

Relation of Childhood Sexual Abuse, Intimate Partner Violence, and Depression to Risk Factors for HIV Among Black Men Who Have Sex With Men in 6 US Cities

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Despite significant medical advances, the HIV epidemic remains a health crisis in Black communities. The Black population represents only 14% of the total US population but accounted for 44% of all new HIV infection (68.9 of 100 000) in 2010.¹ Black men who have sex with men (MSM) are disproportionately impacted by HIV compared with other racial/ethnic groups of MSM.^{1,2} Male-to-male sexual contact accounted for 72% of new infections among all Black men.¹ Young Black MSM (aged 13–24 years) have a greater number of new infections than any other age or racial group among MSM.¹ Researchers have been challenged with developing HIV prevention strategies for Black MSM.^{3–7} Higher frequencies of sexual risk behaviors, substance use, and nondisclosure of sexual identities do not adequately explain this disparity.^{8,9} High rates of sexually transmitted infections (STIs), which facilitate HIV transmission, and undetected or late diagnosis of HIV infection only partially explain disproportionate HIV rates.⁸

Researchers have begun to examine a constellation of health factors that may contribute to HIV among MSM. For example, syndemic theory or the interaction of epidemics synergistically, such as intimate partner violence (IPV) and depression, may help explain HIV-related sexual risk behaviors among Black MSM.⁹ Childhood sexual abuse (CSA), IPV, and mental health disorders including depression may comprise such a constellation and warrant further exploration.

Experiences of CSA have been identified as being associated with negative sexual health outcomes, with MSM reporting higher CSA rates than the general male population.^{10–12} Men with CSA experiences are more likely than men without CSA experiences to engage in

Objectives. We assessed the relation of childhood sexual abuse (CSA), intimate partner violence (IPV), and depression to HIV sexual risk behaviors among Black men who have sex with men (MSM).

Methods. Participants were 1522 Black MSM recruited from 6 US cities between July 2009 and December 2011. Univariate and multivariable logistic regression models were used.

Results. Participants reported sex before age 12 years with someone at least 5 years older (31.1%), unwanted sex when aged 12 to 16 years (30%), IPV (51.8%), and depression (43.8%). Experiencing CSA when aged 12 to 16 years was inversely associated with any receptive condomless anal sex with a male partner (adjusted odds ratio [AOR]=0.50; 95% confidence interval [CI]=0.29, 0.86). Pressured or forced sex was positively associated with any receptive anal sex (AOR = 2.24; 95% CI = 1.57, 3.20). Experiencing CSA when younger than 12 years, physical abuse, emotional abuse, having been stalked, and pressured or forced sex were positively associated with having more than 3 male partners in the past 6 months. Among HIV-positive MSM (n=337), CSA between ages 12 and 16 years was positively associated with having more than 3 male partners in the past 6 months.

Conclusions. Rates of CSA, IPV, and depression were high, but associations with HIV sexual risk outcomes were modest. (*Am J Public Health.* 2015;105:2473–2481. doi:10.2105/AJPH.2015.302878)

high-risk sexual behaviors,^{13–21} have more lifetime sexual partners,^{13–16} use condoms less frequently,^{13,14,16} and have higher rates of STIs,^{13,14,17} exchanging sex for drugs or money,^{13,14,17} HIV,^{13,14} alcohol and substance use,^{13–21} and depression.^{13–15,18,21} Such findings suggest that sexual risk reduction counseling may need to be tailored for MSM with CSA experiences.¹⁵

Childhood sexual abuse histories have also been correlated with sexual revictimization, including IPV.^{22–24} One study with population-based estimates of CSA found that gay and bisexually identified men had higher odds of reporting CSA (9.5 and 12.8, respectively) compared with heterosexual men.²⁵ For sexual minority men, CSA histories were associated with higher HIV and STI incidence.²⁵ However, research examining CSA,

and sexual risk behaviors is lacking among Black MSM.

