Minority Stress and Intimate Partner Violence Among Gay and Bisexual Men in Atlanta

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Abstract

Intimate partner violence (IPV) rates are disproportionately high among sexual minority populations. Few studies have examined the plausible relationship between minority stress and IPV among men who have sex with men. This study examines the associations between IPV and three indicators of minority stress: internalized homophobia, sexuality-based discrimination, and racism, in a large venue-based sample of gay and bisexual men from Atlanta, USA. Each of the minority stress measures was found to be significantly associated with increased odds of self-reporting any form of receipt of IPV. Significant associations were also identified between perpetration of IPV and minority stressors, with most types of IPV perpetration linked to internalized homophobia. This study confirms findings in a growing body of research supporting the relationship between minority stress and increased prevalence of IPV among men who have sex with men, and points to the need to address structural factors in IPV prevention programs for male–male couples.

Keywords

intimate partner violence, MSM, minority stress

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Introduction

Over the past 10 years, there has been a growth in research that has illustrated that men who have sex with men (MSM) experience intimate partner violence (IPV) at rates that are substantially higher than those experienced by men who do not have sex with men, and rates that are comparable or higher to those among heterosexual women (Finneran & Stephenson, 2014). Estimated prevalence for receipt of IPV among MSM range from 12% (Stephenson, Khosropour, & Sullivan, 2010) to 45% (Craft & Serovich, 2005) for physical IPV, 1.8% (Bartholomew, Regan, Oram, & White, 2008) to 33% (Craft & Serovich, 2005) for sexual IPV, 28% (Pruitt, White, Mitchell, & Stephenson, 2015) to 64% (Bartholomew, Regan, White, & Oram, 2008) for emotional/psychological, and 32% (Houston & McKirnan, 2007) to 78% (Pantalone, Schneider, Valentine, & Simoni, 2011) for any form of IPV. Perpetration rates of violence have been comparatively less studied and ranges from 8.3% (Carvalho, Lewis, Derlega, Winstead, & Viggiano, 2011) to 35% (Welles, Corbin, Rich, Reed, & Raj, 2011).

There is evidence that rates of IPV may be higher among racial and ethnic minority MSM (De Santis, Gonzalez-Guarda, Provencio-Vasquez, & Deleon, 2014; Gonzalez-Guarda, Ortega, Vasquez, & De Santis, 2010; Houston & McKirnan, 2007; Kalichman et al., 2001; Koblin et al., 2006), men with lower levels of education (Greenwood et al., 2002), men with positive HIV status (Greenwood et al., 2002; Kalichman et al., 2001; Stall et al., 2003), and young MSM (those aged 15-24 years; Edwards, Sylaska, & Neal, 2015; Freedner, Freed, Yang, & Austin, 2002; Kubicek, McNeeley, & Collins, 2015, 2016; Stults, Javdani, Greenbaum, Kapadia, & Halkitis, 2015). Of particular importance to MSM is emergent evidence demonstrating a link between IPV and risk for HIV infection (Feldman, Ream, Díaz, & El-Bassel, 2007; Greenwood et al., 2002; Kalichman & Rompa, 1995; Koblin et al., 2006; Relf, 2001; Stephenson, Rentsch, Salazar, & Sullivan, 2011).

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Understanding the Determinants of IPV Among MSM

While several studies have begun to examine the influence of IPV on MSM's mental and physical health, few published studies have examined the unique factors that shape the experience of IPV in same-sex male relationships. In a survey of 1,075 gay and bisexual men surveyed in Atlanta, Finneran and Stephenson (2014) reported that many of the triggers for IPV identified by studies of opposite-sex couples also emerged as significant antecedents for IPV among gay and bisexual men, including general life stressors such as alcohol, drugs, jealousy, dishonesty, and financial stress (Bell & Naugle, 2008; Wilkinson & Hamerschlag, 2005). Despite these similarities, their study also illustrated that there were a number of triggers to IPV that were specific to gay and bisexual men, including one or both partners not having disclosed their sexual identity, disagreements around sexual positioning, and threats to masculinity created by both men striving to be the "alpha male" in the relationship. Goldenberg, Stephenson, Freeland, Finneran, and Hadley (2016) explored the importance of male roles in shaping the risk of IPV further with qualitative data drawn from the same sample as Finneran and Stephenson (2014), identifying sources of tension that men identified as shaping the risk of IPV in their relationship, including gender role conflict, dyadic inequalities (e.g., differences in income, age, education), differences in "outness" about sexual identity, substance use, jealousy, and external homophobic violence.

