

Risk of PTSD associated with Sexual Orientation following Negative Social Reactions to

Campus Sexual Assault

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Abstract

Negative social reactions (NSRs) can be extremely harmful towards individuals who have experienced campus sexual assault (CSA). In turn, experiencing CSA frequently leads to subsequent post-traumatic stress disorder (PTSD). Members of the LGBQ community are often targets of this type of abuse, making it evident that there must be reasons why this occurs. Not many other studies analyze NSRs in relation to PTSD symptoms, especially when it comes to individuals identifying within the LGBQ community. Participants from a medium-sized liberal arts college completed a survey measuring demographic information, experiences of campus sexual assault, social reactions to campus sexual assault, and severity of PTSD symptoms. A mediation model tested whether NSRs, TA and UA, were predictor variables for experiencing PTSD with a mediation variable of sexual orientation. A Pearson Chi Squared analysis was run analyzing LGBQ identifying participants in regards to experienced CSA, comparing the two populations to search for the significant relationship between LGBQ and CSA in our data. The results indicated that there were no significant direct effects between negative social reactions and PTSD. There were no significant indirect effects between LBGQ and PTSD in relation to NSRs as well. This would indicate a strong need for future research to be conducted to determine what, if not NSRs, cause PTSD symptoms to more commonly appear in the LGBQ community than in the sexual majority.

Risk of PTSD associated with Sexual Orientation following College Negative Social Reactions

The social reactions in which sexual assault victims receive when they disclose their assault have been found to relate to posttraumatic stress disorder (PTSD) symptoms (Ullman and Peter-Hagene, 2014). In cross-sectional studies, social support and posttraumatic stress disorder (PTSD) symptoms appear related, in that higher severity of PTSD is associated with lower social support (Dworkin et al., 2017). Negative social reactions (NSRs) to assault disclosure were related to greater PTSD symptoms both directly and indirectly through maladaptive coping and marginally through lower perceived control over recovery (Ullman & Peter-Hagene, 2014). Thus, conducting further studies pertaining to NSRs and their risk of PTSD symptoms, especially when it comes to the LGBTQ community.

Women identifying with the sexual minority are more likely to experience campus sexual assault than their heterosexual peers, and previous research suggests that bisexual women are especially at risk (Seabrook et al., 2018). Women who identify as bisexual or pansexual because their attraction to others does not depend on gender are significantly more likely to experience stalking than heterosexual women, and gay men were significantly more likely to experience stalking than heterosexual men (Davis et al., 2021). Compared with heterosexual women, women who identify as bisexual or lesbian experienced more contact sexual violence (CSV), or physical, person to person sexual violence, and noncontact unwanted sexual violence by any perpetrator (Chen et al., 2020). Similarly, compared with heterosexual men, both bisexual and gay men experienced more CSV and noncontact unwanted sexual violence, and gay men experienced more stalking (Chen et al., 2020). Due to the obvious correlation between CSV and sexual

minority groups, this study aims to examine this relationship and the increased potential for experiencing symptoms related to PTSD.

Among college students who identify with the sexual minority, experiencing heterosexist discrimination can contribute to poor psychological well-being (Woodford et al., 2018). Lesbian, gay, bisexual, queer and questioning (LGBQ) experiencing discrimination, or NSRs, continues to be common on college campuses (Seelman et al., 2016). LGBQ identifying college students report significantly higher rates of sexual violence victimization than their heterosexual counterparts. The additional stressors (e.g., discrimination) that sexual minority populations face may impact their decision to disclose victimization and anticipated social reactions (Moschella, Potter, and Moynihan, 2020). While a number of studies have examined blatant victimization among students, little attention has been given to microaggressions against the LGBQ community (Seelman et al., 2016). As a result, the sexual identities of LGBQ students in higher education are invisible; therefore, their experiences are known only anecdotally, or only heard of in the stories we hear (Sanlo & Espinoza, 2012). The importance of conducting studies including members of the LGBQ community on college campuses is evident due to the continued stories we hear and the stories in silence that we do not hear.

Purpose of The Study

The chance of developing PTSD increases due to trauma from having experienced some form of violence. The prevalence of PTSD in assault survivors is drastically higher than the national prevalence of the disorder (Chivers-Wilson, 2006). Severity of different types of PTSD symptoms in the acute post-trauma period may be predictive of the course of PTSD over time (Carper et al., 2015). Social reactions predicted subsequent PTSD symptoms, and, in turn, PTSD symptoms predicted subsequent social reactions (Ullman & Peter-Hagene, 2014). Hence, it is

hypothesized that more college students who identify with the sexual minority will experience more NSRs than students who identify with the sexual majority, and that NSRs, in turn, would predict more PTSD symptoms among students who identify with the sexual minority.

