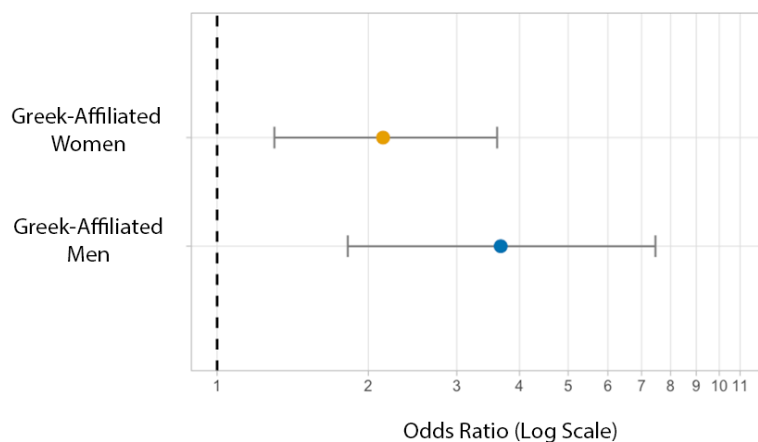


Figure 3. The odds of Greek-affiliated women and men (compared to non-Greek-affiliated women and men, respectively) experiencing A) nonconsensual sexual contact, B) attempted/completed rape, and C) unwanted sexual attention. Odds ratios above 1 indicate increased significantly increased odds of experiencing sexual violence relative to the comparison group. Figure created using *R* packages *ggplot2* (Version 3.1.0; Wickham, 2016) and *colorblindr* (Version 0.1.0; McWhite & Wilke, 2019).

Table 3. Frequencies and Percentages of College Women (n = 589) and Men (n = 292) Who Indicate They Have Experienced Rape, Sexual Assault, or Sexual Harassment

	Greek Women n = 79	Non-Greek Women n = 510	Greek Men n = 38	Non-Greek Men n = 254
I have been raped during college.				
Yes	3 (3.8%)	16 (3.1%)	0 (0.0%)	1 (0.4%)
No	69 (87.3%)	475 (93.1%)	35 (92.1%)	248 (97.6%)
Maybe	7 (8.9%)	16 (3.1%)	2 (5.3%)	2 (0.8%)
No Answer	0 (0.0%)	3 (0.6%)	1 (2.6%)	2 (0.8%)
I have been sexually assaulted during college.				
Yes	12 (15.2%)	40 (7.8%)	0 (0.0%)	3 (0.0%)
No	59 (87.3%)	438 (85.9%)	33 (86.8%)	244 (97.6%)
Maybe	8 (10.1%)	30 (5.9%)	4 (10.5%)	5 (2.0%)
No Answer	0 (0.0%)	2 (0.4%)	1 (2.6%)	2 (0.8%)
I have been sexually harassed during college.				
Yes	26 (32.9%)	148 (29.0%)	2 (5.3%)	15 (5.9%)
No	40 (50.6%)	274 (53.7%)	31 (81.6%)	213 (83.9%)
Maybe	13 (26.5%)	86 (16.9%)	4 (10.5%)	24 (9.4%)
No Answer	0 (0.0%)	2 (0.4%)	1 (2.6%)	2 (0.8%)

Contextual Factors – Alcohol-Related Problems

Additional analyses were conducted in order to understand contextual factors that may put Greek-affiliated students at a higher risk for experiencing of nonconsensual sexual contact, attempted/completed rape, and unwanted sexual attention, such as self-reported alcohol-related problems. Consistent with prior analyses, women and men were analyzed separately.

Preliminary analyses indicated that Greek-affiliated women reported significantly higher alcohol-related scores ($M = 0.87, SD = 1.15$) than their non-Greek counterparts ($M = 0.40, SD = 1.00$), $t(588) = 3.36, p < .001$. In general, women's alcohol-related scores were associated with increased odds of nonconsensual sexual contact, $OR = 1.29, 95\% CI [1.10, 1.53], p = .002$; attempted/completed rape, $OR = 1.40, 95\% CI [1.18, 1.66], p < .001$, and unwanted sexual attention, $OR = 1.52, 95\% CI [1.26, 1.88], p < .001$.

Three multiple logistic regression analyses were then conducted to evaluate the independent effects of both Greek affiliation and alcohol-related problems (controlling for the other) on women's exposure to each of the three sexual violence outcomes. Results indicated that alcohol-related problems and Greek status both predicted unique variance in women's exposure to each outcome (see Table 4). In order to illustrate these relationships, probability curves (calculated by using odds ratios) for alcohol-related problems were plotted for both Greek and non-Greek women for nonconsensual sexual contact and attempted/completed rape (see Figure 4a-b). The threshold alcohol score (for which the probability of experiencing sexual violence reaches 50%) for each group is indicated. Experiences of unwanted sexual attention were not plotted because the initial probability of experiencing unwanted sexual attention was above 50% for all women, regardless of Greek status or alcohol use.

Dissimilar to women, Greek-affiliated men did not report significantly higher alcohol-related scores ($M = 0.71, SD = 0.96$) than their non-Greek counterparts ($M = 0.44, SD = 1.08$), $t(291) = 1.59, p = .117$. In general, men's alcohol-related scores were not associated with increased odds of nonconsensual sexual contact, $OR = 1.25, 95\% CI [0.94, 1.63], p = .090$, or unwanted sexual attention, $OR = 1.10, 95\% CI [0.86, 1.37], p = .434$. (Note: analyses regarding attempted/completed rape were not conducted for men because only two non-Greek men reported experiencing attempted/completed rape). Two multiple logistic regression analyses were conducted to evaluate the independent effects of both Greek affiliation and alcohol-related problems (controlling for the other) on men's exposure to nonconsensual sexual contact and unwanted sexual attention. Results indicated that only Greek status predicted unique variance in men's exposure to each outcome (see Table 2 above).

