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## Sexual Assault Risks among Gay and Bisexual Men

**Amy L. Hequembourg,**

Research Institute on Addictions, University at Buffalo

**Kathleen A. Parks,**

Research Institute on Addictions, University at Buffalo

**R. Lorraine Collins,** and

University at Buffalo

**Tonda L. Hughes**

University of Illinois at Chicago

### Abstract

The goal of this study was to examine lifetime patterns of sexual assault and associated risks among a purposive sample of gay and bisexual men ( $N = 183$ ; 18–35 years old,  $M = 24.3$ ). Cross-sectional data were collected via written, self-administered questionnaires and face-to-face, event-based qualitative interviews. Alcohol severity scores indicated high rates of hazardous drinking (53.0%) and possible dependence (14.2%) among participants. One half of men (50.8%) reported childhood sexual abuse (CSA) and 67.2% reported adult sexual assault (ASA). Average age at most recent ASA was 21 years. Most perpetrators of recent ASA incidents (83.9%) were male; 67.0% of participants reported consuming alcohol and/or drugs prior to the most recent incident. Regression findings indicated more severe CSA experiences and past alcohol-related problems predicted recent severe ASA. Although we found similarities between gay and bisexual men in lifetime sexual assault history, we found some distinct differences in ASA risk factors. Bisexual men reported higher alcohol severity scores, more female ASA perpetrators, higher internalized homophobia scores, and fewer male sexual partners than gay men. Findings suggest the need for interventions that reduce ASA risk among sexual minority men—and the potential benefits of focusing on alcohol consumption in risk reduction efforts.

### Keywords

gay men; bisexual men; childhood sexual abuse; adult sexual assault; risky drinking; revictimization

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Much is known about women's experiences of adult sexual assault (ASA; for a review, see Abbey, Jacques-Tiura, & Parkhill, 2010), but research lags behind in understanding these

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Correspondence concerning this article should be addressed to Amy L. Hequembourg, Research Institute on Addictions, University at Buffalo, 1021 Main Street, Buffalo, New York 14203-1016. Phone: 716 887 3343. ahequemb@ria.buffalo.edu.  
Amy L. Hequembourg, Research Institute on Addictions, University at Buffalo; Kathleen A. Parks, Research Institute on Addictions, University at Buffalo; R. Lorraine Collins, Department of Community Health and Health Behavior, University at Buffalo; Tonda L. Hughes, Department of Health Systems Science, College of Nursing, University of Illinois at Chicago.

experiences among men. Despite cultural myths that often invalidate men's experiences of ASA (Doherty & Anderson, 2004), research has shown that—like women—men can be the victims of unwanted sexual contact, sexual coercion, attempted rape, and rape (see Peterson, Voller, Polusny, & Murdoch, 2011 for a review). Perpetrators may be male or female friends, acquaintances, intimate partners, or strangers, with assaults occurring across the lifespan. Some men—particularly gay and bisexual (i.e., sexual minority) men—appear to be at higher risk for lifetime ASA than other men (Balsam, Lehavot, & Beadnell, 2011; Balsam, Rothblum, & Beauchaine, 2005).

Population-based survey studies of ASA have seldom included men's experiences and rarely assess sexual orientation; therefore, knowledge about the prevalence of ASA among gay and bisexual men is based primarily on studies utilizing data from non-random, purposive samples (for a review, see Rothman, Exner, & Baughman, 2011). Nevertheless, studies estimate that between 14%–20% of gay and bisexual men experience ASA (Kalichman et al., 2001; Krahe, Schütze, Fritsche, & Waizenhöfer, 2000; Ratner et al., 2003). These rates are higher than for heterosexual men and more similar to those reported for heterosexual women (Elliott, Mok, & Briere, 2004; Friedman et al., 2011). A recent nationally representative survey conducted by the Centers for Disease Control found that 40% of gay men and nearly half of bisexual men (47%) compared to 21% of heterosexual men experienced sexual violence other than rape during their lifetimes (Walters & Breiding, 2013). About one-fourth of gay men (26.0%) and one-third (37.3%) of bisexual men, compared to 29.0% of heterosexual men, reported lifetime rape, physical violence and/or stalking by an intimate partner.

ASA has been associated with risky sexual behaviors (e.g., multiple unprotected male sexual partners; Kalichman et al., 2001), psychological symptoms, risky drinking, and self-harm (Coxell, 1999; Kalichman et al., 2001). Although little is known about predictors of ASA among sexual minority men, findings from prior studies suggest some potentially important factors. These include a history of CSA, risky alcohol use patterns, higher levels of internalized homophobia (IH), and greater numbers of male sex partners.

## **Potential Risk Factors for Adult Sexual Assault among Sexual Minority Men**

### **Childhood Sexual Abuse**

In general, rates of CSA appear to be higher among gay and bisexual men than among heterosexual men (Davies, 2002), but similar to rates among heterosexual women (Doll et al., 1992; Finkelhor et al., 1990; Hughes, 2005). Studies of sexual minority men report estimates of CSA that range between 14% to 39% (Arreola, Neilands, Pollack, Paul, & Catania, 2008; Doll, Joy, Bartholow, & Harrison, 1992; Paul, Catania, Pollack, & Stall, 2001; Ratner et al., 2003; Relf, 2001). CSA has been found to be associated with a number of negative proximal and distal consequences among heterosexual men, with some of these findings replicated among gay and bisexual men (Holmes & Slap, 1998). In a review of research examining the consequences of CSA among male children, Purcell et al. (2004) identified short-term negative outcomes (e.g., fearfulness or avoidance, PTSD), as well as more pervasive developmental effects (e.g., emotion regulation problems). Adult heterosexual men who experienced CSA were at greater risk, compared to those men with

no CSA histories, for developing substance abuse disorders and a range of other negative psychological and behavioral outcomes (e.g., depression, suicide attempts, interpersonal problems; see Purcell et al., 2004 for a full discussion). Although fewer have been conducted, studies of CSA among gay and bisexual men also have found a variety of negative long-term health consequences (Bartholow, Doll, Joy, & Douglas, 1994). Compared to sexual minority men without histories of CSA, gay and bisexual men with histories of CSA report more long-term psychological distress (e.g., depression suicidal thoughts or behaviors, mental health counseling and hospitalization) and substance-related problems (Arreola et al., 2008; Bartholow et al., 1994; Brennan, Hellerstedt, Ross, & Welles, 2007; Dilorio, Hartwell, & Hansen, 2002; Holmes, 1997; Neisen & Sandall, 1990; Paul et al., 2001; Ratner et al., 2003; Rosario, Schrimshaw, Hunter, & Braun, 2006). CSA also has been linked to a variety of risky sexual behaviors among gay and bisexual men, including greater numbers of sexual partners, inconsistent condom use, exchanging sex for money or drugs, compulsive sexual behaviors, and other behaviors that increase risk for HIV and other sexually transmitted infections (Arreola et al., 2008; Bartholow et al., 1994; Brennan et al., 2007; Dilorio et al., 2002; Gore-Felton et al., 2006; Kalichman, Gore-Felton, Benotsch, Cage, & Rompa, 2004; Lenderking et al., 1997; Paul et al., 2001; Rosario, Schrimshaw, & Hunter, 2006).