In one existing study, Black and Latino MSM with CSA histories identified their trauma experiences as influencing their adult sexual decision-making.²⁶ Among Black MSM in 2 additional studies, emotional distress and substance use were attributed to having CSA experiences (Leo Wilton, PhD, written communication, October 2, 2013).²⁷ In an ethnically diverse sample of 456 HIV-positive MSM, CSA was associated with insertive and receptive condomless anal sex.¹⁹

Similar to CSA, IPV has not been extensively examined among MSM or Black MSM,²⁸ but may be associated with sexual risk behaviors. Intimate partner violence is defined as a pattern of controlling, abusive behavior within an intimate relationship that may include

physical, psychological or emotional, verbal, or sexual abuse.²⁹ Little research exists on IPV among same-sex couples despite incidence rates being comparable to or greater than that of heterosexual women.^{28,30–34} Important IPV information comes from the National Intimate Partner and Sexual Violence Survey, a nationally representative survey for experiences of sexual violence, stalking, and IPV among men and women in the United States.²⁸ Among men who experienced rape, physical violence, or stalking by an intimate partner, perpetrator differences by gender were found among gay, bisexual, and heterosexual men; 78% of bisexual and 99.5% of heterosexual men reported having only female perpetrators, and 90.7% of gay men reported having only male perpetrators.²⁸ Being slapped, pushed, or shoved by an intimate partner during their lifetime was reported by gay (24%), bisexual (27%), and heterosexual (26.3%) men.²⁸

Intimate partner violence has been linked to condomless anal sex, HIV infection, substance use, CSA, and depression.^{35–37} Being an HIV-positive MSM has been linked with becoming a victim of IPV.^{38,39} Welles et al. found that being an African American MSM who initially disclosed having male partners and early life sexual abuse experiences was associated with IPV victimization.³⁹ Wilton found that a high percentage of Black MSM reported IPV histories: emotional abuse (48.3%), physical abuse (28.3%), sexual abuse (21.7%), and stalking abuse (29.2%; Leo Wilton, PhD, written communication, October 2, 2013). Such findings lend to the importance of exploring, both independently and together, the association of CSA and IPV with sexual risk behaviors.

Some studies have reported the influence of mental health (e.g., depression) on sexual risk behaviors among MSM,^{9,40,41} whereas others have not corroborated such findings.⁴² Greater rates of depression among MSM than among non-MSM samples^{43–45} and elevated rates of depression and anxiety among Black MSM have been reported.⁴⁶ The Urban Men's Health Study, a cross-sectional sample of MSM in 4 US cities, did not find a significant relationship between high depressive symptoms and condomless anal sex.⁴² However, the EXPLORE study, a randomized behavioral intervention for MSM in 6 US cities, supported the association between moderate depressive

symptoms and an increased risk for HIV infection.⁴⁷ Moderate levels of depression and higher rates of sexual risk were also reported for HIV-infected MSM over time.⁴⁸ Another study conducted with 197 Black MSM found that moderate depressive symptoms were associated with having condomless anal sex with a serodiscordant casual partner.⁴⁹ These mixed findings support the need to better understand the relationship between the severity of depression (i.e., moderate vs severe) and HIV risk behaviors.

The HIV Prevention Trials Network 061 study, also known as the BROTHERS (Broadening the Reach of Testing, Health Education, Resources, and Services) Project, was a multisite study to determine the feasibility and acceptability of a multicomponent intervention for Black MSM. The current analysis aims to assess the prevalence of CSA, IPV, and depressive symptomology, and examine the relationships between these factors and insertive and receptive condomless anal sex and number of sexual partners in a large cohort of Black MSM.

METHODS

This multisite study was conducted in Atlanta, Georgia; Boston, Massachusetts; Los Angeles, California; New York City, New York; San Francisco, California; and Washington, DC. A detailed description of the methods is provided elsewhere.⁵⁰ Between July 2009 and October 2010, Black MSM were recruited from community outreach, medical clinics, provider referrals, or as sexual network partners referred by index participants.⁵⁰ Index participants were defined as those who were (1) HIV-infected but unaware of their infection, (2) previously diagnosed with HIV infection but not receiving HIV care and having condomless sex with partners who were HIV-negative or of unknown HIV status, or (3) non-HIV-infected.

