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Out and in Harm's Way: Sexual Minority Students' Psychological and Physical Health After
Institutional Betrayal and Sexual Assault

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Abstract

In a large random sample of undergraduate university students, we investigated whether sexual minority individuals (i.e., lesbian, gay, and bisexual individuals) experienced different rates of sexual violence victimization (including sexual assault and rape) and subsequent institutional betrayal compared to their heterosexual counterparts, and whether such differences may account for disparities in the psychological and physical health of sexual minorities compared to heterosexuals. In addition to differences in sexual assault victimization rates by gender and sexual orientation, we found differences in rates of institutional betrayal. When non-heterosexual women experienced sexual assault, they experienced a significantly higher rate of institutional betrayal compared to heterosexual women. Overall, greater institutional betrayal was associated with greater negative psychological and physical health outcomes in sexual minorities compared to heterosexual students. These findings reinforce the need for institutional reforms related to the climate and reporting of sexual violence on college campuses, and also identify sexual minority students as a population of particular risk for additional harm by their institutions when they need them most.

Keywords: sexual assault, institutional betrayal, sexual minorities, LGBT, health

Out and in Harm's Way: Sexual Minorities' Psychological and Physical Health After
Institutional Betrayal and Sexual Assault

Sexual violence is a common phenomenon on college campuses. Research across several decades indicates between 20 and 40 percent of college women are sexually assaulted (Gross, Winslett, Roberts, & Gohm, 2006; Koss, Gidycz, & Wisniewski, 1987). While data collection has focused strongly on female victims given their heightened risk, male college students are also face victimization, with research indicating between 11 and 14 percent of male college students have experienced sexual assault (Aosved, Long, & Voller, 2011; Balsam, Rothblum, & Beauchaine, 2005).

Lesbian, gay, bisexual, and transgender (LGBT) individuals, in general, experience higher rates of sexual violence victimization compared to their heterosexual counterparts. Balsam et al. (2005) found that 11.6% of gay men had experienced a completed rape compared to 1.6% of their heterosexual male siblings. Similarly, 15.5% of female lesbian-identified participants reported a completed rape compared to 7.5% of their female heterosexual siblings (Balsam et al., 2005). Richardson and colleagues (2015) examined rates of sexual violence among LGBT college students, finding that 8.1% of LGBT students experienced at least once instance of sexual assault compared to 5.4% of heterosexual students. Relatively little research has outlined the heightened rates of sexual assault for LGBT students, particularly with respect to rates of sexual assault in adulthood (McKay, Lindquist, & Misra, 2017; Rothman, Exner, & Baughman, 2011).

LGBT students face additional risks beyond sexual violence on campus; sexual minority individuals experience higher rates of sexual orientation-based discrimination, verbal and physical assault, and school-based victimization such as bullying (Katz-Wise & Hyde, 2012). Experiences of discrimination, harassment, microaggressions, and violence can make living

openly as a sexual minority a stressful reality. Oswalt & Wyatt (2011) found that lesbian, gay, and bisexual students reported more mental health issues than heterosexual students. The stress of chronic discrimination also negatively impacts students' adjustment to college life (Schmidt, Miles, & Welsh, 2010).

Institutional Betrayal

Institutional betrayal occurs when students' universities and colleges fail to prevent sexual violence on campus (i.e., inaction or by omission), act in ways that may contribute to sexual violence on campus (i.e., by commission), or respond poorly when sexual violence happens on campus (Smith & Freyd, 2013). For example, schools may foster or maintain a campus culture that accepts sexual assault as a likely or frequent occurrence, or administrators may be more concerned about covering-up sexual violence than about preventing it. Students' experiences of their institution as helpful or harmful in the face of trauma has serious implications for trauma survivors; experiencing institutional betrayal exacerbates the already present negative consequences of trauma (for example, anxiety and dissociation). Smith, Cunningham, and Freyd (2016) found that sexual minority students do indeed face more institutional betrayal than their heterosexual counterparts, and one other study, Smith and Freyd (2017), found that institutional betrayal is associated with negative physical health outcomes. The current study seeks to replicate and expand upon the findings of Smith, Cunningham, and Freyd (2016) and Smith and Freyd (2017) both with a larger sample size and with an investigation of additional physical health outcomes following institutional betrayal in sexual minority individuals.

Health Outcomes

Sexual violence victimization frequently correlates with negative health, academic, psychological, and social outcomes (Aosved et al., 2011; Jordan, Combs, & Smith, 2014;

Littleton & Henderson, 2009; Turchik, 2012). Physical health outcomes of sexual assault and other sexual traumas include increased pain, gastro-intestinal symptoms, diminished cardiovascular health, general somatic symptoms (e.g., nausea and fatigue), and sleep impairments (Krakow et al., 2000; Pacella, Hruska, & Delahanty, 2013; Ulirsch et al., 2014). Psychological outcomes include posttraumatic stress disorder, depression, anxiety, substance use disorders, and suicidal ideation and attempts (Hedtke et al., 2008; Krakow et al., 2000; Pico-Alfonso et al., 2006, p.; Ullman, Relyea, Peter-Hagene, & Vasquez, 2013). For students striving to continue their education after experiencing an assault, sexual trauma may inhibit their capacity to engage with school and is associated with lower grade point averages (Jordan et al., 2014). Moreover, when survivors reach out to friends, family, and support services help, they frequently report that those they thought would help them instead responded negatively, including downplaying their experience, blaming them for what happened, or trying to control what they do next (Orchowski, Untied, & Gidycz, 2013). Negative social reactions correlate with diminished coping and self-esteem and may cause victims to disengage from social relationships (Orchowski et al., 2013).