Table 4. Odds Ratios Predicting Women's (n = 589) and Men's (n = 292) Exposure to Nonconsensual Sexual Contact, Attempted/Completed Rape, and Unwanted Sexual Attention During College From Greek Affiliation and Alcohol-Related Problems

	Predictors	Odds Ratio	95% CI	p	R²
Nonconsensual Sexual Contact					
<i>Women (n = 589)</i>	Intercept	0.45	0.41 - 0.60	<.001	
	Alcohol Problems	1.25	1.06 - 1.48	.007	
	Greek Affiliation	1.69	1.03 - 2.75	.035	
					.024
<i>Men (n = 292)</i>	Intercept	0.45	0.41 - 0.60	<.001	
	Alcohol Problems	1.23	0.91 - 1.61	.129	
	Greek Affiliation	3.44	1.43 - 7.87	.004	
					.043
Attempted/Completed Rape					
<i>Women (n = 589)</i>	Intercept	0.16	0.12 - 0.20	<.001	
	Alcohol Problems	1.34	1.12 - 1.59	.001	
	Greek Affiliation	3.01	1.77 - 5.06	<.001	
					.057
<i>Men (n = 292)</i>	N/A				
Unwanted Sexual Attention					
<i>Women (n = 589)</i>	Intercept	0.94	0.78 - 1.13	.490	
	Alcohol Problems	1.45	1.20 - 1.79	<.001	
	Greek Affiliation	1.83	1.09 - 3.12	.024	
					.042
<i>Men (n = 292)</i>	Intercept	0.29	0.21 - 0.40	<.001	
	Alcohol Problems	1.06	1.82 - 1.34	.631	
	Greek Affiliation	3.62	1.79 - 7.37	<.001	
					.050

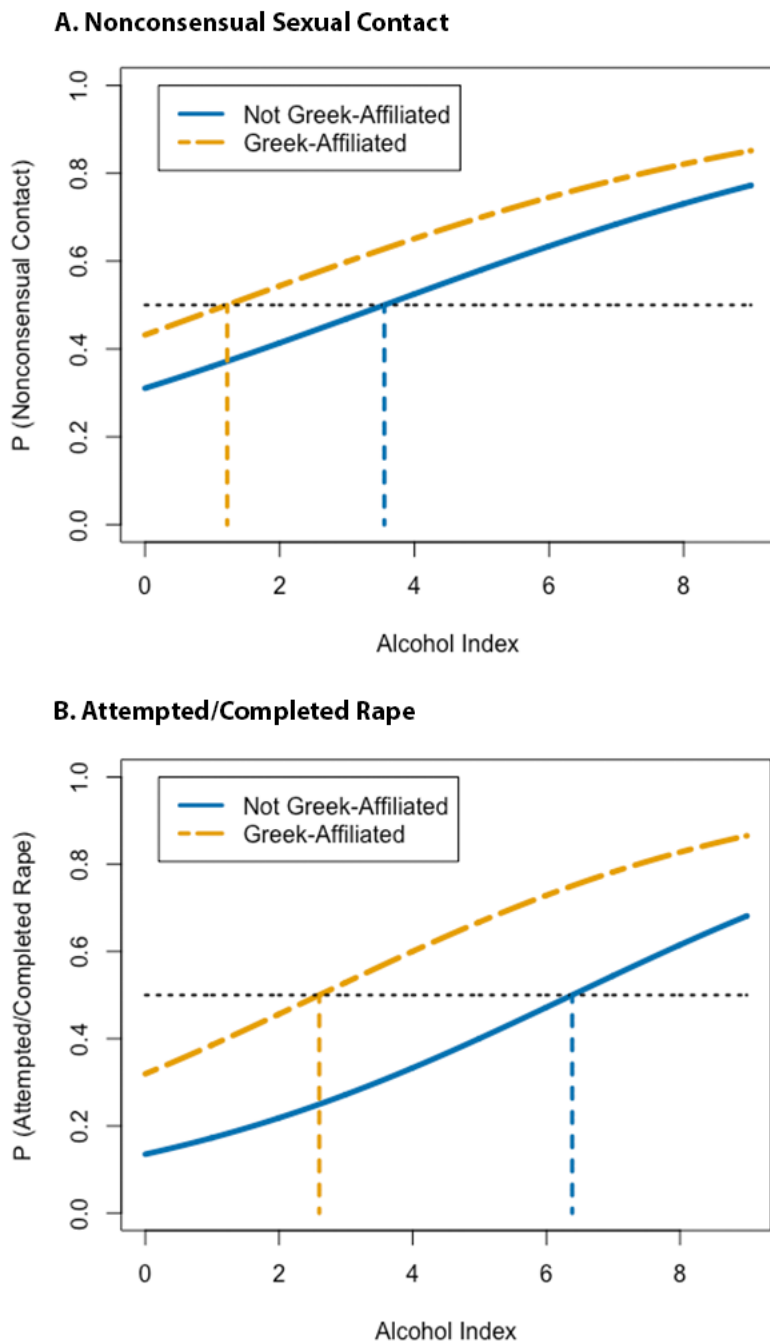


Figure 4. Probability curves for women ($n = 589$) experiencing A) nonconsensual sexual contact and B) attempted/completed rape, plotted according to scores on the alcohol index, separated by Greek status. Dashed lines indicate threshold in which probability reaches 50%.

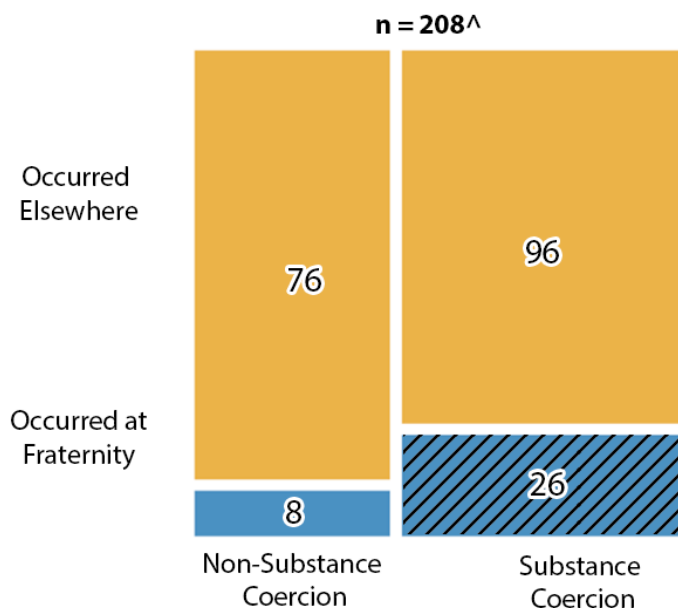
Contextual Factors - Environment

In order to understand the context in which nonconsensual sexual contact occurs on campus, frequencies regarding the location of the assault (e.g., fraternity or non-fraternity), as well as the method of coercion (e.g., substance-related or non-substance-related) were calculated. Analyses were conducted on the subset of women who reported