Men were eligible to participate in the study if they self-identified as a man or male at birth and as Black, African American, Caribbean Black, or multiethnic Black; were aged at least 18 years; reported at least 1 instance of condomless anal sex with a man in the past 6 months; resided in the metropolitan area and did not plan to move away during study

participation; and provided informed consent. Male-to-female transgender individuals were enrolled in the study but we did not include them in these analyses. Prescreening to determine eligibility was performed either in person or over the telephone. At the enrollment visit, eligibility was confirmed and written informed consent was obtained.

Participants provided locator information and demographic information, and completed a behavioral assessment with audio computer-assisted self-interview (ACASI) technology. They completed a social and sexual network questionnaire with an interviewer. A rapid HIV antibody test with Western blot confirmation was conducted after the individuals received HIV and STI risk-reduction counseling. Peer health navigation was offered at each visit. HIV-infected participants had CD4 and HIV viral load testing and were referred for medical treatment and social services.

A comprehensive demographic, clinical, and behavioral interview was administered at each of the 3 visits via ACASI and face-to-face interviews. Analysis variables included age, education, employment, income, student status, marital status, and living situation. Sexual identity was assessed with 1 item whose 14 responses were collapsed into 3 descriptive categories including terms that denote (1) sex with the same gender, (2) sex with both genders, and (3) sex with the opposite gender. Participants were also able to choose “none” and “other.”

Primary Independent Variables

Childhood sexual abuse. We assessed CSA with the following questions: (1) “When you were growing up (before 12 years old), did you experience any sexual experiences? By sexual experience I mean sexual touching or sexual intercourse.”; (2) “Was the person you had the sexual experience with an adult or someone at least 5 years older than you?”; (3) “Between the ages of 12 and 16 did you have any unwanted sexual experiences?”; and (4) “Between the ages of 12 and 16 did you have any sexual experiences (wanted or unwanted) with an adult or someone who was at least 5 years older?” We adapted these questions from previous CSA research.^{4,6,51–53}

We then categorized CSA experiences to 1 of 3 groups: (1) had sex before age 12 years

with someone who was at least 5 years older, (2) had unwanted sex between ages 12 and 16 years or had sex between 12 and 16 years with someone who was at least 5 years older, or (3) no CSA.

Intimate partner violence. We measured IPV with 4 questions developed from previous research with Black gay and bisexual men (Leo Wilton, PhD, written communication, October 2, 2013) and adapted from the literature.^{54,55} Questions assessed for ever experiencing emotional abuse, physical abuse, stalking, and sexual abuse from an intimate partner (i.e., boyfriend or partner). Emotional abuse was defined as

humiliation, intimidation, threats of harm or abandonment, belittling, ridiculing, name calling, extreme jealousy and possessiveness, or any other behaviors that made you feel not worthwhile as a person or uncomfortable in your relationship.

Physical abuse was defined as

being pushed, shoved, hit, punched, kicked, choked or any other physical behaviors that were meant to hurt or injure you.

Stalking was defined as

continuous harassment or threatening behaviors such as being followed or getting harassing phone calls or any other behaviors that made you feel uncomfortable.

Sexual abuse was defined as being

pressured, forced, or intimidated into doing something sexually that made you feel uncomfortable or that you did not want to do such as masturbation, sexual touching, oral or anal sex.

Responses included “no,” “yes, but this rarely happened,” “yes, this has sometimes happened,” “yes, this has happened often,” or “yes, this has always happened.” We used a binary variable combining the last 4 categories as “yes” in the analysis.

Depressive symptoms. We used the Center for Epidemiologic Studies Depression Scale (CES-D) to measure depressive symptoms.⁵⁶ Twenty items were asked on a 4-point Likert scale and the sum was computed for participants who answered at least 19 items. A score of 16 or higher signified depressive symptoms. We used a dichotomized variable in the analysis (i.e., yes or no to CES-D score ≥ 16). The α reliability coefficient for the CES-D was 0.896.