Current Study

The objectives of the current study were as follows: first, we sought to identify differences between non-heterosexual and heterosexual students in terms of the rates of sexual violence victimization while attending college. We hypothesized, based on previous research, that non-heterosexual students would report higher incidence of sexual violence victimization since matriculating at their current institution compared to heterosexual students. Second, we intended to evaluate whether a gender-by-sexual orientation interaction exists in the rates of sexual violence victimization, such that non-heterosexual women experience higher rates of sexual violence victimization. We hypothesized we would identify such an interaction where

female gender and sexual minority status coincide to exacerbate risk of sexual violence victimization. Third, we aimed to explore whether differences are evident in terms of psychological and physical health outcomes resulting from sexual violence victimization for LGBT students as compared to heterosexual students. We hypothesized LGBT identified students who reported sexual violence victimization would report more severe psychological and physical health outcomes than heterosexual students indicating sexual violence victimization. Fourth, we sought to examine whether LGBT students experience higher rates of institutional betrayal (IB), and hypothesized sexual minority students would indeed report increased IB in comparison to heterosexual students. Finally, we hoped to characterize the psychological and physical health outcomes associated with experiencing IB for LGBT students reporting sexual violence victimization.

Method

Participants

The data presented in the current study are part of the University of Oregon Sexual Violence and Institutional Behavior Campus Survey (2014), which was approved by the university's Office of Research Compliance (for additional details see Gómez, Smith, Rosenthal, & Freyd, 2015). Five-thousand randomly selected students were recruited for participation using their university-affiliated email addresses from the undergraduate student population at a large, public university in the Northwestern United States. The university's Office of the Registrar both randomly selected the participants and provided the researchers with the students' university-affiliated email addresses from the larger population of students who met the following inclusion criteria: 18 years of age or older and enrollment in classes for the academic term following the study and for at least one term in the previous academic year (2013-2014). Of the 5,000 students invited to participate, 1,058 students started the survey, and 899 of the students who started the

survey provided usable data. Data usability was determined by participant responses to five quality assurance items (e.g., “If I am paying attention, I will select 5 for this statement”) that were distributed throughout the survey to ensure participants were devoting attention and care when participating in the study; participants who missed two or more quality assurance items were excluded ($n = 159$). Participants who endorsed a gender identity other than male or female ($n=15$) were excluded due to small cell sizes. Finally, one participant who did not report their gender identity and three participants who did not report their sexual orientation were also excluded; thus, 880 participants were included in our analyses. The final sample was largely female (66.9%), heterosexual (90.9%), and white (74.9%%), with a mean age of 21.18 years ($SD = 3.43$, range = 18–51 years).

Procedure

Participants were sent an email message to their university-affiliated email account inviting them to participate in the current study and were given 10 days from the day they received the recruitment email to decide whether to participate. Participants also received a second email message five days after the initial recruitment message to remind them about this invitation. These messages included a hyperlink that directed participants to an online survey, created using Qualtrics software. Participants were instructed to complete the survey on their own computers at a location of their choosing and were required to click “I agree to participate” on the electronic consent form before proceeding. After completing the online survey, participants received instructions on how to receive both compensation (a \$20 gift certificate to Amazon.com) for their participation and a debriefing form.

Measures

Sexual violence victimization. The Sexual Experiences Survey (SES; Koss et al., 2007) was used to assess seven types of nonconsensual sexual experiences (fondling,

attempted/completed oral sex, attempted/completed vaginal penetration, and attempted/completed anal penetration), the type(s) of coercion (verbal, physical, substance-facilitated) utilized by the perpetrator for each experience, and the number times each participant experienced each type of sexual violence since enrolling in college. Participants were first presented with a list of the aforementioned seven types of nonconsensual sexual experiences and were asked follow-up questions (including the type(s) of coercion used, perpetrator characteristics, and the number of times they experienced each type of sexual violence) if they endorsed any of these experiences. Participants endorsed each type of experience by ticking the checkbox on their computer screen. A dichotomous variable was created based on participants' endorsements; participants who endorsed none of the presented sexual experiences were coded as "0", while participants who endorsed 1 or more types of sexual experiences were coded as "1". A continuous variable was created to capture the number of different types of experiences participants reported; participants could score between 0 and 7 on the first above-mentioned variable, indicating how many different types of victimization they have experienced.