Of particular relevance for the current study, CSA has been consistently identified as a strong predictor for later ASA (i.e., revictimization) among women; however, fewer studies have investigated this relationship among men. Aosved, Long, and Voller (2011) found that male college students with a history of CSA were more likely to experience ASA than those without such histories. Only a few studies have examined experiences of revictimization among sexual minority populations of men, indicating that sexual minority men report similar patterns of CSA to ASA risk as heterosexual women (Coxell, 1999; Krahé, Scheinberger-Olwig, & Schütze, 2001). For example, Balsam et al. (2011) found that CSA history increased the risk of experiencing rape among adult gay men, and Kalichman et al. (2001) found that one third of sexual minority men in their study who experienced CSA also experienced ASA. Heidt, Marx, and Gold (2005) reported that 25% of gay men and 39% of bisexual men had experienced sexual revictimization, although they did not assess whether this group difference was significant. Some evidence suggests that bisexual men may be more likely than gay men to report CSA (e.g., Balsam, Rothblum, and Beauchaine, 2005), which may have implications for ASA risk.

### **Alcohol Use**

While some studies have reported a correlation between intimate partner violence and alcohol use among men (Bartholomew, Regan, Oram, & White, 2008; Bartholomew, Regan, White, & Oram, 2008; Houston & McKirnan, 2007), less is known about ASA and alcohol use among sexual minority men. Some evidence suggests that sexual minority men who experience ASA are more likely than those with no ASA histories to report recent substance use and past substance abuse treatment (Kalichman et al., 2001). Furthermore, sexual minority (and heterosexual) men with greater numbers of lifetime ASA experiences are more likely to meet criteria for past-year substance use disorders (Hughes, McCabe, Wilsnack, West, & Boyd, 2010). Given the preponderance of evidence to suggest a strong

link between heavy episodic alcohol use and ASA among women (see Abbey, Zawacki, Buck, Clinton, & McAuslan, 2012 for a review), it is surprising that so few studies have examined the role of alcohol as a risk factor for ASA among men. Braun, Schmidt, Gavey, and Fenaughty (2009) identified a pattern of elevated sexual coercion risk associated with intoxication among gay and bisexual men in New Zealand, but further research is needed to better understand this pattern of association in other samples of sexual minority men.

### **Minority Stress and Internalized Homophobia**

All sexual minorities are exposed to unique stressors resulting from their minority status. Minority stress is chronic, socially-based, and additive to the stressors that all people experience (Meyer, 2003a, 2003b). The health disparities found among sexual minority populations, particularly those associated with mental health disorders such as substance abuse, are widely recognized as a consequences of minority stress (Institute of Medicine, 2011). For example, studies have identified a link between experiences of sexual orientation discrimination and poor mental health outcomes, such as depression (Bostwick, Boyd, Hughes, & McCabe, in press; McCabe, Bostwick, Hughes, West, & Boyd, 2010; Meyer, 2003b).

Internalized homophobia refers to the process whereby individuals absorb negative societal messages about sexual minorities into their self-perceptions (Mikalson, Pardo, & Green, 2012). IH represents one component of minority stress (Meyer, 2003a). While IH has a strong foundation in the literature (Szymanski, Kashubeck-West, & Meyer, 2008; Williamson, 2000) and has been linked to a variety of negative mental health problems (Meyer, 1995), findings regarding the nature of the link between IH and other negative health outcomes, such as risky alcohol use and related problems, have been equivocal (Amadio, 2006; Kashubeck-West & Szymanski, 2008; Szymanski et al., 2008). Gold, Marx, and Lexington (2007) identified a positive association between IH and negative psychological symptoms among gay male ASA survivors. Kelley and Robertson (2008) found a positive relationship between gay men's experiences of relational aggression in their intimate relationships and IH. Overall, however, little is known about the nature of the relationship between IH and ASA among sexual minority men.

### **Male Sexual Partners**

Studies of sexual coercion among sexual minority men in Britain (Coxell, 1999) and Germany (Krahé et al., 2001) have suggested that greater numbers of male sexual partners are associated with ASA. Studies also have identified an association between alcohol use and risky sexual behaviors among men. Schraufnagel, Davis, George, and Norris (2010), for example, found a relationship among heterosexual men's CSA histories, alcohol use, and numbers of sexual partners. They found a direct pathway between CSA and numbers of sexual partners, and an indirect pathway via greater alcohol consumption that linked CSA with greater numbers of sexual partners. Despite these findings indicating a possible link between numbers of male sexual partners and SA, little research has examined associations among ASA, alcohol use, and numbers of lifetime male sex partners among gay and bisexual men.

## Sexual Identity

Few studies have compared gay and bisexual men for history of ASA and associated risks—a reflection of the wider tendency to combine samples of gay and bisexual men in research studies (Institute of Medicine, 2011). Too little is known about the relationship between sexual identity and ASA among men to draw definitive conclusions. Some evidence suggests that there are fewer differences in ASA experiences between gay and bisexual men than between lesbian and bisexual women (Balsam et al., 2005). However, using data from the National Epidemiological Survey on Alcohol and Related Conditions (NESARC), Hughes and colleagues (2010) found that gay men were twice as likely as bisexual and heterosexual men to report any lifetime victimization. In studies concerning alcohol use among sexual minorities, studies have found that alcohol use behaviors did not differ by sexual identity as much for men as they did for lesbian and bisexual women (Drabble, Midanik, & Trocki, 2005; McCabe, Hughes, Bostwick, West, & Boyd, 2009). These studies suggest the need to more fully investigate how gay and bisexual men compare in their alcohol use behaviors, as well as reported ASA experiences.