Method

Participants

Recruitment of students at the public liberal arts college occurred in 3 branches. The first branch of participants was a random selection of 1,200 undergraduate students at predominantly white liberal arts public colleges in February 2018. 246 from this branch of recruitment agreed to participate in the study. The second branch of recruitment included another randomized sample of 2,000 students from the same college in September 2019. 440 participants from this branch agreed to participate. Students that were included in the first branch were not recruited for the second branch. The third branch was excluded due to the ongoing covid-19 pandemic which would affect correlation. Lastly, participants were recruited from Amazon Mechanical Turk (Mturk). Participants were required to be 18 years or older or currently enrolled at a four-year college or university. 269 individuals agreed to participate.

At the end of recruitment 955 individuals participated after recruitment from both the college and Mturk. After the exclusion of participants that did not complete the survey or answered incorrectly to a reliability check question, 643 individuals were included.

Participants identified as 73.9% Caucasian/White, 13.6% Latino/Hispanic, 13.5% Asian/Pacific Islander, 5.7% Black/African American (non-Hispanic), and 1.1% another race. Participants also classified themselves as 42.6% first-year students, 20% sophomores, 18.7% juniors, 18.2% seniors, and 0.5% other.

Procedure

All procedures in this study were approved by the Institutional Review Board at The College of New Jersey. Participants were sent a link to fill out a Qualtrics survey assessing history of experienced sexual assault and emotion well-being. Participants were given the first three weeks of the semester to complete the survey and were reminded twice within that time. Participants were presented with the informed consent form and asked to either agree or disagree to complete the survey. If participants selected “yes” they were directed to the beginning of the survey, whereas those who selected “no” were not asked any further questions and brought to the end of the survey. Answering each question was optional and participants could stop responding at any point. However only participants who completed all of the questions were included in analysis. The survey took about 30 minutes to complete on average and participants were entered into a raffle to win a \$30 Amazon gift card for completion of the survey. Survey Responses were saved from Qualtrics and were saved in SPSS without participant identification.

Measures

Demographics. Participants reported a number of their demographic information, including gender, race/ethnicity, sexual orientation, etc. Participants also self-reported their GPAs in order to assess academic performance.

Campus Sexual Assault. Three items from the 17-item Sexual Contact Scale utilized were used to measure completed as well as attempted campus sexual assault. A “yes/no” variable was created to show whether participants experienced completed or attempted sexual assault during college. Questions included “Did someone have unwanted sexual contact with you by using physical force”, “Did someone have unwanted sexual contact with you by coercing you or threatening to use physical force?”, and “Did someone attempt but not succeed in having

unwanted sexual contact with you by using physical force?”, and participants answered “yes” or “no” based on their time since coming to college.

Negative Social Reactions. The 16-item Social Reactions Questionnaire Shortened version (SRQ-S; Ullman, 2000) assessed the social reactions of students who endorsed a history of campus sexual assault. The SRQ-S includes items on each of the three scales measuring Turning Against (TA), Unsupportive Acknowledgement (UA), and Positive Reactions (PR). Individuals were asked to rate items on a 5-point scale, 0 indicating *never* and 4 indicating *always*.

PTSD Symptoms. The 20-item PTSD Checklist for the DSM-5 (PCL-5; Weathers et al., 2013) was used to measure the severity of participant’s PTSD symptoms. Participants were asked to explain the degree to which each item bothered them within the past month. Items were then rated on a 5-point scale, 0 meaning *not at all* and 4 meaning *extremely*.

Data Analytic Plan. Analyses were conducted using SPSS version 26. A moderated mediation analysis was run using the PROCESS add-on for SPSS, version 3.3 (Preacher & Hayes, 2008). NSRs, TA and UA, were assessed as predictor variables for experiencing PTSD with a mediation variable of sexual orientation. Participant’s coded identification and gender were controlled for. A Pearson Chi Squared analysis was run analyzing LGBQ identifying participants in regards to experienced CSA, comparing the two populations to search for the significant relationship between LGBQ and CSA in our data.