Institutional betrayal. A modified version of the Institutional Betrayal Questionnaire (IBQ; Smith & Freyd, 2013) was used to assess institutional betrayal following a nonconsensual sexual experience. Participants were presented with a list of eighteen experiences (e.g., "Mishandling your case, if disciplinary action was requested?") that could be perpetrated by institutions and were asked to endorse the ones related to their experience of sexual assault. As in Smith, Cunningham, and Freyd (2016), three questions were added pertaining to experiences of institutional betrayal based on participants' sexual orientation (i.e., "Did an institution play a role by expressing a biased or negative attitude toward you and/or your experience/s based on your sexual orientation?"). Additionally, three questions were also added pertaining to experiences of institutional betrayal based on participants' racial/ethnic identity (i.e., "Did an institution play a

role by expressing a biased or negative attitude toward you and/or your experience/s based on your race?”). These additions bring the total number of experiences captured by the IBQ to eighteen. Importantly, participants are not asked if they felt “betrayed” by the institution and are also not asked about their own appraisals of their institutions’ behaviors. Rather, items on the IBQ (examples are above) assess specific behaviors much in the same way that research on sexual assault victimization is conducted (i.e., asking questions about specific sexual experiences [e.g., “Has anyone ever put their penis into your vagina without your consent?”]). Similar to the SES, participants endorsed each type of experience by ticking the relevant checkbox on their computer screen. Two variables were created from participants’ endorsements: first, a dichotomous variable indicating the presence or absence of institutional betrayal, and second, a continuous variable representing how many types of institutional betrayal were endorsed; this was done once for the 18-item IBQ (IBQ-18) and once for the 12-item IBQ (IBQ-12), with a range of scores between 0 and 18 and 0 and 12, respectively.

Psychological and physical health. The Patient Health Questionnaire (PHQ; Spitzer, Kroenke, & Williams, 1999) was used to assess multiple categories of psychological and physical health problems, including pain, depression, anxiety, and subjective stress. Participants are presented with symptoms (e.g., “Feeling nervous, anxious or on edge” and “Back pain”) for each category of health and were instructed to endorse each symptom they have experienced within a specified time frame. Previous investigations have found this measure to have good reliability and validity (Kroenke, Spitzer, Williams, & Löwe, 2010; Kroenke, Spitzer, & Williams, 2002; Spitzer et al., 1999). Continuous variables for each aspect of health (i.e., pain, depression, anxiety, eating problems, alcohol problems, and subjective stress) were created by summing the total number of dichotomized endorsements for each category.

Results

Sexual Violence Victimization

Collapsing across gender, non-heterosexuals and heterosexuals reported experiencing at least one instance of sexual assault at rate of 28.7% ($n = 23$) vs. 27.1% ($n=217$), respectively. The majority of both non-heterosexuals and heterosexuals who experienced sexual assault reported experiencing two or fewer types of assault (i.e., fondling, attempted rape, etc.; 82.6% [$n=19$] and 82.4% [$n=179$], respectively). Additionally, for participants who reported at least one experience of sexual assault, the difference in the average number of types of sexual assault experienced – collapsing across the seven types of assault assessed by the SES – between non-heterosexuals ($M = 1.91$, $SD = 1.28$) and heterosexuals ($M = 1.66$, $SD = 0.97$) was not significant ($t(238) = 1.15$, *ns*).

Non-heterosexual men reported experiencing at least one instance of sexual assault at a rate of 21.1% ($n = 4$) compared to heterosexual men at rate of 10.7% ($n = 29$). A Pearson's chi-square test revealed this difference was not significant ($\chi^2(1, N = 291) = 1.91$, *ns*). The difference in the average number of types of sexual assault experienced – collapsing across the seven types of assault captured by the SES – between non-heterosexual men ($M = 1.25$, $SD = .50$) and heterosexual men ($M = 1.14$, $SD = .35$) was not significant ($t(31) = .571$, *ns*). Non-heterosexual women and heterosexual women reported experiencing at least one instance of sexual assault at approximately the same rate (31.1% vs. 35.6%, respectively); this difference was not significant ($\chi^2(1, N = 589) = .477$, *ns*). Similar to non-/heterosexual men, the difference in the average number of types of sexual assault experienced by non-heterosexual women ($M = 2.05$, $SD = 1.35$) and heterosexual women ($M = 1.74$, $SD = 1.01$) was not significant ($t(205) = 1.242$, *ns*). A one-way ANOVA was conducted to test whether non-heterosexual women experience sexual assault at a greater rate, on average, compared to heterosexual women, heterosexual men, and non-heterosexual men.

To address unequal sample sizes among the four groups and thus possible variance inequalities, a Levene's test was used to examine homogeneity of the variances. A significant Levene's test necessitated the use of a more robust (Welch) F -statistic. The omnibus F -test revealed a significant difference in the average rates of sexual assault among the four groups ($F(3,71.48) = 26.65, p < .001$). Contrasts revealed that non-heterosexual women do not experience sexual assault at a significantly greater rate compared to the other three groups ($t(80.96) = 1.27, ns$), and that heterosexual men experience significantly lower rates of sexual assault victimization compared to the other three groups ($t(53.96) = 4.36, p < .001$).