## The Current Study

The goal of the current study was to examine lifetime patterns of sexual assault and associated risks among a purposive sample of 183 gay and bisexual men. Data were collected using self-administered, paper-and-pencil surveys, and qualitative event-based interviews about the details of the participants' most recent ASA incidents (when applicable). We hypothesized that, compared with gay men, bisexual men would (1) be at higher risk for experiencing ASA, (2) be more likely to report revictimization (i.e., both CSA and ASA), (3) report higher levels of IH, and (4) report having fewer male sex partners. We also hypothesized that bisexual identity, CSA severity, greater numbers of lifetime male partners, and past (> 1 year ago) alcohol problems would be predictive of recent (past 6 months) ASA.

## Methods

### Participants

A total of 183 gay and bisexual men participated in the study between 2007 and 2010. Eligible participants were between the ages of 18–35 years old, self-identified as bisexual or gay, and were not transgender. Of the 165 gay men and 102 bisexual men who were screened by phone, 121 gay men and 100 bisexual men were eligible for the study. Reasons for ineligibility were age ( $n = 2$ ), heterosexual identification ( $n = 8$ ), or other ( $n = 2$ ). Fourteen eligible gay men were not enrolled because we had reached our target sample size of gay men, but were still recruiting for bisexual men. Among gay men who were eligible and scheduled to participate, 18 men failed to appear for their scheduled appointments, and 7 men's data were not included in the final analysis due to substantially missing data or uncertainty about the integrity of their answers. Fourteen bisexual men were eligible and scheduled for the study but did not appear for their appointments. The final sample included 96 gay men and 87 bisexual men ( $N = 183$ ).

The average age of participants was 24.3 years old ( $SD = 4.2$ ). Respondents reported an average of 13.4 ( $SD = 2.6$ ) years of education. Over half (51.9%) of the participants were White/European American, 23.5% were (non-Hispanic) African-American and 13.7% were Hispanic. Half of the participants (49.7%) reported annual incomes of less than \$10,000 per year, 31.1% were attending school, and one-half (49.7%) were employed (mean hours employed per week = 33.1;  $SD = 14.2$ ). Bisexual men reported fewer years of education than gay men,  $F = 23.2$ ,  $1/177$  df,  $p < .001$ ; however no other demographic differences were found based on sexual identity (see Table 1).

## Recruitment

Participants were recruited in Buffalo, New York as part of a larger study about risk and protective factors associated with substance use and sexual and physical victimization among sexual minority men and women. Eligible participants were between the ages of 18 and 35 years old. We selected this age range because research available at the time of the study design (in 2007) indicated that the average age of coming out for gay men was 18 (Cabaj, 1995). In addition, alcohol use peaks in the late teens to early thirties, with alcohol dependence or abuse highest among 18- to 25-year-olds (Substance Abuse and Mental Health Services Administration, 2003). Although sexual orientation is a multi-dimensional construct, we chose to focus on self-identified sexual identity in the current study. This decision was made because sexual minority stress and discrimination – key variables in the larger study—are experienced in the context of one’s self-identification, making self-identity a key component of one’s social perceptions and exposure to stigma.

Recruitment was conducted using advertisements posted in a local entertainment magazine, on flyers at local restaurants and businesses, and by way of referrals using Respondent-Driven Sampling (RDS; Heckathorn, 1997) techniques. Flyers and advertisements were worded as follows:

LGBs Wanted to Participate in UB Research Study. *Project COPE* at the University at Buffalo’s Research Institute wants to hear from you about the experiences of LGBs in the Buffalo region. Eligible 18–35 year olds could earn up to \$85.00 for participating in the study. Your participation will be strictly confidential. Please call today to learn more about Project COPE: [phone number].

After completion of the survey and interview, each participant was given three recruitment coupons and asked to refer his gay or bisexual friends to the study. RDS referral coupons were custom designed for the study to include the study logo and general information about the study, including age-related eligibility criteria (18–35 years old), time commitment (2–3 hours), and compensation (up to \$85, including referral incentives). We did not reference sexual orientation or identity on the coupons to avoid breach of confidentiality of participants who were in possession of these coupons (e.g., a parent finding a coupon but does not know his/her child identifies as gay). Language was selected to attract participants with a wide range of substance use experiences. Text on the coupon read as follows:

Project COPE wants you to tell us more about everyday hassles you experience and the ways you manage them. We will ask questions about your alcohol and drug use, experiences of discrimination and violence, and social support systems. We



welcome people with a wide range of experiences, including substance users of all kinds (e.g., nondrinkers, recreational drinking and drug users, heavy alcohol and drug users) and those who have and have not experienced discrimination or violence.

When distributing coupons to participants, study staff provided them with specific instructions about referring only LGB friends and the importance of having participants distribute coupons only to their *friends* (rather than strangers). If the participant's friend called to learn more about the study, the referring participant received a small incentive. Based on nominal referral fee structures utilized in other RDS studies (Heckathorn, Broadhead, & Sergeev, 2001; Ramirez-Valles, Heckathorn, Vázquez, Diaz, & Campbell, 2005; Robinson et al., 2006), participants were paid \$10 for each of their three referral coupons plus an additional \$5 if they referred one self-identified bisexual individual.

RDS referral methods were not as effective as we had hoped, and therefore, substantially more seeds were recruited for the study than originally anticipated. We designed the study to include 5 gay and 5 bisexual men as seed participants; however, over half of the final sample (54.1%) participated in response to a referral from a friend (i.e., RDS), and the remainder (45.9%) was recruited after responding to a newspaper advertisement or a flyer. We found no significant differences in age, education, ethnicity, current employment status, or individual income variables based on referral source (i.e., seed vs. coupon referral), with the exception that 39% of seed participants compared to 24.2% of men referred via coupons were currently attending college,  $\chi^2(1, n = 181) = 4.5, p < .05$ . No significant associations were found between referral source and alcohol use or ASA. Given the inconsistent use of RDS procedures for the study, we did not compute RDS parameters (e.g., homophily, equilibrium, referral wave data).

