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Unwanted Sexual Experiences Among Lesbian, Gay, Bisexual, And Queer Undergraduates: The Role Of Internalized Homophobia And Sense Of Community

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Unwanted Sexual Experiences Among Lesbian, Gay, Bisexual, and Queer Undergraduates:
The Role of Internalized Homophobia and Sense of Community

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Abstract

Lesbian, gay, bisexual, and queer college students experience sexual assault and coercion at similar or higher rates compared to heterosexual peers, but there are little data on how LGBTQ identity affects the nature or risk of these events. This study examined characteristics and correlates of unwanted sexual experiences (USEs) in a sample of 683 LGBTQ undergraduates, testing whether internalized homophobia and sense of LGBTQ community predicted USEs. 39% of the sample reported some form of unwanted sexual contact during college, and 14% reported an unwanted sex act, with the lowest risk among men. 79% of participants with USEs reported male agents, and 18% reported female agents; these frequencies did not differ significantly by participant gender. Internalized homophobia was associated with increased risk of assault and coercion, and sense of LGBTQ community was negatively associated with coercion, partially mediated by internalized homophobia. This analysis demonstrated that internalized stigma and in-group social relationships are associated with college sexual victimization among LGBTQ students. Interventions should target LGBTQ community-building on college campuses and the promotion of self-acceptance among LGBTQ students.

Keywords: *sexual assault, sexual coercion, college, LGBT*

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Unwanted Sexual Experiences Among Lesbian, Gay, Bisexual, and Queer Undergraduates:
The Role of Internalized Homophobia and Sense of Community

Sexual violence during college can impair both academic success (Jordan, Combs, & Smith, 2014) and mental health (Arata & Burkhart, 1996; Vrana & Lauterbach, 1994). As with most forms of sexual violence, most college sexual assault victims are women, and most perpetrators are men (Krebs, Lindquist, Warner, Fisher, & Martin, 2007). As a result, the phenomenon has been studied primarily in heterosexual terms. Over the past decade, surveillance has begun to discard these assumptions, leaving room for male victimization, female perpetration, and a broader range of sexual behaviors. These changes have generated initial data on same-sex assaults, which overlap inexactly with violence among and against lesbian, gay, bisexual, and queer (LGBTQ) college students (Scarce, 1997). Some studies have also included data on victims' sexual identities. As a result, it is now clear that LGBTQ students experience sexual violence at least as often as their heterosexual peers (Hines, Armstrong, Reed, & Cameron, 2012; Martin, Fisher, Warner, Krebs, & Lindquist, 2011).

In spite of this evidence, nearly all research on the dynamics of college sexual violence has focused on male perpetration against women, and on the experiences of heterosexual students. While some of these findings may generalize to LGBTQ students, there may also be crucial differences: (1) students who pursue consensual same-sex encounters or relationships may be more likely to experience same-sex victimization; (2) individual and interpersonal factors unique to LGBTQ students may affect vulnerability and resilience; (3) distinct norms in LGBTQ spaces and communities may produce patterns of power and coercion unlike those noted in heterosexual circles.

This study describes patterns of sexual assault and coercion among LGBTQ college students, with the aim of informing both LGBTQ-targeted and general-population prevention efforts. By taking stock of these events' characteristics, such as the method used and the relationship to the perpetrator, and by examining demographic and behavioral risk factors, it suggests promising directions for prevention. In particular, it examines the role of two factors unique to LGBTQ students—internalized homophobia and sense of LGBTQ community (Lin & Israel, 2012)—in the likelihood of unwanted sexual experiences.

Prevalence of Sexual Assault among LGBTQ Undergraduates and Adults

A significant fraction of sexual minority men and women experience sexual assault during adulthood. Estimates of sexual assault prevalence in gay and bisexual male adults range from 11% to 45% (median 15%), and in lesbian and bisexual women between 11% to 53% (median 23%) (Rothman, Exner, & Baughman, 2011). Most studies do not compare LGBTQ populations to heterosexuals, but available comparisons suggest similar or higher rates of sexual assault and coercion among sexual minorities (Balsam, Rothblum, & Beauchaine, 2005; Stoddard, Dibble, & Fineman, 2009; Tjaden, Thoennes, & Allison, 1999).

Data specific to sexual assault among sexual minority college students are sparse, but existing evidence suggests that sexual minority students are assaulted at similar or higher rates relative to their heterosexual peers. In one web-based sample of 5,439 female undergraduates, 24% of bisexual women and 18% of lesbians had been sexually assaulted since starting college, compared to 13% of heterosexual women—a significant difference for bisexual, but not lesbian, women (Martin et al., 2011). Another study, which included 1,069 GLBQ undergraduates and 4,961 heterosexuals, found that GLBQ students had significantly greater odds of sexual assault compared to heterosexual students; the relationship between GLBQ status and risk did not differ

by gender (K. M. Edwards et al., 2015). In a study of 1,916 students at a small U.S. university, non-heterosexual men had four times the odds of college sexual assault relative to heterosexual men, though sexual orientation was not associated with assault among women (Hines et al., 2012). Sexual violence in this population includes victimization by intimate partners; a study of 391 LGBTQ students in same-sex relationships found that 14.1% had experienced sexual violence in their current relationship (K. M. Edwards & Sylaska, 2013).

LGBTQ college students appear to have higher rates of lifetime sexual victimization, driven in part by elevated rates of childhood and adolescent abuse. A study of college students recorded a lifetime sexual assault prevalence of 12% among 34 gay men, compared to just 4% among 168 heterosexual men (Duncan, 1990). The sample's 36 lesbian women had a lifetime prevalence of 31%, well exceeding the 18% prevalence among the 174 heterosexual women. A survey of 702 university students found that 18% of gay, lesbian and bisexual students (both men and women) had experienced rape, 12% had experienced attempted rape, and 37% had experienced sexual coercion (Baier, Rosenzweig, & Whipple, 1991). In the full sample, over half of unwanted sexual experiences took place prior to college. In Martin et al. (2011)'s female sample, pre-college sexual assault was significantly more common among lesbians (22%) and bisexuals (25%) than heterosexuals (11%), and pre-college assault predicted during-college assault within all sexual three orientation groups. These findings are consistent with studies showing elevated rates of childhood and adolescent sexual abuse and assault among sexual minorities (Austin et al., 2008; Balsam et al., 2005).

Measuring and Categorizing Sexual Violence

Sexual coercion and assault. Prevalence estimates of sexual violence among college students vary due to inconsistent definitions and measurement. The frequently-cited "one in five

women” estimate is drawn from the Campus Sexual Assault (CSA) Study, which surveyed 5,446 women and 1,375 men at two U.S. colleges (Krebs et al., 2007). 19% of women and 4% of men reported a completed sexual assault, defined as nonconsensual sexual contact (not necessarily genital) achieved by force, with threats of harm, or on an incapacitated victim. The CSA Study operationalized sexual assault in line with U.S. legal standards, which criminalize sexual contact by way of incapacitation, threats, or physical force, but not due to verbal coercion. By this definition, sexual assaults are a subset of unwanted sexual experiences (USEs), a broader set of events that may not meet criminal standards but are nonetheless relevant to public health. Unwanted sexual experiences may include sexual contact that results from verbal pressure tactics, such as lies, anger, or criticism.¹ The Centers for Disease Control’s National Intimate Partner and Sexual Violence Survey (NISVS) uses this more expansive construct, considering verbal coercion alongside threats, force, and incapacitation (Black et al., 2011).

While the use of force is associated with higher levels of trauma symptoms (Brown, Testa, & Messman-Moore, 2009), coerced and otherwise unwanted sexual experiences can have notable mental health consequences (Larimer, Lydum, Anderson, & Turner, 1999; O’Sullivan, Byers, & Finkelmann, 1998). One sample of female victims rated sexual coercion experiences as less immediately traumatic than assault—but rated sustained trauma from coercion as equivalent to attempted rape, non-genital contact, and rape “close calls” (Testa, VanZile-Tamsen, Livingston, & Koss, 2004). Among gay men, unwanted sexual experiences during adulthood have been associated with a number of psychiatric symptoms and risk behaviors, including dissociation, trauma-related anxiety, high-risk sexual behavior, and substance use problems (Kalichman et al., 2001). Public health research should address both sexual assault and coercion,

¹ “Coercion” has a more limited meaning in sexual assault law.

in light of coercion's marked effects on those that experience it. Moreover, coercion and assault are closely linked. For instance, some students report agreeing to unwanted sex in order to avoid a potential rape (Gavey, 2005; Katz & Tirone, 2010).

Although coercion and assault are related, preventing each requires understanding how they differ. Among female undergraduates, assault and coercion have both shared and distinct correlates. For instance, being in an exclusive dating relationship is associated with decreased risk of sexual assault, but has no effect on coercion (Franklin, 2010). To understand these commonalities and differences, the present study modeled three separate outcomes that fall under the common umbrella of unwanted sexual experience (USE): any USE, coercion, and assault.

Sex acts and other sexual contact. Studies of college sexual violence also vary in the forms of sexual contact considered. "Sexual assault" studies, such as the CSA Study, count behaviors ranging from "groping" (touching sexualized body parts, such as breasts or buttocks) to sexual penetration. The term "rape" is typically reserved for penetration, whether or not a penis is used, but only when the victim is the receptive (rather than insertive) party (Stemple & Meyer, 2014).

Rape is often presumed to be more severe than other forms of contact. Considering trauma in an event's immediate aftermath, female victims have rated rape and non-penetrative contact similarly (Testa et al., 2004). However, trauma from non-penetrative contact tended to dissipate over time, while trauma from rape remained at higher levels. This study measured rates of nongenital sexual contact, but considered only oral and penetrative sex acts in its primary outcomes.

College Sexual Violence

College life, particularly on residential campuses, produces distinctive patterns of sexual violence. Half to three-quarters of campus sexual assaults may be “party rapes,” characterized by alcohol incapacitation and a perpetrator who is an acquaintance or “in-network stranger”; gendered social and sexual expectations, university policies (such as differential alcohol enforcement), and structural factors (such as the role of fraternity houses) produce the backdrop for these events (Armstrong, Hamilton, & Sweeney, 2006). Beyond the party and Greek scenes, college life often involves large social networks of same-age peers, in which consensual sex is common and casual encounters are normative. Nearly all college assaults take place within these social networks (Abbey, Ross, McDuffie, & McAuslan, 1996), and not infrequently between students with prior or subsequent consensual contact (Koss, 1998). These patterns are neither universal nor unique to campuses. Nonetheless, they have led researchers and policymakers to examine college sexual assault as a distinct form of sexual victimization.

Numerous sexual violence prevention interventions have been developed for college contexts. Historically, many have targeted the behavior of potential victims. For instance, some programs focus on increasing students’ awareness of sexual violence, presuming that self-protective behavior will follow. Others teach “refusal skills” to avert assaults that supposedly result from miscommunication (Kitzinger & Frith, 1999). Still others address alcohol use or offer instruction in physical self-defense (Gidycz, Rich, Orchowski, King, & Miller, 2006). Evidence for these strategies is fairly limited, with most findings limited to attitude changes rather than actual risk of sexual assault (DeGue, 2014; Söchting, Fairbrother, & Koch, 2004). Feminist scholars have criticized self-protection programs for reinforcing damaging gender norms, failing

to address sexually aggressive behavior, and ignoring social and cultural context; these programs also tend to overlook the needs of LGBTQ students (Carmody, 2005).

A second type of intervention aims to promote social norms that are less hospitable to sexual aggression. Some such programs aim to change students' attitudes about sexual violence, either reducing aggressive behavior directly or diminishing social support for it (DeGue et al., 2014). Other programs take a "bystander intervention" approach, training uninvolved students to intercede in potential assaults (Banyard, Moynihan, & Plante, 2007; Coker et al., 2011). Several interventions have combined bystander and attitude components (Gidycz, Orchowski, & Berkowitz, 2011; Langhinrichsen-Rohling, Foubert, Brasfield, Hill, & Shelley-Tremblay, 2011).

While difficult to evaluate, structural changes to campus life may be a powerful avenue for intervention. For instance, residential fraternities' social and spatial power as party hosts facilitate victimization of female guests (Armstrong et al., 2006). In response, some commentators have proposed permitting sororities to serve alcohol in order to reduce fraternities' social control and thus prevent some assaults (Schwarz, 2015). More broadly, data on the social dynamics of sexual violence—which may have elements unique to a given campus, or to subgroups of students—can inform policy changes and programmatic investments.

Whatever their form, there is an urgent need for campus sexual violence interventions that address LGBTQ students' distinctive experiences. To meet this need, broad-based college violence prevention efforts must be modified to serve LGBTQ students more effectively; programs designed specifically for LGBTQ students may also be indicated. Designing effective interventions will require establishing any psychosocial risk factors unique to this population. This study aims to identify such factors, and to begin to theorize LGBTQ college sexual victimization from a prevention perspective.