Primary Dependent Variables

Sexual risk behaviors. Questions assessed the number of male, female, and transgender partners; number of new partners; number of receptive and insertive anal sex acts; number of sex acts that were protected by condoms; and exchange sex (i.e., the exchange of sex for money, drugs, or goods) in the 6 months before enrollment.

Our analysis focused on 3 outcomes for HIV acquisition or transmission risk between men: (1) having any receptive condomless anal sex with a male partner, (2) having any insertive condomless anal sex with a male partner, and (3) having more than 3 male sexual partners.

Statistical Analysis

We summarized frequencies of baseline demographics; clinical, mental health and abuse and behavioral characteristics; and characteristics of last male sexual partner. We used logistic regression to assess associations between CSA, IPV, depressive symptomatology, and 1 of the 3 sexual risk outcomes, respectively. We fitted multivariable logistic regression models including CSA, IPV, and depressive symptoms, while adjusting for age, sexual identity, education, city, and known confounders such as HIV status at baseline, type of last sexual partner (casual, exchange, or anonymous vs main or steady), and noninjection drug use.

We assessed variables for collinearity and conducted a selection process to exclude collinear measures and to ensure the most explanatory and parsimonious models. The analysis on having receptive condomless anal sex was limited to MSM who reported having receptive anal sex in the past 6 months. Similarly, we limited analysis on having insertive condomless anal sex to MSM who reported having insertive anal sex in the past 6 months. Analyses included a combined sample of HIV-positive and -negative MSM and a subanalysis stratified by HIV serostatus. We conducted analyses with SAS version 9.2 (SAS Institute, Cary, NC).

RESULTS

Of 1553 Black men enrolled in the study, 1522 (98.0%) self-identified as biologically male at birth and they were included in this

analysis. As shown in Table 1, 31.1% reported sexual experience before age 12 years with an adult partner or someone at least 5 years older ($n=474$), 30% reported unwanted sexual activity when aged between 12 and 16 years, and 40.7% reported sex when aged between 12 and 16 years with an adult partner or someone at least 5 years older. Any lifetime experience of IPV was reported by 51.8% and depressive symptomatology was reported by 43.8%.

Sexual behaviors included men who had sex with primary female partners (i.e., women that they lived with or have seen a lot, have had sex with, and to whom they felt a special emotional commitment; 20.3%), men who had sex with any transgender partners (24.3%), and men who had sex only with men (51.7%). Almost all participants (95.8%) reported insertive or receptive anal sex with another man. Not all men reported condomless anal sex in the past 6 months on their ACASI interview despite reporting it on their eligibility screener.

As shown in Table 2, constellations of joint experiences related to CSA, IPV, and depression were common. For example, nearly a third (32.5%) of the participants who experienced, between the ages of 12 and 16 years, any unwanted sexual activity or sex with someone at least 5 years older or sex when aged younger than 12 years also experienced emotional abuse. These negative experiences were found grouped together in substantial proportions of the participants.

Table 3 shows unadjusted and adjusted relationships between CSA, IPV, and depressive symptoms and sexual risk outcomes. After we adjusted for confounders in a multivariable model, CSA when aged between 12 and 16 years, which included unwanted sexual activity or sex with someone who was at least 5 years older, was associated with reduced odds of receptive condomless anal sex (adjusted odds ratio [AOR]=0.50; 95% confidence interval [CI]=0.29, 0.86). Intimate partner violence and depressive symptoms were not significantly associated with any of the sexual risk outcomes. However, an ad hoc analysis examining the relationships of IPV with any receptive or insertive anal sex found that pressured or forced sexual abuse was associated with increased odds of having any receptive anal sex in the past 6 months (AOR=2.24; 95% CI=1.57, 3.20; not shown in Table 3).