Institutional Betrayal

Following Smith, Cunningham, and Freyd (2016), we are reporting both the modified 18-item IBQ with the additional items for sexual orientation and race/ethnicity as well as the original 12-item IBQ. Collapsing across heterosexuals and non-heterosexuals, approximately 42% of participants who endorsed an experience of sexual assault also endorsed an experience of institutional betrayal across both IBQ measures (see Table 1). Non-heterosexuals reported at least one type of institutional betrayal at a significantly higher rate (65.2%) compared to heterosexuals (39.1%; $\chi^2(1, N = 240) = 5.81, p < .05$). Expressed another way, non-heterosexuals are at 1.67 times the risk compared to heterosexuals for experiencing institutional betrayal (95% CI 1.18 – 2.34, $p < .01$). This was true for both the IBQ-18 and IBQ-12. Non-heterosexual women experienced institutional betrayal at a significantly higher rate (73.7%) compared to heterosexual women (41.5%; $\chi^2(1, N = 207) = 7.24, p \leq .001$, IBQ-18); this finding was nearly identical for the IBQ-12. When participants did experience institutional betrayal, non-heterosexuals reported experiencing more types of institutional betrayal on average ($M = 4.07, SD = 3.63$) compared to heterosexuals ($M = 2.66, SD = 2.39$) compared to heterosexuals as measured by the IBQ-18; due to the presence of a marginally non-significant Levene's test for

equality of variances ($F = 3.76, p = .055$), both the standard and Welch t -tests have been reported (standard: $t(98) = 1.92, p < .10$), $t(16.21) = 1.45, ns$).

Table 1.

Sexual Orientation and Institutional Betrayal Predicting Health Outcomes

Health Outcomes	SO			IB			SO x IB			Model	
	B	SE	β	B	SE	β	B	SE	β	F	R ²
Pain	-.17	.77	-.01	.08	.41	.05	-.02	.23	-.03	.08	.00
Depression	-2.05*	1.00	-.13	.84	.53	.43	-.32	.29	-.29	5.10	.06*
Panic Symptoms	-1.5	1.03	-.28	-.33	.42	-.41	.18	.33	.25	.72	.03
Anxiety	-1.60⁺	.91	-.11	1.55**	.48	.85	-.74**	.27	-.72	7.72	.09***
Alcohol Problems	.24	.21	.08	.23	.15	.57	-.12	.08	-.57	1.01	.00
Subjective Stress	-2.0*	.80	-.17	.06	.43	.04	.09	.23	.10	4.96	.06**
Eating Problems	-.57**	.22	-.18	-.03	.11	-.08	.04	.06	.17	3.48	.04⁺

+ $p < .10$, * $p < .05$, ** $p \leq .01$, *** $p \leq .001$

For the IBQ-12, when participants experienced institutional betrayal, non-heterosexual individuals again experienced more types of institutional betrayal on average ($M = 3.60, SD = 2.87$) compared to heterosexuals ($M = 2.61, SD = 2.23$), but these differences were not

statistically significant. Non-heterosexual women experienced more types of institutional betrayal on average ($M = 4.21$, $SD = 3.72$) compared to heterosexual women ($M = 2.77$, $SD = 2.46$) using the IBQ-18; due to the presence of a marginally non-significant Levene's test for equality of variances ($F = 3.44$, $p = .067$), both the standard and Welch t -tests have been reported (standard: $t(90) = 1.86$, $p < .10$), $t(15.11) = 1.40$, ns). When looking at these differences among non-heterosexual and heterosexual women with the IBQ-12, non-heterosexual women experienced more types of institutional betrayal ($M = 3.71$, $SD = 2.95$) compared to heterosexual women ($M = 2.71$, $SD = 2.30$), but these differences were not statistically significant. Rates of institutional betrayal and average number of types of institutional betrayal experienced among non-heterosexual men and heterosexual men could not be compared due to small cell sizes ($n=1$ and $n=7$, respectively).

