Article

Sexual Assault, Sexual Orientation, and Reporting Among College Students

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Abstract

Research has demonstrated significantly higher rates of sexual assault victimization among lesbian, gay, bisexual and queer (LGBQ) students than heterosexual students, and the overwhelming majority of assaults are not reported to any official system. Given the potential for support services to provide valuable assistance and promote well-being after an assault, the present study explores whether LGBQ students report assaults at similar rates to heterosexual students. As part of the 2015 College Student Health Survey, 10,646 male and female college students at 2- and 4-year colleges in Minnesota provided data regarding sexual assault victimization; reporting to a health care provider, campus authority, police, or social contact; and sexual orientation (two items, including write-in). Chi-square tests were used to detect associations between sexual assault victimization and five sexual orientation groups; and between sexual orientation and assault reporting (for 523 assault incidents). Almost 6% of students reported that they had experienced sexual assault in the previous 12 months. Significant differences in assault experience were seen by sexual orientation groups, for both

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males and females. For example, rates of sexual assault were 2.5 to over 5 times higher among bisexual and queer/pansexual/other females than among heterosexual females. Reporting of sexual assault to health care providers, campus authorities or police was rare for both heterosexual and sexual minority students, and there were no significant differences in reporting across sexual orientation. LGBQ students and heterosexual students appear to be similarly comfortable accessing health care providers, police, and campus resources, suggesting that these services are not overtly biased or unwelcoming to sexual minorities. However, rates of sexual assault were considerably higher among sexual minority groups, suggesting a need for primary prevention that is appropriate and sensitive to the experiences of LGBQ students.

Keywords
sexual assault, sexual orientation, college health

Introduction

Sexual Assault Among College Students

Sexual assault—a sexual act or sexual touching in which a person is coerced or forced to engage against their will or for which consent cannot be given due to incapacitation (Cantor et al., 2015)—remains a serious problem on college campuses. According to the 2016 National College Health Assessment, 10% of female and 3% of male students experienced unwanted sexual touching in the past 12 months; and 3% of females and 1% of males experienced sexual penetration without consent in past 12 months (American College Health Association, 2016). Other research has shown that up to 21% of college women experienced sexual assault since entering college (Krebs et al., 2016). Sexual assault is recognized as among the most severe of personal traumas, with well-established adverse effects on emotional health (Briere & Jordan, 2004; Bryant-Davis, Chung, Tillman, & Belcourt, 2009; Chrisler & Ferguson, 2006; Jordan, Campbell, & Follingstad, 2010; Vazquez, Torres, & Otero, 2012; Zinzow et al., 2011). Immediately following an assault, it is common for victims to feel shock, fear, agitation, and confusion, and to experience flashbacks, sleeping problems, and emotional detachment. Emotional distress often continues well beyond the assault experience. Up to half of victims develop depression or anxiety, and up to 19% attempt suicide (Jordan et al., 2010).

Several issues make sexual assault and reporting on college campuses distinct from other settings. In 2011, the U.S. Department of Education Office for Civil Rights (2011) published a "Dear Colleague" letter detailing schools'

obligations regarding sexual violence under Title IX. These obligations include taking immediate action to investigate any incidents it is aware of or "reasonably should know of," with the goals of taking prompt and effective steps to end the sexual violence and prevent its recurrence. Since then, many colleges and universities around the United States have responded by requiring faculty and staff to report incidents to administrators, even against the wishes of the victim (Flaherty, 2015). This approach has been controversial, in that it may result in fewer students seeking support after a sexual assault experience if they are not prepared to go forward with a full-scale investigation at that time.