TABLE 1—Characteristics of Sample at Baseline, Black Men Who Have Sex With Men, HIV Prevention Trials Network 061, 6 US Cities, July 2009–December 2011

Baseline Characteristics	No. (%)
Demographic characteristics	
Age, y	
18–27	417 (27.4)
28–47	758 (49.8)
≥ 48	347 (22.8)
Sexual identity	
Gay, homosexual, same gender-loving, or queer	655 (43.0)
Bisexual, sexual, two spirited, questioning, polyamorous, or pansexual	772 (50.7)
Heterosexual or straight	68 (4.5)
None of above or missing	27 (1.8)
Education	
< high school	260 (17.1)
High school	532 (35.0)
Some college	528 (34.7)
≥ college	201 (13.2)
Current student	311 (20.4)
Currently employed full or part time	478 (31.4)
Annual household income before taxes, \$	
< 10 000	566 (37.5)
10 000–39 999	681 (45.2)
40 000–69 999	178 (11.8)
≥ 70 000	83 (5.5)
Not enough money for rent (past 6 mo)	841 (55.3)
Currently homeless	140 (9.2)
Ever been to jail	890 (58.5)
Clinical variables	
Result of HIV test at baseline (combine the lab result and enrollment CRF)	
Refused testing or unknown	38 (2.5)
HIV-negative	1147 (75.4)
HIV-positive	337 (22.1)
Any STI at enrollment	254 (16.7)
Mental health characteristics and abuse outcomes	
CSA	
Sex before age 12 y	807 (53.0)
If yes, sex before age 12 y with adult partner or someone ≥ 5 y older	474 (58.7)
Unwanted sex between ages 12 and 16 y	457 (30.0)
Sex between age 12 and 16 y with adult partner or someone ≥ 5 y older	620 (40.7)
Any sex before age 17 y	1036 (68.1)
Sex before age 17 y with adult partner or someone ≥ 5 y older	834 (54.8)
IPV (ever)	
Emotional abuse	618 (40.6)
Physical abuse	419 (27.5)
Stalked	382 (25.1)
Pressured or forced sexually	340 (22.3)
Any abuse	788 (51.8)
CES-D score ≥ 16	615 (43.8)

Continued

When we tested for collinearity, the covariates of interest had strong associations with each other and did dilute the magnitude of association when all were included for 1 of the 3 outcome models. Sexual abuse when aged younger than 12 years (AOR = 1.44; 95% CI = 1.1, 1.89), physical abuse (AOR = 1.46; 95% CI = 1.13, 1.88), emotional abuse (AOR = 1.38; 95% CI = 1.09, 1.75), having been stalked (AOR = 1.30; 95% CI = 1.01, 1.69), and experiencing pressured or forced sexual abuse (AOR = 1.32; 95% CI = 1.01, 1.73) were associated with increased odds of having more than 3 male sexual partners in the past 6 months.

When we stratified the multivariable analyses by HIV status, there was 1 significant finding. Among the HIV-positive MSM (n = 337), CSA when aged between 12 and 16 years was associated with increased odds of having more than 3 male sexual partners in the past 6 months (AOR = 2.25; 95% CI = 1.14, 4.46).

DISCUSSION

Empirical data support that CSA,^{13–21} IPV,^{38,39} and depression^{40,47,57–60} are associated with HIV risk vulnerability among MSM. Yet few studies have examined these factors among Black MSM. The BROTHERS Project is one of the first large-scale studies of Black MSM to assess these variables and examine their relationship to HIV sexual risk behaviors. Our findings demonstrated high rates of CSA and IPV among Black MSM.

We found a significant association between CSA and sexual risk behaviors.⁶¹ Experiences of CSA when aged between 12 and 16 years were associated with decreased odds of having any receptive condomless anal sex and experiences of sexual abuse when aged younger than 12 years were significantly associated with having more than 3 male partners in the past 6 months. These findings illustrate the complexity of CSA as a sexual risk factor. In contrast with previous research, our findings suggest a complex relationship between CSA and condomless anal sex.^{15,19,21} Experiences of CSA may be associated with different health outcomes depending on the developmental stage in which it occurred. Some research suggests that trauma experienced by younger