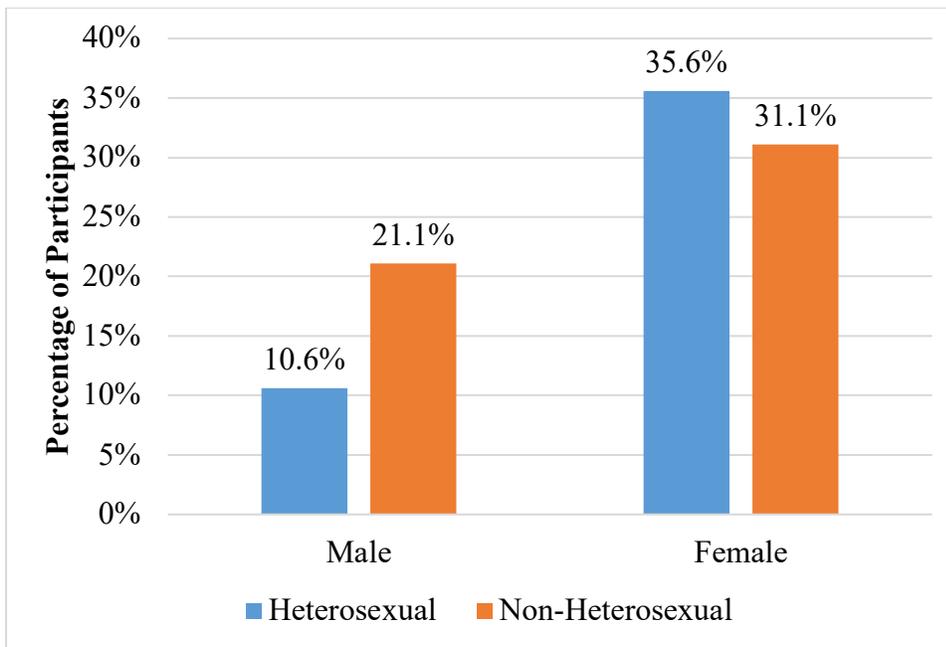
Psychological and Physical Health

Linear multiple regression was used to predict psychological and physical health outcomes from sexual orientation status, amount of institutional betrayal (using the IBQ-18 with the items on sexual orientation-based institutional betrayal experiences), and their interaction. Sexual orientation status was entered as a dichotomous variable (heterosexual vs. non-heterosexual), the amount of institutional betrayal was mean-centered, and the interaction variable was calculated by multiplying the sexual orientation status variable and the mean-centered institutional betrayal variable. Main effects for sexual orientation and institutional betrayal were revealed. Non-heterosexuals reported significantly greater levels of depression, anxiety, subjective stress, and eating problems compared to heterosexuals; with respect to institutional betrayal, levels of anxiety increase as levels of institutional betrayal increases (see Table 1). A significant interaction between sexual orientation and institutional betrayal was observed for anxiety; post-hoc contrasts revealed that non-heterosexuals who experienced

institutional betrayal following a sexual assault endorsed the greatest levels of anxiety compared to the other three groups ($F(3,235) = 3.69, p < .05$; $t(235) = 2.35, p < .05$).