## Procedures

Participants who called to learn more about the study were asked the source of their referral. Participants referred from a flyer or advertisement were considered “seed” participants and those who were responding via a referral coupon from a friend were asked to provide the serial number of the coupon that they received from their friend. These data were recorded in the RDS software and used by the study staff to track chains of referrals and to distribute referral incentives (a check sent via the postal service). Participants were asked in telephone screenings to indicate their age, gender, education level, race, and current alcohol use (if yes, average monthly number of drinks consumed). In order to meet eligibility criteria, participants were required to be between the ages of 18–35 years old and self-identify as gay or bisexual (“Understanding that sexual identity is only one part of your identity, do you consider yourself to be gay, bisexual, heterosexual, or something else?”).

Eligible participants were scheduled to visit the Research Institute where they completed a survey and interview about their alcohol use and lifetime experiences of victimization (including CSA and ASA). Consent procedures—approved by the University at Buffalo's Institutional Review Board—were administered prior to participation. All interviews were conducted by trained female research assistants. Each visit began with an interviewer-administered assessment that included the *Timeline Follow-back* (Sobell & Sobell, 1992)

and the *Lifetime Drinking History* (Skinner & Sheu, 1982) to assess drinking patterns and victimization history. Participants then were asked to complete a series of self-administered (by paper-and-pencil) survey measures in private interview rooms. Immediately following completion of the surveys, event-based qualitative interviews were conducted with participants who reported an ASA experience since age 14 years, as reported on the self-administered *Sexual Experiences Survey* (Koss et al., 2007). Assessments lasted 2 to 3 hours and participants were compensated \$50.

### Self-Administered Questionnaires

**Sexual identity and disclosure**—Each participant was identified as gay or bisexual based on his response about his self-identified sexual identity in the initial telephone screening. In order to ascertain approximate coming-out age, men were asked, “We realize that coming out (about one’s sexual identity as gay or bisexual) is more of a process than a single event. However, we’d like you to provide an estimated age at which you recall feeling like you had come out, in general, in your life.”

**Childhood sexual abuse**—CSA, defined here as unwanted sexual experiences prior to age 14, was assessed using a self-administered measure adapted from the work of Miller, Downs, and Testa (1993) and Finkelhor, Hotaling, Lewis, and Smith (1990). Six items assessed CSA experiences ranging from inappropriate touching through forced anal penetration. For example, participants were asked whether they had experienced a range of experiences “that occurred against your will, without your consent, or when you didn’t want them to happen.” Participants were instructed to exclude “consensual experiences with similar-age friends, classmates, boyfriends, girlfriends, etc.” Consistent with prior research (Hulme, 2007), CSA experiences were characterized by three levels of severity for the current report. These levels of severity included sexual exposure (i.e., showing/exposing sexual organs), sexual touching/oral sex (i.e., inappropriate sexual touching—including by hands or mouth—of breasts/chest or genitals, sexual hugging/kissing), and anal penetration (for similar scoring procedures, see Gidycz, Coble, Latham, & Layman, 1993; Schraufnagel et al., 2010). Internal consistency for this measure was very good ( $\alpha = .88$ ).

**Adult sexual assault**—ASA was defined as an unwanted sexual experience that occurred after age 14. Such experiences were assessed using a modified version of the 10-item self-administered *Sexual Experiences Survey* (SES-SFV; Koss et al., 2007; Koss et al., 2008). The SES-SFV includes gender-neutral language for assessing male and female participants who may have been assaulted by male or female perpetrators. To assess unwanted contact, for example, participants indicated whether the following had occurred to them: “Someone fondled, kissed, or rubbed up against the private areas of my body (lips, chest, crotch, or butt) or removed some of my clothes without my consent (but did not attempt sexual penetration) by showing displeasure, criticizing my sexuality or attractiveness, getting angry but not using physical force, after I said I didn’t want to.” Likewise, participants responded to several questions pertaining to rape, including the following: “A man put his penis into my butt, or someone inserted fingers or objects without my consent by threatening to physically harm me or someone close to me.” Participants reported how many times they had experienced a variety of sexually aggressive behaviors since age 14, ranging in severity



from unwanted contact to rape. Possible answers ranged from 0 (“none”) to 3 (“3 or more times”). Two items on the SES-SFV are specific to women’s experiences of ASA (i.e., vaginal penetration); therefore, men were not administered these questions. Participants reported incidents that occurred in the past 6 months (hereby referred to as “recent ASA”), as well as those that occurred 6 months or more ago (going back to age 14). For the regression analyses, we calculated a summary variable to depict total scores for reports of recent (past 6 months) severe experiences of sexual coercion, attempted rape, and rape (excluding unwanted contact). Participants also were asked to report the gender of the perpetrator in their most recent ASA, and their age at the most recent incident (as described by Testa, Livingston, VanZile-Tamsen, & Frone, 2003).

In addition to computing summary statistics for the SES-SFV assessment, we also identified the *most severe* type of ASA experienced by participants, resulting in a severity variable to indicate five mutually exclusive comparison groups for men (i.e., no ASA, unwanted sexual contact, sexual coercion, attempted rape, or rape; see Koss, Gidycz, & Wisniewski, 1987; Testa, VanZile-Tamsen, Livingston, & Koss, 2004). Internal consistency reliability for the SES-SFV was excellent (i.e.,  $\alpha = .94$ ).

**Sexual revictimization**—“Sexual revictimization” was defined as unwanted sexual experiences in childhood (prior to age 14 years) *and* in adulthood (age 14 or after) as reported on the SES-SFV. Following procedures outlined by Hughes et al. (2010) and used in our previous studies (Hequembourg, Livingston, & Parks, 2013), codes were created for the current study based on a two-way classification system that resulted in four comparison groups, including men who reported: (0) neither CSA nor ASA, (1) CSA only, (2) ASA only, or (3) revictimization (both CSA and ASA).