Sexual Assault and Sexual Orientation

Studies have demonstrated differences in sexual assault victimization across sexual orientation groups, both in the general adult population and among college students (Cantor et al., 2015; Cramer, McNiel, Holley, Shumway, & Boccellari, 2011; Ford & Soto-Marquez, 2016; Hines, Armstrong, Reed, & Cameron, 2012; Long, Ullman, Long, Mason, & Starzynski, 2007; Walters, Chen, & Breiding, 2013). For example, using a large sample of students attending 21 different U.S. colleges and universities, Ford and Soto-Marquez (2016) found that approximately one quarter of heterosexual female college students experienced sexual assault after 4 years in college. Gay and bisexual men had rates of sexual assault similar to heterosexual women, and bisexual female students had the highest rates of any group examined (38%; Ford & Soto-Marquez, 2016).

Existing studies of sexual orientation and sexual assault among college students present two important shortcomings. First, these studies have been conducted predominantly at 4-year colleges and universities (American College Health Association, 2016; Ford & Soto-Marquez, 2016; Hines et al., 2012; Krebs et al., 2016); one notable exception included a large subset of 2-year colleges, but did not examine the potential role of college type in regard to sexual assault experiences (Fisher, Daigle, Cullen, & Turner, 2003). Students at 2-year and 4-year institutions differ in their age, economic and racial/ethnic backgrounds (National Center for Education Statistics, 2017), as well as health and risk behaviors (Eisenberg, Garcia, & Lust, 2014; Laska, Pasch, Lust, Story, & Ehlinger, 2011; Sanem, Berg, An, Kirch, & Lust, 2009; Velazquez et al., 2011). Almost 40% of students enrolled in undergraduate institutions attend 2-year colleges (National Center for Education Statistics, 2016), making this an important understudied context for sexual assault among students. Second, most studies of sexual orientation and sexual assault include only females (Long et al., 2007; Walters et al., 2013) or use samples

that are too small to permit thorough exploration across different sexual orientation groups, instead collapsing all sexual minority groups (i.e., not exclusively heterosexual in identity or behavior) for analysis (Cramer et al., 2011; Hines et al., 2012). Findings from these studies may therefore miss important nuances in smaller sex and sexual orientation groups of assault victims.

Sexual Assault Reporting and Support Resources

Both community-based services (e.g., legal, medical, mental health services; Campbell, 2008) and campus-based services (e.g., awareness events, support groups, and counseling; Eisenberg, Lechner, Frerich, Lust, & Garcia, 2012; Eisenberg, Lust, Hannan, & Porta, 2016) are designed to prevent sexual assault and support victims. The effectiveness of services varies considerably, and research has shown that certain postassault experiences, particularly with the medical and legal systems, may be retraumatizing for victims (Campbell, 2008). However, other studies have demonstrated that women who do report the assault and seek assistance find the experience helpful, beneficial, healing, and associated with lower levels of regret, self-blame, distress, and posttraumatic stress disorder (PTSD), especially when assisted by an advocate within the medical or legal system (e.g., a Sexual Assault Nurse Examiner; Campbell, 2008; Long et al., 2007; Marchetti, 2012). Our previous research demonstrated that college women who were victims of sexual assault had lower rates of anxiety, panic attacks, and PTSD if their college had a high number of sexual assault prevention and support resources, compared with victims at colleges with few such resources (Eisenberg et al., 2016).

Obtaining help and support from formal services following a sexual assault entails disclosing the incident. However, the overwhelming majority of sexual assault cases are not reported to any official system (Cantor et al., 2015; Fisher et al., 2003; Krebs et al., 2016; Walters et al., 2013; Wolitzky-Taylor et al., 2011), and this is especially true among college students (Sinozich & Langton, 2014). For example, in a recent study of college students, only 26.7% of female victims of sexual assault using physical force reported the incident to any agency or organization (Cantor et al., 2015). More specifically, 18.7% of rape victims in a national sample of college women received medical attention after the rape, and 17.8% sought out help or advice from a rape crisis center or similar agency (Wolitzky-Taylor et al., 2011). Differences in reporting and use of services have been noted by sexual orientation: In a general community sample of adult women, more bisexual women disclosed the assault to formal supports (e.g., mental health providers) than lesbian and heterosexual women, but there were no differences in disclosure to police, medical professionals, rape crisis centers, or clergy (Long et al., 2007).