nonconsensual sexual contact ($n = 208$). Due to low cell counts, analyses for men could not be conducted. Among these women who indicated that they experienced an instance of nonconsensual contact, 58.6% of these women ($n = 122$) indicated that at least one event involved coercion or incapacitation via drugs or alcohol. Additionally, 16.3% ($n = 34$) of all women experiencing any nonconsensual sexual contact reported experiencing at least one of these instances at a fraternity. Two women did not report method of coercion or location. In order to assess if presence of substance-related coercion is independent of setting, a Fisher exact test of independence was conducted. Results indicated that women reporting an instance of nonconsensual sexual contact occurring in a fraternity were more likely to report an instance involving substance-related coercion, OR = 2.56, 95% CI [1.05, 6.93], $p = .035$ (see Figure 5a).

Similarly, frequencies regarding the location of an attempted/completed rape (e.g., fraternity or non-fraternity), as well as the method of coercion (e.g., substance-related or non-substance-related) were calculated. Analyses were conducted on the subset of women who reported attempted/completed rape ($n = 108$). Of the 108 women who indicated that they experienced at least one instance of attempted/completed rape, 62.0% ($n = 67$) indicated that at least one event involved coercion or incapacitation via drugs or alcohol. Additionally, 17.6% ($n = 18$) of women reported experiencing at least one incident occurring at a fraternity. Two women did not report method of coercion or location. Results of a Fisher exact test of independence indicated that women reporting an instance of attempted/completed rape at a fraternity were more likely to report an instance involving substance-related coercion, OR = 5.73, 95% CI [1.23, 54.35], $p = .015$ (see Figure 5b).

A. Nonconsensual Sexual Contact



B. Attempted/Completed Rape

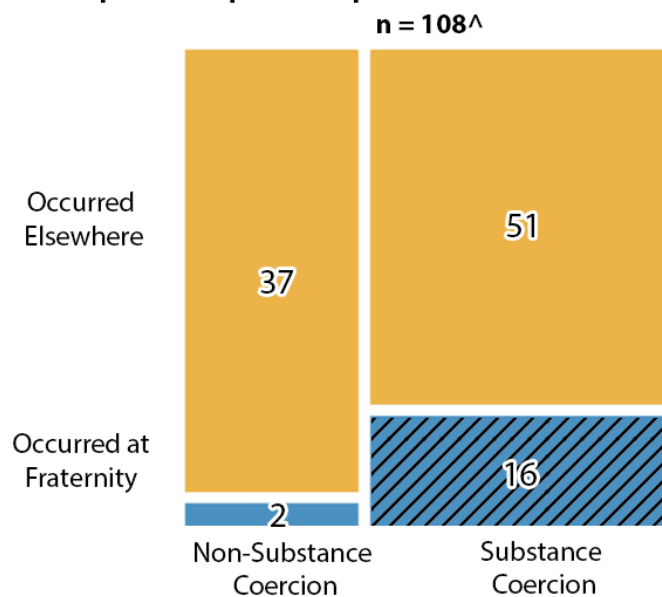


Figure 5. The proportion of women reporting A) nonconsensual sexual contact and B) attempted/completed rape by setting (fraternity vs. non-fraternity) and method of coercion (substance-related vs. non-substance-related). Figure created using R packages *ggplot2* (Version 3.1.0; Wickham, 2016) and *colorblindr* (Version 0.1.0; McWhite & Wilke, 2019). [^]Note: counts do not add up to total because some participants did not indicate location of assault or method of coercion.

DISCUSSION

The purpose of this study was to examine the relationships between Greek-life affiliation and college sexual victimization, including nonconsensual sexual contact, attempted/completed rape, and sexual harassment. We hypothesized that (1) men and women in Greek life would report experiences of sexual violence and harassment; (2) membership in Greek life would be associated with increased risk of nonconsensual sexual contact, attempted/completed rape, and sexual harassment; and (3) contextual factors of the Greek life environment (e.g., alcohol use) would contribute to an increased risk of nonconsensual sexual contact, attempted/completed rape, and sexual harassment.

The results of this study in large part support our first and second hypotheses. Both men and women involved in Greek life reported experiencing significantly elevated levels of non-consensual sexual contact, attempted/completed rape, and unwanted sexual attention (a specific form of sexual harassment), when compared to their non-Greek counterparts. Sorority women were almost two times more likely to report nonconsensual sexual contact, three times more likely to report attempted/completed rape, and two times more likely to report unwanted sexual attention than non-sorority women. Our results are consistent with prior evidence of increased sexual violence risk for sorority women (e.g., Beaulieu et al., 2017; Canan et al., 2018; Minow & Einolf, 2009; Wiersma-Mosley et al., 2017). Fraternity men were more than three times more likely to report nonconsensual sexual contact and unwanted sexual attention than non-fraternity men. This finding is consistent with the scant literature that provides prevalence rates for fraternity men's sexual violence victimization experiences (Beaulieu et al., 2017; Luetke et al., 2020; Mellins et al., 2017). For both men and women students, membership into Greek life may come with an unanticipated vulnerability to sexual victimization.