Internalized Homophobia

Internalized stigma is a dimension of minority stress, the stressors that stigmatized groups face due to their marginal social status. Internalized homophobia describes the negative judgments that LGBQ people may make of their own sexuality, the result of directing anti-LGBQ messages from their cultural context toward themselves and other LGBQ individuals (Meyer, 2003). Internalized homophobia can develop even when an individual does not experience discrimination directly (Meyer, 1995), and has been linked to a range of mental health problems, including depression, anxiety, and substance use disorders (Meyer, 2003).

Internalized homophobia has been linked to intimate partner violence (IPV)—both perpetration and victimization—in same-gender relationships (Balsam & Szymanski, 2005; K. M. Edwards & Sylaska, 2013). Since partner abuse accounts for a portion of college sexual violence (Krebs et al., 2007), we expected to find an association between internalized homophobia and USE in our student sample. We also hypothesized that similar mechanisms could produce coercive sexual experiences outside of intimate relationships.

Psychological Sense of LGBTQ Community

Another factor potentially predicting USE among LGBQ college students, and which may also be related to internalized homophobia, is psychological sense of LGBTQ community. Psychological sense of community (PSOC) describes the subjective sense that one belongs to, and can rely on, a broader social group (Lin & Israel, 2012). A subset of PSOC research has focused on communities based on shared identity, including LGBTQ identities. Because positive in-group relationships buffer the effects of minority stress on a number of outcomes, sense of community has been proposed as an important coping resource (Kertzner, Meyer, Frost, & Stirratt, 2009).

Sense of LGBTQ community is closely related to LGBTQ peer support (Lin & Israel, 2012). Both constructs include the notion that shared-identity peers can be relied on to fulfill one's needs. Support from LGBTQ peers is associated with lower levels of emotional distress in LGBTQ young adults, and buffers the effects of sexuality-related minority stress on overall emotional distress (Doty, Willoughby, Lindahl, & Malik, 2010). Similarly, stronger sense of LGBTQ community may be associated with lower levels of internalized homophobia, and, therefore, lower risk of unwanted sexual experiences. Beyond internalized homophobia, believing that one can rely on peers may make students more willing to seek help from other LGBTQ people when they perceive a risk of sexual victimization.

Sexual Motive for LGBTQ Socialization

We hypothesized that the potential protective mechanisms for sense of LGBTQ community would operate only when community relationships are not built primarily on sexual networking. For instance, students who socialize with LGBTQ people primarily for sex might base sense-of-community responses on their satisfaction with sexual networks, rather than considering the availability of emotional or other support. Furthermore, in a community where belongingness is predicated on sexual participation and desirability, a stronger sense of belongingness might not decrease sensitivity to sexual rejection. We termed this construct "sexual motive for LGBTQ socialization," or "sexual motive." We considered both an individual's sense of their own motivations (individual sexual motive) and their assessment of the descriptive norm in their community (descriptive sexual motive).

Gender

While sexual orientation does not uniformly predict the gender of a young adult's consensual sex partners, LGBTQ students are much more likely than heterosexual-identified

students to engage in consensual same-gender sexual activity (Everett, 2013; Mustanski et al., 2014). Since college sexual violence is at times linked to consensual sexual activity, its gender patterns probably differ between heterosexual and LGBTQ students. For instance, LGBTQ men may be at higher risk than heterosexual men, since they may take part in sexual networks where sexually aggressive men victimize other men rather than women. For the same reason, LGBTQ women may experience a higher rate of female perpetration than non-LGBTQ women.

Conversely, given the low, if perhaps underreported, rate at which women sexually victimize adult males (Fisher & Pina, 2013), female perpetration may be equally uncommon among LGBTQ women. Such patterns may shed light on gender's underlying role in both same- and different-gender sexual violence. It will also clarify the proportion of inter- versus intra-group sexual violence—that is, whether LGBTQ students tend to be victimized by heterosexuals or by other LGBTQ students. Furthermore, gender may be associated with other characteristics of unwanted sexual experiences, including the student's relationship to the agent (perpetrator), the event's location, and the method the agent uses to obtain sexual contact. Gender differences in these characteristics may suggest gender-tailored elements for future research and prevention efforts.

Hypotheses

This study aims to describe gender patterns and characteristics of unwanted sexual experiences (USEs) among LGBTQ college students, and to understand how individual- and community-level factors shape students' risk for these experiences. Specifically, we tested the following primary and secondary hypotheses:

Primary hypotheses:

1. Internalized homophobia will be positively associated with unwanted sex acts.
2. Sense of LGBTQ community will be negatively associated with unwanted sex acts.

3. Internalized homophobia will partially mediate the relationship between sense of LGBTQ community and unwanted sex acts (Figure 1).
4. Individual and descriptive sexual motive will moderate the relationship between sense of LGBTQ community and unwanted sex acts, with a stronger protective effect at lower levels of sexual motive.

Secondary hypotheses:

1. Women will be more likely than men to have experienced an unwanted sex act with a female agent. Both women and men will have high rates of unwanted sex acts with male agents.
2. Higher drinking frequency, drinking quantity, and number of sex partners will be associated with a greater risk of unwanted sex acts.

Method**Procedure**

Participants completed an internet survey during January and February of 2015. Participants were recruited through advertisements posted to social networking web sites (Facebook, Tumblr, and Reddit), generating 81% of the sample. Advertisements were also distributed to the email lists of college LGBTQ organizations for which contacts information was available, generating 18% of the sample. Participants were encouraged to recruit peers to the study, but because most snowball sampling resulted from participants re-posting the social network advertisements, we could only confirm that 2% of participants were recruited in this way. Participants were not compensated for taking part in the study. Because participation posed minimal risk and data on sensitive outcomes was collected, we collected no personally

identifiable information. The study protocol was exempted from full review by the Yale University Human Subjects Committee.

To be eligible, participants were required to be at least 18 years of age, be currently enrolled in a two- or four-year undergraduate program (or its non-U.S. equivalent), and report a sexual orientation other than “straight/heterosexual.” They also had to provide informed consent. 1,411 individuals provided informed consent, and 1,025 screened eligible. We excluded data from 342 participants who stopped taking the survey before reaching the outcome measures, leaving us with a final analytic sample of 683 participants.

Participants

Men constituted 55% of the final analytic sample, while women made up 34%. The remainder (11%) were placed in the “other” gender category (see Measures for information on gender category assignment). Gay (46%) was the most common sexual orientation identity, followed by bisexual (19%), queer (13%), and lesbian (13%). The sample was predominantly white (79%) and non-Hispanic (88%). A plurality (40%) of participants were college seniors, with a mean age of 20.67 ($SD=2.22$). 46% of students lived in college residence halls, with most others living off-campus.

Most participants (88%) attended a college or university in the United States, 10% attended a non-U.S. program, and 3% declined to identify their school. Of U.S. students who provided school data, 94% were in four-year programs, and 45% attended public institutions. The majority (63%) of these students’ schools enrolled over 10,000 undergraduates.

Measures

Gender. Inclusion criteria for this study were based on sexual orientation identity, not on gender identity or transgender status. Nonetheless, in light of previous research among LGBTQ

undergraduates (K. M. Edwards & Sylaska, 2013), we anticipated a non-trivial proportion of transgender and/or gender-variant respondents. We measured gender identity and transgender status using a “two-step” approach, assessing both gender identity and sex assigned at birth (The GenIUSS Group, 2014). When assigned sex and gender identity were not concordant (i.e. not male/man or female/woman), participants were asked to report the gender by which most of their college peers knew them.

Participants who reported a current gender identity other than ‘man’ or ‘woman’ were assigned to the ‘other gender’ group for analysis. Participants who reported discordant gender identity and birth sex, but a binary (‘man’ or ‘woman’) gender identity, were presumed to be transgender men or women. When transgender men and women reported that most peers knew them as the gender they identify with—i.e., they were ‘post-transition’—they were analyzed as that gender. When they reported that most peers knew them as a different gender, or that they were not sure, they were analyzed in the ‘other gender’ group. Because some transgender participants were analyzed as men or women, the proportion of transgender and gender-nonconforming respondents in the sample is slightly greater than the 11% in the ‘other gender’ category: eight participants (1%) were transgender men (female-to-male) analyzed as men, and four (0.6%) were transgender women (male-to-female) analyzed as women.

School characteristics. To reduce respondent burden and increase the accuracy of data on school characteristics, participants were asked to provide the name of their school (and specific campus, if applicable). These responses were then merged with descriptive data on U.S. colleges and universities from the U.S. Department of Education’s Integrated Postsecondary Education Data System. When participants did not specify the campus of a multi-campus school, data for the campus serving the largest number of undergraduates was used. Data were not

available for institutions outside the United States, so these institutions were treated as missing for school size and degree type. In addition, this question had a higher non-response rate ($n=17$) than most.

Romantic and sexual partners. To assess numbers of sexual and romantic partners, participants were asked, “How many people have you hooked up or had sex with since starting college,” and “How many people have you dated or had romantic relationships with (whether or not you were exclusive/monogamous) since starting college.” These questions were repeated for past-year romantic and sexual partners.

Drinking. Past-year alcohol consumption was measured in terms of drinking frequency and typical number of drinks per session. For frequency, participants were asked, “During the last 12 months, how often did you usually have any kind of drink containing alcohol?”, with ten response options ranging from *none in the past year* to *every day* (National Institute on Alcohol Abuse and Alcoholism, 2004). The question also included a description of a ‘drink’ in terms of alcohol content. For typical number of drinks, participants were asked, “During the last 12 months, how many drinks did you have on a typical day when you drank alcohol,” and responded by typing a number. When participants provided a range of quantities, the response was recoded as the median of that range.

Internalized homophobia. Internalized homophobia was measured using the three-item ‘internalized homonegativity’ subscale of the Lesbian, Gay, and Bisexual Identity Scale (Mohr & Kendra, 2011). Items are rated on a six-point Likert scale (1 = *strongly disagree*, 6 = *strongly agree*). Cronbach alpha for the scale was 0.88.

Psychological sense of LGBT community. Psychological sense of LGBTQ community was measured using the Psychological Sense of LGBT Community Scale (PSOC-LGBT) (Lin &

Israel, 2012). The PSOC-LGBT consists of 22 items, grouped into five subscales: ‘Influence,’ ‘Shared Emotional Connection,’ ‘Membership,’ ‘Needs Fulfillment,’ and ‘Communities Existence.’ Items are rated on a five-point Likert scale (1 = *not at all*, 5 = *extremely*).

Some PSOC-LGBT items measure participants’ perceptions of LGBTQ people in general. For instance, the ‘Shared Emotional Connection’ subscale includes questions like “In general, how well do LGBT people get along?”. Other items focus on the participant’s sense of their own relationship to other LGBT people. For instance, one ‘Needs Fulfillment’ item asks, “How much do you feel that you can get help from the LGBT community if you need it?”. In this sample, Cronbach alpha for the full scale was 0.92.

Sexual motive. Two items, created for this study, measured the extent to which interest in meeting romantic and/or sexual partners motivated participants’ and peers’ LGBT community participation. Participants were asked to rate two statements, “The main reason I socialize with other LGBTQ people is to meet sexual and/or romantic partners” (individual motive) and “The main reason that LGBTQ people at my college socialize together is to meet sexual and/or romantic partners” (descriptive motive) on a six-point Likert scale (1 = *strongly disagree*, 6 = *strongly agree*).

Unwanted sexual experiences. Unwanted sexual experiences were measured using a modified version of the revised Sexual Experience Survey – Short Form Version (Koss et al., 2007). The Sexual Experience Survey is widely used in sexual violence research. It has the advantage of capturing the large proportion of unwanted sexual experiences that meet social, public health, and even legal definitions of sexual assault and coercion—but that participants would not label as assault or rape (Koss et al., 2007). It accomplishes this by describing specific sexual behaviors (e.g., “Someone performed oral sex on me or made me give them oral sex even

though I didn't want to") and methods (e.g., "Did the person who did [the behavior] do [it] by...using force, or having a weapon?").

We modified the revised SES-SFV based on an adaption that the Massachusetts Institute of Technology (MIT) developed for its "Campus Attitudes on Sexual Assault" survey (Barnhart et al., 2014). Where the SES-SFV described anal or vaginal penetration separately and in anatomical detail, the MIT adaption (and the present version) used the language "sexually penetrated" and offered an anatomical description as hover text. This adaption mitigated concerns that the SES descriptions were unnecessarily graphic, yet avoided ambiguity.

While the SES-SFV asks participants to report methods for each event type individually, the MIT adaption prefaced the events section with the list of possible methods, and asked participants who reported USEs to select all methods they had experienced. The MIT adaption also abridged some method descriptions; added "high" and "asleep" to the incapacitated ("too drunk or out of it") method; and added an additional method, "catching you off guard, or ignoring nonverbal cues or looks." These changes were evaluated in student focus groups (Barnhart et al., 2014). We maintained them for parsimony and to capture a broader range of USEs. Method descriptions are presented in Table 1.

Our measure differed from MIT's in two notable ways. First, MIT asked whether an experience had occurred once or more than once, and did not ask when the experience took place. Our measure differentiated between past-year experiences and previous experiences during college, but did not capture the number of times each experience took place. Second, our measure added an item for being "made to penetrate" another person, in light of evidence that this USE type is particularly common among men (Stemple & Meyer, 2014).