The Present Study

The present study is grounded in a social ecological framework (Bronfenbrenner, 1979; Sallis, Owen, & Fisher, 2008), which posits that individual well-being is influenced by factors at the individual, interpersonal, organizational, community, and/or societal levels. Availability of, access to, and support offered by social contacts (interpersonal), college and university programs (organizational), health care providers, and the legal system (community/societal) have the potential to profoundly affect the future well-being of sexual assault victims. Experience with these social supports may differ by sexual orientation (an individual characteristic), and understanding the extent to which utilization varies across groups is a necessary step toward ensuring that robust services are available and welcoming to all college students who experience sexual assault.

Given the potential for formal and informal support services to provide valuable assistance and promote well-being after an assault, and previous research suggesting differences in reporting by sexual orientation, the present study explores whether lesbian, gay, bisexual, and queer (LGBQ) college students are reporting sexual assault experiences at similar rates to heterosexual students. Although reporting differences have been shown among adult women, this question has not been explored among college students in particular. Colleges and universities are unique bounded "communities" with their own social climates, programs, policies, and resources. Filling this gap in the literature may indicate the need for community and campus sexual assault resources to be more welcoming for LGBQ students or partner with LGBQ student support resources on college campuses, in light of higher rates of sexual assault in this population.

This study therefore addresses two research questions. First, we examine the association between sexual orientation and sexual assault in a large sample of students at 17 colleges, addressing shortcomings in previous research by explicitly examining additional sexual orientation groups. Second, we examine how sexual orientation is associated with whether or not the victim reports the assault to a health care provider, campus authority, police, or social contact, with consideration of the previously unexplored role of 2-year versus 4-year institutions.

Method

Population and Sample

Data for this study came from the 2015 College Student Health Survey, conducted by Boynton Health at the University of Minnesota (http://www.bhs.umn.edu/surveys/index.htm). Researchers invited a variety of colleges

around the state of Minnesota to participate, prioritizing a mix of 2-year, 4-year, public, and private colleges from all regions of the state, with particular emphasis on those that have not participated in the previous year. Seventeen colleges and universities participated in 2015, including seven 2-year and ten 4-year institutions, both public and private, and across metropolitan, small-to-medium cities, and rural areas of the state.

Participating colleges provided contact information for a random sample of registered undergraduate and graduate students (the sampling proportion depended on the size of the student body, with smaller schools sampling a larger proportion of students to achieve an adequate sample for school-specific analyses). The study sent multiple postcard and email invitations and reminders, and participating students were entered into a drawing to win gift cards of different amounts. Informed consent was obtained online immediately prior to survey administration. The University of Minnesota Institutional Review Board and each participating college approved all study protocols; this secondary analysis of anonymous data was found to be exempt from review.

In total, 38,648 students were invited to participate in the study and 12,220 completed the survey (31.6% of students who opened the initial email invitation). Data were collected through online survey administration and took 30 minutes on average to complete.

Survey and Measures

The College Student Health Survey was originally developed in 1995 by researchers, health service staff, and experts in adolescent health, substance use, and survey methodology. Items were drawn from existing surveillance instruments such as the Behavioral Risk Factor Surveillance System (Centers for Disease Control and Prevention, 2012). The survey is administered annually, and minor revisions are made each year. All new items are pilot-tested with college students for readability, interpretability, and content validity, and final revisions are made based on their feedback.

Sexual assault victimization. Two survey items assessed sexual assault victimization: Have you experienced actual or attempted (sexual touching/sexual intercourse) without your consent or against your will? Both items were asked for the past 12 months and lifetime experience (yes = 1/no = 0 for each). The section introduction included the following text: "When answering the questions please use the following definitions: sexual intercourse—oral, vaginal, or anal penetration; sexual touching—touching of breasts, buttocks, or genitals." Unwanted sexual touching and sexual intercourse in

the past 12 months were considered separately and in combination (either experience = 1 vs. neither = 0).