Similarly, in their analysis of data from a sample of 403 gay/bisexual men with main partners, also from Atlanta, Stephenson et al. (2013) showed significant associations between social network factors and the reporting of IPV. Having social networks that contained more gay friends was associated with significant reductions in the reporting of IPV, whereas having social networks composed of sex partners or gay friends who had not disclosed their sexuality was associated with increased reporting of IPV victimization and perpetration. The authors suggested men whose social networks are primarily composed of gay men who have not disclosed their identity may have less access to the wider lesbian, gay, bisexual, and transgender (LGBT) community, and as such may have lower access to positive LGBT role models, social support, and culturally appropriate services. Both of these studies demonstrate that IPV in same-sex male relationships, while influenced by factors that are common to relationships with people of all genders, may also be shaped by factors specifically related to sexual orientation and the experience of being in a same-sex relationship.

Sexual Minority Stress and IPV Among MSM

Only recently has the literature on IPV among male-male couples begun to address the way in which social stressors, specifically linked to sexual orientation, may shape the risk of IPV. The concept of *minority stress* is an amalgamation of sociological, anthropological, and psychological theories about the compound nature of multiple stressors experienced by persons of minority status. Meyer (1995, 2003) defined minority stress as the "excess stress to which individuals from stigmatized social categories are exposed as a result of their social, often a minority, position" (Meyer, 2003, p. 675). When individuals belong to multiple minority groups, the stigmas and stresses they experience from belonging to each of these groups are *additive*: They exist in addition to each other, and in addition to "general stressors" experienced by nonminority persons (Meyer, 2003). The majority of research regarding minority stress-specifically sexual minority stress-and health among LGBT persons has examined adverse mental health outcomes, with positive relationships shown between views of negative homosexual identity and depression, lower self-esteem, increased shame, and psychological distress (Allen & Oleson, 1999; Meyer, 1995). Similar trends among urban, Latino MSM were reported by Díaz, Ayala, Bein, Henne, and Marin (2001), in which minority stress stemming from homophobia, racism, and poverty was associated with depressive symptoms such as suicidal ideation, depression, and anxiety. A recent examination of syndemic stressors among Black MSM showed an association between stress and depression symptoms, sexual compulsiveness, and IPV (Dyer et al., 2012).

Over the past decade, several studies have identified correlations between internalized homophobia/homonegativity and perpetration of physical IPV (Balsam & Szymanski, 2005; Bartholomew, Regan, Oram, et al., 2008; Edwards & Sylaska, 2013; Lewis, Mason, Winstead, & Kelley, 2017), sexual IPV (Balsam & Szymanski, 2005; Edwards & Sylaska, 2013; Finneran & Stephenson, 2014), and emotional/psychological IPV (Bartholomew, Regan, Oram, et al., 2008). Homophobic discrimination and sexual orientation concealment have been identified as correlates of perpetration of physical IPV (Edwards & Sylaska, 2013; Lewis et al., 2016). Edwards and Sylaska (2013) showed a positive relationship between sexual orientation victimization and emotional/psychological IPV. Last, Carvalho et al. (2011) showed that stigma consciousness was correlated with increased lifetime perpetration of IPV.

The link between minority stress and IPV in same-sex relationships is highly plausible. The negative outcomes associated with minority stress (e.g., drug use) are known to be linked to increased risk of IPV, and therefore, it seems reasonable that the experience of minority stress may also lead to increases in IPV through creating tension, poor communication, lowered self-esteem, and the adoption of maladaptive behaviors in relationships. The present study examines the associations between three forms of minority stress—internalized homophobia, racism, and homophobia—and the recent experience and perpetration of IPV among a large sample of gay and bisexual men surveyed in Atlanta. Understanding how minority stress shapes, IPV has the potential to provide insight into the specific structural forces that create IPV risk for gay and bisexual men, and to inform the development of primary and secondary prevention efforts for IPV in male–male relationships.