Our third hypothesis was also supported among college women, in that contextual factors of the Greek life environment (e.g., alcohol use) were uniquely associated with exposure to sexual violence. Sorority women reported significantly higher alcohol use and impairment than non-sorority women, such as drinking/being hungover while attending to responsibilities or driving a car after several drinks. Alcohol-related problems predicted sexual assault victimization for female participants. Among women, both alcohol-related problems and sorority membership predicted unique variance in exposure to nonconsensual sexual contact, attempted/completed rape, and sexual harassment. This suggests that exacerbated sexual violence rates among sorority women are not solely due to sorority members' drinking habits. Despite the higher level of alcohol-related problems that often accompany sorority life, there are likely other factors related to sorority membership that contribute to sexual violence within the Greek system.

Although more research is needed regarding the relationship between alcohol and victimization among sorority members, exploratory findings from this study indicated that 16.3% of women's nonconsensual sexual contact instances and 16.6% of women's attempted/completed rapes reported in this study occurred at a fraternity. Furthermore, assaults that occurred in the context of a fraternity were more likely to involve substance-related coercion. At the university where this data was collected, a "dry system" policy in which alcohol was banned at fraternity houses had been in effect for at least 12 years. Future research should delve deeper into power dynamics at play that allow fraternity organizations to rebel against university policies and subsequently perpetuate environments that encourage sexual exploitation of college women.

Implications

University students seek membership in organizations like Greek life to forge friendships and cultivate community. One of the social benefits of fraternity membership is networking with powerful people; thus, many fraternity members go on to hold a higher social status after college (Mara et al., 2017; Routon & Walker, 2016). Our focus on sexual assault and harassment within Greek life is important when thinking about the future employers and leaders of our society. Some students may actively desire entry into the party culture inherent in most fraternities and sororities, and rush Greek organizations to gain access to that culture. Regardless of students' motivations for pursuing Greek-affiliation, the vulnerabilities that members face are discouragingly consistent. Sorority women do not only face high risk for sexual violence in general, but particularly high risk for rape and attempted rape, the most severe forms of sexual violence examined in this study.

Greek organizations are university-approved and supported social groups, so sexual violence that occurs within this context is even more concerning given research on institutional betrayal—that students who experience sexual violence can be further harmed by perceptions their institution condoned or facilitated their assault in some way (e.g., Smith et al., 2016; Smith & Freyd, 2013). For example, some universities may require fraternity chapters to have insurance policies that cover sexual misconduct and sexual assault litigation against both the chapter and the university (Hechinger, 2017). This suggests that university administrators are aware of the sexual violence risk related to this environment, and yet, are willing to support the organizations as long as there is liability protection. Greek organizations meet student needs in positive or enriching ways (e.g., Routon & Walker, 2016), but they also facilitate frequent and serious sexual trauma. Universities must consider the consequences of supporting organizations whose explicit goals of identity, camaraderie, and entertainment are so deeply undermined by sexual violence.

An overarching goal of this research is to help address sexual violence in Greek life. The current study provides evidence that alcohol use is not the only mechanism underlying sexual assault and harassment in campus Greek organizations; there are other contextual factors that need to be addressed. A number of researchers and advocates have proposed different approaches to ending sexual violence in Greek life. Options include increasing awareness and understanding of sexual violence, prevention training for affiliated students, removing reporting barriers, using litigation as a tactical strategy, and increasing communication between fraternities and advisors (e.g., Cooper, 2020; Radina, 2017; Rosenberg & Mosca, 2016). In fact, many student groups are in support of campus programming to confront sexual violence. Worthen and Wallace (2017) found that Black and Asian fraternity members were more likely to support, rather than oppose, campus sexual assault programming. Interestingly, White fraternity members were more likely to express anger and defensiveness about the programming. One of the issues with the current strategies to ameliorate sexual violence in Greek life is that the proposed solutions likely do not directly target important processes of sexual violence within this culture.

Limitations

Though these results point to troubling institutional dynamics, several limitations must be considered. Although students were randomly selected for being invited to participate in this study and were compensated for their time, they knew about the topic of this research in advance and could potentially self-select into the study. In a subsequent study, Rosenthal and Freyd (2018) found similar victimization rates in a sample that was designed to minimize the possibility of self-selection. Although many of the demographics

of our sample are consistent with the overall demographics of the university, this sample contained more women than the campus at large (66.9% of our sample identified as women compared to 52.2% all students). However, we analyzed the data separately for men and women, so the oversampling of women did not affect the data analysis for men participants. This sample is similar to the overall student body in terms of White students versus students of color; 74.9% of our sample identified as white compared to 77.7% of the student body. Moreover, the findings of this research may not be generalizable to all campuses. Historically Black Colleges and Universities (HBCUs), private colleges, and smaller colleges may have different Greek life cultures than a large public university.

Future Directions

Research on sexual assault and harassment within fraternities and sororities can make progress in many ways. Some research has focused on experiences of drugging victimization, or administering someone a drug without their knowledge, within the Greek life party culture (e.g., Lasky et al., 2017; Schramm et al., 2018; Warner et al., 2018). However, this prior research did not include sexual victimization as an additional trauma directly related to drugging victimization. Future research should consider sexual victimization that occurs after individuals have been given alcoholic drinks with sedating drugs in them. Information provided in a systematic review (Klein & Martin, 2019) suggests there are two methodological flaws that persist across most of the campus sexual harassment research: 1) contextual or group factors are not often taken into account; and 2) there is not typically a delineation between faculty and peer-perpetrated harassment. In the current study, we partially addressed the first flaw by focusing on a specific group of college students: fraternity and sorority group members. However, there are many more groups (e.g., students with work study, students in the honors college, etc.) that could and should be the focus in future research. Our study did not delineate between faculty and peer-perpetrated harassment; thus, this remains a limitation for this study. Future research that addresses these gaps will significantly progress our understanding of campus sexual harassment.