Data Analysis

Data preparation. Data analysis was conducted using SAS 9.3. Because participants who did not reach the end of the survey were excluded from analysis, missing data were infrequent (less than 1%) for all variables except the school characteristics, where 12% of responses were international or blank responses. Missing data were imputed using the PROC MI procedure.

Descriptive statistics. Based on their responses to the Sexual Experience Survey, each participant received a score indicating the most serious USE they had experienced since starting college. Participants who reported oral sex, unwanted penetration (anal or vaginal), or having been made to penetrate another party were scored as “completed sex act.” Participants who reported attempted sex acts, but no completed ones, were scored as “attempted sex act.” Participants who reported no attempted or completed sex acts, but who had experienced unwanted intimate touching or clothing removal, were scored as “touching.”

Descriptive data on USEs were collected at the participant, rather than the event, level. Since participants could give more than one response for these questions (e.g., USEs both on and off campus), it was not possible to determine which event types were associated with these responses. However, because few participants had experienced USEs with agents of more than one gender, it was possible to determine agent gender for all but three reported event classifications.

Frequencies of USE characteristics were calculated among all participants with USEs, and by participant gender. For all but the “most serious event” tally, participants could be represented in more than one category. Percentages were calculated relative to the total number of participants of that gender reporting USEs, and could sum to more than 100%. Chi-square

tests were conducted to determine whether the proportion of participants reporting each descriptive category differed by participant gender.

Our composite outcome—unwanted sexual experience (USE)—included only the “completed sex act” category, which comprised oral, anal, and vaginal sex acts. This approach is in keeping with the methodology of the NISVS and most current non-criminological studies (Black et al., 2011). We diverged in including events where the victim was “made to penetrate” another person, which the NISVS places in a separate analytic category. We did so because this USE type is particularly common among men (Stemple & Meyer, 2014), who made up a large proportion of our sample.

Our primary outcome (unwanted sexual experience, USE) did not include non-genital sexual contact. Unwanted touching is nearly universal among students who take part in sexualized social spaces like bars and clubs (Fileborn, 2014; Pino & Johnson-Johns, 2009), and therefore would not allow us to distinguish risk patterns relevant to preventing higher-impact events. Though it was not included in our models, we measured rates of unwanted non-genital sexual contact within our sample. We also excluded attempted sex acts from our composite outcomes because many of our proposed mechanisms for the hypothesized risk and protective factors involved averting the completion of an attempted act.

Among those reporting completed sex acts, participants were assigned to the assault and coercion categories based on the methods they reported (see Table 1). In keeping with the scoring of the Revised SES-SFV (Koss et al., 2006), participants reporting methods two or three were assigned to the coercion category, while participants reporting methods four, five, or six were assigned to assault. Participants reporting both method types were assigned to both categories; participants who reported only method one, or no methods, were assigned to neither.

Unadjusted associations between demographic, behavioral, and psychosocial study variables and USE were calculated using chi-square tests for categorical variables and two-sample *T*-tests for continuous variables.

Regression analysis. Multivariable regression models were created for each of the three outcomes (any USE, assault, and coercion) using the demographic, behavioral, and psychosocial predictors. First, demographic and school characteristics that were significant in the chi-square analysis were entered into the model together, and characteristics that were no longer near-significant ($p < 0.15$) for any model were removed. Behavioral variables significant in chi-square (drinking frequency, number of sex partners, and number of romantic partners) were then added as ordinal categorical predictors. Finally, psychosocial variables (internalized homophobia, sexual motives, and sense of LGBT community) were added. Descriptive sexual motive was non-significant and was dropped from the model. Interaction terms between the psychosocial variables, and between gender and these variables, were tested for significance; significant interaction terms were retained in the model.

Mediation. We tested the mediation hypothesis using Baron and Kenny's four steps (1986), using a logistic regression to estimate associations with USE, and linear regression to estimate the association between PSOC-LGBT score and internalized homophobia. Because both linear and logistic regression were required, we used Valeri and VanderWeele's (2013) mediation analysis macro for SAS to test the significance of the total and indirect effects.

Results

Descriptive Data

Descriptive statistics for the full sample are presented in Table 2.

Sexual and romantic partners. There was considerable diversity in the sample's reported sexual partnerships and drinking patterns. The modal number of sexual and dating partners was zero, but more than 20% of participants reported having more than ten sexual partners since beginning college. (Notably, our sex partner measure included "hook up" encounters, which may not have included intercourse.) Romantic partnerships were skewed lower, with just 7% of participants reporting five or more partners during college, and 30% reporting only one partner.

Alcohol use. 90% of the sample had consumed alcohol in the past year. More than half (53%) drank less than once per week, 31% drank once or twice each week, and 16% reported drinking more than twice in an average week. On a given drinking occasion, 30% of students reported that they typically consumed just one or two standard drinks, but a quarter of the sample reported having five or more, reaching or exceeding the threshold for heavy episodic drinking (Jackson, 2008).

Sexual motive. Individual and normative sexual motive, both five-point scales with midpoints of 3, had mean scores of 2.96 and 3.32, and standard deviations of 1.44 and 1.21.

Internalized homophobia. Internalized homophobia in this sample was modestly higher than in previous research among undergraduates (K. M. Edwards & Sylaska, 2013). The present sample had a mean score of 2.21 and a standard deviation of 1.29. This score is slightly less than the midpoint (3) of the five-point scale, indicating that participants generally disagreed with the negative statements. The modal score was 1, indicating strong disagreement with all three statements.

Sense of LGBTQ community. The mean PSOC-LGBT score was 17.15 ($SD = 4.14$), slightly lower than the mean score of 18.42 in previous uses of this scale (Lin & Israel, 2012).

Unwanted sexual experiences. Table 3 presents counts of participants' most serious USE type by participant and agent gender. A substantial minority of participants—34% of men, 46% of women, and 41% of the other gender group—reported at least one form of unwanted sexual experience, representing 39% of the full sample. For 9% of men, 19% of women, and 20% of the other gender group, those experiences included at least one completed sex act.

Overall, 80% of participants with USE reported male agents, with larger proportions for attempted and completed sex acts than unwanted touching. Most of the remaining agents (17%) were female. Chi-square tests revealed that the proportion of male (versus female) agents for each USE type, and across all types, did not differ significantly by participant gender.

Table 4 presents descriptive data on USE by participant gender. There was a significant gender difference in the participant's relationship to the agent, with men least likely (22%), and the other gender group most likely (55%), to report USE with a current or former partner. Compared to other participants, women were most likely to report USE achieved through anger or criticism, and the other gender group was most likely to endorse the incapacitated (72%), threats (14%), or force (21%) methods.

Unadjusted Associations

Table 5 presents the results of chi-square tests (categorical) and *t*-tests (continuous) for associations between covariates and unwanted sexual experience (USE).

Demographics. Age and class year were higher in the USE groups, which was expected due to greater time at risk. Gender was significantly associated with USEs, with women and other-gender participants at increased risk relative to men. Gender differences were greatest for coercion.

Race and ethnicity were not significantly associated with any outcome, though the sample's racial and ethnic homogeneity (predominantly white and non-Hispanic) limited our ability to find significant effects. There was also no association with housing status. Sexual orientation did not predict outcomes, although elevated odds in the relatively small 'pansexual' group are worth noting.

School size and type were significantly associated with USE. Attending a school with less than 5,000 undergraduates was associated with roughly twice the odds of USE relative to larger schools. Attending a private school was associated with twice the odds of USE relative to public schools, and students at non-U.S. institutions were at lower risk.

Sexual and romantic partners. Larger numbers of sexual and romantic partners during college were strongly associated with all outcomes. Participants reporting no sex partners reported very low rates of USE, perhaps in part because some participants counted USE agents as sex partners. Having no romantic partners was less protective than having no sex partners, with an overall USE rate of 5% among those with zero romantic partners during college. However, the highest romantic partner category (5+) had a 39% prevalence of USE, while sex partner category (10+) had only a 28% prevalence.

Alcohol use. Drinking frequency was associated with any USE and with assault, but not with coercion, with odds increasing as frequency increased. Typical number of drinks was not associated with any of the outcomes.

Sexual motive. Individual and descriptive norm sexual motive were non-significant in all three unadjusted models.

Internalized homophobia. Internalized homophobia was near-significant in the any USE model, and significant for coercion. It was not significant for assault.

Sense of LGBTQ community. Sense of LGBTQ community was not significant in any of the unadjusted models.

Multiple Regression Models

The final model adjusted for gender, class year, and school type. School size and age were non-significant once school type and class year were added, and were removed. All behavior covariates—except drinking quantity, which was not significant—were included, as were internalized homophobia, individual sexual motive, and sense of LGBTQ community.

Interactions among psychosocial variables, and with gender, were generally non-significant. However, in the any USE and assault models, we found a significant interaction between individual sexual motive and gender. We therefore included these interaction terms in all three models. Odds ratios and *p*-values, including Wald joint test *p*-values for categorical variables, are presented in Table 6.

Gender. After adjustment, gender remained significant for all three models, with odds ratios for women and the other-gender group even more substantially elevated than in the unadjusted model. The coercion model generated the most marked gender differences.

Sexual and romantic partners. Number of sexual and romantic partners were highly significant predictors in all three models. Estimated odds ratios for both were highest in the coercion model.

Alcohol use. Drinking frequency had a significant positive association with assault only.

Sexual motive. There was no significant association between descriptive norm sexual motive and USE. We also tested for interactions between descriptive norm sexual motive and gender, sense of LGBTQ community, and internalized homophobia, and found that none were significant. We therefore did not include this variable in the adjusted models.

In contrast, individual sexual motive was significant, and had a significant interaction with gender, though not with sense of LGBTQ community or internalized homophobia. For any USE and assault, higher sexual motive ratings were a moderate risk factor among men, but a strong protective factor among women (and, significant for assault only, in the other-gender group).

Figure 2 plots the fitted risk of any USE by individual sexual motive score for each gender group.

Internalized homophobia. Internalized homophobia was significantly associated with the outcome in all three models. There was no significant interaction with gender, and visual examination confirmed that slopes were similar for each gender group. There was also no significant interaction between internalized homophobia and sense of LGBTQ community.

Sense of LGBTQ community. After adjustment, sense of LGBTQ community was not significant in any model, though—as expected—odds ratios were less than 1.0. There was no significant interaction with gender; again, slopes were similar for each gender group.

Mediation: Sense of LGBTQ Community and Internalized Homophobia

Figure 3 presents the results of the mediation analysis. We found that sense of LGBTQ community had a significant inverse association with any USE; that sense of LGBTQ community had a significant inverse association with internalized homophobia; that internalized homophobia had a significant positive association with any USE; and that the relationship between sense of LGBTQ community and any USE was significantly attenuated when internalized homophobia was added to the model. Consequently, we concluded that sense of LGBTQ community is associated with decreased risk of any USE, and that this relationship is mediated by internalized homophobia. Because the direct effect of sense of LGBTQ community was non-significant, but its magnitude was not near-zero, internalized homophobia is a partial mediator of the relationship between sense of LGBTQ community and USE.

Discussion

Our analyses supported three of our four primary hypotheses. We found a positive association between USE and internalized homophobia, and an inverse association with sense of

LGBTQ community. We also found that internalized homophobia partially mediated the inverse relationship between sense of community and USEs. Several of our secondary hypotheses were also supported. Across gender, a strong majority of participants with USEs reported male agents. We found the expected association between USEs and drinking frequency in the unadjusted analysis only, and found a positive association with number of sex partners in all analyses.

We had negative findings for one primary hypothesis and one secondary hypothesis. We did not find evidence for our hypothesis that individual and descriptive sexual motives would moderate the relationship between sense of LGBTQ community and USEs. We also did not find that women had a higher proportion of female USE agents compared to men.

Overall, our findings support the notion that LGBQ-specific psychosocial factors, namely internalized homophobia and sense of LGBTQ community, predict students' risk of unwanted sex acts during college. Moreover, mediation analysis supported our hypothesis that internalized homophobia mediated the protective impact of sense of LGBTQ community. This means that a strong sense of community may protect students in part by alleviating internalized homophobia. Since we found evidence for partial mediation only, sense of LGBTQ community may have other protective effects, such as an increased ability to seek assistance from peers when in dangerous situations or relationships.

Behavioral Risk Factors

We found a number of similarities between LGBQ students and the general college population, notably in behavioral risk factors for USEs. While we assessed these variables primarily as potential confounders, they deserve interpretation because they are relevant to the design of prevention programs.

Sexual partners. USE's strong association with reported number of sexual and romantic partners is notable. Based on participants' descriptions in the "other" agent category, it is clear that some USEs result from initially consensual "hookup" encounters that end in coercion or assault. In addition, some USEs may take place in social contexts, such as bars, in which sexually active students are more likely to participate. In either case, students with more sexual partners may simply be exposed to a larger number of potential perpetrators (Combs-Lane & Smith, 2002).