Sexual assault reporting. One question was asked of all participants who indicated any sexual assault experience and responded that they told someone about the incident. Participants were asked to check all that applied if they told (a) a health care provider (e.g., physician, nurse or therapist), (b) campus authority (e.g., campus law enforcement, hall director or advisor, school staff), (c) police agency, (d) friend or intimate partner, (e) family member, or (f) someone else. Because the focus of this analysis was on official sources of assistance rather than informal social sources, telling a health care provider, campus authority, or police agency was considered separately (yes = 1/no = 0 for each), and telling a friend, intimate partner, family member, or other contact were combined (told any = 1 vs. none = 0).

Sexual orientation. Identity and behavioral measures of sexual orientation were combined to create a five-category variable. One item assessed sexual orientation identity as heterosexual or straight, gay or lesbian, bisexual, "I am not sure yet," "I am not sure what this question means," or "something else." Those who responded that they were not yet sure of their sexual orientation or did not understand the question were set to missing for this analysis. Participants who responded that their sexual orientation was "something else" aside from what was listed were given the option to fill in a free response (i.e., "What do you mean by something else?"). Those who wrote in queer, pansexual, androphilic, androsexual, heteroflexible, or a longer description that included same-sex attractions or sexual behaviors were grouped together for analysis.

The identity item was prioritized for assignment of sexual orientation category based on research demonstrating that self-identifying as LGBQ is a meaningful milestone signifying a nonheterosexual orientation (Savin-Williams & Cohen, 2015). However, accumulating evidence suggests the importance of considering a distinct "mostly heterosexual" group that is conceptually between heterosexual and bisexual (Savin-Williams & Vrangalova, 2013; Vrangalova & Savin-Williams, 2012) and has a health risk profile that differs from both heterosexuals and bisexuals (Vrangalova & Savin-Williams, 2014). This response option was not included in the identity measure in the parent study; a behavioral measure was therefore used to further categorize participants who identified as heterosexual. After defining sexual activity as engaging in vaginal or anal intercourse or oral sex, participants were asked whether their sexual partner(s) within the past 12 months were male (yes/no) or female (yes/no). These responses were crossed with the participant's own

gender (male or female) to identify those with past-year same-sex partner(s). The final five-category orientation variable therefore included heterosexual, heterosexual with same-sex experience, gay or lesbian, bisexual, and queer/pansexual/other terms. In addition, the latter four groups were combined for analyses of assault reporting, due to small numbers in all sexual minority categories.

Covariates. Two additional covariates were included in this analysis. Institution type was recorded by the researchers as 2-year or 4-year college. Gender was reported on the survey as male, female, transmale/transman, transfemale/transwoman, genderqueer, or something else (check all that apply). Those who reported a gender identity other than only male or only female were excluded because this group (n = 104, <1%) was too small to be analyzed with regard to sexual orientation categories and sexual assault; an additional 1,466 participants (12.0%) did not respond to this question and were also excluded from gender-stratified analyses.

Data Analysis

The analytic sample included 10,646 college students (n = 3,338 males, n = 7,308 females). Fisher's exact tests were used to detect associations between sexual assault victimization in the past year and sexual orientation (and covariates). Among 523 incidents of sexual assault, Fisher's exact tests were also used to examine bivariate associations between sexual orientation (heterosexual vs. sexual minority) and each reporting item. This test was selected for analysis of contingency tables due to small ns available for many comparisons tested here; it is also valid for larger sample sizes (Agresti, 1992). In addition, logistic regression models were run for females to test whether the association between orientation and reporting of sexual assault was confounded by institution type (2- vs. 4-year), based on prior research showing differences in sexual assault resources and resources to support LGBTQ (lesbian, gay, bisexual, transgender, and queer) students across institution type (Eisenberg et al., 2012). Logistic regression models are appropriate for multivariable analysis of data with dichotomous dependent variables (Freedman, 2009). Adjusted models were not run for males due to the small numbers reporting sexual assault in this data set. All analyses were stratified by gender. SAS 9.4 was used for all analysis.