Particularly for intervention research, contextual factors of fraternity and sorority life, such as cultural or organizational values and individual beliefs, should be evaluated as possible barriers to decreasing sexual violence. For example, the historical context of “traditional” campus Greek life is steeped in sexism and gender discrimination. There is documentation of historical sexism and sexual aggression within fraternities, such as anecdotes from the 1960’s in which fraternity members would share women’s contact information who they thought could be pressured for sex (Hechinger, 2017). Within the past decade, we have seen countless incidents of graphic and sexual banners and chants (for public display), email messages, and *pledge books* that demean women and encourage sexual violence and exploitation. Additionally, research has shown that fraternity men report higher agreement with perpetrator rape myths than non-affiliated men, such as, “Fraternity men often get accused of rape when women regret consensual sex” (e.g., Martinez et al., 2018). On the contrary, *cultural* Greek life organizations, such as Black Greek organizations were started as a safe haven for marginalized students to have a home base within discriminatory higher education systems. Within these organizations, there have reportedly been lower (although still present) rates of sexual violence (e.g., Cooper, 2020). It is likely that the historical sociopolitical context of “traditional” Greek life organizations and discriminatory beliefs about women and sex maintains a dangerous culture. Future research focused on identifying mechanisms of sexual violence or exploitation and intervening on these mechanisms within fraternities and sororities should include these contextual factors.

Finally, campus sexual violence research would benefit from integrating an intersectional framework (Crenshaw, 1989) into the development of studies. Class, sexual orientation, gender identity, and race are all social identities that should be considered when the goal is to understand students' victimization experiences. These identities shape the way people are targeted for victimization and the consequences for perpetrators. Students who identify with marginalized sexual orientation or gender identities may be more at risk for sexual victimization (Beaulieu et al., 2017; Ford & Soto-Marquez, 2016; Klein & Martin, 2019; Smith et al., 2016). Future research should explore whether this remains true for sexual assault and harassment victimization within Greek life. Currently, the research is mixed on how racial identities play a role in sexual harassment victimization (Beaulieu et al., 2017; Klein & Martin; McGinley, Wolff, et al., 2016). Future research that includes racial identities as a component of risk could consider whether the measures are sufficient to measure intersectional experiences of sexual harassment.

Understanding perpetration of sexual violence and exploitation also warrants an intersectional lens. It is expensive to become a member of a fraternity. For perpetrators, affluence and higher social class may be types of privilege that is associated with the belief that privilege protects the individual from authority and consequences of behavior (Hechinger, 2017; Jozkowski & Wiersma-Mosley, 2017). Racial identity may play a significant role in perpetration for a number of reasons. In general, predominately White fraternities experience more privileged standards than predominately Black fraternities, especially at predominately White institutions. Larger communities, on-campus housing, influential alumni, and a discriminatory justice system allow for White fraternity members to receive lighter punishments for misconduct or illegal activity compared to Black fraternity members (Cooper, 2020; Hechinger, 2017; Ray, 2012). Additionally, Black men are more likely to be identified as perpetrators than White men because they appear to be out of place at college fraternity parties (Hechinger). Future research needs to recognize the complexity of campus sexual violence victimization and perpetration based on the power dynamics created through intersectional identities.


Conclusion


This study empirically examines an individual campus's specific climate, consistent with previous university-based studies on sexual violence (i.e., Kimble et al., 2008; Walsh et al., 2010). While we conducted this research in order to explore problems of sexual violence on American college campuses, we also specifically designed this study to closely observe the way our particular institution functions. Recommendations from the federal government strongly encourage all universities to conduct similar campus climate studies (White House Task Force to Protect Students from Sexual Assault, 2014). We suggest that our research both uniquely explores our own campus climate and also provides relevant information for campuses nationwide. Importantly, many studies on sexual violence neglect to include measures of sexual harassment. Our study provides evidence that sexual harassment, specifically unwanted sexual attention, may be a type of victimization that Greek life-affiliated students are more vulnerable to than other students. Future campus climate research should include harassment as a highly relevant construct that both illustrates and bolsters a culture of sexual disrespect and violence.

ACKNOWLEDGMENTS


Funds for participant compensation were provided by Center for the Study of Women in Society at the University of Oregon and by private donations made to the Fund for Research on Trauma and Oppression at the UO Foundation. The authors would like to thank Monika Lind for useful discussion of figure layouts. *Dignity* thanks the following people for their time and expertise to review this article: John D. Foubert, Dean, Union University, USA; and Kathryn Quina, Associate Dean, emerita, University of Rhode Island, USA.


AUTHOR BIOGRAPHIES

Melissa L. Barnes, M.S.,  <https://orcid.org/0000-0002-8745-0287>, is a doctoral candidate in Clinical Psychology at the University of Oregon. Melissa's research interests include campus sexual violence, perpetrator responses to confrontations, Black women's traumatic experiences, and discriminatory police violence. She is also concerned with the direct and indirect effects of systemic discrimination on experiences of sexual violence.

Alexis A. Adams-Clark, M.S.,  <https://orcid.org/0000-0002-2273-1336>, is a doctoral student in the University of Oregon's Clinical Psychology program. She received her undergraduate degree in Psychology and Gender and Women's Studies at Connecticut College. Her research broadly focuses on the psychological and physical effects of sexual assault and harassment.

Marina N. Rosenthal, Ph.D., is a licensed psychologist who has delivered clinical services in a variety of environments, including the VA system, college counseling, community mental health, and private practice. Dr. Rosenthal specializes in working with couples on topics such as communication, conflict, disconnection, and infidelity. She also provides evidence-based trauma treatments to individuals and couples. Her research interests include institutional betrayal, sexual violence on college campuses, sexual harassment, sexual communication, trauma therapies, and dissociation.

Carly P. Smith, PhD,  <https://orcid.org/0000-0003-1980-0836>, is a clinical psychologist in private practice at Abri Radically Open DBT in Portland, Oregon. She specializes in working with medical professionals and LGBTQ clientele in her practice.

Jennifer J. Freyd, PhD,  <https://orcid.org/0000-0002-9650-9199>, is the Founder and President of the [Center for Institutional Courage](#), [Professor of Psychology](#) at the University of Oregon, and Faculty Affiliate of the [VMware Women's Leadership Innovation Lab at Stanford University](#). She is also a [Member of the Advisory Committee](#), 2019-2023, for the Action Collaborative on Preventing Sexual Harassment in Higher Education, National Academies of Science, Engineering, and Medicine. Freyd is known for her theories of betrayal trauma, institutional betrayal, institutional courage, and DARVO. She researches these topics in the context of institutional behavior, sexual violence, discrimination on the basis of gender, minority status, and sexual orientation, and also disclosures of abuse.