Romantic partners. Defying the notion that a "hookup culture" of unpartnered sex drives college sexual violence, dating and romantic partnerships were strongly associated with USE in this sample. Among participants with USE, 30% reported that at least one agent was a current or former partner. For all three outcomes, unadjusted odds ratios for five or more romantic partners (compared to one) are stronger than those for ten or more sexual partners (compared to one). Moreover, number of romantic partners is highly significant in each of the adjusted models, even after adjustment for number of sexual partners, which presumably includes most romantic partners. Future research should explore whether violence perpetrated by partners fully explains this association, or whether other factors in LGBTQ college dating are relevant to USE. Participants in the 'other gender' group were particularly likely (55%) to report a current or former partner as an agent, suggesting that transgender and gender-nonconforming students may be at outsize risk for intimate partner violence. Anti-transgender stigma may leave these students reliant on romantic partners for social support, putting them at particular risk for abuse.

Alcohol use. Proponents of individual risk reduction have cited student drinking as a primary risk factor for college sexual assault, and have called for anti-alcohol interventions as an

assault prevention strategy (e.g., Testa & Livingston, 2009). In our adjusted model, drinking frequency was modestly associated with membership in the assault category—not surprising, given that the category included alcohol-incapacitated assaults. However, after adjustment, there was no association between drinking frequency and having experienced a USE overall. Moreover, typical drinking quantity was not significantly associated with any of the three outcomes, either in the chi-square analyses or when replacing drinking frequency in the multivariable models. Even the near-significant bivariate association with assault disappeared after adjustment. These findings support the notion that the association between alcohol use and sexual assault is not strongly causal. Instead, assaults may often be initiated in sexualized settings—such as bars and parties—where drinking is expected. Alternately, individual characteristics, such as past sexual assault, associated with subsequent increased drinking, may confound the relationship (Ullman, 2003). The high rate of heavy episodic drinking (over 25%) in our sample is concerning, but should be addressed primarily for its physiological and academic risks.

Gender and Agent Sexual Orientation

Given large general-population gender disparities in sexual violence, it is not surprising that men in our sample experienced lower rates of violence than women or the other gender group. Nonetheless, the proportion of USEs (including assault) among men exceeded most previous estimates for college men overall. While these rates cannot be directly compared due to differences in outcome definitions and sampling, they are consistent with the notion that GBQ college men are at elevated risk of sexual violence compared with their heterosexual peers (K. M. Edwards et al., 2015; Hines et al., 2012).

Contradicting our hypothesis, the proportion of students reporting female (versus male) agents did not differ significantly by participant gender. The proportion itself was non-negligible: for completed sex acts, it was 11% in men, 16% in women, and 13% in the other gender group. This lack of difference probably does not mean that victim gender is unrelated to agent gender. Rather, differing dynamics in each group may result in similar rates. For instance, GBQ men may be vulnerable to coercion or assault by heterosexual men (and possibly women) as a result of anti-GBQ stigma (Davies, 2002), and to assault by gay men as a result of their participation in male sexual networks. Heterosexual men may target LBQ women as a form of anti-LBQ violence, or simply in the same manner as heterosexual women (Fileborn, 2014). In addition, LBQ women may experience violence within LBQ romantic partnerships and sexual networks (Bernhard, 2000; K. M. Edwards & Sylaska, 2013). Other patterns—such as USEs between GBQ men and LBQ women—are no doubt possible, and dynamics within the other-gender category deserve further study.

Because we did not collect data on agents' sexual orientation identities, we are unable to determine how many events are perpetrated within LGBTQ networks, and how many are perpetrated by heterosexuals on LGBTQ students. Gender patterns suggest some tentative interpretations. Since 82% of LBQ women with completed USEs reported male agents, it is likely that most violence against LBQ women is committed by heterosexual men, whether or not these women are targeted as a result of their sexual orientation. Another 18% reported agents who were female or another gender; these are likely intra-LGBTQ events, since there is currently no evidence that heterosexual women regularly victimize other women.

Among men, interpretation is more difficult, since both hate violence and intra-GBQ victimization have been described between males. Research among adult GBQ men suggest that

both are relevant, but that intra-GBQ events predominate (Davies, 2002). We speculate that GBQ men's USEs with female agents (11%) are mostly with heterosexual women, who may employ pressure or coercion related to sexual orientation.

The diversity within the other-gender category makes it difficult to interpret patterns within that group. Based on the high rates of bias victimization among transgender and gender-nonconforming people (Grant et al., 2011), coupled with the large proportion (55%) of 'other gender' participants reporting partners as agents, we suspect both inter- and intra-LGBQ victimization.

Sexual Motive

Findings did not support our hypothesis that individual and perceived normative sexual motive would moderate the relationship between sense of LGBTQ community and USEs. We expected this interaction because we hypothesized that students seeking LGBTQ social support may be at risk for coercion when sexual relationships are the main way that LGBTQ students connect socially. We also hypothesized that involvement in less sexually motivated LGBTQ communities would be more protective, with higher rates of bystander intervention and less tolerance for sexual aggression. The interaction may be absent because PSOC-LGBT primarily captures connections that are not highly sex- and dating-driven. Alternately, individual sexual motive's interaction with gender may have made it difficult to detect a concurrent association with sense of LGBTQ community. We tested this third-order interaction and found it non-significant, but we may have lacked the statistical power to identify such a complex relationship.

The interaction between individual sexual motive and gender, significant for the any USE and assault groups, was unexpected. Among men, sexual motive was positively associated with USE. Among women and the other-gender group, sexual motive was inversely associated with

USE, with a particularly strong inverse relationship for women. For women, endorsing individual sexual motive may have been associated with being sexually active primarily with other LGBTQ people—as opposed, for instance, to bisexual women who partner with heterosexual men. Given that most USE agents were men, those women may be exposed to fewer potential perpetrators. Alternately, women who endorsed individual sexual motive may be less compliant with gender norms, such as female sexual passivity, that can produce coercion and assault (Bay-Cheng & Eliseo-Arras, 2008). Among men, the positive association between individual sexual motive and USE suggests that non-sexual social relationships with LGBTQ peers may be protective, perhaps due to bystander intervention (Banyard, Plante, & Moynihan, 2004), or to increased confidence and self-efficacy in navigating GBQ men’s sexual networks (Braun, Terry, Gavey, & Fenaughty, 2009).

The significant association between individual sexual motive and USE invites further exploration. We used a novel one-item measure to assess this construct, and did not examine its reliability or validity. In developing it further, the notion of sex- versus identity-centered sexual orientation development (Dubé, 2000) may be useful. It may be possible to categorize LGBTQ individuals’ engagement with LGBTQ communities as similarly “sex-centered” or “identity-centered.”

Internalized Homophobia and Sense of LGBTQ Community

Nature of the relationship. Since both heterosexual and inter-LGBQ perpetration appear to be relevant in this population, we must consider both in interpreting USE’s associations with internalized homophobia and sense of LGBTQ community. If we presumed that anti-LGBQ hate violence makes up a substantial proportion of our sample’s USEs, we would consider confounding: students in hostile environments might experience more violence, have more

internalized homophobia, and have less access to a supportive LGBTQ community. However, the data on agents (including write-in responses when describing an ‘other’ agent) suggest that bias-motivated attacks are not a major factor.

It is also possible that USEs increase internalized homophobia and/or reduce students’ sense of LGBTQ community. Davies (2002) describes internalized homophobia as particularly linked to bias-motivated sexual attacks, but it may also arise from intra-LGBQ violence, perhaps if victims see USEs as a consequence of their sexual orientation. Further, if students experience sexual aggression from LGBTQ people, they might feel less positively about LGBTQ communities. While this explanation is compelling, it is not consistent with the finding that both variables have much stronger relationships with coercion than assault. There is no clear reason to expect that experiencing sexual coercion would increase internalized homophobia—or reduce sense of community—substantially more than experiencing assault. However, the difference is consistent with our hypothesized relationships, since behavioral resistance is more likely to avert a coerced event than an incapacitated or physically forced one.

Internalized homophobia. Internalized homophobia may make students less likely to resist coercion or other forms of aggression. For instance, negative attitudes towards their sexuality may make IPV victims feel that they deserve abuse, making them less likely to leave a potentially violent relationship (Balsam & Szymanski, 2005). A similar mechanism may link internalized homophobia to non-relationship sexual coercion, making students more likely to give in to unwanted behaviors. GBQ college men—though not LBQ women or heterosexual men—frequently cite shame or low self-esteem as reasons they “gave in” to sexual coercion by

other gay men (Menning & Holtzman, 2013); both shame and self-esteem are closely linked to internalized homophobia (Allen & Oleson, 1999).²

Internalized homophobia may also affect USE risk by altering students' *risk perception* in LGBQ contexts. Risk perception encompasses the threshold at which students identify situations as concerning ("threat identification"), as well as the threshold at which they take action to avoid an identified threat ("behavioral response") (Messman-Moore & Brown, 2006). Behavioral responses could include leaving a party to avoid an aggressor, or ending an increasingly abusive relationship. Students with more internalized homophobia may be equally able to identify threats. However, negative beliefs about LGBQ people may promote dimmer expectations for how LGBQ people—both partners and non-partners—will treat them. If students believe that aggressive or abusive behavior is normal in LGBQ contexts, they could have a higher threshold for behavioral response. For instance, they may be less likely to leave same-gender relationships after warning signs of violence, perhaps assuming that better partners are not available. They may also be less likely to seek assistance in escaping non-partner sexual aggressors, believing that their discomfort will not be taken seriously.

In some networks, aggression may truly be normative, exacerbated among men by stereotypes of GBQ male hypersexuality (Braun, Terry, et al., 2009). In other cases, internalized homophobia or LGBQ social inexperience may lead students to misperceive their network's norms. For instance, young gay men who experience sexual aggression from more experienced partners are apt to accept this behavior as normal for gay relationships, a belief that some partners actively encourage (Braun, Schmidt, Gavey, & Fenaughty, 2009).

² The present study did not find an interaction between internalized homophobia and gender in predicting USE, although it is possible that the underlying mechanisms vary by gender.

Since capacity to resist maltreatment is more relevant in coercion than assault, internalized homophobia's stronger relationship with coercion is consistent with the risk perception and self-esteem mechanisms. However, the risk perception effect can also account for some non-partner assaults through incapacitation or force. While a protective response may be of little value in an assault's later stages, risk perception may affect the chance that an incident will reach those stages (Messman-Moore & Brown, 2006).

Sense of LGBTQ community. Sense of LGBTQ community is associated with lower levels of internalized homophobia, so internalized homophobia's mechanisms may partially account for the inverse relationship between sense of LGBTQ community and USE. However, we identified only partial mediation by internalized homophobia, suggesting that sense of community has additional protective mechanisms of its own.

One component of sense of LGBTQ community is the belief that one receives assistance from LGBTQ people when in need (Lin & Israel, 2012). As a result, students with a strong sense of LGBTQ community may be more willing to reach out to peers or strangers when they experience aggression, whether in an intimate relationship or in a casual encounter. Moreover, a stronger sense of LGBTQ community may result from peers' actual protective behavior. Communities where kindness and mutual support are norms may be more likely to share information about known sexual aggressors and to exclude them from gatherings, reducing their members' exposure to potential perpetrators. These communities may also have higher rates of bystander intervention in both relationship and non-partner violence.

Sense of community also involves a sense of belonging among other LGBTQ people ("membership"; Lin & Israel, 2012). A more secure sense of belonging could be associated with lower sensitivity to sexual rejection, that is, with less anxiety about being rejected by sexual

contacts. Rejection sensitivity, in turn, is associated with diminished resistance to aggressive or coercive behavior. An analogous relationship between rejection sensitivity and sexual victimization has been observed in adolescent girls (Young & Furman, 2008). In addition, when young adults prefer to use condoms but their romantic or casual sex partners do not, they are more likely to defer when high in rejection sensitivity (G. L. Edwards & Barber, 2010), suggesting reduced sexual assertiveness in both casual and committed relationships. This rejection sensitivity mechanism could be independent of internalized homophobia: a student may feel positively about their LGBTQ identity, yet insecure about their acceptance by other LGBTQ people. Indeed, students who identify positively with their sexual orientation, but have a weak sense of belongingness, may be especially sensitive to rejection by LGBTQ peers. Similarly, students with a weak sense of belongingness may remain in sexual or romantic relationships despite warning signs of violence because these relationships represent their main link to an LGBTQ community. In some cases, they may fear that relationship dissolution could lead to exclusion from their LGBTQ networks. Students with a strong sense of community are less likely to feel this pressure.

A strong sense of LGBTQ community may also reflect and support participants' confidence in their LGBTQ identity, leaving them less vulnerable to identity-based coercion from heterosexual or LGBTQ agents. An LGBTQ agent may argue, for instance, that a student is *not really* LGBTQ if they do not want to have sex, or to engage in a particular sex act (Donovan, Hester, Holmes, & McCarry, 2006). Conversely, a heterosexual, different-gender agent could claim that a student *must* be LGBTQ if they do not want sex. In either case, students with support from LGBTQ peers may feel more confident in their own identity and less susceptible to these tactics. In addition, students in supportive LGBTQ networks may be less vulnerable to threats

that an agent (either heterosexual or LGBTQ) will disclose their sexual orientation (Donovan et al., 2006).