Method

This study was approved by Emory University's Institutional Review Board. The data for this study were drawn from project Let Us Stand Together (LUST), a cross-sectional convenience sample of venue-recruited gay and bisexual men in Atlanta, GA, enumerated between August and December, 2011. The recruitment strategy and goals of have been described previously (Stephenson & Finneran, 2013; White & Stephenson, 2013). In short, self-identified gay and bisexual men aged 18 and older who lived in the Atlanta metro area and reported having had sex with a man in the previous 6 months were systematically recruited from gayfriendly venues. A total of 1, 075 gay and bisexual men completed the anonymous, 20-minute online survey over the 5 months of recruitment. The survey covered demographic characteristics, minority stressors, recent experience and perpetration of IPV, and sexual risk-taking behavior.

Measurements

Intimate Partner Violence. Both receipt of IPV and perpetration of IPV were assessed using the IPV-GBM Scale, a novel IPV measurement empirically derived from a sample of gay and bisexual men (Stephenson & Finneran, 2013). The IPV-GBM scale consists of 22 items of IPV in five domains: six items of physical/sexual IPV (being punched/hit/slapped, kicked, pushed/shoved, raped, forced to do something sexual, and having property damaged), five items of monitoring IPV (demanding access to a cell phone, demanding access to e-mail, reading text messages without permission, reading e-mails without permission, and posting on social networking sites), four items of controlling IPV (being prevented from seeing friends or family, or being prevented from seeing one's partner's friends or family), three items of HIV-related IPV (being lied to about HIV status, having HIV status not disclosed prior to sex, and intentionally transmitting HIV), and three items of emotional IPV (being called fat or ugly, being told to "act straight" around certain people, and having clothes criticized; Stephenson & Finneran, 2013). For each item the survey asked whether the participant had experienced the act from a male partner in the past 12 months or, in separate questions, if they had perpetrated the act against a male partner in the past 12 months.

Minority Stress. Three areas of minority stress were measured, representing internal and external experiences of minority stressors: internalized homophobia, lifetime experiences of homophobic discrimination, and lifetime experiences of racist discrimination. Internalized homophobia was quantified using a 20-item subset of the Gay Identity Scale, a validated scale that assesses acceptance of homosexual feelings and thoughts, as well as how open a respondent is about his homosexuality with family, friends, and associates (Brady & Busse, 1994). From these data, an index variable of internalized homophobia was created. No points were added to the index for neutral responses to any scale item. Positive point values were assigned to agreement with internally homophobic sentiments, and negative points were assigned for agreement with statements of gay pride. For example, responding "agree" to the statement, "I dread having to deal with the fact that I may be homosexual" resulted in one index point; accordingly, a response of "strongly agree" to the statement "I am very proud to be gay and make it known to everyone around me," would result in negative two index points. Thus, openness and pride in homosexuality decreased with increasing index score. Forty points were added to each score in order to shift the range from -40-40 to 0-80. A higher score on the index indicates that the individual has experienced more internal struggles with their own sexual identity.

Experiences of homophobic discrimination were assessed by creating an index scale of reported responses to 11 possible experiences of discrimination due to sexual orientation, using a scale validated in previous studies: being made fun of as a child, experiencing violence as a child, being made fun of as an adult, experiencing violence as an adult, hearing as a child that gay men would grow up alone, hearing as a child that gays are not normal, feeling that your gayness hurt your family as a child, having to pretend to be straight, experiencing job discrimination, having to move away from family, and experiencing police harassment. Respondents were awarded one point for each positive response, creating an index that ranged from 0 to 11 (Díaz, Ayala, & Bein, 2004; Díaz et al., 2001). A higher score on the index would indicate that the individual has experienced more acts of homophobia.

Experiences of racism were similarly assessed by creating an index scale of responses to 10 possible experiences of racist discrimination: being made fun of as a child, experiencing violence as a child, being made fun of as an adult, experiencing violence as an adult, being treated rudely or unfairly, experiencing police harassment, experiencing job discrimination, feeling uncomfortable in gay White spaces, having difficulty finding lovers, being objectified sexually, and being rejected for sex. Respondents were awarded one point for each positive response, creating an index that theoretically ranged from 0 to 10 (Díaz et al., 2001; Díaz et al., 2004). A higher score on the index would indicate that the individual has experienced more acts of racism.