**Problematic alcohol use**—The 10-item *Alcohol Use Disorders Identification Test* (AUDIT; Babor, Higgins-Biddle, Saunders, & Monteiro, 2001) was scored for the current study to indicate severity of alcohol use problems and history of drinking problems. Total scores were computed using gender-appropriate scoring, with scores ranging from 8 to 19 indicating hazardous alcohol consumption, and scores of 20 or more indicating possible alcohol dependence for men (Babor et al., 2001; Donovan, Kivlahan, Doyle, Longabaugh, & Greenfield, 2006). Two specific items in the AUDIT (i.e., “Have you or someone else been injured because of your drinking?” and “Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?”) were summarized to identify participants reporting a history of drinking problems occurring more than a year ago (0 ‘no,’ any ‘yes’). Lastly, results from two AUDIT questions about frequency of consuming 6 or more drinks on a typical day and frequency of blackouts following a drinking period in the past year were examined to further describe patterns of drinking problems among study participants. Internal consistency reliability of the AUDIT was excellent for the current study ( $\alpha = .88$ ).

**Lifetime male sexual partners**—Each participant reported lifetime number of male sexual partners. Responses were coded from 0 (“none”) to 4 (“21 or more lifetime male partners”).

**Internalized homophobia (IH)**—The *Nungesser Homosexuality Attitudes Inventory* (Nungesser, 1983) was modified to assess internalized negativity toward having a gay or bisexual identity. Modifications in wording were made to the original questionnaire to include the experiences of bisexuals (e.g., “I would not mind if my boss found out that I am gay or bisexual.”). One question from the original measure was eliminated due to the outdated use of the term “lifestyles” (i.e., “Gay lifestyles are not as fulfilling as heterosexual lifestyles.”), and an additional question (i.e., “Bisexuals are overly promiscuous.”) was added to complement an existing question (i.e., “Gays are overly promiscuous.”). Given the inclusion of both men and women in the original study, three questions that solely targeted men were removed from the measure. Therefore, after reverse coding appropriate items, a summary statistic was computed (range: 31–155), with higher scores reflecting higher levels of IH. Internal consistency for the inventory was excellent ( $\alpha = .90$ ).

### Qualitative Event-Based Interviews

**Characteristics of most recent ASA**—Face-to-face, event-based interviews were conducted with participants reporting a SA experience since age 14 years. We modeled the interview scripts based on those conducted by Testa and colleagues (2003) with heterosexual women. Participants were asked to describe their most recent ASA experience, and prompted to include details about the setting, perpetrator characteristics, and alcohol use before the assault. Responses were tallied and are presented in the current study to describe the characteristics of the participants’ most recent ASA events.

### Overview of Analytic Plan

We examined the relationships among problematic alcohol use, CSA, and ASA for sexual minority men, and between gay compared to bisexual men. Descriptive statistics for the sample as a whole are presented first for each variable of interest, followed by comparisons based on sexual identity. Specifically, we used ANOVA and chi-square comparisons to determine whether gay and bisexual men differed in rates and on various dimensions of CSA, ASA, and revictimization, and in possible risks associated with ASA. We conducted hierarchical linear regression analyses to better understand factors associated with heightened risk of SA among gay and bisexual men. We based the selection of these variables and order of inclusion in the regression analyses on knowledge garnered from prior studies related to ASA risks among heterosexual men, as well as unique sexual identity-related health risk factors among gay and bisexual men. Based on results of our between-group comparisons, we selected sexual identity and educational level as control variables entered in the first step of the model. Given that CSA logically precedes other risk factors during men’s lifetimes (logic of causal priority; Petrocelli, 2003), we chose to enter CSA severity prior to IH and numbers of male sexual partners. Finally, given prior literature suggesting that problematic alcohol use may be a primary risk factor for ASA and a potential consequence of CSA and IH, we entered history of past alcohol problems as the final step in our regression analysis. Numbers of male partners was entered in the fourth step of the model because prior studies with heterosexual men suggest that men are more likely to perpetrate ASA; therefore, more male sex partners would presumably increase ASA risk.

## Results

### Self-Administered Questionnaires

**Problematic alcohol use**—Participants' total AUDIT scores ranged from 0 to 33 ( $M = 11.6$ ,  $SD = 7.4$ ), with bisexual men reporting significantly higher scores than gay men (Table 2). Over half (53.0%) of men reported hazardous alcohol use (scores ranging from 8–19), and 14.2% reported possible alcohol dependence (scores  $> 19$ ). Nearly half (43.7%) of the men's AUDIT scores indicated that they had past alcohol-related problems, with 21.9% of men reporting an alcohol problem from a year or more ago. Consumption of 6 or more drinks on a typical day during the past year was common, with 26.8% of men reporting that they drank this amount on a weekly basis. Twelve percent of men reported at least one blackout (i.e., inability to recall what had happened during a drinking session) per month in the past year. Gay and bisexual men did not differ on these drinking-related outcomes.

**Lifetime male sexual partners**—The majority of men reported between 1–4 male sexual partners (31.7%) or 5–10 male sexual partners (23.5%) in their lifetimes. Gay men reported proportionately greater numbers of lifetime male sexual partners than bisexual men (Table 2).

**Internalized homophobia**—The mean IH score was 67.8 ( $SD = 20.5$ ; range: 33–124). Bisexual men reported significantly higher IH scores than gay men (Table 2).

**CSA prevalence and severity**—Half (50.8%) of the men reported at least one unwanted sexual experience in childhood. Among men reporting CSA, 27.6% reported that their most severe CSA experience involved exposure, 51.6% reported inappropriate touching/oral sex, and 25.8% reported anal penetration. Chi-square results indicated no significant differences in CSA severity between gay and bisexual men (Table 2).

**ASA prevalence and severity**—Two-thirds of men (67.2%) reported at least one ASA experience. Over half (56.9%) indicated they had experienced unwanted sexual contact, 36.6% reported sexual coercion, 26.8% reported attempted rape, and 27.9% reported at least one incident involving rape. Nearly one-third (30.6%) of participants reported sexual coercion, attempted rape, or rape in the past 6 months.

Because the SES-SFV allows participants to report multiple outcomes that may have occurred during a single ASA incident, we also identified the most severe type of ASA incident experienced by participants (since age 14). Among men with a history of ASA, 22.8% reported an unwanted sexual contact, 24.4% reported sexual coercion, 12.2% reported attempted rape, and 40.7% reported rape as their most severe form of ASA. Gay and bisexual men did not differ significantly in ASA severity (Table 2).

**Sexual revictimization**—Results obtained from the SES-SFV indicated that 10.9% of men reported experiencing only CSA, 17.5% reported only ASA, and 39.9% reported revictimization (i.e., both CSA and ASA). The rates of revictimization did not differ significantly between bisexual and gay men (Table 2).