Results

The sample was made up of 68.7% (n = 7,308) female students and 31.4% (n = 3,338) male students, and 77.7% (n = 8,270) of participants attended

4-year colleges. Approximately 19% (n = 1,945) identified as a race other than only White. Approximately 10% (n = 996) had a sexual orientation other than heterosexual, including 2.6% (n = 271) categorized as heterosexual with same-sex experience, 2.5% (n = 253) gay or lesbian, and 4.3% (n = 438) bisexual. Additional details of the sample are shown in Table 1.

Almost 6% (n = 551) of the sample reported that they had experienced sexual assault in the previous 12 months, including unwanted sexual touching (5.4%, n = 516) and/or intercourse (2.6%, n = 251; Table 1). Rates of sexual assault victimization were significantly higher among women than among men (7.3%, n = 477, vs. 2.5%, n = 74, for either touching or intercourse, $p < .001$).

Associations Between Sexual Orientation and Sexual Assault

Significant differences in sexual assault experience were also seen by sexual orientation groups, for both males and females (Table 1). For example, among females who identified as bisexual (17.3%, n = 56) or who used terms such as queer, pansexual or other language (34.8%, n = 8), rates of sexual assault were 2.5 to over 5 times higher than among heterosexual females (6.5%, n = 377; $p < .001$). Similarly, among males, those identifying as gay (11.2%, n = 15), bisexual (9.2%, n = 8), or queer/pansexual/other terms (12.5%, n = 1) had significantly higher rates of sexual assault victimization than heterosexual males (1.5%, n = 37; $p < .001$). These patterns were consistent for forced intercourse as well as for other unwanted sexual touching.

Sexual Orientation and Reporting Sexual Assault Experience

Among 523 incidents of sexual assault, 55.6% (n = 291) of victims told someone about the incident. Few differences were evident by sexual orientation (Table 2). For males, although there were some noticeable differences in reporting of sexual assault (e.g., 12.1%, n = 4, of sexual minority males vs. 2.7%, n = 1, of heterosexual males reported sexual assault to a health care provider), these were based on a very small number of incidents and did not reach statistical significance. Likewise for females, there were no significant differences in reporting of sexual assault to health care providers, campus authorities, police, or a social contact. Using logistic regression to adjust for 2-year versus 4-year campus, neither orientation nor campus type were significantly associated with reporting (results not shown).

Table 1. Characteristics by Sexual Assault Status.

	Total		Victimization								
			Forced Sexual Touching			Forced Intercourse			Either		
	n	%	*n*	%	*p**	*n*	%	*p**	*n*	%	*p**
Total	10,646	100	516	5.4		251	2.6		551	5.8	
Gender					**<.001**			**<.001**			**<.001**
Male	3,338	31.4	67	2.3		32	1.1		74	2.5	
Female	7,308	68.7	449	6.8		219	3.3		477	7.3	
Sexual orientation					**<.001**			**<.001**			**<.001**
Heterosexual	9,314	90.3	390	4.7		182	2.2		414	5.0	
Sexual minority	996	9.7	99	10.8		54	5.9		109	11.8	
Sexual orientation					**<.001**			**<.001**			**<.001**
Heterosexual	9,314	90.3	390	4.7		182	2.2		414	5.0	
Heterosexual with same-sex experience	271	2.6	12	5.0		9	3.7		14	5.8	
Gay/lesbian	253	2.5	21	8.9		11	4.7		22	9.3	
Bisexual	438	4.3	57	13.9		30	7.4		64	15.6	
Queer, pansexual, other	34	0.3	9	26.5		4	12.1		9	27.3	
Institution type					**<.001**			.087			**<.001**
2-year	2,376	22.3	75	3.6		43	2.1		82	4.0	
4-year	8,270	77.7	442	5.9		208	2.8		470	6.3	
Males											
Sexual orientation					**<.001**			**<.001**			**<.001**
Heterosexual	2,801	86.5	36	1.4		11	0.4		37	1.5	
Sexual minority	439	13.6	28	7.0		19	4.8		33	8.2	
Sexual orientation					**<.001**			**<.001**			**<.001**
Heterosexual	2,801	86.5	36	1.4		11	0.4		37	1.5	