Analysis

In total 12 binary outcome variables were modeled. The first outcome was coded one if the respondent reported experiencing any of the 22 items of IPV in the past 12 months (victimization), and the second outcome was coded one if the respondent reported perpetrating any of the 22 items of IPV in the past 12 months (perpetration). To consider the associations between minority stress and specific forms of IPV, 5 binary variables were created measuring whether the respondent reported experiencing each of the 5 domains of IPV in the past 12 months (physical/ sexual, monitoring, controlling, emotional or HIVrelated) and a further 5 were created measuring whether the respondent reported perpetrating each of the domains of IPV in the past 12 months. Twelve separate logistic models were fitted. In each outcome, the key covariates of interest were the 3 measures of minority stress: internalized homophobia, homophobic discrimination, and racism, each entered as a continuous variable. The models controlled for demographic factors found in previous literature to be associated with IPV among gay and bisexual men: age (18-24, 25-34, 35-44, and >44), race/ ethnicity (White, African American, and Latino/Other [Latino and other were grouped together due to small numbers of participants in these group]), sexual orientation (gay or bisexual), self-reported HIV status (negative, positive, or unknown), employment status (employed or unemployed) and educational level (high school or less, some college, or college and above). Analysis considered interactions between each of the minority stress measures and between the minority stress measures and demographic factors, but none were statistically significant. A Bonferroni correction adjustment was made to p values to reduce the chances of false positive results (Type I error).

Table I. Demographic Characteristics of Venue-Based Sample of Gay and Bisexual Men, Atlanta, USA (n = 750).

	n	Percentage
Age group, years		
18-24	156	20.8
25-34	235	31.3
35-44	196	26.1
>44	164	21.8
Race/ethnicity		
White	345	46.0
Black/African American	311	41.4
Latino/Other	94	12.6
Sexual orientation		
Homosexual/gay	671	89.4
Bisexual	79	10.6
HIV status		
Negative	516	68.8
Positive	185	24.7
Do not know/never tested	49	6.5
Employment status		
Employed	577	76.9
Unemployed	173	23.1
Education level		
High school or less	126	16.8
Some college	260	34.6
College or more	364	48.6
Total	750	100.0

Results

Of 4,903 men approached during venue time-space sampling, 59.9% (n = 2,936) agreed to be screened for the study, 71.3% of whom (n = 2,093) were eligible for study participation. Of eligible men, 1,965 (93.9%) were interested in study participation. A total of 1,075 men completed the survey; thus, 21.9% of men approached and 51.4% of eligible men completed the survey. Of all survey responses, 750 (70%) had complete data for all covariates of interest and were included in the analysis. There were no significant ($\alpha = .05$) differences in demographic characteristics between those with and without missing data. The sample was young (approximately 50%) [n = 375] younger than 35 years), diverse (41.4% [n =311] African America/Black), gay/homosexual identified 89.4% [n = 671]), employed (76.9% [n = 577]), and educated (48.6% [n = 364] college or greater). Approximately one in three respondents (31.2% [n = 243]) reported positive or unknown HIV status, a finding that reflects similarly recruited samples of MSM in Atlanta (Kelley et al., 2012; Table 1).

Overall, 47.8% of respondents reported receipt of at least one form of IPV from a male partner in the past 12 months. The most commonly reported form of IPV

receipt was emotional violence (29.4%), followed by physical/sexual violence (25.9%), monitoring violence (22.5%), controlling violence (12.3%), and HIV-related violence (10.9%). Perpetration of IPV was comparatively less reported (33.6%), with the most common form being perpetration of emotional violence (18.1%), followed by monitoring violence (17.6%), physical/sexual violence (14.6%), HIV-related violence (6.4%), and controlling violence (5.9%).

The associations between the minority stress measures and receipt and perpetration of IPV are presented in Tables 2 and 3. All three measures of minority stress were significantly associated with increased odds of reporting the receipt of any form of IPV in the past 12 months (homophobic discrimination OR = 1.11, 95%CI [1.05, 1.17], racism OR = 1.10, 95% CI [1.04, 1.17], and internalized homophobia OR = 1.02, 95% CI [1.01, 1.03]). Only homophobia (OR = 1.08, 95% CI [1.02, 1.15]) and internalized homophobia (OR = 1.01, 95%CI [1.01, 1.02]) were significantly associated with reporting the perpetration of any form of IPV. Respondent's age was also significantly associated with the reporting of both receipt and perpetration of IPV, with the reporting of both declining significantly with age. Reports of the receipt of IPV were significantly lower (OR = 0.57, 95% CI [0.33, 0.98]) among those who reported not knowing their serostatus or never being tested for HIV, relative to those who selfreported HIV-negative status.

