

Association of Discrimination-Related Trauma With Sexual Risk Among HIV-Positive African American Men Who Have Sex With Men

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HIV disproportionately affects African American men who have sex with men (MSM). Twenty-eight percent of African American MSM are estimated to be HIV positive, compared with 16% of White MSM¹ and 2% of the general African American male population.² Young African American males (aged 13–29 years) who have sex with males have had a higher increase in HIV incidence in recent years than has any other racial/ethnic subgroup in the United States.³ Rates of unprotected anal intercourse (UAI) fail to account for racial/ethnic disparities in HIV prevalence.⁴ However, UAI remains the highest risk factor for HIV transmission among MSM. Understanding the sociocultural variables associated with UAI among African American MSM is likely to be important for developing appropriate HIV prevention strategies for this population. One such sociocultural variable is interpersonal trauma, including childhood sexual abuse (CSA),⁵ intimate partner violence,⁶ forced sex,⁷ and other physical assault. Interpersonal violence disproportionately affects African Americans in general⁸ as well as MSM.^{9,10} Although few studies have examined forced sex and physical assault among African American MSM, several have reported a higher prevalence of CSA among African American MSM than among White MSM.^{9,11} Furthermore, MSM who experience trauma may be more likely to engage in sexual risk behaviors. For example, 1 study reported that MSM with a history of CSA had more sexual contacts and acts of UAI than did MSM who had no history of CSA.¹¹

Other research suggests that African American MSM are faced with multiple forms of discrimination associated with their HIV serostatus, race, and sexual orientation¹² and that such discrimination may sometimes be experienced as interpersonal trauma. A

Objectives. We investigated whether 1 form of traumatic stress, discrimination-related trauma (e.g., physical assault because of race), was associated with unprotected anal intercourse, especially when compared with non-discrimination-related trauma, among African American men who have sex with men.

Methods. A convenience sample of 131 HIV-positive African American men who have sex with men receiving antiretroviral treatment completed audio computer-assisted self-interviews that covered unprotected anal intercourse, interpersonal trauma, and whether trauma was because of discrimination on the basis of race/ethnicity, HIV serostatus, or sexual orientation.

Results. Sixty percent reported at least 1 interpersonal trauma; they attributed at least 1 trauma to being gay (47%), African American (17%), or HIV positive (9%). In a multivariate regression, experiencing discrimination-related trauma was significantly associated with unprotected anal intercourse (adjusted odds ratio [AOR] = 2.4; 95% confidence interval [CI] = 1.0, 5.7; $P = .04$), whereas experiencing non-discrimination-related trauma was not (AOR = 1.3; 95% CI = 0.6, 3.1; $P = .53$).

Conclusions. HIV-positive African American men who have sex with men experience high levels of discrimination-related trauma, a stressor associated with greater risk taking. HIV prevention interventions should consider the potential damaging effects of discrimination in the context of trauma. (*Am J Public Health.* 2013;103:875–880. doi:10.2105/AJPH.2012.300951)

qualitative study of 87 African American MSM reported that victims may perceive experiences of CSA to be related to their sexual orientation.¹³ A small quantitative study of a convenience sample of 56 HIV-positive patients recruited from an AIDS treatment clinic reported that of HIV-positive men of color and MSM who reported intimate partner violence, slightly more than one quarter believed that their abuse was related to their HIV serostatus.¹⁴

The minority stress model posits that social discrimination leads to excess stress among minority persons, which may be more damaging than are other types of stressors because discrimination on the basis of one's social group may threaten individuals' core sense of identity.^{15–18} Consistent with this model, a survey of lesbians and gays found that those who had experienced a bias-related crime showed worse mental health consequences

(e.g., symptoms of depression, anxiety, anger, and posttraumatic stress) than did those who had experienced non-bias-related crimes.¹⁹ The effect of social discrimination on mental health outcomes has been well documented across various populations, including people living with HIV.^{12,20} Furthermore, some research indicates an association of perceived social discrimination with sexual risk among MSM,^{21–28} but none has included an examination of the distinct association of discrimination-related trauma with sexual risk behavior, beyond the effects of other types of trauma. The minority stress model suggests that social discrimination-related trauma would have a greater association with sexual risk than would trauma alone. Although previous research has indicated an association of sexual risk with both trauma^{5–7} and chronic discrimination,^{21–28} the effects of trauma resulting from discrimination on

sexual risk do not appear to have been investigated in the literature.