TABLE 1—Continued

Behavioral characteristics ^a	
Noninjection drug use	1069 (70.2)
No. of male partners	
0-3	893 (58.8)
> 3	625 (41.2)
Men who had sex with primary female partners	309 (20.3)
If yes, condomless sex with primary female partner	241 (78.0)
Men who had sex with any transgender partners	370 (24.3)
If yes, condomless sex with transgender partner	301 (81.4)
Men who had insertive or receptive sex with male partner	1458 (95.8)
If yes, condomless sex with male partner (insertive or receptive)	1341 (92.0)
Men who had receptive sex with male partner	877 (57.6)
If yes, condomless sex with male partner (receptive)	752 (85.7)
Men who had insertive sex with male partner	1273 (83.6)
If yes, condomless sex with male partner (insertive)	1124 (88.3)
Characteristics of last male sexual partner	
Type of last partner at sex	
Missing	58 (3.8)
Casual, exchange, or anonymous	769 (50.5)
Main or steady	695 (45.7)

Note. CES-D = Center for Epidemiologic Studies Depression Scale; CRF = case report form; CSA = childhood sexual abuse; IPV = intimate partner violence; STI = sexually transmitted infection. Percentages may not total 100% because of rounding. The 6 US cities were Atlanta, GA; Boston, MA; Los Angeles, CA; New York City, NY; San Francisco, CA; and Washington, DC. The sample size was n = 1522. Median number of male sexual partners was 3 (interquartile range = 2.5).
^aAll behavioral characteristics in past 6 months.

(i.e., prepubertal) versus older children may be associated with negative health sequelae,⁶² whereas other research suggests that young children are protected by their lack of knowledge with the abuse-related stigma.^{63,64}

Many of the cited studies had limitations, such as not controlling for the severity of the abuse, and did not focus on Black MSM. Our findings inform the literature and suggest that research should seek to elucidate CSA experiences, including type, severity, and

timing, and their associations with adult sexual health.

Among HIV-positive MSM, experiences of CSA when aged between 12 and 16 years were associated with increased odds of having more than 3 male sexual partners in the past 6 months. These findings were consistent with previous research,^{13,14,16,17,19} and suggest that risk reduction strategies may need to be tailored by HIV status. Also, health care providers should screen and provide appropriate care for CSA experiences when testing for HIV.

Although we did not find a significant association between IPV and receptive or insertive condomless anal sex, being pressured or forced sexually was significantly associated with having any receptive anal sex. Also, after we assessed for collinearity, we found CSA when younger than 12 years, physical and emotional abuse, having been stalked, and being pressured or forced sexually to be associated with each other and, thus, this diluted their association when we included all in the outcome models. Such findings suggest that IPV is a complex construct that may directly and indirectly influence sexual risk behaviors.^{65,66} Autonomy may be limited in relationships in which IPV occurs and have an impact on individual decision-making including when to have sex; the type of sex such as oral or anal sex, with or without condoms; or even partner selection. Effects of IPV may also be complicated by other factors. For example, research among Black MSM supports that issues of masculinity may influence sexual risk behaviors.⁶⁷⁻⁷¹ Little is known regarding IPV in

TABLE 2—Joint Experiences Related to Both Childhood Sexual Abuse and Intimate Partner Violence, Black Men Who Have Sex With Men: HIV Prevention Trials Network 061, 6 US Cities, July 2009–December 2011

Variable	Any Emotional Abuse, No. (%)	Any Physical Abuse, No. (%)	Any Being Stalked, No. (%)	Any Pressured or Forced Sex, No. (%)	Any Unwanted Sex or Sex With Someone ≥ 5 Y Older or Sex Before Aged 12 Y, No. (%)
Any physical abuse	371 (24.4)
Any being stalked	285 (18.7)	214 (14.1)
Any pressured or forced sex	261 (17.1)	208 (13.7)	195 (12.8)
Any unwanted sex or sex with someone ≥ 5 y older or sex before aged 12 y	494 (32.5)	339 (22.3)	299 (19.6)	284 (18.7)	...
CES-D ≥ 16	304 (20.0)	196 (12.9)	181 (11.9)	175 (11.5)	442 (29.0)

Note. CES-D = Center for Epidemiologic Studies Depression Scale. The 6 US cities were Atlanta, GA; Boston, MA; Los Angeles, CA; New York City, NY; San Francisco, CA; and Washington, DC. The sample size was n = 1522.