RECOMMENDED CITATION

Barnes, Melissa L., Adams-Clark, Alexis, Rosenthal, Marina N., Smith, Carly P., & Freyd, Jennifer. (2021). Pledged into harm: Sorority and fraternity members face increased risk of sexual assault and violence. *Dignity: A Journal of Sexual Exploitation and Violence*. Vol. 6, Issue 1, Article 9. <https://doi.org/10.23860/dignity.2021.06.01.09> Available at <http://digitalcommons.uri.edu/dignity/vol6/iss1/9>.

REFERENCES

Abbey, A., Zawacki, T., Buck, P. O., Clinton, A. M., & McAuslan, P. (2004). Sexual assault and alcohol consumption: what do we know about their relationship and what types of research are still needed? *Aggression and Violent Behavior*, 9(3), 271-303. [https://doi.org/10.1016/S1359-1789\(03\)00011-9](https://doi.org/10.1016/S1359-1789(03)00011-9)

- Alva, S. A. (1998). Self-reported alcohol use of college fraternity and sorority members. *Journal of College Student Development*, 39(1), 3–10.
- Armstrong, E. A., Hamilton, L., & Sweeney, B. (2006). Sexual assault on campus: A multilevel, integrative approach to party rape. *Social Problems*, 53(4), 483–499. <https://doi.org/10.1525/sp.2006.53.4.483>
- Beaulieu, M., Dunton, C., McQuiller Williams, L., & Porter, J. L. (2017). The impact of sexual orientation on college student victimization: An examination of sexual minority and non-sexual minority student populations. *Psychology*, 8(11), 2152–7199. <https://doi.org/10.4236/psych.2017.811114>
- Bollen, K., & Lennox, R. (1991). Conventional wisdom on measurement: A structural equation perspective. *Psychological Bulletin*, 110(2), 305–314. <https://doi.org/10.1037/0033-2909.110.2.305>
- Boyle, K. M. (2015). Social psychological processes that facilitate sexual assault within the fraternity party subculture. *Sociology Compass*, 9(5), 386–399. <https://doi.org/10.1111/soc4.12261>
- Brown-Rice, K., & Furr, S. (2015). Differences in college Greek members' binge drinking behaviors: A dry/wet house comparison. *The Professional Counselor*, 5(3), 354–364. <https://doi.org/10.15241/KBR.5.3.354>
- Canan, S. N., Jozkowski, K. N., & Crawford, B. L. (2018). Sexual assault supportive attitudes: Rape myth acceptance and token resistance in Greek and non-Greek college students from two university samples in the United States. *Journal of Interpersonal Violence*, 33(22), 3502–3530. <https://doi.org/10.1177%2F0886260516636064>
- Cook, S. L., Cortina, L. M., & Koss, M. P. (2018, September 20). *What's the difference between sexual abuse, sexual assault, sexual harassment and rape?* The Conversation. <https://theconversation.com/whats-the-difference-between-sexual-abuse-sexual-assault-sexual-harassment-and-rape-88218>
- Cooper, T. A. (2020). #Sororitytoo. *Michigan State Law Review*, 2020(2), 355–409.
- Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*, 1989(1), 139–167. <https://doi.org/10.4324/9780429500480-5>
- 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. <https://doi.org/10.1089/vio.2015.0030>
- Foubert, J. D., Clark-Taylor, A., & Wall, A. F. (2019). Is campus rape primarily a serial or one-time problem? Evidence from a multicampus study. *Violence Against Women*. Advanced online publication. <https://doi.org/10.1177%2F1077801219833820>
- Foubert, J. D., Newberry, J. T., & Tatum, J. L. (2007). Behavior differences seven months later: Effects of a rape prevention program. *Journal of Student Affairs Research and Practice*, 44(4), 728–749. <https://doi.org/10.2202/1949-6605.1866>
- Franklin, C. A. (2016). Sorority affiliation and sexual assault victimization: Assessing vulnerability using path analysis. *Violence Against Women*, 22, 895–922. <https://doi.org/10.1177/1077801215614971>
- Garrett-Gooding, J., & Senter, R., Jr. (1987). Attitudes and acts of sexual aggression on a university campus. *Sociological Inquiry*, 57(4), 348–371. <https://doi.org/10.1111/j.1475-682X.1987.tb00244.x>
- Gómez, J. M., Rosenthal, M. N., Smith, C. P., & Freyd, J. J. (2015). Participant reactions to questions about gender-based sexual violence: Implications for campus climate surveys. *eJournal of Public Affairs: Special Issue on Higher Education's Role on Preventing and Responding to Gender-Based Violence*, 4(2), 39–71. <https://doi.org/10.21768/ejopa.v4i2.75>