Finally, sense of LGBTQ community incorporates the belief that LGBTQ people treat one another well (Lin & Israel, 2012). Reversing the effect proposed for internalized homophobia, it may be associated with expecting respectful treatment, and therefore avoiding people who do act aggressively.

Risky and protective norms. Our findings support the notion that anti-gay stigma combines with harmful sexual norms adopted from heterosexual culture to create the conditions for violence within gay (or LGBTQ) communities. In particular, norms in certain gay male subcultures—such as normalized sexual aggression, power differentials by sexual experience, and dearth of non-sexualized social venues—are conducive to sexual coercion and assault (Braun, Terry, et al., 2009). Although most data concerns GBQ men’s networks, parallel norms may exist in some mixed-gender or LBQ women’s groups. Crucially, this study demonstrates that LGBTQ networks can alternately be *protective*—when they engender support, kindness, and a sense of belonging. Not only are these communities less conducive to internal sexual violence, they may also protect members from non-members’ aggression.

In light of this finding, we reiterate Braun, Terry, et al. (2009)’s call for gay (here, LGBTQ) communities based on “an ethic of care and mutual responsibility.” This proposal, building on Moira Carmody’s “ethical erotics” (Carmody & Willis, 2006), contends that groups can reduce sexually coercive behavior by developing sexual norms based on mutuality and care. The notion of care for both casual and committed sexual partners is easily integrated with bystander intervention strategies, which demand care for familiar and unfamiliar non-partners (Carmody & Willis, 2006). Even if these norms fail to deter highly aggressive individuals, or

those outside the community, shifting expectations may help students recognize and avoid aggression earlier.

Strengths and Limitations

Strengths. This study generated uniquely detailed data on unwanted sexual experiences among LGBQ undergraduates, including factors—such as agent relationship and method—that have never been explored in an LGBQ sample of this size. Furthermore, it demonstrated that psychosocial factors unique to LGBQ students predict risk for these events, establishing the need for targeted interventions. While our sample is not representative of all LGBQ college students, or even all U.S. students, it was diverse in terms of gender, class year, sexual orientation identity, and school type. It included a significant number of transgender and gender-nonconforming students, showing that this group is at elevated risk for USEs and may experience different patterns of violence than cisgender LGBQ peers. We also sampled participants with a wide range of alcohol use and sexual partner histories, which emerged as relevant predictors in this and other studies of college sexual violence.

Using an adaptation of the Sexual Experience Survey (Koss et al., 2006), the study identified a broad range of unwanted sexual experiences. By employing descriptive definitions of events, it avoided the substantial underreporting that takes place when only self-described “rape” or “sexual assault” are counted (Testa et al., 2004). It also captured sexual coercion, an event type that is rarely criminal but nonetheless a significant public health concern. Furthermore, it collected descriptive data on USEs, such as the agent’s gender and relationship, the event’s location, and the method employed. This information is crucial in designing targeted interventions, and suggests avenues for further research. Examining multiple outcomes (any

USE, coercion, and assault), we were able to identify common and differential risk factors for each USE type, shedding light on potential mechanisms for the associations.

Applying the newly created PSOC-LGBT scale, we demonstrated that sense of LGBTQ community predicts the well-being of LGBQ undergraduates, associated with both USEs and internalized homophobia. College bystander intervention programs have begun to employ the notion of campus community (Banyard et al., 2004); our results indicate that this work should also target shared-identity subcommunities.

Limitations. Given this study's cross-sectional approach, we cannot establish a temporal relationship between student characteristics and unwanted sexual experiences. Indeed, students' present attitudes and behaviors may differ from those they exhibited prior to their USE(s). This may have confounded associations towards the null, if the change was unrelated, or introduced reverse causality, if the USE caused the change.

The rates of USE in our sample should not be interpreted as prevalence estimates. We used a convenience sampling strategy, and our population was racially homogeneous. Though we did not collect data on socioeconomic status (SES), two-year colleges are notably underrepresented, suggesting under-sampling of lower-SES students. Because we recruited from LGBTQ-oriented online spaces and mailing lists, we may also have under-sampled students who are less interested in engaging with other LGBTQ people. Recruiting from student group mailing lists, in particular, may have drawn students with more LGBTQ community involvement. On the other hand, students may use LGBTQ online communities when they are unsatisfied with their LGBTQ social connections on campus. This would explain our sample's middling PSOC-LGBT scores.

Survey design decisions intended to reduce participant burden led to limitations in our analysis. For instance, it would have been useful to collect USE characteristics for each specific USE type, and to have data on multiple USEs of the same type. More detail on agents would also have been valuable, particularly information about agent sexual orientation.

Implications for Policy and Practice

School climate. Although we identified individual-level associations with USE, the nature of internalized homophobia and sense of LGBTQ community call for interventions that target social context and campus climate. Internalized homophobia is the product of cultural stigma against LGBTQ people, so reducing anti-LGBTQ stigma on and beyond campuses is an obvious opportunity for intervention. Because anti-LGBTQ victimization in high school is strongly related to mental health through the college years (Russell, Ryan, Toomey, Diaz, & Sanchez, 2011), anti-stigma efforts at the high school level can also improve outcomes during college.

Inclusion in general-audience programs. Colleges should ensure that LGBTQ students' experiences and needs are represented in general-audience sexual violence prevention programs. Curricula should use gender-neutral example scenarios or include a same-gender event. Programs must also emphasize that same-gender violence is no less serious, and should point out that sexual aggressors may exploit LGBTQ identity or students' uncertainty about LGBTQ norms. Delivering these messages to both LGBTQ and heterosexual students will increase the likelihood that LGBTQ students' heterosexual friends can provide effective bystander or post-event support.

Student community-building. Students should be supported in building networks of warm relationships that generate a sense of belongingness. Both student- and administrator-led

efforts can create the context for these networks. Ideally, LGBTQ students will have access to a dedicated, no-cost space for casual interaction, and to non-sexualized, non-competitive gatherings where they can meet and build relationships. Sexualized spaces (bars, clubs, or dances) should not be the primary venue for LGBTQ social life on campus, and these spaces should be inclusive of students who do not wish to “hook up” or drink alcohol. Where campuses offer training to LGBTQ student leaders, it may be valuable to incorporate strategies for community-building beyond the context of student organizations. Because emotional support and role modeling are important LGBTQ community functions, LGBTQ peer counseling and mentorship programs are also indicated.

LGBTQ violence prevention advocacy. Community-building resources, protective on their own merits, should also be harnessed to shift attitudes about sexual aggression. Trainings for peer counselors, mentors, or leaders should incorporate sexual violence content; this should include strategies for assisting survivors, but should also emphasize supporting less experienced students as they learn to navigate LGBTQ sexual culture. For instance, peer mentors can help students understand that sexual behaviors are not a prerequisite for LGBTQ identity, and that sexually aggressive behavior is neither normal nor acceptable. Bystander intervention trainings and sexual ethics workshops (see Carmody, 2005) should be offered within LGBTQ student groups. Student leaders can host formal or informal community dialogues on sexual violence, in which groups commit to bystander intervention and identify ways to dismantle dangerous norms.

Reaching LGBTQ students in non-LGBTQ social groups. Some students will not be interested in joining LGBTQ student communities, or even attending LGBTQ events. These students may be subject to higher levels of internalized homophobia, or they may simply prefer

an alternate peer group. Our findings suggest that these students may be at particular risk for sexual violence, and intervention efforts should take their needs seriously.

Some of these students may participate in LGBTQ sexual spaces only, and may be best reached through efforts targeting these spaces. Others may be willing to engage with certain LGBTQ programming if that programming is not dominated by a particular demographic or peer group. Peer mentorship programs and similar efforts should make every effort to recruit a socially diverse cohort of students.

Conclusion

This study has demonstrated that internalized homophobia and sense of LGBTQ community affect students' risk of sexual violence. We proposed that they do so by shaping how students respond to sexually aggressive behavior, affecting how they *expect* to be treated, and what treatment they feel they *deserve*. We also argued that these constructs determine students' vulnerability to sexual pressure hinging on their sexual orientation. In both cases, risk is shaped by cultural messages about sexual aggression and LGBTQ identity. Internalized homophobia stems from a heteronormative culture, while sense of LGBTQ community highlights the role of in-group peers. Their relationships to unwanted sex acts, and to one another, demonstrate how group norms and cultural forces together determine the conditions for sexual violence. They also make clear that LGBTQ undergraduates contend with unique pressures when they encounter sexual aggression—and that some can rely on distinct social resources to deal with it.

Researchers, policymakers, and college officials invested in preventing college sexual violence must consider the unique needs of LGBTQ students and communities. In our sample, nearly 40% of students had experienced unwanted sexual contact, and 14% reported at least one completed sex act that was unwanted. A significant proportion of these events likely take place

within LGBTQ social and sexual networks, while many others may be perpetrated by heterosexuals. The former should be addressed with prevention programs that target aggressive sexual behavior and damaging social dynamics in LGBTQ networks. Both types call for tackling social vulnerabilities unique to LGBTQ students, and for capitalizing on their resources, including supportive communities constituted around LGBTQ identity.

References

- Abbey, A., Ross, L. T., McDuffie, D., & McAuslan, P. (1996). Alcohol and Dating Risk Factors for Sexual Assault Among College Women. *Psychology of Women Quarterly*, 20(1), 147-169. doi: 10.1111/j.1471-6402.1996.tb00669.x
- Allen, D. J., & Oleson, T. (1999). Shame and internalized homophobia in gay men. *Journal of homosexuality*, 37(3), 33-43
- Arata, C. M., & Burkhart, B. R. (1996). Post-Traumatic Stress Disorder Among College Student Victims of Acquaintance Assault. *Journal of Psychology & Human Sexuality*, 8(1-2), 79-92. doi: 10.1300/J056v08n01_06
- Armstrong, E. A., Hamilton, L., & Sweeney, B. (2006). *Sexual Assault on Campus: A Multilevel, Integrative Approach to Party Rape* (Vol. 53).
- Austin, S. B., Jun, H.-J., Jackson, B., Spiegelman, D., Rich-Edwards, J., Corliss, H. L., & Wright, R. J. (2008). Disparities in Child Abuse Victimization in Lesbian, Bisexual, and Heterosexual Women in the Nurses' Health Study II. *Journal of women's health (2002)*, 17(4), 597-606. doi: 10.1089/jwh.2007.0450
- Baier, J. L., Rosenzweig, M. G., & Whipple, E. G. (1991). Patterns of sexual behavior, coercion, and victimization of university students. *Journal of College Student Development*
- Balsam, K. F., Rothblum, E. D., & Beauchaine, T. P. (2005). Victimization over the life span: a comparison of lesbian, gay, bisexual, and heterosexual siblings. *J Consult Clin Psychol*, 73(3), 477-487. doi: 10.1037/0022-006x.73.3.477
- Balsam, K. F., & Szymanski, D. M. (2005). Relationship Quality and Domestic Violence in Women's Same-Sex Relationships: The Role of Minority Stress. *Psychology of Women Quarterly*, 29(3), 258-269. doi: 10.1111/j.1471-6402.2005.00220.x
- Banyard, V. L., Moynihan, M. M., & Plante, E. G. (2007). Sexual violence prevention through bystander education: An experimental evaluation. *Journal of Community Psychology*, 35(4), 463-481. doi: 10.1002/jcop.20159
- Banyard, V. L., Plante, E. G., & Moynihan, M. M. (2004). Bystander education: Bringing a broader community perspective to sexual violence prevention. *Journal of Community Psychology*, 32(1), 61-79
- Barnhart, C., DiVincenzo, M., Doneski, A., Rankin, S., Baker, B., Kirkbride, M., . . . Patel, J. (2014). *MIT Community Attitudes on Sexual Assault*. Cambridge, MA <http://web.mit.edu/surveys/casatips/index.html>.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173
- Bay-Cheng, L. Y., & Eliseo-Arras, R. K. (2008). The Making of Unwanted Sex: Gendered and Neoliberal Norms in College Women's Unwanted Sexual Experiences. *The Journal of Sex Research*, 45(4), 386-397. doi: 10.1080/00224490802398381
- Bernhard, L. A. (2000). Physical and Sexual Violence Experienced by Lesbian and Heterosexual Women. *Violence Against Women*, 6(1), 68-79. doi: 10.1177/10778010022181714
- Black, M. C., Basile, K. C., Breiding, M. J., Smith, S. G., Walters, M. L., Merrick, M. T., & Stevens, M. (2011). National intimate partner and sexual violence survey. Atlanta, GA: CDC. Centers for Disease Control and Prevention