In terms of the specific forms of IPV, all three minority stress measures were significantly associated with the reporting of recent receipt of physical/sexual, controlling, and emotional IPV (physical/sexual: homophobia OR =1.12, 95% CI [1.05, 1.19], racism OR = 1.11, 95% CI [1.04, 1.19], internalized homophobia OR = 1.01, 95% CI [1.00, 1.03]; controlling: homophobia OR = 1.11, 95% CI [1.02, 1.20], racism OR = 1.17, 95% CI [1.07, 1.27], internalized homophobia OR = 1.03, 95% CI [1.01, 1.04]; emotional: homophobia *OR* = 1.11, 95% CI [1.05, 1.18], racism OR = 1.11, 95% CI [1.05, 1.18], internalized homophobia OR = 1.02, 95% CI [1.00, 1.03]). Only homophobia was associated with experiencing monitoring behaviors (OR = 1.09, 95% CI [1.02, 1.17]. Both racism (OR = 1.13, 95% CI [1.03, 1.23]) and internalized homophobia (OR = 1.02, 95% CI [1.00, 1.03]) were associated with reporting the experience of HIV-related IPV.

In terms of reporting the perpetration of IPV, internalized homophobia was associated with reporting the perpetration of all forms of IPV except monitoring behaviors (physical/sexual OR = 1.02, 95% CI [1.00, 1.03], controlling OR = 1.05, 95% CI [1.03, 1.07], emotional OR =1.03, 95% CI [1.02, 1.05], and HIV-related OR = 1.03, 95% CI [1.01, 1.05]). Experiencing racism was only significantly associated with reporting the perpetration of controlling IPV (OR = 1.13, 95% CI [1.01, 1.27]). Experiencing homophobia was associated with reporting perpetration of physical/sexual (OR = 1.13, 95% CI [1.05, 1.22]), monitoring (OR = 1.10, 95% CI [1.02, 1.18]), and HIV-related IPV (OR = 1.12, 95% CI [1.00, 1.26]). Similar patterns of reporting of both perpetration and experience of IPV were shown with age, with older age generally associated with significantly lower odds of reporting IPV.

Discussion

The results of this study support a minority stress hypothesis to explain the relationship between IPV and the unique stressors that affect MSM. All minority stress measures, internalized homophobia, homophobic discrimination, and racism, were found to be significantly associated with increased odds of reporting any form of receipt of IPV, after controlling for individual demographic factors. The observed prevalence of receipt of IPV (47.8%) is higher than prevalence estimates reported in previous literature. This is particularly notable due to the limited recall period (1 year), which it could be anticipated may result in prevalence estimates lower than those reported in previous literature. The prevalence of IPV perpetration in this study (33.7%) was also on the higher end of estimates provided in previous literature (Carvalho et al., 2011; Welles et al., 2011).

The results confirm the relationship between minority stress and IPV identified in a growing body of evidence (Balsam & Szymanski, 2005; Carvalho et al., 2011; Edwards & Sylaska, 2013; Finneran & Stephenson, 2014; Kubicek et al., 2015). Previous studies suggest experiences of minority stress can evoke feelings of anxiety, shame, and victimization, resulting in self-devaluation (Frost & Meyer, 2009; Kubicek et al., 2015). It is possible chronic victimization and self-devaluation resulting from minority stress could predispose gay men to experiences or perpetration of IPV. Internalized homophobia has been linked to poor relationship quality among gay men (Frost & Meyer, 2009). Higher levels of internalized homophobia have also been found to decrease a couple's belief in their ability to adequately communicate and make joint decisions (Stachowski & Stephenson, 2014). Another recent study showed that young MSM associated societal discrimination with stress in their relationships (Kubicek et al., 2015). These findings have begun to illustrate the pathways between minority stress and IPV. The current findings confirm previous evidence that minority stress experiences, such as internalized homophobia and homophobic discrimination elevate gay men's risk of experiencing and perpetrating IPV.