Results

To investigate NSRs to LGBQ individuals and possible subsequent PTSD, a mediation analysis was performed using PROCESS v3.3. The outcome variable for this analysis was PCLs. The predictor variable was LGBQ status, and the three NSR subscales were entered as the

mediators. The direct effect of NSRs on PCLs was not statistically significant ($b = 3.33, p = .352$). The indirect effect of LGBQ on PCLs through turning against reactions was also not significant ($b = 0.22, 95\% \text{ CI} = 2.54$). The indirect effect of LGBQ on PCLs through unsupported acknowledgement was also not significant ($b = 2.22, 95\% \text{ CI} = 10.4$). A Pearson Chi-Squared analysis between CSA and LGBQ was conducted using crosstabs. The results were found to be statistically significant ($X^2 = 6.179, df = 1, p = 0.013$).

Discussion

In sum, the findings of this study were not significant in relation to each of the hypotheses that were initially predicted. It was hypothesized that more college students who identify with the sexual minority will experience PTSD subsequent to NSRs compared to students who identify with the sexual majority. To break it down, the results indicate that there were no statistically significant direct effects between negative social reactions and PTSD. There were no statistically significant indirect effects between LBGQ and PTSD in relation to NSRs. But, this analysis did support the theory that members of the LBGQ community experience more campus sexual assault than their heterosexual peers. This notion where members of the LBGQ community are at higher risk for experiencing campus sexual assault than heterosexual individuals (Cramer, McNiel, Holley, Shumway, & Boccellari, 2012), is already well-known to researchers. Thus, the findings of this study show that there is no significant relationship between NSRs and CSA for LGBQ identifying individuals, which made for a disappointing outcome in regards to possible correlations to the outcomes in which were hypothesized.

Limitations

Some of the limitations of this study that may have affected the outcome data include sample size and conflicts that can arise from cultural bias due to geographical location. This first

methodological limitation was in part unavoidable due to the size of the liberal arts college at which the data was collected. Another limitation that could have skewed the results would be the lack of diversity at the institution in which participants attended. This liberal arts college includes students mostly from the same state. If other liberal arts colleges were to partake in future research similar to this then not only will the sample size increase, but the chance for a more ethnically and/or culturally diverse population would also be increased.

Future Directions

Since NSRs were not found to be a contributing factor to the increased CSA for LGBTQ students and subsequent PTSD symptoms, in future studies researchers may consider interviewing a larger sample size and including a sample size from multiple different liberal arts colleges across the country. In using a larger sample size, researchers will be able to identify and analyze a greater number of students in the LGBTQ community. By collecting data from differing liberal arts colleges around the country could make for a more mixed data set with students of multiple minority identities. Also, researchers could look at the relationship between NSRs, CSA, and PTSD symptoms in more diverse areas of the country rather than just one, slightly diverse population from one college.

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Table 1

Mediation analysis: Turning Against

	R	R-sq	MSE	F	df1	df2	p
SRQtaM	.1418	.0201	.8104	.6225	3.0000	91.0000	.6022

Table 2

Mediation analysis: Unsupportive Acknowledgment

	R	R-sq	MSE	F	df1	df2	p
SRQuaM	.1794	.0322	.6424	1.0085	3.0000	91.0000	.3928

Table 3

Mediation analysis: PTSD symptoms

	R	R-sq	MSE	F	df1	df2	p
PCLs	.6289	.3955	236.0204	7.0341	8.0000	86.0000	.0000

Table 4

Interesting Description 4

	Effect	se	t	p	LLCI	ULCI
Direct Effect of X on Y	3.3299	3.5570	.9361	.3518	-3.7412	10.4010

Table 5

Mediation analysis: LGBQ -> SRQtaM -> PCLs

	SRQprM	Effect	BootSE	BootLLCI	BootULCI
Conditional indirect effects of X on Y.	.7500	.2171	1.1267	-2.1772	2.5433

Table 6

Mediation analysis: LGBQ -> SRQuaM -> PCLs

	SRQprM	Effect	BootSE	BootLLCI	BootULCI
Conditional indirect effects of X on Y.	.7500	2.2153	2.8171	-2.8424	8.6294

Table 7

Crosstabulation: Any CSA- attempted or completed

		Non-LGBQ	LGBQ	Total
any CSA - attempted and completed	No CSA	411	101	512
	CSA	92	39	131
Total	503	140	643	

*dummy variable *RECODE Sexori (1=0) (2 thru 5=1) INTO LGBQ.

Table 8

Pearson Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	6.179	1	0.013	--	--
Continuity Correction	5.603	1	0.018	--	--
Likelihood Ratio	5.847	1	0.016	--	--
Fisher's Exact Test	--	--	--	0.017	0.010
Linear-by-Linear Association	6.169	1	0.013	--	--
N of Valid Cases	643	--	--	--	--

Figure 1.