(continued)

Table 1. (continued)

	Total		Victimization								
			Forced Sexual Touching			Forced Intercourse			Either		
	n	%	*n*	%	*p**	*n*	%	*p**	*n*	%	*p**
Heterosexual with same-sex experience	190	5.9	7	4.1		6	3.5		9	5.2	
Gay	144	4.4	14	10.5		8	6.0		15	11.2	
Bisexual	97	3.0	6	7.0		4	4.7		8	9.2	
Queer, pansexual, other	8	0.3	1	12.5		1	12.5		1	12.5	
Institution type					**.001**			.088			**.001**
2-year	801	24.0	5	0.7		3	0.4		6	0.9	
4-year	2,537	76.0	62	2.7		29	1.3		68	3.0	
Females											
Sexual orientation					**<.001**			**<.001**			**<.001**
Heterosexual	6,513	92.2	354	6.0		171	2.9		377	6.5	
Sexual minority	555	7.9	71	13.7		35	6.8		76	14.7	
Sexual orientation					**<.001**			**<001**			**<.001**
Heterosexual	6,513	92.2	354	6.0		171	2.9		377	6.5	
Heterosexual with same-sex experience	81	1.2	5	7.1		3	4.3		5	7.1	
Lesbian	109	1.5	7	6.9		3	2.9		7	6.9	
Bisexual	341	4.8	51	15.8		26	8.1		56	17.3	
Queer, pansexual, other	24	0.3	8	33.3		3	13.0		8	34.8	
Institution type					**.004**	χ^2= .353					**.006**
2-year	1,575	21.6	70	5.1		40	2.9		76	5.6	
4-year	5,733	78.5	379	7.3		179	3.4		401	7.7	

Note. Boldface font indicates statistical significance ($p < .05$).
*p values are for two-sided Fisher's exact tests.

Table 2. Percent Reporting Sexual Assault Incident by Sexual Orientation Group, Past 12 Months (N = 523).

	Told Health Care Provider			Told Campus Authority			Told Police			Told Friend/Partner/ Family/Other		
	n	%	*p**	*n*	%	*p**	*n*	%	*p**	*n*	%	*p**
Males	5	7.1	.181	0	0	—	2	2.9	.219	26	37.1	.461
Heterosexual	1	2.7		—	—	—	0	0		12	32.4	
Sexual minority	4	12.1		—	—	—	2	6.1		14	42.4	
Females	48	10.6	.838	20	4.4	.550	27	6.0	.285	260	57.4	.800
Heterosexual	41	10.9		18	4.8		25	6.6		215	57.0	
Sexual minority	7	9.2		2	2.6		2	2.6		45	59.2	

*p values are for two-sided Fisher's exact tests.

Discussion

This study found significant differences in sexual assault victimization by sexual orientation among college students. As seen previously, women identifying as bisexual were at particularly elevated risk (Ford & Soto-Marquez, 2016), but women using newer language to describe their sexual orientation (such as queer or pansexual) had twice the rate of victimization than bisexual-identified women. Sexual minority men also had significantly higher rates of sexual assault than heterosexually identified men. Guided by a social ecological framework, we further examined reporting of sexual assault experiences to informal (i.e., interpersonal) and formal contacts (i.e., community/societal), and whether rates differed by an individual characteristic (i.e., sexual orientation). Rates of heterosexual and sexual minority students reporting an assault to official resources and social contacts were not significantly different. Although differences were difficult to detect among males due to very small numbers (≤5 reporting), models of reporting to police and to social contacts were adequately powered for women and showed very similar rates for heterosexual and sexual minority students. These findings are consistent with Long and colleagues' (2007) findings of similar rates of disclosure to police, medical professionals, or rape crisis centers among heterosexual and sexual minority groups in a community sample of adult women, extending the research to male and female college students.