(n= /).			Receipt	of IPV		
	Any IPV	Physical/sexual IPV	Controlling IPV	Monitoring IPV	Emotional IPV	HIV-related IPV
Age group, years 18-24	l.0 [ref]	l.0 [ref]	l.0 [ref]	I.0 Irefl	I.0 [ref]	l.0 [ref]
25-34	0.61 [0.42, 0.89]	0.50 [0.34, 0.75]	0.47 [0.28, 0.79]	0.79 [0.53, 1.18]	0.64 [0.43, 0.94]	0.74 [0.43, 1.27]
35-44	0.34 [0.22, 0.51]	0.29 [0.18, 0.47]	0.27 [0.14, 0.50]	0.44 [0.28, 0.70]	0.44 [0.29, 0.67]	0.27 [0.13, 0.55]
>44	0.24 [0.16, 0.38]	0.27 [0.16, 0.45]	0.48 [0.26, 0.88]	0.33 [0.19, 0.55]	0.30 [0.19, 0.49]	0.60 [0.31, 1.18]
Race/ethnicity						
White	I.0 [ref]	1.0 [ref]	I.0 [ref]	1.0 [ref]	I.0 [ref]	1.0 [ref]
Black/African American	0.72 [0.50, 1.04]	1.30 [0.85, 1.97]	0.72 [0.42, 1.23]	1.29 [0.85, 1.96]	0.48 [0.32, 0.72]	2.97 [1.59, 5.52]
Latino/Other	0.91 [0.58, 1.43]	1.32 [0.79, 2.21]	0.75 [0.38, 1.48]	1.37 [0.82, 2.27]	0.69 [0.42, 1.11]	1.36 [0.60, 3.11]
Sexual orientation						
Homosexual/gay	I.0 [ref]	1.0 [ref]	I.0 [ref]	1.0 [ref]	I.0 [ref]	1.0 [ref]
Bisexual	1.49 [0.95, 2.34]	1.60 [1.00, 2.54]	1.08 [0.61, 1.93]	1.31 [0.81, 2.11]	0.93 [0.58, 1.49]	1.05 [0.58, 1.92]
HIV status						
Negative	1.0 [ref]	1.0 [ref]	I.0 [ref]	1.0 [ref]	I.0 [ref]	1.0 [ref]
Positive	0.94 [0.68, 1.31]	1.27 [0.87, 1.85]	0.73 [0.44, 1.22]	0.61 [0.41, 0.92]	0.93 [0.65, 1.33]	1.37 [0.84, 2.24]
Do not know/never tested	0.57 [0.33, 0.98]	0.73 [0.38, 1.40]	0.62 [0.27, 1.45]	0.68 [0.36, 1.28]	0.55 [0.30, 1.02]	0.61 [0.22, 1.70]
Employment status						
Employed	I.0 [ref]	1.0 [ref]	1.0 [ref]	1.0 [ref]	I.0 [ref]	1.0 [ref]
Unemployed	1.21 [0.87, 1.68]	1.30 [0.90, 1.87]	1.27 [0.79, 2.02]	1.24 [0.85, 1.81]	1.14 [0.80, 1.63]	0.90 [0.55, 1.50]
Education level						
High school or less	1.0 [ref]	1.0 [ref]	1.0 [ref]	1.0 [ref]	I.0 [ref]	1.0 [ref]
Some college	0.74 [0.50, 1.09]	0.77 [0.50, 1.17]	0.59 [0.34, 1.00]	0.74 [0.48, 1.13]	0.57 [0.38, 0.86]	0.44 [0.25, 0.77]
College or more	0.76 [0.51, 1.13]	0.71 [0.46, 1.11]	0.66 [0.38, 1.15]	0.68 [0.44, 1.07]	0.56 [0.37, 0.84]	0.62 [0.35, 1.09]
Minority stressors						
Homophobic discrimination	1.11 [1.05, 1.17]	1.12 [1.05, 1.19]	1.11 [1.02, 1.20]	1.09 [1.02, 1.17]	1.11 [1.05, 1.18]	1.08 [0.99, 1.18]
Racist discrimination	1.10 [1.04, 1.17]	1.11 [1.04, 1.19]	1.17 [1.07, 1.27]	1.03 [0.96, 1.10]	1.11 [1.05, 1.19]	1.13 [1.03, 1.23]
Internalized homophobia	1.02 [1.01, 1.03]	1.01 [1.00, 1.03]	1.03 [1.01, 1.04]	1.01 [0.99, 1.02]	1.02 [1.00, 1.03]	1.02 [1.00, 1.03]
Abbreviations: IPV = intimate partner Note. Values in bold are significant at t	violence. the <0.5 level.					