**Risk factors for recent severe ASA**—Informed by exploratory bivariate Pearson correlation results (Table 3), we conducted hierarchical linear regression analysis to test whether sexual identity, level of education, CSA severity, IH, lifetime number of male sexual partners, and past alcohol problems were associated with recent severe ASA (Table 4). Education and sexual identity were entered in Step 1. Results showed no significant association between education or sexual identity and recent severe ASA. Education and sexual identity explained 1% of the variance in recent severe ASA. In Step 2, greater CSA severity was significantly associated with recent severe ASA. Education, sexual identity, and CSA explained 5% of the variance in recent severe ASA. In Step 3, IH was not associated with recent severe ASA, and model 3 explained 6% of the variance in recent severe ASA. Step 4, we entered lifetime male sexual partners and found no significant association with ASA severity. Model 4 explained 7% of the variance in recent severe ASA. In Step 5, we found a history of past alcohol problems were significantly associated with recent severe ASA. The total variance in recent severe ASA explained by the model as a whole was 10% (adjusted  $R^2 = 6\%$ ),  $F = 2.7$ , 6/159 df,  $p < .05$ . Past alcohol problems explained an additional 3% of the variance in recent severe ASA, after controlling for the other risk factors. In the final model, only CSA severity and past alcohol problems were significant (at the same beta value).

### Qualitative Event-Based Interviews

**Characteristics of most recent adult ASAs**—The majority (83.9%) of recent sexual assaults were perpetrated by another man. However, a significantly greater proportion of bisexual men than gay men reported a female perpetrator in their most recent ASA,  $\chi^2(1, n = 103) = 10.9, p < .001$ .<sup>1</sup> Men reported that nearly half of their recent ASAs involved an intimate partner<sup>2</sup> (21.7%) or a stranger (20.8%; e.g., interactions occurring in a bar were the most common scenarios). Other perpetrator categories were comprised of the following: someone the participant had just met through mutual friends (i.e., acquaintances; 15.1%); friends (14.2%); sex partners (i.e., someone they were not dating but only having sex with and, therefore, were distinct from intimate partners; 14.2%); acquaintances (i.e., someone they had met before but didn't know well; 6.6%); or ex-intimate partners (3.8%). The average age of men at the time of their most recent ASA was 21.0 years ( $SD = 4.5$ ). Over half (63.4%) of men reported that their most recent ASA occurred after the age that they reported that they had generally come out. Compared to bisexual men, a significantly greater proportion of gay men's recent ASAs occurred after coming out,  $\chi^2(1, n = 109) = 3.5, p < .05$ . Sixty-seven percent of men reported that they had consumed alcohol and/or drugs prior to the incident; on average, they reported consuming 7.7 ( $SD = 5.7$ ) drinks prior to the recent assault. Three-quarters of participants reporting an ASA (76.4%) believed that the perpetrator had consumed alcohol and/or drugs prior to assault.

<sup>1</sup>Gay men reported no female perpetrators in their most recent SAs.

<sup>2</sup>"Intimate partners" was a researcher-applied code that included perpetrators who were dating-partners, boyfriends, cohabiting partners, and spouses.

## Discussion

Data for the current study were collected from a purposive sample of gay and bisexual men residing in the Buffalo, New York region of the Northeastern U.S. Rates of ASA in this study were higher than those found using the SES to measure sexual victimization among heterosexual women (e.g., Testa et al., 2004), and also higher than those reported in other studies that included sexual minority men. For example, in a community sample that included 120 gay men, using age 18 as the cut-off between CSA and ASA, Heidt et al. (2005) found that 61% of gay men reported some form of lifetime SA. Among gay men in their study, 19% reported only CSA, 17% reported ASA only, and 25% reported sexual revictimization. Bisexual men and women were combined in the results, thus, comparisons with current study findings for bisexual men were not possible. However, rates of severe ASA among gay and bisexual men in the current study also were higher than those reported in a recent population-based study of sexual assault conducted by the Centers for Disease Control (CDC; Black et al., 2011). In general, given differing methods of operationalizing SA across studies, it is difficult to draw definitive conclusions about rates found in the current study compared to prior studies (e.g., see Kalichman et al., 2001). This suggests that caution is warranted when applying findings from the current study to other sexual minority men. It also is possible that the current sample may represent a skewed sample of sexual minority men in the Buffalo region or there may be additional unexamined factors that could help account for the elevated rates of ASA among the current study participants.

Gay and bisexual men in the current study were routinely practicing risky patterns of alcohol use, with reported rates of risky drinking and related problems higher than those found in other studies of gay and bisexual men. Substantial proportions of men reported on their written surveys that they often consumed 6 or more drinks on a typical drinking day in the past year. When interviewing men about their recent ASA events, we found that over half indicated that they had consumed alcohol prior to these events, and three-quarters believed that the perpetrators had consumed alcohol prior to the assault. These findings suggest that alcohol use—particularly heavy episodic alcohol use—may be one factor among many that increase risk for ASA among gay and bisexual men. Studies with heterosexual women have found that heavy alcohol use reduces women's ability to defend themselves against unwanted sexual activity (Abbey et al., 2012), and some evidence suggests that this may also be the case for sexual minority men. For example, using a modified version of the SES to measure incapacitated ASA among sexual minority men, Krahe and colleagues (2000) found that 20% of study participants were incapacitated when sexually assaulted. In the current study, 12% of men reported at least one monthly alcohol-related black-out, which may elevate risk for ASA. We also found that past alcohol problems partially predicted recent severe ASA among participants, indicating the need for intervention and prevention efforts to take into account prior alcohol problems for their role in ASA risk. The higher than average rates of risky alcohol use in the current sample may have played a role in the high rates of ASA in the current study; these issues warrant closer inspection in other studies of gay and bisexual men residing in similar small urban environments. However, findings do suggest that prevention efforts that target gay and bisexual men might benefit from a focus on the reduction of heavy episodic drinking. Taken together, these findings highlight the

complex relationship between alcohol use and ASA and the need for longitudinal studies to better understand the temporal order of this relationship among sexual minority populations.