Females who identified as queer, pansexual, and other terms appeared to be at particularly high risk, with over one-third with these identities experiencing sexual assault in the previous year; for males, rates of sexual assault in this group were not markedly different from those identifying as gay or bisexual. This group that positions itself outside traditional sexual minority identities may be more isolated than their gay, lesbian, and bisexual peers, and may be targeted for victimization more often than students using traditional sexual orientation terms. However, it is also possible that an underlying characteristic which has led queer, pansexual, and other youth to be thoughtful and intentional about choosing language related to their sexual orientation may similarly contribute to classifying certain experiences as sexual assault where others might not, resulting in the higher rates seen here. This group has been identified only recently with the emerging popularity of newer terms like pansexual, and with few exceptions is only beginning to be studied in depth (Russell, Clarke, & Clary, 2009; Savin-Williams, 2006). Further study is needed to understand who these young people are, what contributes to their rejection of more traditional sexual orientation language, and what other characteristics or risk behaviors might be confounding higher rates of sexual assault in this group (e.g., binge drinking). Because this is a

relatively small subset of sexual minority participants, qualitative and mixed method research would be appropriate to build awareness of their needs, including differences by gender. Understanding ways in which campus sexual assault prevention and support activities can effectively reach this population is critical.

The finding of no difference in the reporting of sexual assault across sexual orientation can be viewed both positively and negatively. As a negative, the very low rates of reporting sexual assaults, while consistent with prior research (Fisher et al., 2003; Krebs et al., 2016; Sinozich & Langton, 2014; Walters et al., 2013; Wolitzky-Taylor et al., 2011), point to an ongoing problem with the way in which our society and systems (i.e., at the organizational and community/societal levels of the social ecological model) respond to sexual assault (Campbell, 2008), or at least the way they are perceived. Recent research by Cantor and colleagues (2015) found that victims of penetrative sexual assault involving force did not report the incident because they feared negative social consequences; felt embarrassed, ashamed, or that it would be emotionally difficult; or expected nothing would be done about it, pointing to critical areas for improvement in the systems designed to deal with sexual assault. Substantial cultural shifts away from victim blaming and toward prevention activities and accountability for perpetrators are needed to provide far-reaching support to those who experience sexual assault. As a positive, LGBQ students do not appear to be significantly disadvantaged in accessing health care providers, police, and campus resources postassault compared with their heterosexual peers. This finding suggests that although these services and systems need to improve overall, they are not necessarily biased or unwelcoming to sexual minorities.

Importantly, prior research shows that the perceived *helpfulness* of certain formal sources, specifically physicians and other medical staff, differed significantly by sexual orientation, with bisexual women less likely than heterosexual or lesbian women to find them helpful (Long et al., 2007). This same study did not find sexual orientation differences in perceived helpfulness of mental health professionals, police, or other formal sources (Long et al., 2007). Although findings from the current study demonstrate no differences by sexual orientation in formal or informal reporting, survey items did not address the quality of the reporting experience or the help and support received from any service or social contact. Future mixed-methods research is recommended to delve more deeply into ways in which various services and systems responded to reports of sexual assault for those of different sexual orientations.

As noted above, colleges' policies regarding sexual assault (Flaherty, 2015) change the landscape of sexual assault experience and reporting in

contrast to community settings. The present study's findings of very low rates of reporting to a campus authority (no males, <5% of females) may be attributable in part to such policies or confusion about official reporting requirements. These concerns may be further exacerbated for sexual minority students, for whom sharing information about sexual assault may additionally entail divulging their sexual orientation. Ongoing discourse about policies that mandate reporting of sexual assault should include the unique concerns of sexual minority students, given high rates of assault in this population.