Table 2. Logistic Model Results for Associations Between Minority Stressors and Receipt of IPV Among a Venue-Based Sample of Gay and Bisexual Men, Atlanta, USA

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			Perpetratio	n of IPV		
	Any IPV	Physical/sexual IPV	Controlling IPV	Monitoring IPV	Emotional IPV	HIV-related IPV
Age group, years 18-24	I.0 [ref]	I.0 [ref]	I.0 [ref]	I.0 [ref]	I.0 [ref]	I.0 [ref]
25-34	0.54 [0.37, 0.78]	0.44 [0.28, 0.70]	0.78 [0.40, 1.52]	0.58 [0.38, 0.89]	0.60 [0.39, 0.92]	0.67 [0.33, 1.37]
35-44	0.31 [0.20, 0.47]	0.30 [0.17, 0.51]	0.06 [0.01, 0.29]	0.37 [0.22, 0.60]	0.37 [0.22, 0.60]	0.17 [0.06, 0.44]
>44	0.24 [0.15, 0.38]	0.19 [0.10, 0.37]	0.61 [0.26, 1.41]	0.24 [0.13, 0.43]	0.34 [0.20, 0.59]	0.39 [0.16, 0.95]
Race/ethnicity	I	1	1	1	1	1
White	I.0 [ref]	I.0 [ref]	I.0 [ref]	I.0 [ref]	I.0 [ref]	I.0 [ref]
Black/African American	0.94 [0.65, 1.36]	1.72 [1.03, 2.84]	1.10 [0.52, 2.34]	1.16 [0.73, 1.83]	0.82 [0.52, 1.28]	2.81 [1.19, 6.61]
Latino/Other	1.13 [0.71, 1.78]	1.30 [0.69, 2.47]	1.10 [0.42, 2.90]	1.14 [0.65, 2.00]	0.81 [0.46, 1.44]	1.82 [0.62, 5.31]
Sexual orientation						
Homosexual/gay	I.0 [ref]	I.0 [ref]	1.0 [ref]	I.0 [ref]	I.0 [ref]	I.0 [ref]
Bisexual	1.28 [0.82, 1.99]	1.16 [0.67, 2.01]	1.21 [0.59, 2.47]	1.52 [0.91, 2.56]	0.88 [0.53, 1.49]	2.11 [1.05, 4.21]
HIV status						
Negative	I.0 [ref]	I.0 [ref]	1.0 [ref]	I.0 [ref]	I.0 [ref]	1.0 [ref]
Positive	1.38 [0.99, 1.94]	1.29 [0.82, 2.02]	0.69 [0.33, 1.44]	0.90 [0.59, 1.39]	1.01 [0.66, 1.53]	4.65 [2.46, 8.80]
Do not know/never tested	0.86 [0.49, 1.49]	0.76 [0.36, 1.63]	0.58 [0.18, 1.89]	0.50 [0.24, 1.07]	0.90 [0.47, 1.72]	1.29 [0.39, 4.22]
Employment status						
Employed	I.0 [ref]	1.0 [ref]	1.0 [ref]	I.0 [ref]	I.0 [ref]	I.0 [ref]
Unemployed	0.91 [0.64, 1.28]	0.93 [0.60, 1.45]	1.22 [0.64, 2.32]	0.80 [0.52, 1.22]	0.97 [0.64, 1.47]	1.11 [0.59, 2.10]
Education level						
High school or less	1.0 [ref]	1.0 [ref]	1.0 [ref]	I.0 [ref]	1.0 [ref]	1.0 [ref]
Some college	0.67 [0.45, 0.99]	0.51 [0.31, 0.82]	0.32 [0.15, 0.66]	0.70 [0.44, 1.10]	0.59 [0.37, 0.95]	0.37 [0.18, 0.76]
College or more	0.76 [0.51, 1.13]	0.55 [0.33, 0.91]	0.45 [0.22, 0.93]	0.60 [0.37, 0.97]	0.82 [0.51, 1.31]	0.78 [0.38, 1.62]
Minority stressors						
Homophobic discrimination	1.08 [1.02, 1.15]	1.13 [1.05, 1.22]	1.09 [0.97, 1.22]	1.10 [1.02, 1.18]	1.07 [0.99, 1.14]	1.12 [1.00, 1.26]
Racist discrimination	1.02 [0.96, 1.08]	1.01 [0.94, 1.10]	1.13 [1.01, 1.27]	1.00 [0.93, 1.08]	1.03 [0.96, 1.11]	1.10 [0.99, 1.23]
Internalized homophobia	1.01 [1.00, 1.02]	1.02 [1.00, 1.03]	1.05 [1.03, 1.07]	1.00 [0.98, 1.01]	1.03 [1.02, 1.05]	1.03 [1.01, 1.05]
	-					