In addition to providing new data about the consumption of alcohol prior to specific ASA events, we also were able to examine other qualitative characteristics of ASA events experienced by gay and bisexual men. Results indicated that ASA was common among younger bisexual and gay men (mean age of most recent ASA was 21 years old), and that male intimate partners were the most commonly reported perpetrators of recent ASA incidents. The latter finding is consistent with results reported by Walters and Breiding (2013). Our prior findings from focus groups with young gay and bisexual men suggested that some sexual minority men may not recognize that they are experiencing intimate partner violence when their partner is male because they rely on social scripts that predominately portray women as the targets of violence from male partners (Hequembourg & Brallier, 2009). Thus, prevention strategies that target young gay and bisexual men might benefit from educational messages aimed at increasing understanding of ASA in intimate relationships. Given our findings that gay men, in particular, most often experienced ASA after coming out suggests prevention efforts that target self-identified gay men may be most effective.

One of our goals in the current study was to explore sexual identity differences in ASA and ASA-related risks. Although we found similarities between gay and bisexual men in sexual assault history across their lifetimes, we found some distinct differences between these groups in ASA-related risk factors. Bisexual men reported significantly higher total AUDIT scores than gay men and higher IH scores (the latter of which was consistent with prior research; e.g., Herek, Cogan, Gillis, & Glunt, 1997). Given our focus on ASA risks, we also were interested in assessing numbers of lifetime male sexual partners, because prior research suggests that men are more likely to perpetrate ASA than women (Tjaden & Thoennes, 2006; Walters & Breiding, 2013). We found that bisexual men reported fewer lifetime male sex partners than gay men, and that bisexual men were more likely to report ASA perpetrated by a female partner. Although we acknowledge the difficulties of assessing men's experiences of ASA in cases involving female perpetrators (as discussed in Koss et al., 2007), it would be useful for future researchers to examine characteristics of women who perpetrate ASA violence against men. It may be that women who partner with bisexual men are more likely to perpetrate ASA than lesbian women or women partnering with heterosexual men, or perhaps bisexual men are more willing than other men to report ASA.

Sexual minority men in the current study were recruited using a combination of advertisements and referrals. Unfortunately, RDS was only partially successful, requiring that we recruit more seeds than originally intended. One factor in our limited success with RDS may have been related to having inadequate staffing to respond to phone calls from prospective participants in a timely fashion and to follow-up with participants about their unused coupons. Future studies using RDS are advised to consider the need for adequate staff. We also learned that seeds with dense friendship networks were most successful in referring study participants.



Similar to other studies using non-random sampling techniques, caution is warranted when applying our findings to all sexual minority men. This is a purposive sample of men recruited from a mid-sized city in the Northeastern U.S. Therefore, findings may be applicable to similar subsets of sexual minority men (e.g., young men who identify as gay or bisexual, live in similar urban environments, and/or report problematic alcohol use), but further replication efforts are needed to make these determinations. Eligibility criteria requiring self-identification as gay or bisexual also limits the validity of our findings for other groups of sexual minority men who do not similarly self-identify. We acknowledge that self-reported sexual identity may not fully capture the experiences of men who engage in same-sex behaviors or who are attracted to men but do not self-identify as gay or bisexual.

Because we were interested in assessing the timing of ASA events in relation to coming out, we asked participants to report their age when they felt that they had “generally come out in their lives.” We acknowledge that this measure of coming out has two limitations. First, it treats the coming out process as a singular event rather than a continuous process of coming out. Second, it is not clear from the responses whether the reported age was when the participant came out to self or to others in his social networks. Future studies should consider more extensive assessments of coming out experiences to determine the timing of coming out in relation to SA in this population.

We acknowledge a lack of agreement among SA researchers about the appropriate referent period to indicate the transition from childhood to adulthood. In the current study, we chose to use age 14 as our cut-off point based on our use of the SES-SFV to measure ASA. We also chose to include adolescent experiences (ages 14–17) with adult experiences based on prior studies which suggest that SA occurring in adolescence among heterosexual women are more qualitatively similar to adult SA by peers than to assault occurring in childhood (Livingston, Hequembourg, Testa, & Van-Zile Tamsen, 2007). The age 14 cutoff to indicate the transition from childhood to adulthood has been used in a wide variety of studies, particularly by those researchers utilizing the SES to measure ASA. A full discussion and justification of our measurement choices are beyond the scope of the current study, but a comprehensive discussion of the strengths, weaknesses, and justifications for the SES design can be found in Koss et al. (2007). Given our measurement approach in the current study, it is possible that our chosen method of operationalizing ASA may have obscured potential unique aspects of SA associated with experiencing the event during adolescence (as discussed for heterosexual women in Livingston, Hequembourg, Testa, & VanZile-Tamsen, 2007). Further investigation into the descriptive aspects of SA occurring in late childhood, adolescence, and early adulthood among gay and bisexual men are needed to inform future study designs.

Despite a lack of consensus among researchers about the appropriate age referent period for ASA, we would argue that a strength of the current study was our use of the SES-SFV measurement instrument to assess a broad range of ASA experiences, ranging from unwanted touching to anal penetration. This measure does not focus solely on sexual contact occurring within the context of a committed relationship and, therefore, captures assaults perpetrated by male or female friends, acquaintances, intimate partners, and strangers. The

SES-SFV also relies on a behaviorally-defined assessment of ASA rather than a participant-defined assessment, with questions framed to focus on a range of unwanted sexual experiences rather than on self-defined experiences of rape or assault. Given that cultural stereotypes about men and rape lead many to assume that men cannot be raped, such behaviorally-defined measures are likely to more fully capture the sexual assault experiences of men. Future studies should seek to validate the SES in sexual minority populations, and efforts should be made to assess ASA experiences longitudinally among this population. Longitudinally-designed studies are necessary to identify the mechanisms that are associated with ASA and would help us better understand the relationship among CSA experiences, risky behaviors in adulthood, and ASA among sexual minority men. Furthermore, as suggested by Beres, Herold, and Matiland (2004), a closer examination of the complex and under-examined dating scripts and associated mechanisms by which men and women in same-sex relationships provide sexual consent also are needed to understand experiences of sexual victimization in this population. These types of studies would provide us with information necessary in the development of effective interventions to reduce ASA risks among this vulnerable population, and reduce the overall prevalence of ASA among gay and bisexual men.