In recent years, sexual assault prevention programs have proliferated, and some have been shown to be effective in changing attitudes about violence, increasing bystanders' willingness and comfort to intervene to prevent sexual assault, and reducing in sexual assault (Alegría-Flores, Raker, Pleasants, Weaver, & Weinberger, 2015; Coker et al.,2011, 2015; McMahon & Banyard, 2012; Moynihan et al., 2015; Potter, 2012; Salazar, Vivolo-Kantor, Hardin, & Berkowitz, 2014). The prevailing paradigm in most of these programs is that sexual violence is perpetrated by males against females. This approach is certainly appropriate given the high prevalence of this type of violence among college students. However, as seen here and elsewhere, the rates of sexual assault against sexual minority students are high, suggesting that adaptations of successful prevention programs are needed to call attention to and address the issue of same-sex sexual assault. Furthermore, because reporting sexual assault to social contacts was far more common than reporting to formal services, and prior research has shown that almost two thirds of students personally know someone who has been victimized (Sorenson, Joshi, & Sivitz, 2014), the general population of students may be an important untapped resource for secondary prevention. Beyond bystander prevention programs, which are critically important, protocols that train, empower, and support students to assist other students after an assault can be a useful addition to a college's overall approach to tackling this issue (building on the interpersonal level of the social ecological model). Highlighting similarities and differences and dispelling myths about sexual assault based on the gender of the perpetrator, and describing the value of connections to LGBQ-supportive health care, could be important strategies to strengthen peer support for sexual minority students.

Limitations and Strengths

This research is subject to certain limitations. First, no information is available about the perpetrators of the sexual assault experiences reported by participants. This information is particularly important because the highest

rates of sexual assault experience were among those identifying as bisexual, queer, pansexual, and other terms, where the gender of sexual partners is not implied. Prevention messages are more appropriately targeted at perpetrators; this information will therefore be important to include in future research. Second, because the behavioral measure of sexual orientation referred only to past-year sexual partners, heterosexually identified students who had same-sex experience more than 1 year ago may be misclassified, biasing results toward the null. Third, even in this very large student sample, the number of participants with select characteristics (e.g., smaller sexual orientation groups, male victims of sexual assault, transgender or gender nonconforming students, students of color in specific racial/ethnic groups) were too small in some cases to permit a robust analysis or exploration of intersectionality of identities. Null findings may therefore be due to low statistical power. Finally, as is typical with college surveillance studies, the survey response rate was low and findings may therefore not be generalizable to all college students. However, the sample had similar demographic characteristics as college students across the state (Minnesota Office of Higher Education, 2015), suggesting representativeness.

Several strengths also enhance the contribution of this study. The survey contained multiple measures of sexual orientation, which allowed for the creation of a more nuanced variable including the understudied categories of heterosexual with same-sex experience and those using newer terms to describe their sexual orientation. Additionally, 23% of the sample was made up of students attending 2-year colleges who are not typically included in college studies, giving findings relevance to a large and important sector of higher education.

Conclusion

Future research regarding sexual assault, sexual orientation, and reporting practices should include qualitative methods (to deepen understanding of victims' experience reporting to formal and informal resources), larger samples of sexual minority students (to confirm differences found here, particularly among smaller sexual orientation groups), and survey measures specifying certain details of both the assault and reporting experience (e.g., perpetrator characteristics, response of support resource). The development and testing of college sexual assault prevention and peer support programs that explicitly address the needs of LGBQ students will be important to uncovering effective strategies to reduce sexual assault and its sequelae in this population.

Most 2-year and 4-year college campuses offer resources and support systems, both specific to sexual violence prevention and for LGBQ

students. These offices and student organizations need to work with each other and with their administrations to address ongoing issues of sexual assault, particularly among sexual minority groups. Although the similar reporting rates among heterosexual and sexual minority students are encouraging, implementation of victim advocates in the medical and legal systems and appropriate training to heighten sensitivity to the needs of LGBQ young people may be needed, so that when sexual assaults are reported, advocates can be as effective and helpful as possible to those of all sexual orientations.

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