Abbreviations: IPV = intimate partner violence. Note. Values in bold are significant at the <0.5 level. In this study, experiencing racism was significantly associated with reporting perpetration of controlling IPV, and reporting receipt of every type of IPV, with the exception of monitoring IPV. Few studies have investigated the relationship between racism and IPV, specifically in MSM populations. There is clearly a need to understand the role of race and other intersecting identities in the relationship between minority stress and IPV.

The findings also indicate a significant relationship between age and reports of both perpetration and receipt of IPV, with IPV reports declining as age increases. These findings confirm an association between age and IPV shown in previous literature (Finneran & Stephenson, 2014; Greenwood et al., 2002; Kalichman & Rompa, 1995; Koblin et al., 2006; Stall et al., 2003), and dispute findings in other literature (Feldman et al., 2007; Kalichman et al., 2001; Nieves-Rosa, Carballo-Diéguez, & Dolezal, 2000). Limiting the recall period to include only experiences of IPV occurring within the past year, as opposed to lifetime experiences of IPV, may help illustrate differences in IPV prevalence by age. Understanding the ages at which MSM are at the greatest risk of IPV, receipt and perpetration could have implications for future research and intervention. Of critical importance, limiting recall period also limits recall bias, eliminates the confounding influence of childhood sexual abuse, and demonstrates the ongoing, critical problem of IPV among MSM.

Limitations

Men were recruited through venue-based recruitment. While this approach has been found to produce samples similar to alternative recruitment methods (Hernandez-Romieu et al., 2014), it meant the current sample necessarily excluded gay and bisexual men who did not access gay-themed or gay-friendly venues during the sampling period. Additionally, the cross-sectional design of this study means that causality cannot be inferred. The survey did not include several potential correlates of IPV, including the experience of childhood abuse, exposure to parental IPV as a child, and other stressors such as financial or employment stress.

Observed prevalence rates of perpetration of IPV were substantially lower than rates of receipt of IPV, a disparity reflected in previous literature. Of 1,075 surveys administered and reviewed, 750 had complete data, and were therefore eligible for analysis. It is possible that some participants who have experienced or perpetrated IPV were unwilling to answer questions in the IPV module. The data used in this study were self-reported, indicating the imbalance in reporting receipt versus perpetration could be due to social desirability bias. It is also possible that social desirability bias could be magnified by the venue-based sampling method, which may not feel as anonymous to participants as Internet recruitment. Despite its limitations, this study has several strengths. Of particular importance, this study addresses a correlation between minority stress and IPV that has been largely understudied. It presents prevalence of IPV, differentiated by type, in accordance with a novel IPV scale developed to examine the unique experiences of MSM.

Conclusions

This study confirms the correlation between indicators of minority stress and IPV. The current findings provide further evidence that the link between minority stressors, including internalized homophobia and experiences of discrimination, and IPV reflects social and cultural contexts in which MSM experience, and engage in, forms of violence. The high prevalence of IPV among MSM indicates an immediate need for interventions including counseling services and support for MSM experiencing IPV. Screening for IPV should be encouraged during routine HIV/STI testing and counseling. IPV prevention, specifically geared toward MSM couples, should incorporate theories of minority stress and should focus on the relationship between stress and violence.

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