- Gross, A. M., Winslett, A., Roberts, M., & Gohm, C. L. (2006). An examination of sexual violence against college women. *Violence Against Women, 12*, 288-300. <https://doi.org/10.1177/1077801205277358>
- Hechinger, J. (2017). *True gentlemen: The broken pledges of America's fraternities*. PublicAffairs.
- Huerta, M., Cortina, L. M., Pang, J. S., Torges, C. M., & Magley, V. J. (2006). Sex and power in the academy: Modeling sexual harassment in the lives of college women. *Personality and Social Psychology Bulletin, 32*(5), 616-628. <https://doi.org/10.1177%2F0146167205284281>
- Jozkowski, K. N., & Wiersma-Mosley, J. D. (2017). The Greek system: How gender inequality and class privilege perpetuate rape culture. *Family Relations: An Interdisciplinary Journal of Applied Family Studies, 66*(1), 89-103. <https://doi.org/10.1111/fare.12229>
- Kilpatrick, D. G., Acierno, R., Resnick, H. S., Saunders, B. E., & Best, C. L. (1997). A 2-year longitudinal analysis of the relationships between violent assault and substance use in women. *Journal of Consulting and Clinical Psychology, 65*, 834-847. <https://doi.org/10.1037/0022-006x.65.5.834>
- Kimble, M., Neacsu, 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. <https://doi.org/10.3200/JACH.57.3.331-338>
- Kingree, J. B., & Thompson, M. (2017). Sorority membership and sexual victimization: An examination of potential mediators of the association. *Journal of Interpersonal Violence*. Advanced online publication. <https://doi.org/10.1177/0886260517723745>
- Kingree, J. B., & Thompson, M. P. (2013). Fraternity membership and sexual aggression: An examination of mediators of the association. *Journal of American College Health, 61*(4), 213-221. <https://doi.org/10.1080/07448481.2013.781026>
- Klein, L. B., & Martin, S. L. (2019). Sexual harassment of college and university students: A systematic review. *Trauma, Violence, & Abuse*. Advance online publication. <https://doi.org/10.1177%2F1524838019881731>
- Koss, M. P., Abbey, A., Campbell, R., Cook, S., Norris, J., Testa, M., Ullman, S., West, C., & White, J. (2007). Revising the SES: A collaborative process to improve assessment of sexual aggression and victimization. *Psychology of Women Quarterly, 31*, 357-370. <https://doi.org/10.1111/j.1471-6402.2007.00385.x>
- 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 status. *Journal of Consulting and Clinical Psychology, 55*(2), <https://doi.org/10.1037/0022-006X.55.2.162>
- 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 drug-enabled, and drug-facilitated sexual assault before and since entering college. *Journal of American College Health, 57*(6) 639-647. <https://doi.org/10.3200/jach.57.6.639-649>
- Lasky, N. V., Fisher, B. S., Henriksen, C. B., & Swan, S. C. (2017). Binge drinking, Greek-life membership, and first-year undergraduates: The "perfect storm" for drugging victimization. *Journal of School Violence, 16*(2), 173-188. <https://doi.org/10.1080/15388220.2017.1284470>
- Luetke, M., Giroux, S., Herbenick, D., Ludema, C., & Rosenberg, M. (2020). High prevalence of sexual assault victimization experiences among university fraternity men. *Journal of Interpersonal Violence*. Advanced online publication. <https://doi.org/10.1177%2F0886260519900282>
- Mara, J., Davis, L., & Schmidt, S. (2017). Social animal house: The economic and academic consequences of fraternity membership. *Contemporary Economic Policy, 36*(2), 263-276. <https://doi.org/10.1111/coep.12249>
- Martinez, T., Wiersma-Mosley, J. D., Jozkowski, K. N., & Becnel, J. (2018). "Good guys don't rape": Greek and non-Greek college student perpetrator rape myths. *Behavioral Sciences, 8*(7). <https://doi.org/10.3390/bs8070060>

- McGinley, M., Rospenda, K. M., Liu, L., & Richman, J. A. (2016). It isn't just fun and games: Collegiate participation in extracurricular activities and risk for generalized and sexual harassment, psychological distress, and alcohol use. *Journal of Adolescence*, *53*, 152-163. <https://doi.org/10.1016/j.adolescence.2016.10.001>
- McGinley, M., Wolff, J. M., Rospenda, K. M., Liu, L., & Richman, J. A. (2016). Risk factors and outcomes of chronic sexual harassment during the transition to college: Examination of a two-part growth mixture model. *Social Science Research*, *60*, 297-310. <https://doi.org/10.1016/j.ssresearch.2016.04.002>
- McWhite, C. D., & Wilke, C. O. (2019). *colorblindr: Simulate colorblindness in R figures* (Version 0.1.0). Github. <https://github.com/clauswilke/colorblindr>
- Meilman, P. W., Riggs, P., & Turco, J. H. (1990). A college health service's response to sexual assault issues. *Journal of American College Health*, *39*(3), 145-147. <https://doi.org/10.1080/07448481.1990.9936226>
- Mellins, C. A., Walsh, K., Sarvet, A. L., Wall, M., Gilbert, L., Santelli, J. S., Thompson, M., Wilson, P. A., Khan, S., Benson, S., Bah, S., Kaufman, K. A., Reardon, L., & Hirsch, J. S. (2017). Sexual assault incidents among college undergraduates: Prevalence and factors associated with risk. *Plos One*, *12*. <https://doi.org/10.1371/journal.pone.0186471>
- Minow, J. C., & Einolf, C. J. (2009). Sorority participation and sexual assault risk. *Violence Against Women*, *15*(7), 835-851. <https://doi.org/10.1177%2F1077801209334472>
- Mohler-Kuo, M., Dowdall, G., Koss, M. P., & Weschler, H. (2004). Correlates of rape while intoxicated in a national sample of college women. *Journal of Studies on Alcohol*, *65*, 37-45. <https://doi.org/10.15288/jsa.2004.65.37>
- Murnen, S. K., & Kohlman, M. H. (2007). Athletic participation, fraternity membership, and sexual aggression among college men: A meta-analytic review. *Sex Roles*, *57*, 145-157. <https://doi.org/10.1007/s11199-007-9225-1>
- Netland, M. (2001). Assessment of exposure to political violence and other potentially traumatizing events: A critical review. *Journal of Traumatic Stress*, *14*(2), 311-326. <https://doi.org/10.1023/a:1011164901867>
- Norris, A. L., Carey, K. B., Shepardson, R. L., & Carey, M. P. (2018). Sexual revictimization in college women: Mediation analyses testing hypothesized mechanisms for sexual coercion and sexual assault. *Journal of Interpersonal Violence*. Advanced online publication. <https://doi.org/10.1177%2F0886260518817778>
- Ormerod, A. J., Lawson, A. K., Sims, C. S., Lytell, M. C., Wadlington, P. L., Yaeger, D. W., Wright, C. V., Reed, M. E., Lee, W. C., Drasgow, F., Fitzgerald, L. F., & Cohorn, C. A. (2003). *2002 Status of the Armed Forces Surveys - Workplace and Gender Relations: Report of Scales and Measures (Report No. 2002-031)*. Arlington, VA: DMDC.
- Radina, M. E. (2017). Sisterhood and sexual assault: Engaging sorority members in dialogue, critical analysis, and feminist praxis. *Family Relations*, *66*(1), 126-138. <https://doi.org/10.1111/fare.12234>
- Ray, R. (2012). Fraternity life at predominately white universities in the US: The saliency of race. *Ethnic and Racial Studies*, *36*(2), 320-336. <https://doi.org/10.1080/01419870.2012.676201>
- R Core Team. (2018). *R: A language and environment for statistical computing*. R. <https://www.R-project.org/>
- Rosenberg, S., & Mosca, J. (2016). Risk management in college fraternities: Guidance from two faculty advisors. *Contemporary Issues in Education Research*, *9*(1), 7-14. <https://doi.org/10.19030/cier.v9i1.9545>
- Rosenthal, M. N., & Freyd, J. J. (2018). Sexual violence on campus: No evidence that studies are biased due to self-selection. *Dignity*, *3*(1), 1-12. <https://doi.org/10.23860/dignity.2018.03.01.07>