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**Table 1**

## Selected Demographic Characteristics of Study Participants by Sexual Identity

	Gay Men ( <i>n</i> =96)	Bisexual Men ( <i>n</i> = 87)
<b>Mean Age in Years (<i>SD</i>)</b>	24.6 (4.3)	23.9 (4.1)
<b>Mean Years of Education (<i>SD</i>)</b>	14.2 (2.7)	12.5 (2.1)*
<b>Ethnicity (%)</b>		
<i>White/Not Hispanic</i>	58.3	44.8
<i>African-American/Not Hispanic</i>	28.1	18.4
<i>Hispanic/Latino</i>	7.3	20.7
<i>Asian</i>	1.0	0
<i>Am. Indian or Alaskan</i>	0	1.1
<i>Multi-Ethnic</i>	5.2	14.9
<b>Currently in School (%)</b>	36.5	25.3
<b>Currently Employed (%)</b>	54.2	44.8
<b>Annual individual income (%)</b>		
<\$10,000	38.5	62.1
\$10,001–25,000	33.3	28.7
\$25,001–50,000	3.1	8.0
\$50,001–75,000	0	0

Note: *N* = 183.

\* *p* <.001. Totals may not equal 100% due to missing cases.

**Table 2**

## Lifetime Sexual Victimization, Problematic Alcohol Use, and Risk Factors by Sexual Identity

	Gay Men (n = 96)	Bisexual Men (n = 87)	Sexual Identity Differences (ANOVA or Chi-Square)
<b>Problematic Alcohol Use</b>			
Alcohol severity scores (total possible range: 0–33)			
	10.6 (7.1)	12.7 (7.6)	$F(1, 181) = 4.0^*$ Eta-squared = .02
<b>Lifetime Male Partners (%)</b>			
			$\chi^2(4, n = 172) = 39.3^{***}$ Cramer's V = .48
<i>None</i>	2.2	8.5	
<i>1–4 partners</i>	15.6	53.7	
<i>5–10 partners</i>	32.2	17.1	
<i>11–20 partners</i>	17.8	13.4	
<i>21–100 partners</i>	32.2	7.3	
<b>Internalized Homophobia (M, [SD]; total possible range: 31–155)</b>			
	62.2 (17.5)	74.2 (21.8)	$F(1, 175) = 16.3^{***}$ Eta-squared = .09
<b>Childhood Sexual Abuse</b>			
<i>Severity Scores (%)</i>			
<i>None</i>	54.2	43.7	<i>ns</i>
<i>Exposure</i>	9.4	13.8	
<i>Touching/Oral</i>	21.9	31.0	
<i>Anal penetration</i>	14.6	11.5	
<i>Total scores (M, [SD]; total possible range: 0–6)</i>			
	1.4 (2.0)	1.5 (1.9)	<i>ns</i>
<b>Adult Sexual Assault</b>			
<i>Total scores (M, [SD]; total possible range: 0–150)</i>			
	6.6 (12.6)	7.5 (11.3)	<i>ns</i>
<i>Total scores for past 6 mths. (excluding unwanted contact; M, [SD]; total possible range: 0–45)</i>			
	1.1 (2.7)	.9 (2.0)	<i>ns</i>
<i>Severity (%)</i>			
<i>No SA</i>	38.5	26.4	<i>ns</i>
<i>Unwanted Contact</i>	11.5	19.5	
<i>Sexual Coercion</i>	16.7	16.1	
<i>Attempted Rape</i>	7.3	9.2	
<i>Rape</i>	26.0	28.7	
<b>Revictimization Patterns (%)</b>			
<i>No lifetime SA</i>	29.9	19.0	<i>ns</i>
<i>CSA only</i>	13.8	10.1	
<i>Adult victimization only</i>	19.5	19.0	
<i>Revictimization</i>	36.8	51.9	

\*  $p < .05$ ,

\*\*\*  
 $p < .001$

**Table 3**

Pearson Correlations among Key Variables

	Recent Severe SA	Sexual Identity	Childhood Sexual Abuse	Intern. Homophobia	Lifetime Male Partners	Past Alcohol Problem
Recent Severe SA	—	-.05	.21**	.05	.17*	.15*
Sexual Identity		—	.06	.29**	-.43**	.26*
Childhood Sexual Abuse			—	.14	.12	.14
Internalized Homophobia				—	-.23**	.08
Lifetime Male Partners					—	-.15
Past Alcohol Problems						—

Note: Recent Severe SA: higher scores = more experiences of recent severe adult sexual assault; Sexual Identity: 1 = gay, 2 = bisexual; Child Sexual Abuse: higher scores = more severe CSA experiences; Internalized Homophobia: higher scores = greater IH; Lifetime Male Partners: higher scores = more male sexual partners in lifetime; Past Alcohol Problems: 0 = no, 1 = else.

\*  $p < .05$ ;

\*\*  $p < .01$

**Table 4**

## Hierarchical Regression Analyses Predicting Recent Severe Adult Sexual Assault

Variable	<i>B</i> (SE)	$\beta$	Adjusted <i>R</i> <sup>2</sup>
Model 1			.01
Education	-.09 (.08)	-.19	
Sexual Identity	-.33 (.42)	-.07	
Model 2			.05 **
Education	-.06 (.08)	-.06	
Sexual Identity	-.33 (.41)	-.07	
CSA	.49 (.18)	.22*	
Model 3			.00
Education	-.06 (.08)	-.06	
Sexual Identity	-.37 (.42)	-.07	
CSA	.48 (.18)	.22*	
IH	.00 (.01)	.03	
Model 4			.01
Education	-.05 (.08)	-.05	
Sexual Identity	-.08 (.46)	-.02	
CSA	.44 (.18)	.20*	
IH	.01 (.01)	.05	
# Male Partners	.16 (.10)	.13	
Model 5			.03*
Education	-.04 (.08)	-.04	
Sexual Identity	-.19 (.46)	-.04	
CSA	.40 (.18)	.18*	
IH	.01 (.01)	.05	
# Male Partners	.19 (.10)	.16	
Past Alcohol Prob.	1.08 (.50)	.18*	

*N* = 160; *Note*: Sexual Identity: 1 = gay, 2 = bisexual; Child Sexual Abuse: higher scores = more severe CSA experiences; Internalized Homophobia: higher scores = greater IH; Lifetime Male Partners: higher scores = more male sexual partners in lifetime; Past Alcohol Problems: 0 = no, 1 = else.

\* *p* < .05,

\*\* *p* < .01