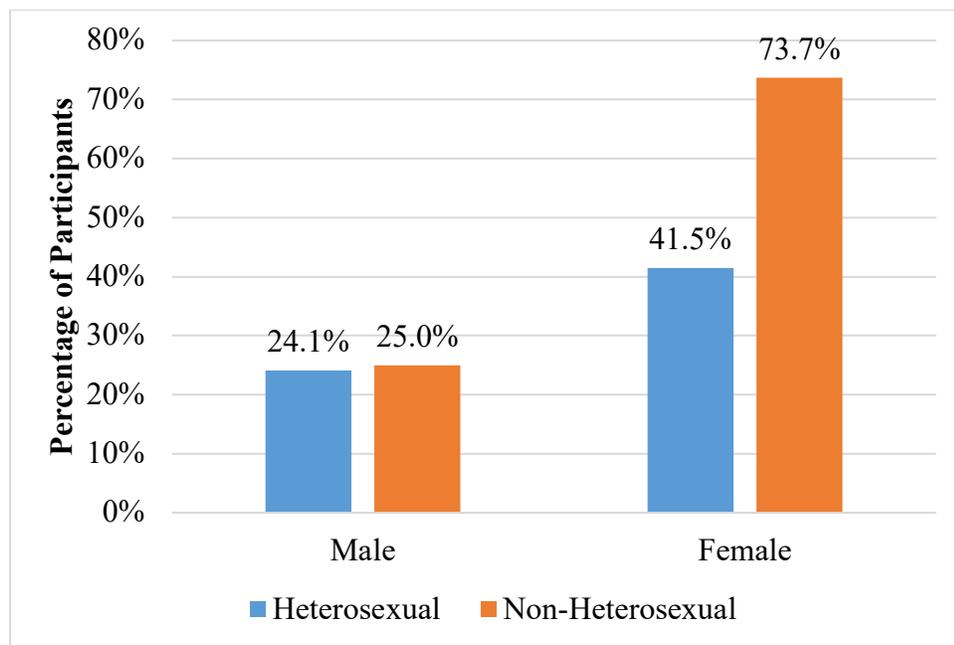
Discussion

Broadly, non-heterosexual students and heterosexual students experience sexual assault at similar rates. For students who indicated they experienced sexual assault, the majority of both non-heterosexual and heterosexual students indicated they experienced two or fewer types of sexual assault, and the difference between non-heterosexuals and heterosexual in the average number of types of sexual assault experienced was not significant. However, victimization rates by gender differed from the overall average rate of victimization. Heterosexual women, on average, experienced sexual assault at approximately the same rate as non-heterosexual women and, for those who indicated experiencing sexual assault, non-heterosexual and heterosexual women on average indicate experiencing a similar number of types of sexual assault. This finding is in contrast to previous findings that lesbian women are sexually assaulted at higher rates compared to heterosexual women (e.g., Balsam et al., 2005), but did demonstrate that both heterosexual and non-heterosexual women experience high rates of sexual assault. Non-heterosexual men reported different rates of sexual assault compared to heterosexual men, though this difference in rates was not statistically significant (see Figure 1). Non-heterosexual and heterosexual men who experienced sexual assault also indicated experiencing, on average, a similar number of types of sexual assault. Contrary to our hypothesis, non-heterosexual women did not experience sexual assault at the greatest rate compared to the other three groups (heterosexual women, non-heterosexual men, and heterosexual men). Heterosexual men experienced the lowest rates of sexual assault compared to the other three groups (heterosexual women, non-heterosexual women, and non-heterosexual men).

Figure 1. Non-Consensual Sexual Experiences by Gender and Sexual Orientation

Consistent with previous studies on institutional betrayal (Smith & Freyd, 2013; Smith et al., 2016), a substantial portion of individuals who indicated experiencing sexual assault also indicated they experienced institutional betrayal. However, the risk of experiencing institutional betrayal was not equally distributed: non-heterosexuals were at 1.67 times the risk for experiencing institutional betrayal compared to heterosexuals (see Figure 2). While rates of institutional betrayal among men could not be further explored due to small cell sizes, non-heterosexual women experienced institutional betrayal at a higher rate and experienced more types of institutional betrayal compared to heterosexual women.

Figure 2. Institutional Betrayal by Gender and Sexual Orientation



Non-heterosexuals who indicated an experience of sexual assault reported significantly greater levels of depression, anxiety, subjective stress, and eating problems compared to heterosexuals. Participants, regardless of sexual orientation status, who experienced institutional betrayal following sexual assault experienced greater levels of anxiety compared to those who did not experience institutional betrayal. Finally, the increased risk of institutional betrayal faced by non-heterosexuals resulted in increased anxiety for non-heterosexual students, and non-heterosexuals were found to have the greatest levels of anxiety compared to non-heterosexuals without institutional betrayal and heterosexuals both with & without institutional betrayal.

Limitations

The present study has limitations to consider. First, while there was a sufficient number of men who identified as non-heterosexual to compare victimization rates among men, there were too few non-heterosexual men to conduct further analyses to determine rate of institutional betrayal and number of types of institutional betrayal experienced between heterosexual and non-heterosexual men. Second, some selection bias may have been present for the participants who

did (and did not) choose to participate in the present study, though it is possible the addition of the monetary incentive (\$20 Amazon gift certificate) may have decreased the extent of such bias. Additionally, a comparison of the 2015 AAU survey data from 27 universities suggests a positive correlation between both overall response rates and rates of sexual violence victimization for surveys that use similar methodology to the present study (see Freyd, 2015). Also, Rosenthal and Freyd (2018) compared victimization rates using a campus survey with participant recruitment methodology similar to that reported here to a sample recruited through an undergraduate “Human Subjects Pool” in which self-selection was much less frequent. Third, future investigations of institutional betrayal in the context of campus sexual assault, as well as other contexts, should include gender minorities (i.e., transgender and gender-nonconforming individuals). Lastly, the location of the university where these data were collected could limit the generalizability of – and more specifically, underestimate – rates of sexual assault and institutional betrayal for non-heterosexuals. Fourth, given the lack of racial/ethnic diversity in our sample, our results may not be generalizable to non-White/Caucasian-majority samples. Specifically, the state and region in which this particular university is located is among the most politically liberal in the United States and the university itself is among the most supportive of non-heterosexual students in terms of institutional policies and services (Campus Pride, 2015; Gallup Inc, 2015).

Future Directions and Conclusion

Our findings indicate that institutional betrayal following a sexual assault is particularly problematic for non-heterosexual students, who reported experiencing institutional betrayal at 1.67 times the rate of heterosexual students. This research both coheres with one other study on the relationship between sexual minorities, sexual assault, and institutional betrayal (Smith et al., 2016) and extends those findings to investigate additional psychological and physical health

outcomes in a large, university campus sample. Future research should focus on changes in these outcomes as universities and other institutions make positive changes to reduce institutional betrayal. Universities and colleges should consider processes and procedures that reduce the likelihood of institutional betrayal, including reconsidering mandated reporting/compelled disclosure of policies that require reporting of sexual assault, policies that often reduce the amount of control sexual assault survivors have over their disclosure process (Holland, Cortina, & Freyd, 2018). Institutions of higher education should also foster “institutional courage,” which includes behaviors such as admitting to wrongdoing or perpetrating harm, soliciting feedback from those that are most affected (i.e., survivors of sexual assault), and devoting resources to the training and preparation of leadership and staff (Freyd, 2018). Given that non-heterosexual women had the highest rates of institutional betrayal, university and college staff might benefit from training to understand not only how institutional betrayal occurs and what forms it takes, but also for whom institutional betrayal is more likely or happens more frequently. Additionally, longitudinal research is necessary to understand the time-course of, and the causal relationships that may exist between, sexual assault followed by institutional betrayal and associated psychological and physical health outcomes. Researchers should also make a concerted effort to include gender minority (e.g., transgender, gender-nonconforming, etc.) individuals in investigations of institutional betrayal related to sexual assault, including using methodological strategies such as oversampling gender minority individuals and using targeted recruitment efforts.