We examined the association of prior trauma with sexual risk among African American MSM living with HIV. In multivariate models, we examined the distinct effects of discrimination-related and -unrelated interpersonal trauma on sexual risk. We were especially interested in assessing whether experiences of discrimination-related interpersonal trauma had a unique association with UAI beyond variables related to sexual risk in previous research. We were also interested in whether there was a distinct association of UAI with discrimination-related interpersonal trauma beyond any association with interpersonal trauma in general (including discrimination-related and -unrelated interpersonal trauma). Such findings would suggest a need to focus on the added effects of discrimination from interpersonal trauma in both research and secondary HIV prevention interventions targeting this population.

METHODS

Study participants were 214 African American men living with HIV. Eligible participants provided written informed consent and then completed an audio computer-assisted self-interview containing several relevant measures. We gave participants a \$30 honorarium.

We restricted the sample to men who reported having sex in the past 3 months ($n = 131$). We recruited men using flyers at an HIV medical clinic and 3 HIV social service agencies in Los Angeles, California, from January 2007 to February 2009. Details of the recruitment process have been described previously.^{12,29-32} We screened men responding to the fliers via telephone for the following eligibility criteria:

1. Black or African American identity,
2. self-identification as male,
3. HIV-positive serostatus,
4. aged 18 years or older, and
5. taking antiretroviral treatment (because medication adherence was relevant to another study goal).

Measures

We asked participants whether they experienced any of the following interpersonal traumatic events in their lifetime: physical

assault, sexual assault, or sexual contact when aged younger than 18 years with someone 5 or more years older.³³ For each traumatic event, we used follow-up items that we designed to capture trauma owing to Black or African American race/ethnicity, HIV-positive serostatus, or gay sexual orientation (e.g., To what extent do you think that this happened because you are Black or African American?). We derived 2 measures from these questions. We coded discrimination-related trauma on the basis of attributing any reported traumatic experience to discrimination owing to personal characteristics, and we coded interpersonal trauma not related to discrimination on the basis of experiencing any of the events and the response that they were not owing to being of Black or African American race/ethnicity, having an HIV-positive serostatus, or having a gay sexual orientation (i.e., participant did not believe physical assault was perpetrated against him because he was African American, gay, or HIV positive).

Sociodemographic characteristics. We asked participants their age, education level, income, employment status, sexual orientation, transgender identity, housing accommodations, date of HIV diagnosis, and history of imprisonment. We dichotomized variables that were not initially dichotomous (e.g., transgender identity and history of incarceration) on the basis of their distributions, and we combined distribution of variables with some categories that were less represented than were others with other similar categories. We dichotomized education into high school diploma or less versus greater than high school diploma; annual income into less than \$5000 versus \$5000 or more annually on the basis of a median split; employment into employed full or part time versus unemployed, receiving disability, retired, or in school; sexual orientation into heterosexual versus other categories (i.e., gay or same-gender loving, bisexual, not sure or in transition, something else, or do not know); and housing into stable (rent or own home or apartment, subsidized housing) versus not stable (homeless, living rent free with friend or relative, residential treatment facility, temporary or transitional housing). We calculated the length of time since diagnosis from the interview date and the age at diagnosis.

Drug use. We asked participants about how frequently they used any of 4 illicit drugs

(i.e., cocaine powder, crack cocaine, heroin, or amphetamine or methamphetamine) in the past 30 days. We collapsed responses into a dichotomous variable indicating any or no drug use.

Alcohol use. We measured problematic drinking with the RAPS4-QF,³⁴ which contains 4 screening items for alcohol problems over the past year and 2 quantity–frequency items. We created a dichotomous variable to represent whether a participant was engaged in problematic drinking, defined as a response of yes to any of the initial 4 items or both of the quantity–frequency items.