- Braun, V., Schmidt, J., Gavey, N., & Fenaughty, J. (2009). Sexual coercion among gay and bisexual men in Aotearoa/New Zealand. *Journal of homosexuality, 56*(3), 336-360
- Braun, V., Terry, G., Gavey, N., & Fenaughty, J. (2009). 'Risk' and sexual coercion among gay and bisexual men in Aotearoa/New Zealand-key informant accounts. *Culture, Health & Sexuality, 11*(2), 111-124. doi: 10.1080/13691050802398208
- Brown, A. L., Testa, M., & Messman-Moore, T. L. (2009). Psychological Consequences of Sexual Victimization Resulting From Force, Incapacitation, or Verbal Coercion. *Violence Against Women, 14*(1), 11-24. doi: 10.1177/1077801209335491
- Carmody, M. (2005). Ethical erotics: Reconceptualizing anti-rape education. *Sexualities, 8*(4), 465-480
- Carmody, M., & Willis, K. (2006). *Developing ethical sexual lives: Young people, sex and sexual assault prevention*. University of Western Sydney.
- Coker, A. L., Cook-Craig, P. G., Williams, C. M., Fisher, B. S., Clear, E. R., Garcia, L. S., & Hegge, L. M. (2011). Evaluation of Green Dot: An Active Bystander Intervention to Reduce Sexual Violence on College Campuses. *Violence Against Women, 16*(1), 11-24. doi: 10.1177/1077801211410264
- Combs-Lane, A. M., & Smith, D. W. (2002). Risk of Sexual Victimization in College Women: The Role of Behavioral Intentions and Risk-Taking Behaviors. *Journal of Interpersonal Violence, 17*(2), 165-183
- Davies, M. (2002). Male sexual assault victims: a selective review of the literature and implications for support services. *Aggression and Violent Behavior, 7*(3), 203-214. doi: [http://dx.doi.org/10.1016/S1359-1789\(00\)00043-4](http://dx.doi.org/10.1016/S1359-1789(00)00043-4)
- DeGue, S. (2014). *Preventing Sexual Violence on College Campuses: Lessons from Research and Practice*. Atlanta, GA <https://www.notalone.gov/assets/evidence-based-strategies-for-the-prevention-of-sv-perpetration.pdf>.
- DeGue, S., Valle, L. A., Holt, M. K., Massetti, G. M., Matjasko, J. L., & Tharp, A. T. (2014). A systematic review of primary prevention strategies for sexual violence perpetration. *Aggression and violent behavior, 19*(4), 346-362
- Donovan, C., Hester, M., Holmes, J., & McCarry, M. (2006). Comparing domestic abuse in same sex and heterosexual relationships. *Bristol: University of Bristol*
- Doty, N., Willoughby, B. B., Lindahl, K., & Malik, N. (2010). Sexuality Related Social Support Among Lesbian, Gay, and Bisexual Youth. *Journal of Youth and Adolescence, 39*(10), 1134-1147. doi: 10.1007/s10964-010-9566-x
- Dubé, E. M. (2000). The role of sexual behavior in the identification process of gay and bisexual males. *The Journal of Sex Research, 37*(2), 123-132. doi: 10.1080/00224490009552029
- Duncan, D. F. (1990). Prevalence of Sexual Assault Victimization Among Heterosexual and Gay/Lesbian University Students. *Psychological Reports, 66*(1), 65-66
- Edwards, G. L., & Barber, B. (2010). The Relationship Between Rejection Sensitivity and Compliant Condom Use. *Archives of Sexual Behavior, 39*(6), 1381-1388. doi: 10.1007/s10508-009-9520-8
- Edwards, K. M., & Sylaska, K. M. (2013). The perpetration of intimate partner violence among LGBTQ college youth: The role of minority stress. *Journal of youth and adolescence, 42*(11), 1721-1731
- Edwards, K. M., Sylaska, K. M., Barry, J. E., Moynihan, M. M., Banyard, V. L., Cohn, E. S., . . . Ward, S. K. (2015). Physical Dating Violence, Sexual Violence, and Unwanted Pursuit

- Victimization A Comparison of Incidence Rates Among Sexual-Minority and Heterosexual College Students. *Journal of interpersonal violence*, 30(4), 580-600
- Everett, B. (2013). Sexual Orientation Disparities in Sexually Transmitted Infections: Examining the Intersection Between Sexual Identity and Sexual Behavior. *Archives of Sexual Behavior*, 42(2), 225-236. doi: 10.1007/s10508-012-9902-1
- Fileborn, B. (2014). Accounting for Space, Place and Identity: GLBTIQ Young Adults' Experiences and Understandings of Unwanted Sexual Attention in Clubs and Pubs. *Critical Criminology*, 22(1), 81-97
- Fisher, N. L., & Pina, A. (2013). An overview of the literature on female-perpetrated adult male sexual victimization. *Aggression and Violent Behavior*, 18(1), 54-61. doi: <http://dx.doi.org/10.1016/j.avb.2012.10.001>
- Franklin, C. A. (2010). Physically forced, alcohol-induced, and verbally coerced sexual victimization: Assessing risk factors among university women. *Journal of Criminal Justice*, 38(2), 149-159. doi: <http://dx.doi.org/10.1016/j.jcrimjus.2010.02.004>
- Gavey, N. (2005). Unsexy sex: Unwanted sex, sexual coercion and rape. *N. Gavey, Just sex*, 136-168
- Gidycz, C. A., Orchowski, L. M., & Berkowitz, A. D. (2011). Preventing Sexual Aggression Among College Men: An Evaluation of a Social Norms and Bystander Intervention Program. *Violence Against Women*, 17(6), 720-742. doi: 10.1177/1077801211409727
- Gidycz, C. A., Rich, C. L., Orchowski, L., King, C., & Miller, A. K. (2006). The Evaluation of a Sexual Assault Self-Defense and Risk-Reduction Program for College Women: A Prospective Study. *Psychology of Women Quarterly*, 30(2), 173-186
- Grant, J. M., Mottet, L., Tanis, J. E., Harrison, J., Herman, J., & Keisling, M. (2011). *Injustice at every turn: A report of the National Transgender Discrimination Survey*: National Center for Transgender Equality.
- Hines, D. A., Armstrong, J. L., Reed, K. P., & Cameron, A. Y. (2012). Gender Differences in Sexual Assault Victimization Among College Students. *Violence and Victims*, 27(6), 922-940. doi: 10.1891/0886-6708.27.6.922
- Jackson, K. M. (2008). Heavy episodic drinking: Determining the predictive utility of five or more drinks. *Psychology of Addictive Behaviors*, 22(1), 68
- Jordan, C. E., Combs, J. L., & Smith, G. T. (2014). An Exploration of Sexual Victimization and Academic Performance Among College Women. *Trauma, Violence, & Abuse*, 15(3), 191-200. doi: 10.1177/1524838014520637
- Kalichman, S. C., Benotsch, E., Rompa, D., Gore-Felton, C., Austin, J., Luke, W., . . . Simpson, D. (2001). Unwanted sexual experiences and sexual risks in gay and bisexual men: Associations among revictimization, substance use, and psychiatric symptoms. *The Journal of Sex Research*, 38(1), 1-9. doi: 10.1080/00224490109552065
- Katz, J., & Tirone, V. (2010). Going Along With It: Sexually Coercive Partner Behavior Predicts Dating Women's Compliance With Unwanted Sex. *Violence Against Women*, 16(7), 730-742. doi: 10.1177/1077801210374867
- Kertzner, R. M., Meyer, I. H., Frost, D. M., & Stirratt, M. J. (2009). Social and Psychological Well-being in Lesbians, Gay Men, and Bisexuals: The Effects of Race, Gender, Age, and Sexual Identity. *The American journal of orthopsychiatry*, 79(4), 500-510. doi: 10.1037/a0016848

- Kitzinger, C., & Frith, H. (1999). Just Say No? The Use of Conversation Analysis in Developing a Feminist Perspective on Sexual Refusal. *Discourse & Society, 10*(3), 293-316. doi: 10.1177/0957926599010003002
- Koss, M. P. (1998). Hidden Rape: Sexual Aggression and Victimization in of Students in Higher Education. *Confronting rape and sexual assault*(3)
- Koss, M. P., Abbey, A., Campbell, R., Cook, S., Norris, J., Testa, M., . . . White, J. (2006). The sexual experiences short form victimization (SES-SFV). *Tucson, AZ: University of Arizona. Version, 8*
- 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. doi: 10.1111/j.1471-6402.2007.00385.x
- Krebs, C. P., Lindquist, C., Warner, T., Fisher, B., & Martin, S. (2007). The campus sexual assault (CSA) study. *Washington, DC: National Institute of Justice, US Department of Justice*
- Langhinrichsen-Rohling, J., Foubert, J. D., Brasfield, H. M., Hill, B., & Shelley-Tremblay, S. (2011). The Men's Program: Does It Impact College Men's Self-Reported Bystander Efficacy and Willingness to Intervene? *Violence Against Women*. doi: 10.1177/1077801211409728
- Larimer, M., Lydum, A., Anderson, B., & Turner, A. (1999). Male and Female Recipients of Unwanted Sexual Contact in a College Student Sample: Prevalence Rates, Alcohol Use, and Depression Symptoms. *Sex Roles, 40*(3-4), 295-308. doi: 10.1023/A:1018807223378
- Lin, Y. j., & Israel, T. (2012). Development and validation of a psychological sense of LGBT community scale. *Journal of Community Psychology, 40*(5), 573-587
- Martin, S. L., Fisher, B. S., Warner, T. D., Krebs, C. P., & Lindquist, C. H. (2011). Women's Sexual Orientations and Their Experiences of Sexual Assault Before and During University. *Women's Health Issues, 21*(3), 199-205. doi: <http://dx.doi.org/10.1016/j.whi.2010.12.002>
- Menning, C. L., & Holtzman, M. (2013). Processes and patterns in gay, lesbian, and bisexual sexual assault: A multimethodological assessment. *Journal of interpersonal violence, 0886260513506056*
- Messman-Moore, T. L., & Brown, A. L. (2006). Risk Perception, Rape, and Sexual Revictimization: A Prospective Study of College Women. *Psychology of Women Quarterly, 30*(2), 159-172. doi: 10.1111/j.1471-6402.2006.00279.x
- Meyer, I. H. (1995). Minority stress and mental health in gay men. *Journal of health and social behavior, 38-56*
- Meyer, I. H. (2003). Prejudice, Social Stress, and Mental Health in Lesbian, Gay, and Bisexual Populations: Conceptual Issues and Research Evidence. *Psychological bulletin, 129*(5), 674-697. doi: 10.1037/0033-2909.129.5.674
- Mohr, J. J., & Kendra, M. S. (2011). Revision and extension of a multidimensional measure of sexual minority identity: the Lesbian, Gay, and Bisexual Identity Scale. *Journal of Counseling Psychology, 58*(2), 234
- Mustanski, B., Birkett, M., Greene, G. J., Rosario, M., Bostwick, W., & Everett, B. G. (2014). The association between sexual orientation identity and behavior across race/ethnicity, sex, and age in a probability sample of high school students. *American journal of public health, 104*(2), 237-244

- National Institute on Alcohol Abuse and Alcoholism. (2004). *Recommended Alcohol Questions*. Bethesda, MD.
- O'Sullivan, L. F., Byers, E. S., & Finkelman, L. (1998). A Comparison of Male and Female College Students' Experiences of Sexual Coercion. *Psychology of Women Quarterly*, 22(2), 177-195. doi: 10.1111/j.1471-6402.1998.tb00149.x
- Pino, N. W., & Johnson-Johns, A. M. (2009). College women and the occurrence of unwanted sexual advances in public drinking settings. *The Social Science Journal*, 46(2), 252-267. doi: <http://dx.doi.org/10.1016/j.soscij.2009.04.005>
- Rothman, E. F., Exner, D., & Baughman, A. L. (2011). The Prevalence of Sexual Assault Against People Who Identify as Gay, Lesbian, or Bisexual in the United States: A Systematic Review. *Trauma, Violence, & Abuse*, 12(2), 55-66. doi: 10.1177/1524838010390707
- Russell, S. T., Ryan, C., Toomey, R. B., Diaz, R. M., & Sanchez, J. (2011). Lesbian, Gay, Bisexual, and Transgender Adolescent School Victimization: Implications for Young Adult Health and Adjustment. *Journal of School Health*, 81(5), 223-230. doi: 10.1111/j.1746-1561.2011.00583.x
- Scarce, M. (1997). Same-Sex Rape of Male College Students. *Journal of American College Health*, 45(4), 171-173. doi: 10.1080/07448481.1997.9936878
- Schwarz, A. (2015, 2015-01-19). Sorority Anti-Rape Idea: Drinking on Own Turf, *The New York Times*.
- Söchting, I., Fairbrother, N., & Koch, W. J. (2004). Sexual Assault of Women: Prevention Efforts and Risk Factors. *Violence Against Women*, 10(1), 73-93. doi: 10.1177/1077801203255680
- Stemple, L., & Meyer, I. H. (2014). The Sexual Victimization of Men in America: New Data Challenge Old Assumptions. *American Journal of Public Health*, 104(6), e19-e26. doi: 10.2105/AJPH.2014.301946
- Stoddard, J. P., Dibble, S. L., & Fineman, N. (2009). Sexual and physical abuse: a comparison between lesbians and their heterosexual sisters. *J Homosex*, 56(4), 407-420. doi: 10.1080/00918360902821395
- Testa, M., & Livingston, J. A. (2009). Alcohol Consumption and Women's Vulnerability to Sexual Victimization: Can Reducing Women's Drinking Prevent Rape? *Substance Use & Misuse*, 44(9-10), 1349-1376. doi: 10.1080/10826080902961468
- Testa, M., VanZile-Tamsen, C., Livingston, J. A., & Koss, M. P. (2004). Assessing women's experiences of sexual aggression using the Sexual Experiences Survey: Evidence for validity and implications for research. *Psychology of Women Quarterly*, 28(3), 256-265
- The GenIUSS Group. (2014). *Best Practices for Asking Questions to Identify Transgender and Other Gender Minority Respondents on Population-Based Surveys*. Los Angeles, CA <http://williamsinstitute.law.ucla.edu/wp-content/uploads/geniuss-report-sep-2014.pdf>.
- Tjaden, P., Thoennes, N., & Allison, C. J. (1999). Comparing violence over the life span in samples of same-sex and opposite-sex cohabitants. *Violence Vict*, 14(4), 413-425
- Ullman, S. E. (2003). A critical review of field studies on the link of alcohol and adult sexual assault in women. *Aggression and Violent Behavior*, 8(5), 471-486. doi: [http://dx.doi.org/10.1016/S1359-1789\(03\)00032-6](http://dx.doi.org/10.1016/S1359-1789(03)00032-6)
- Valeri, L., & VanderWeele, T. J. (2013). Mediation analysis allowing for exposure-mediator interactions and causal interpretation: theoretical assumptions and implementation with SAS and SPSS macros. *Psychological methods*, 18(2), 137-150. doi: 10.1037/a0031034