TABLE 3—Odds Ratios of Childhood Sexual Abuse, Intimate Partner Violence, and Depression and HIV Risk Factors, Black Men Who Have Sex With Men: HIV Prevention Trials Network 061, 6 US Cities, July 2009–December 2011

Variable	Having Any Insertive Condomless Anal Sex Past 6 Mo (n = 1273) ^a		Having Any Receptive Condomless Anal Sex Past 6 Mo (n = 877) ^b		Having > 3 Male Sexual Partners Past 6 Mo (n = 1518)	
	Univariate OR (95% CI)	Multivariable AOR (95% CI)	Univariate OR (95% CI)	Multivariable AOR (95% CI)	Univariate OR (95% CI)	Multivariable AOR (95% CI)
CSA						
Abuse when aged < 12 y vs no abuse	1.26 (0.81, 1.94)	1.38 (0.85, 2.22)	1.01 (0.60, 1.67)	0.85 (0.49, 1.47)	1.43 (1.11, 1.84)	1.32 (0.99, 1.74)
Abuse when aged 12–16 y vs no abuse	0.92 (0.59, 1.42)	1.00 (0.63, 1.61)	0.54 (0.33, 0.89)	0.50 (0.29, 0.86)	1.09 (0.83, 1.43)	1.04 (0.77, 1.40)
Physical abuse, yes vs no	1.02 (0.69, 1.50)	1.17 (0.68, 2.01)	1.25 (0.82, 1.91)	1.02 (0.56, 1.86)	1.46 (1.16, 1.83)	1.23 (0.89, 1.71)
Emotional abuse, yes vs no	1.07 (0.75, 1.53)	1.18 (0.72, 1.95)	1.40 (0.95, 2.08)	1.35 (0.77, 2.37)	1.46 (1.19, 1.80)	1.14 (0.84, 1.54)
Stalked, yes vs no	1.04 (0.69, 1.55)	0.91 (0.56, 1.46)	1.67 (1.04, 2.68)	1.30 (0.73, 2.31)	1.34 (1.06, 1.69)	1.08 (0.81, 1.45)
Pressured or forced sexual abuse, yes vs no	0.86 (0.57, 1.30)	0.73 (0.44, 1.21)	1.68 (1.04, 2.69)	1.35 (0.76, 2.41)	1.34 (1.05, 1.70)	1.05 (0.77, 1.43)
CES-D score ≥ 16, yes vs no	0.79 (0.55, 1.12)	0.83 (0.56, 1.22)	0.86 (0.58, 1.28)	0.83 (0.53, 1.30)	1.07 (0.86, 1.32)	1.05 (0.82, 1.34)

Note. AOR = adjusted odds ratios for age, sexual identity, education, type of last partner at sex (casual, exchange, or anonymous vs main or steady), enrollment HIV results, noninjection drug use, and site; CES-D = Center for Epidemiologic Studies Depression Scale; CI = confidence interval; CSA = childhood sexual abuse. The 6 US cities were Atlanta, GA; Boston, MA; Los Angeles, CA; New York City, NY; San Francisco, CA; and Washington, DC. The sample size was n = 1522.

^aAnalysis included only men who have sex with men who reported having insertive anal sex at enrollment.