Depression. We measured depression using the 8-item depression scale from the Medical Outcomes Study.³⁵ A positive screen on this instrument indicates a high probability of major depression. We created a dichotomous variable to cover whether the participant screened positive for depression.

Sexual risk behavior. We asked participants about sexual behavior in the past 3 months. We asked those who reported any male sexual partners the frequency of protected and unprotected (i.e., with and without condoms) insertive and receptive anal intercourse. Separate questions assessed each type of sexual behavior with HIV-positive, HIV-negative, and unknown HIV serostatus male and female partners.

We defined sexual risk in 3 ways: as reported engagement in any unprotected intercourse with male partners, in any unprotected intercourse with HIV-negative or unknown serostatus male partners (a measure of HIV transmission risk behavior), and reported engagement in any unprotected intercourse with HIV-positive male partners (a measure of risk for exposure to new infections or different strains of HIV).

Statistical Analysis

We computed descriptive statistics for all study variables. We examined means and SDs for continuous variables and frequencies for categorical variables. We conducted bivariate tests to determine whether discrimination-related interpersonal trauma and non–discrimination-related interpersonal trauma and potential covariates (sociodemographic characteristics, sexual identity, time since HIV diagnosis, depression, imprisonment, and drug use) were associated with the UAI outcome variables. We chose these potential covariates on the basis of their association with UAI in

prior studies.^{36–38} We used multivariate models testing the simultaneous effects of discrimination-related interpersonal trauma and non-discrimination-related interpersonal trauma to adjust for covariates that were related to unprotected sex at an α -level of 0.20 in bivariate tests (sexual orientation, drug use, time since diagnosis, stable housing, low education, transgender identity, and history of incarceration). Including these covariates in the model allowed us to determine whether interpersonal trauma functioned as an additional unique factor related to sexual risk beyond the effect of variables that have been associated with sexual risk in the literature.^{7,22,39–43}

RESULTS

The average age of the sample was 42 years (SD = 8.7; range = 20–67), and a substantial percentage had low socioeconomic status, with 81% not employed, nearly 43% with very low incomes, and nearly 20% with less than a high school degree (Table 1). Nearly half (47%) had housing situations that were not stable (e.g., homeless). Most (91%) identified as gay, bisexual, or another nonheterosexual

category; 16% were transgender. On average, participants were diagnosed as HIV positive approximately 13 years before the study at an average age of 30 years. Half of the sample screened positive for depression, and 35% had engaged in drug use in the past month. More than a fourth (28%) had been incarcerated. Nearly half (47%) reported having UAI with a male partner in the past 3 months.

Experience With Interpersonal Trauma

Sixty percent of participants reported experiencing at least 1 interpersonal trauma; 45% experienced CSA (n = 58; average age = 8.8 years; SD = 3.9), 8% adult sexual assault (n = 10; average age = 23.4 years; SD = 5.0), and 36% physical assault (n = 47; average age = 23.1 years; SD = 10.9). Of those who experienced any interpersonal trauma, 47% attributed at least 1 trauma experience to being gay (average age at first gay-related trauma experience = 13.8 years; SD = 9.2), 17% to race (average age at first race-related experience = 14.7 years; SD = 8.8), and 9% to HIV serostatus (average age at first serostatus-related experience = 19.9 years; SD = 14.6).

Interpersonal Trauma and Unprotected Anal Intercourse

In bivariate analyses, discrimination-related interpersonal trauma was associated with a higher likelihood of reporting UAI with any

male partners in the past 3 months (odds ratio [OR] = 2.78; 95% confidence interval [CI] = 1.26, 6.13; $P = .01$) and reporting UAI with HIV-positive male partners in the past 3 months (OR = 2.83; 95% CI = 1.29, 6.22; $P = .009$; Table 2). There was no significant association of discrimination-related interpersonal trauma and UAI with HIV-negative or unknown HIV status male partners. Interpersonal trauma not related to discrimination was not significantly associated with any of the UAI outcome variables.