- Vrana, S., & Lauterbach, D. (1994). Prevalence of traumatic events and post-traumatic psychological symptoms in a nonclinical sample of college students. *Journal of Traumatic Stress, 7*(2), 289-302. doi: 10.1002/jts.2490070209
- Young, B., & Furman, W. (2008). Interpersonal Factors in the Risk for Sexual Victimization and its Recurrence during Adolescence. *Journal of Youth and Adolescence, 37*(3), 297-309. doi: 10.1007/s10964-007-9240-0

Appendix I. Tables

Table 1. Methods used in unwanted sexual experiences.

Did the person or persons who did one or more of the behaviors listed above do them by...

- (1) Catching you off guard, or ignoring non-verbal cues or looks?
 - (2) Telling lies, threatening to end the relationship or to spread rumors about you, or verbally pressuring you?
 - (3) Showing displeasure, criticizing your sexuality or attractiveness, or getting angry?
 - (4) Taking advantage of you when you were too drunk, high, asleep or out of it?
 - (5) Threatening to physically harm you or someone close to you?
 - (6) Using force, or having a weapon?
-

Adapted from Koss et al. (2006) and Barnhart et al. (2014).

Table 2. Demographic characteristics of the sample.

Demographic characteristics	Mean (<i>SD</i>)	Behaviors	n (%)
Age	20.67 (2.22)	Sex partners during college	
	n (%)	0	142 (20.8%)
Gender		1	123 (18.0%)
Man	373 (54.6%)	2 - 4	154 (22.5%)
Woman	235 (34.4%)	5 - 9	117 (17.1%)
Other	75 (11.0%)	10+	143 (20.9%)
Class year		Romantic partners during college	
First-year	117 (17.1%)	0	210 (30.7%)
Second-year	131 (19.2%)	1	204 (29.9%)
Third-year	162 (23.7%)	2	119 (17.4%)
Fourth-year	273 (40.0%)	3 - 4	101 (14.8%)
Sexual orientation		5+	49 (7.2%)
Gay	311 (45.5%)	Drinking in past year	
Lesbian	88 (12.9%)	None	71 (10.4%)
Bisexual	131 (19.2%)	Less than once per month	116 (17.0%)
Queer	91 (13.3%)	1 to 3 times per month	178 (26.1%)
Pansexual	33 (4.8%)	1 to 2 times per week	211 (30.9%)
Other	29 (4.2%)	More than twice per week	107 (15.7%)
Race		Typical number of drinks	
White	538 (78.8%)	None	75 (11.0%)
Black	18 (2.6%)	One or two	207 (30.3%)
Asian	53 (7.8%)	Three	133 (19.5%)
Other or Multiple	69 (10.1%)	Four	91 (13.3%)
Hispanic or Latino/a		Five or more	168 (24.6%)
No	600 (87.8%)	Psychosocial variables	Mean (<i>SD</i>)
Yes	83 (12.2%)	Internalized Homophobia	2.21 (1.29)
Current housing		PSOC	17.15 (4.14)
Dorm	309 (45.2%)	Individual Sexual Motives	2.96 (1.44)
Special interest	37 (5.4%)	Normative Sexual Motives	3.32 (1.21)
Off-campus (students)	196 (28.7%)		
Off-campus (parents)	81 (11.9%)		
Off-campus (other)	60 (8.8%)		
School characteristics	n (%)		
School size			
Less than 5,000	174 (25.5%)		
5,000 - 9,999	48 (7.0%)		
10,000 - 19,999	166 (24.3%)		
20,000 and above	211 (30.9%)		
Degree type			
Two-year	34 (5.0%)		
Four-year	565 (82.7%)		
School type			
Public	270 (39.5%)		
Private	329 (48.2%)		
Non-U.S.	84 (12.3%)		

Table 3. Most Serious USE by Participant Gender and Agent Gender.

	Male agent N (%) ¹	Female agent N (%) ¹	Other agent N (%) ¹	Unknown agent N (%) ¹	Total N (%) ²
Men					
Touching	42 (73.7)	15 (26.3)	0 (0.0)	0 (0.0)	57 (15.3)
Attempted Sex Act	31 (91.2)	2 (5.9)	1 (2.9)	0 (0.0)	34 (9.1)
Completed Sex Act	31 (88.6)	4 (11.4)	0 (0.0)	0 (0.0)	35 (9.4)
Any	104 (82.5)	21 (16.7)	1 (0.8)	0 (0.0)	126 (33.8)
Women					
Touching	42 (79.3)	9 (17.0)	0 (0.0)	2 (3.8)	53 (22.6)
Attempted Sex Act	11 (91.7)	1 (8.3)	0 (0.0)	0 (0.0)	12 (5.1)
Completed Sex Act	36 (81.8)	7 (15.9)	1 (2.3)	0 (0.0)	44 (18.7)
Any	89 (81.7)	17 (15.6)	1 (0.9)	2 (1.8)	109 (46.4)
Other					
Touching	5 (55.6)	3 (33.3)	1 (11.1)	0 (0.0)	9 (12.0)
Attempted Sex Act	4 (57.1)	2 (28.6)	1 (14.3)	0 (0.0)	7 (9.3)
Completed Sex Act	10 (66.7)	2 (13.3)	2 (13.3)	1 (6.7)	15 (20.0)
Any	19 (61.3)	7 (22.6)	4 (12.9)	1 (3.2)	31 (41.3)
Total					
Touching	89 (74.8)	27 (22.7)	1 (0.8)	2 (1.7)	119 (17.4)
Attempted Sex Act	46 (86.8)	5 (9.4)	2 (3.8)	0 (0.0)	53 (7.8)
Completed Sex Act	77 (81.9)	13 (13.8)	3 (3.2)	1 (1.1)	94 (13.8)
Any	212 (79.7)	45 (16.9)	6 (2.3)	3 (1.1)	266 (38.9)

¹ Percent of participants reporting this agent gender among those with a most serious USE of each type.

² Percent of participants in the full sample reporting a most serious USE of this type.

Table 4. Characteristics of USEs by Participant Gender.

	Men (<i>n</i> =128) <i>n</i> (%) ¹	Women (<i>n</i> =110) <i>n</i> (%) ¹	Other (<i>n</i> =31) <i>n</i> (%) ¹	Total (<i>n</i> =269) <i>n</i> (%) ¹	$\chi^2(2)$ ²	<i>P</i>
Most serious event						
Touching	58 (45.3)	54 (49.1)	9 (29.0)	121 (45.0)	3.943	0.139
Attempted sex act	34 (26.6)	12 (10.9)	7 (22.6)	53 (19.7)	9.346	0.009 **
Completed sex act	36 (28.1)	44 (40.0)	15 (48.4)	95 (35.3)	6.273	0.043 *
Agent gender						
Man	112 (87.5)	89 (80.9)	19 (61.3)	212 (78.8)	1.270	0.530
Woman	21 (16.4)	19 (17.3)	9 (29.0)	49 (18.2)	2.782	0.249
Other	1 (0.8)	3 (2.7)	5 (16.1)	9 (3.3)	18.40	<.001 ***
Relationship to agent						
Acquaintance	43 (33.6)	37 (33.6)	15 (48.4)	95 (35.3)	2.26	0.270
Friend	24 (18.8)	34 (30.9)	9 (29.0)	67 (24.9)	5.00	0.082
Current/former partner	28 (21.9)	36 (32.7)	17 (54.8)	81 (30.1)	13.49	0.001 *
Other	60 (46.9)	44 (40.0)	13 (41.9)	117 (43.5)	0.56	0.556
Location						
On campus	53 (41.4)	61 (55.5)	17 (54.8)	131 (48.7)	5.20	0.074
Off campus	82 (64.1)	56 (50.9)	21 (67.7)	159 (59.1)	5.31	0.070
Method						
Ignoring cues	83 (68.0)	81 (77.1)	26 (89.7)	190 (73.1)	6.81	0.033 *
Lies or pressure	16 (13.1)	24 (22.9)	7 (24.1)	47 (18.1)	4.32	0.116
Anger or criticism	22 (18.0)	36 (34.3)	6 (20.7)	64 (24.6)	8.69	0.013 *
Incapacitated	52 (42.6)	67 (63.8)	21 (72.4)	140 (53.8)	13.23	0.001 **
Threats	3 (2.5)	6 (5.7)	4 (13.8)	13 (5.0)	5.99	0.050
Force	8 (6.6)	12 (11.4)	6 (20.7)	26 (10.0)	5.79	0.055

¹ Characteristics are reported at the participant level. Column percentages may sum to more than 100% because some participants reported multiple USEs with differing characteristics.

² χ^2 tests were conducted across gender for each characteristic individually (e.g., threats reported vs. threats not reported).

Table 5a. Bivariate associations between participant characteristics and USE.

	<i>Any USE</i>					<i>Assault</i>					<i>Coercion</i>				
	Yes	No	%	OR	<i>P</i>	Yes	No	%	OR	<i>P</i>	Yes	No	%	OR	<i>P</i>
Demographic															
Gender	0.002**					0.004**					0.005**				
Man	36	337	9.7	1.00		25	348	0.07	1.00		11	362	0.03	1.00	
Woman	44	191	18.7	2.16		34	201	0.14	2.35		20	215	0.09	3.06	
Other	15	60	20.0	2.34		11	64	0.15	2.39		7	68	0.09	3.39	
Class year	<.001***					0.006**					0.004**				
First-year	4	113	3.4	0.14		3	114	0.03	0.16		1	116	0.01	0.10	
Second-year	17	114	13.0	0.58		13	118	0.10	0.66		11	120	0.08	1.05	
Third-year	18	144	11.1	0.48		15	147	0.09	0.61		4	158	0.02	0.29	
Fourth-year	56	217	20.5	1.00		39	234	0.14	1.00		22	251	0.08	1.00	
Sexual orientation	0.231					0.086					0.226				
Gay	32	279	10.3	1.00		23	288	0.07	1.00		12	299	0.04	1.00	
Lesbian	15	73	17.0	1.79		13	75	0.15	2.17		4	84	0.05	1.19	
Bisexual	21	110	16.0	1.66		15	116	0.11	1.62		10	121	0.08	2.06	
Queer	15	76	16.5	1.72		10	81	0.11	1.55		5	86	0.05	1.45	
Pansexual	7	26	21.2	2.35		7	26	0.21	3.37		4	29	0.12	3.44	
Other	5	24	17.2	1.82		2	27	0.07	0.93		3	26	0.10	2.88	
Race	0.560					0.165					0.972				
White	78	460	14.5	1.00		58	480	0.11	1.00		31	507	0.06	1.00	
Black	3	15	16.7	1.18		3	15	0.17	1.66		1	17	0.06	0.96	
Asian	4	49	7.5	0.48		1	52	0.02	0.16		3	50	0.06	0.98	
Other or Multiple	10	59	14.5	1.00		8	61	0.12	1.09		3	66	0.04	0.74	
Hispanic or Latino/a	0.406					0.177					0.480				
No	81	519	13.5	1.00		58	542	0.10	1.00		32	568	0.05	1.00	
Yes	14	69	16.9	1.30		12	71	0.14	1.58		6	77	0.07	1.38	
Current housing	0.209					0.185					0.068				
Dorm	45	264	14.6	1.00		33	276	0.11	1.00		17	292	0.06	1.00	
Special interest	4	33	10.8	0.84		3	34	0.08	0.74		2	35	0.05	0.98	
Off campus (students)	33	163	16.8	1.19		26	170	0.13	1.28		9	187	0.05	0.83	
Off campus (parents)	5	76	6.2	0.39		3	78	0.04	0.32		2	79	0.02	0.43	
Off campus (other)	8	52	13.3	0.90		5	55	0.08	0.76		8	52	0.13	2.64	
School characteristics															
School size	0.011*					0.035*					0.022*				
Less than 5,000	39	135	22.4	2.15		29	145	0.17	1.91		18	156	0.10	3.36	
5,000 - 9,999	6	42	12.5	1.06		5	43	0.10	1.11		3	45	0.06	1.94	
10,000 - 19,999	19	147	11.4	0.96		12	154	0.07	0.74		7	159	0.04	1.28	
20,000 and above	25	186	11.8	1.00		20	191	0.09	1.00		7	204	0.03	1.00	
Degree type	0.308					0.324					0.446				
Two-year	3	31	8.8	0.58		2	32	0.06	0.49		3	31	0.09	1.61	
Four-year	86	479	15.2	1.00		64	501	0.11	1.00		32	533	0.06	1.00	
School type	0.001**					0.006**					0.161				
Public	27	243	10.0	1.00		20	250	0.07	1.00		11	259	0.04	1.00	
Private	62	267	18.8	2.09		46	283	0.14	2.03		24	305	0.07	1.85	
Non-U.S.	6	78	7.1	0.69		4	80	0.05	0.63		3	81	0.04	0.87	

Table 5b. Bivariate associations between participant characteristics and USE.