- Routon, W., & Walker, J. (2016). Going Greek: Academics, personal change, and life after college. *Change: The Magazine of Higher Learning*, 48(1), 60-66. <https://doi.org/10.1080/00091383.2016.1121088>
- Schramm, A. T., Swan, S. C., Lambdin, M. N., Fisher, B. S., Coker, A. L., & Williams, C. M. (2018). Prevalence and risk of drugging victimization among sexual minority and heterosexual college students. *Criminal Justice Review*, 43(1), 45-59. <https://doi.org/10.1177%2F0734016817744241>
- Scott Harris, B., & Schmalz, D. (2016). "Cool" party, bro: The fraternity use of party structure as a mechanism for control over female status on campus. *Deviant Behavior*, 37, 1227-1238. <https://doi.org/10.1080/01639625.2016.1170542>
- Scott-Sheldon, L. A. J., Carey, K. B., & Carey, M. P. (2008). Health behavior and college students: Does Greek affiliation matter? *Journal of Behavioral Medicine*, 31, 61-70. <https://doi.org/10.1007/s10865-007-9136-1>
- Smidt, A. M., Rosenthal, M. N., Smith, C. P., & Freyd, J. J. (2019). Out and in harm's way: Sexual minority students' psychological and physical health after institutional betrayal and sexual assault. *Journal of Child Sexual Abuse*. <https://doi.org/10.1080/10538712.2019.1581867>
- Smith, C. P., Cunningham, S. A., & Freyd, J. J. (2016). Sexual violence, institutional betrayal, and psychological outcomes for LGB college students. *Translational Issues in Psychological Science: Washington*, 2, 351-360. <https://doi.org/10.1037/tps0000094>
- Smith, C. P., & Freyd, J. J. (2013). Dangerous safe havens: Institutional betrayal exacerbates sexual trauma. *Journal of Traumatic Stress*, 26(1), 119-124. <https://doi.org/10.1002/jts.21778>
- Spitzer, R. L., Kroenke, K., & Williams, J. B. W. (1999). Validation and utility of a self-report version of PRIME-MD: The PHQ Primary Care Study. *Journal of the American Medical Association*, 282(18), 1737-1744. <https://doi.org/10.1001/jama.282.18.1737>
- Stark, S., Chernyshenko, O. S., Lancaster, A. R., Drasgow, F., & Fitzgerald, L. F. (2002). Toward standardized measurement of sexual harassment: Shortening the SEQ-DoD using Item Response Theory. *Military Psychology*, 14, 49-72. https://doi.org/10.1207/S15327876MP1401_03
- Testa, M., & Livingston, J. A. (2000). Alcohol and sexual aggression: Reciprocal relationships over time in a sample of high-risk women. *Journal of Interpersonal Violence*, 15(4), 413-427. <https://doi.org/10.1177%2F088626000015004005>
- Venables, W. N., & Ripley, B. D. (2002). *Modern applied statistics with s* (4th ed.). Springer.
- Walsh, W. A., Banyard, V. L., Moynihan, M. M., Ward, S., & Cohn, E. S. (2010). Disclosure and service use on a college campus after an unwanted sexual experience. *Journal of Trauma & Dissociation*, 11(2), 37-41. <https://doi.org/10.1080/15299730903502912>
- 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 experiences of college women. *Criminal Justice Review*, 43(1), 23-44. <https://doi.org/10.1177%2F0734016817744606>
- White House Task Force to Protect Students from Sexual Assault. (2014). *Not alone: the first report of the white house task force to protect students from sexual assault*. Retrieved from <https://www.notalone.gov/assets/report.pdf>
- Wickham, H. (2016). *ggplot2: Elegant graphics for data analysis* (3rd ed). [eBook edition]. <https://ggplot2-book.org/>
- Wickham, H. (2017). *tidyverse: Easily install and load the "tidyverse"*. (Version 1.2.1). CRAN.R. <https://CRAN.R-project.org/package=tidyverse>
- Wiersma-Mosley, J. D., Jozkowski, K. N., & Martinez, T. (2017). An empirical investigation of campus demographics and reported rapes. *Journal of American College Health*, 65, 482-491. <https://doi.org/10.1080/07448481.2017.1343829>

- Wolff, J. M., Rospenda, K. M., & Colaneri, A. S. (2017). Sexual harassment, psychological distress, and problematic drinking behavior among college students: An examination of reciprocal causal relations. *The Journal of Sex Research*, 54(3), 362-373. <https://doi.org/10.1080%2F00224499.2016.1143439>
- Wood, L., Hoefler, S., Kammer-Kerwick, M., Parra-Cardona, J. R., & Busch-Armendariz, N. B. (2018). Sexual harassment at institutions of higher education: Prevalence, risk, and extent. *Journal of Interpersonal Violence*. Advance online publication. <https://doi.org/10.1177%2F0886260518791228>
- Worthen, M. G. F., & Wallace, S. A. (2017). Intersectionality and perceptions about sexual assault education and reporting on college campuses. *Family Relations: An Interdisciplinary Journal of Applied Family Studies*, 66(1), 180-196. <https://doi.org/10.1111/fare.12240>
- Yoon, E., Funk, R. S., & Kropf, N. P. (2010). Sexual harassment experiences and their psychological correlates among a diverse sample of college women. *Affilia*, 25(1), 8-18. <https://doi.org/10.1177%2F0886109909354979>