Disclosure of Interest

Jennifer J. Freyd receives book royalties and honoraria for giving presentations, and she is paid as a consultant on some legal cases and for some organizations.

Alec M. Smidt, Marina N. Rosenthal, and Carly P. Smith declare that they have no conflicts to report.

Ethical Standards and Informed Consent

This study was approved by the university's Office of Research Compliance. Informed consent was obtained from all participants in this study.

References

- Aosved, A. C., Long, P. J., & Voller, E. K. (2011). Sexual revictimization and adjustment in college men. *Psychology of Men & Masculinity, 12*(3), 285. Retrieved from <http://psycnet.apa.org/journals/men/12/3/285/>
- Balsam, K. F., Rothblum, E. D., & Beauchaine, T. P. (2005). Victimization over the life span: a comparison of lesbian, gay, bisexual, and heterosexual siblings. *Journal of Consulting and Clinical Psychology, 73*(3), 477. Retrieved from <http://psycnet.apa.org/journals/ccp/73/3/477/>
- Campus Pride. (2015, August 24). 2015 Campus Pride Top 25 LGBTQ-Friendly Colleges & Universities. Retrieved March 2, 2016, from <https://www.campuspride.org/2015-top-25/>
- Freyd, J. J. (2018, January 11). When sexual assault victims speak out, their institutions often betray them. *The Conversation*. Retrieved from <http://theconversation.com/when-sexual-assault-victims-speak-out-their-institutions-often-betray-them-87050>
- Gallup Inc. (2015, February 6). Mississippi, Alabama and Louisiana Most Conservative States. Retrieved March 2, 2016, from <http://www.gallup.com/poll/181505/mississippi-alabama-louisiana-conservative-states.aspx>
- Gómez, J. M., Smith, C. P., Rosenthal, M. N., & Freyd, J. J. (2015). Participant Reactions to Questions about Gender-Based Sexual Violence: Implications for Campus Climate Surveys. *EJournal of Public Affairs, 4*(2). <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*(3), 288–300. Retrieved from <http://vaw.sagepub.com/content/12/3/288.short>
- Hedtke, K. A., Ruggiero, K. J., Fitzgerald, M. M., Zinzow, H. M., Saunders, B. E., Resnick, H. S., & Kilpatrick, D. G. (2008). A longitudinal investigation of interpersonal violence in

- relation to mental health and substance use. *Journal of Consulting and Clinical Psychology*, 76(4), 633. Retrieved from <http://psycnet.apa.org/journals/ccp/76/4/633/>
- Holland, K. J., Cortina, L. M., & Freyd, J. J. (2018). Compelled disclosure of college sexual assault. *American Psychologist*, 73(3), 256–268. <https://doi.org/10/gddgrm>
- Jordan, C. E., Combs, J. L., & Smith, G. T. (2014). An exploration of sexual victimization and academic performance among college women. *Trauma, Violence, & Abuse*, 1524838014520637. Retrieved from <http://tva.sagepub.com/content/early/2014/01/22/1524838014520637.abstract>
- Katz-Wise, S. L., & Hyde, J. S. (2012). Victimization Experiences of Lesbian, Gay, and Bisexual Individuals: A Meta-Analysis. *The Journal of Sex Research*, 49(2–3), 142–167. <https://doi.org/10.1080/00224499.2011.637247>
- Koss, M. P., Abbey, A., Campbell, R., Cook, S., Norris, J., Testa, M., ... White, J. (2007). Revising the SES: A collaborative process to improve assessment of sexual aggression and victimization. *Psychology of Women Quarterly*, 31(4), 357–370. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1471-6402.2007.00385.x/full>
- Koss, M. P., Gidycz, C. A., & Wisniewski, N. (1987). The scope of rape: Incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. *Journal of Consulting and Clinical Psychology*, 55(2), 162–170. <https://doi.org/10.1037/0022-006X.55.2.162>
- Krakow, B., Artar, A., Warner, T. D., Melendrez, D., Johnston, L., Hollifield, M., ... Koss, M. (2000). Sleep Disorder, Depression, and Suicidality in Female Sexual Assault Survivors. *Crisis*, 21(4), 163–170. <https://doi.org/10.1027//0227-5910.21.4.163>
- Kroenke, K., Spitzer, R. L., Williams, J. B., & Löwe, B. (2010). The patient health questionnaire somatic, anxiety, and depressive symptom scales: a systematic review. *General Hospital*