Behavior	Any USE					Assault					Coercion				
	Yes	No	%	OR	P	Yes	No	%	OR	P	Yes	No	%	OR	P
Sex partners during college	<.001***					<.001***					<.001***				
0	1	141	0.7	0.12		1	141	0.01	0.17		0	142	0.00	0.00	
1	7	116	5.7	1.00		5	118	0.04	1.00		2	121	0.02	1.00	
2 - 4	16	138	10.4	1.92		10	144	0.06	1.64		5	149	0.03	2.03	
5 - 9	29	88	24.8	5.46		21	96	0.18	5.16		10	107	0.09	5.65	
10+	40	103	28.0	6.44		31	112	0.22	6.53		20	123	0.14	9.84	
Romantic partners during college	<.001***					<.001***					<.001***				
0	11	199	5.2	0.81		9	201	0.04	1.10		3	207	0.01	0.58	
1	13	191	6.4	1.00		8	196	0.04	1.00		5	199	0.02	1.00	
2	23	96	19.3	3.52		13	106	0.11	3.00		5	114	0.04	1.75	
3	17	52	24.6	4.80		13	56	0.19	5.69		9	60	0.13	5.97	
4	12	20	37.5	8.82		11	21	0.34	12.83		3	29	0.09	4.12	
5 or more	19	30	38.8	9.31		16	33	0.33	11.88		13	36	0.27	14.37	
Drinking frequency (past year)	0.003**					<.001***					0.291				
None	6	65	8.5	1.18		1	70	0.01	0.32		3	68	0.04	1.66	
Less than once /month	8	108	6.9	1.00		5	111	0.04	1.00		3	113	0.03	1.00	
1 to 3 times /month	20	158	11.2	1.65		15	163	0.08	2.04		8	170	0.04	1.77	
1 to 2 times /week	37	174	17.5	2.77		29	182	0.14	3.54		16	195	0.08	3.09	
More than twice /week	24	83	22.4	3.75		20	87	0.19	5.10		8	99	0.07	3.04	
Typical number of drinks	0.408					0.085					0.206				
None	6	69	8.0	0.43		1	74	0.01	0.11		3	72	0.04	0.47	
One or two	32	175	15.5	1.00		23	184	0.11	1.00		17	190	0.08	1.00	
Three	20	113	15.0	0.92		18	115	0.14	1.25		5	128	0.04	0.44	
Four	16	75	17.6	1.18		10	81	0.11	0.99		7	84	0.08	0.93	
Five or more	21	147	12.5	0.71		18	150	0.11	0.96		6	162	0.04	0.41	

Continuous variables

Any USE

	Yes	No			
	Mean (SD)		df	t	P
Age	21.42 (2.19)	20.55 (2.20)	589	-3.37	<.001***
Internalized homophobia	2.44 (1.44)	2.18 (1.26)	677	-1.84	0.066
PSOC	16.66 (3.89)	17.22 (4.17)	675	1.23	0.156
Sexual motive (individual)	3.12 (1.59)	2.94 (1.43)	678	-1.11	0.266
Sexual motive (descriptive norm)	3.24 (1.30)	3.33 (1.20)	678	0.64	0.521

Assault

	Yes	No			
	Mean (SD)		df	t	P
Age	21.48 (2.26)	20.58 (2.20)	589	-2.98	0.003**
Internalized homophobia	2.32 (1.40)	2.20 (1.28)	677	-0.76	0.450
PSOC	17.10 (4.20)	17.15 (3.62)	675	0.09	0.925
Sexual motive (individual)	3.10 (1.52)	2.95 (1.44)	678	-0.84	0.403
Sexual motive (descriptive norm)	3.27 (1.27)	3.32 (1.20)	678	0.35	0.728

Coercion

	Yes	No			
	Mean (SD)		df	t	P
Age	21.71 (2.52)	20.61 (2.18)	589	-2.98	0.003**
Internalized homophobia	2.67 (1.51)	2.19 (1.27)	677	-2.37	0.018*
PSOC	16.40 (4.17)	17.19 (4.14)	675	1.14	0.256
Sexual motive (individual)	2.89 (1.37)	2.97 (1.45)	678	0.30	0.764
Sexual motive (descriptive norm)	3.00 (1.25)	3.33 (1.21)	678	1.68	0.094

Table 6. Multiple regression models of USE by demographic, behavior, and psychosocial variables.

	<i>Any USE</i>		<i>Assault</i>		<i>Coercion</i>	
	AOR (95% CI)	<i>P</i>	AOR (95% CI)	<i>P</i>	AOR (95% CI)	<i>P</i>
Demographic						
Gender		<.001***		0.001**		0.002**
Man	1.00		1.00		1.00	
Woman	3.50 (1.82, 6.75)		3.89 (1.74, 8.70)		4.40 (1.63, 11.90)	
Other	5.04 (2.03, 12.52)		5.68 (1.96, 16.48)		8.10 (2.22, 29.55)	
Class year		0.564		0.522		0.006**
First-year	0.83 (0.25, 2.75)		1.45 (0.36, 5.80)		1.18 (0.12, 11.85)	
Sophomore	1.35 (0.66, 2.75)		1.84 (0.83, 4.12)		4.91 (1.73, 13.94)	
Junior	0.76 (0.40, 1.46)		1.19 (0.58, 2.46)		0.56 (0.17, 1.84)	
Senior	1.00		1.00		1.00	
School type		0.023*		0.090		0.417
Public	1.00		1.00		1.00	
Private	2.11 (1.18, 3.75)		2.01 (1.05, 3.84)		1.86 (0.74, 4.65)	
International	0.95 (0.34, 2.65)		1.06 (0.32, 3.57)		1.45 (0.33, 6.46)	
Behavior						
Number of sex partners	2.03 (1.54, 2.69)	<.001***	1.89 (1.37, 2.63)	<.001***	2.71 (1.68, 4.36)	<.001***
Number of romantic partners	1.39 (1.15, 1.67)	0.005**	1.50 (1.21, 1.85)	<.001***	1.75 (1.29, 2.36)	0.003**
Drinking frequency	0.99 (0.76, 1.29)	0.937	1.39 (1.02, 1.90)	0.039*	0.88 (0.59, 1.32)	0.547
Psychosocial						
Internalized homophobia ¹	1.69 (1.28, 2.24)	<.001***	1.50 (1.09, 2.07)	0.013*	2.39 (1.53, 3.73)	<.001***
Sense of LGBT community ¹	0.77 (0.57, 1.05)	0.095	0.89 (0.63, 1.26)	0.524	0.71 (0.44, 1.14)	0.160
Sexual motives (individual) ¹	1.51 (1.01, 2.26)	0.045*	1.89 (1.12, 3.17)	0.016*	0.92 (0.48, 1.76)	0.792
<i>Sexual motives x woman</i>	0.33 (0.17, 0.63)	<.001***	0.21 (0.10, 0.45)	<.001***	0.41 (0.16, 1.10)	0.077
<i>Sexual motives x other</i>	0.46 (0.20, 1.07)	0.072	0.28 (0.10, 0.74)	0.010*	0.72 (0.22, 2.35)	0.591

¹ Psychosocial variables were standardized. Odds ratios represent a change of one standard deviation in the predictor.

Appendix II. Figures

Figure 1. Hypothesized relationship between sense of LGBTQ community and USE, mediated by internalized homophobia.

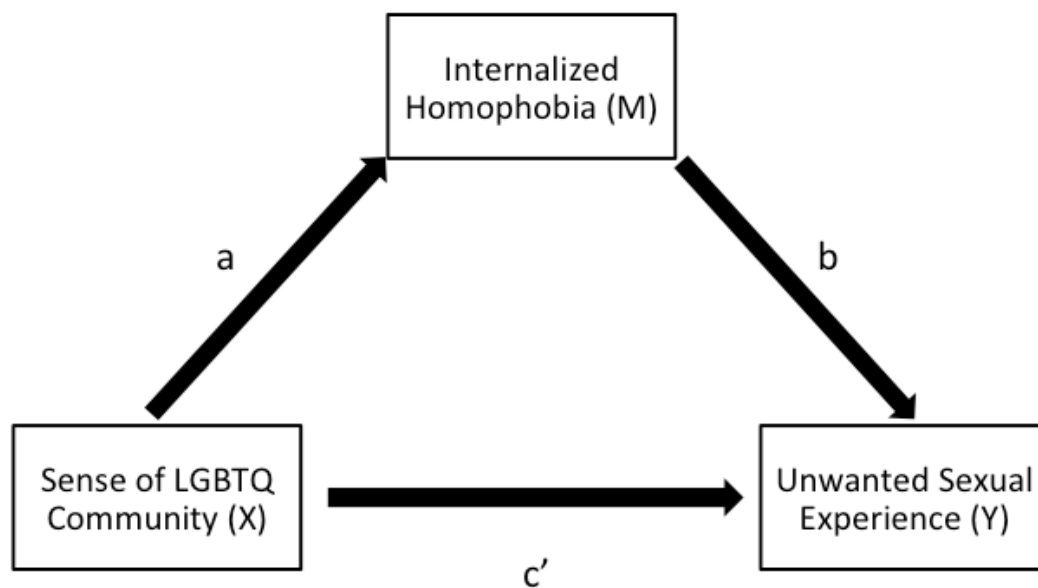


Figure 2. Adjusted relationship between individual sexual motive and risk of USE: interaction with gender.

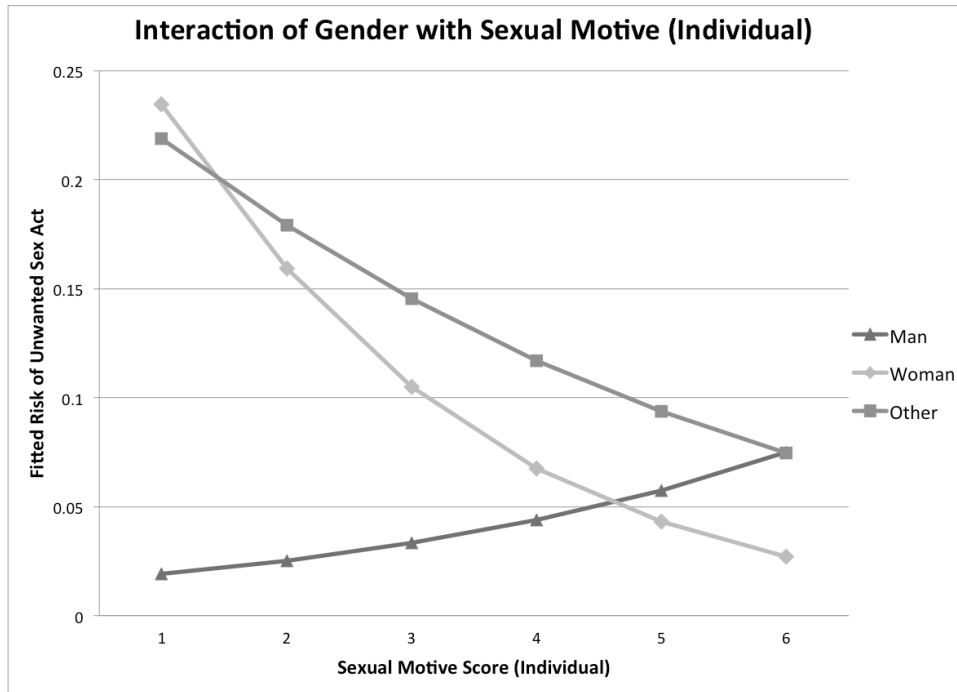


Figure 3. Regression coefficients for relationship between sense of LGBTQ community and USE, mediated by internalized homophobia.