^bAnalysis included only men who have sex with men who reported having receptive anal sex at enrollment.

which men are victims, as the literature largely focuses on victimization of women.^{28,72,73} This dearth of information, plus the lack of longitudinal studies, complicates our understanding of female-on-male or male-on-male perpetrated IPV.³⁴ Similar to CSA, IPV research in which men are the victims is challenged by disclosure and appraisal issues.^{68,72}

Depressive symptoms were not significantly associated with any of the sexual risk outcomes. Because of dichotomization, we were limited in assessing severity of depressive symptoms. Research has supported that depression severity yields different relationships with health outcomes.^{48,49} Depressive symptoms may also be associated with autonomy related to partner selection and sexual behaviors. Furthermore, the relation between depressive symptoms and sexual health outcomes may require examination of moderating and mediating variables.⁴⁰ For example, strategies for coping with depression such as developing social support and self-efficacy for sexual safety and using cognitive escape (i.e., attempting to decrease cognitive awareness of behavioral norms) may play a pivotal role in sexual risk behaviors.⁴⁰ Thus, the complex relationship between depression and sexual risk behaviors needs further study, particularly among Black MSM.

In light of the commonality of the joint experiences of CSA, IPV, and depressive symptoms, it may be that we are obscuring independent contributions to outcomes of interest. The impact of experiencing individual traumas and stressors versus the cumulative burden of multiple experiences, as well as assessing for mediating and moderating relationships, need critical study. Syndemic research that examines highly intercorrelated factors among Black MSM and HIV infection needs to be conducted.^{9,37,42}

Limitations

Our findings should be interpreted in the context of several limitations. First, the cross-sectional research design precludes the examination of developmental trajectories or changes in the relationships among CSA, IPV, depression, and sexual behaviors.

Second, the period of recall, social desirability, and use of self-report measures for CSA, IPV, and sexual behaviors may have influenced the underreporting or overreporting of these stigmatized experiences and behaviors. Conversely, studies have shown that ACASI-administered questionnaires have strengthened the reliability and validity of self-report data.⁷⁴

Third, we did not include coerced sexual activity before age 12 years in the survey. Also, although our definition of CSA was consistent with other studies, there is a lack of consensus on an operational definition.⁷⁵ Our conservative findings may have been attributable to the lack of assessment for severity and type of CSA. Moreover, we did not assess the contexts of CSA and IPV experiences (e.g., age, gender, and relationship of the perpetrator; frequency of abuse).

Fourth, we assessed IPV as an “ever” experience, which precluded us from knowing whether the participants were currently experiencing IPV or currently engaging in condomless anal sex with partners who were IPV perpetrators. Questions about IPV also lacked previous psychometric assessments.

Fifth, generalizability is limited in that sites were reflective of urban cities with high HIV incidence and prevalence. Sixth, because self-report of condomless anal sex was an eligibility criterion, it may be that our sample was too homogeneous to be able to observe a relationship between sexual behaviors and the exposures of interest.

Lastly, our analyses did not examine subsamples of virally suppressed and non-virally suppressed HIV-positive MSM. Our sample included 244 previously diagnosed men, and of these, 138 were virally suppressed (i.e., viral

load below 200 copies per mL). Conducting subsample analyses would be important as HIV transmission risks vary.

Conclusions

The multiple contexts of abuse related to sexual risk behaviors should be considered when one is developing HIV prevention interventions for Black MSM. Longitudinal studies of CSA, IPV, and depression are needed to assess predictive relationships. Qualitative studies may also lend to understanding the sociocultural contexts of Black MSM. Protective and resiliency factors at the individual, dyadic, and structural level may play a pivotal role in decreasing HIV sexual risk behaviors. Demographic findings, although they are descriptive, may be indicative of discernible psychosocial and structural barriers related to education, financial hardships, incarceration, and depression. Variables such as age, sexual identity, and HIV status may impart sexual risk through complex sociocultural dynamics (e.g., younger-older dyads, power differentials, HIV seroconcordant vs serodiscordant partnerships). A nuanced examination of risk and resiliency factors is needed to develop culturally congruent HIV-prevention interventions for Black MSM. ■

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Contributors

J. K. Williams and L. Wilton originated and led the writing of the article. M. Magnus conceptualized the data analysis plan, collaborating with L. Wang and J. Wang, who managed the data set and conducted all of the statistical analyses. B. A. Koblin was the study principal investigator. All authors contributed to the writing of the article.

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The institutional review boards at all participating institutions approved the study.

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