- Psychiatry*, 32(4), 345–359. Retrieved from
<http://www.sciencedirect.com/science/article/pii/S0163834310000563>
- Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2002). The PHQ-15: validity of a new measure for evaluating the severity of somatic symptoms. *Psychosomatic Medicine*, 64(2), 258–266.
- Littleton, H., & Henderson, C. E. (2009). If she is not a victim, does that mean she was not traumatized? Evaluation of predictors of PTSD symptomatology among college rape victims. *Violence Against Women*, 15(2), 148–167. Retrieved from
<http://vaw.sagepub.com/content/15/2/148.short>
- McKay, T., Lindquist, C. H., & Misra, S. (2017). Understanding (and Acting On) 20 Years of Research on Violence and LGBTQ + Communities. *Trauma, Violence, & Abuse*, 152483801772870. <https://doi.org/10/gfrgqg>
- Orchowski, L. M., Untied, A. S., & Gidycz, C. A. (2013). Social reactions to disclosure of sexual victimization and adjustment among survivors of sexual assault. *Journal of Interpersonal Violence*, 28(10), 2005–2023. Retrieved from
<http://jiv.sagepub.com/content/28/10/2005.short>
- Oswalt, S. B., & Wyatt, T. J. (2011). Sexual orientation and differences in mental health, stress, and academic performance in a national sample of US college students. *Journal of Homosexuality*, 58(9), 1255–1280. Retrieved from
<http://www.tandfonline.com/doi/abs/10.1080/00918369.2011.605738>
- Pacella, M. L., Hruska, B., & Delahanty, D. L. (2013). The physical health consequences of PTSD and PTSD symptoms: a meta-analytic review. *Journal of Anxiety Disorders*, 27(1), 33–46. Retrieved from
<http://www.sciencedirect.com/science/article/pii/S0887618512001107>

- Pico-Alfonso, M. A., Garcia-Linares, M. I., Celda-Navarro, N., Blasco-Ros, C., Echeburúa, E., & Martinez, M. (2006). The Impact of Physical, Psychological, and Sexual Intimate Male Partner Violence on Women's Mental Health: Depressive Symptoms, Posttraumatic Stress Disorder, State Anxiety, and Suicide. *Journal of Women's Health, 15*(5), 599–611. <https://doi.org/10.1089/jwh.2006.15.599>
- Richardson, H. B., Armstrong, J. L., Hines, D. A., & Palm Reed, K. M. (2015). Sexual Violence and Help-Seeking Among LGBQ and Heterosexual College Students. *Partner Abuse, 6*(1), 29–46. Retrieved from <http://www.ingentaconnect.com/content/springer/pa/2015/00000006/00000001/art00003>
- Rosenthal, M. N., & Freyd, J. J. (under review). Sexual Violence on Campus: Are Prevalence Estimates Biased Due to Self-Selection?
- 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. <https://doi.org/10.1177/1524838010390707>
- Schmidt, C. K., Miles, J. R., & Welsh, A. C. (2010). Perceived discrimination and social support: The influences on career development and college adjustment of LGBT college students. *Journal of Career Development, 0894845310372615*. Retrieved from <http://jcd.sagepub.com/content/early/2010/11/30/0894845310372615.abstract>
- 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, 2*(4), 351–360. <https://doi.org/10.1037/tps0000094>

- Smith, C. P., & Freyd, J. J. (2013). Dangerous Safe Havens: Institutional Betrayal Exacerbates Sexual Trauma: Institutional Betrayal Exacerbates Sexual Trauma. *Journal of Traumatic Stress, 26*(1), 119–124. <https://doi.org/10.1002/jts.21778>
- Smith, C. P., & Freyd, J. J. (2017). Insult, then Injury: Interpersonal and Institutional Betrayal Linked to Health and Dissociation. *Journal of Aggression, Maltreatment & Trauma, 26*(10), 1117–1131. <https://doi.org/10.1080/10926771.2017.1322654>
- Spitzer, R. L., Kroenke, K., & Williams, J. B. (1999). Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. Primary Care Evaluation of Mental Disorders. Patient Health Questionnaire. *JAMA, 282*(18), 1737–1744.
- Turchik, J. A. (2012). Sexual victimization among male college students: Assault severity, sexual functioning, and health risk behaviors. *Psychology of Men & Masculinity, 13*(3), 243. Retrieved from <http://psycnet.apa.org/journals/men/13/3/243/>
- Ulirsch, J. C., Ballina, L. E., Soward, A. C., Rossi, C., Hauda, W., Holbrook, D., ... McLean, S. A. (2014). Pain and somatic symptoms are sequelae of sexual assault: Results of a prospective longitudinal study. *European Journal of Pain, 18*(4), 559–566. <https://doi.org/10.1002/j.1532-2149.2013.00395.x>
- Ullman, S. E., Relyea, M., Peter-Hagene, L., & Vasquez, A. L. (2013). Trauma histories, substance use coping, PTSD, and problem substance use among sexual assault victims. *Addictive Behaviors, 38*(6), 2219–2223. <https://doi.org/10.1016/j.addbeh.2013.01.027>