Multivariate regressions indicated that participants who had experienced discrimination-related interpersonal trauma were more likely to have engaged in UAI with any male partner (OR = 2.44; 95% CI = 1.05, 5.71; $P = .04$) and UAI with HIV-positive male partners (OR = 3.49; 95% CI = 1.42, 8.61; $P = .007$; Table 2).

In the multivariate regression for UAI with any male partner, none of the covariates remained significant. Transgender identity remained the only covariate significantly associated with UAI with HIV-negative or unknown HIV status male partners (OR = 5.32; 95% CI = 1.22, 23.08; $P = .03$). In the multivariate regression for UAI with male partners who are HIV positive, transgender identity (OR = 0.15; 95% CI = 0.03, 0.69; $P = .02$) and heterosexual identity (OR = 9.03; 95% CI = 1.62, 50.31; $P = .01$) remained significant predictors.

TABLE 1—Characteristics of African American Men Who Have Sex With Men Living With HIV: Los Angeles, CA, 2007–2009

Sample Characteristics	Mean (SD) or %
Sociodemographic characteristics	
Age	42.4 (8.7)
Employed	19
Heterosexual	9
Transgender	16
Income ≤ \$5000 annually	43
Education ≤ high school degree	19
Not in stable housing	47
Depression, positive screen	50
Drug use, any in past 30 d	35
Ever incarcerated	28
UAI with any male partner in the past 3 mo	47
Time since HIV diagnosis, y	12.7 (6.5)

Note. UAI = unprotected anal intercourse. The sample size was n = 131.

TABLE 2—Bivariate and Multivariate Regressions Predicting Unprotected Anal Intercourse in Past 3 Months With Interpersonal Trauma Among African American Men Who Have Sex With Men Living With HIV: Los Angeles, CA, 2007–2009

Partner HIV Status and Type of Interpersonal Trauma	Unadjusted OR (95% CI)	AOR (95% CI) ^a
Any HIV status		
Nondiscrimination related	1.28 (0.61, 2.68)	1.31 (0.56, 3.08)
Discrimination related	2.78* (1.26, 6.13)	2.44* (1.05, 5.71)
HIV positive		
Nondiscrimination related	1.29 (0.60, 2.77)	1.17 (0.48, 2.85)
Discrimination related	2.83** (1.29, 6.22)	3.49** (1.42, 8.61)
HIV negative or unknown status		
Nondiscrimination related	1.03 (0.37, 2.86)	1.23 (0.35, 4.28)
Discrimination related	1.86 (0.68, 5.12)	1.48 (0.47, 4.72)

Note. AOR = adjusted odds ratio; CI = confidence interval; OR = odds ratio; UAI = unprotected anal intercourse. The sample size was n = 131.

* $P < .05$; ** $P < .01$.

^aAdjusted for heterosexual sexual identity, transgender identity, time since HIV diagnosis, stable housing, low education, imprisonment, and drug use in past 30 days.

DISCUSSION

In our convenience sample of 131 African American MSM living with HIV, we found a high prevalence of interpersonal trauma, including sexual assault, CSA, and other physical assault. About half of those who had experienced trauma attributed that trauma to discrimination on the basis of their being Black or African American, HIV positive, or gay. We also found a high prevalence of sexual risk, with 47% reporting UAI with a male partner in the previous 3 months.

We found that men who experienced discrimination-related interpersonal trauma in their lifetime were more likely than were those who had not experienced such trauma to have engaged in UAI with a male partner in the past 3 months. This association was significant for 2 of the 3 UAI outcome variables—UAI with any male partner and UAI with an HIV-positive male partner—but not UAI with an HIV-negative or unknown HIV status male partner. By contrast, among men who experienced interpersonal trauma not related to discrimination, there was no significant association between their experience of trauma and UAI. Previous research has shown an association of trauma with sexual risk behavior. By separating out discrimination-related trauma from non-discrimination-related trauma, we have extended previous research by suggesting that discrimination could be driving this association.

Our findings are consistent with studies derived from the minority stress model, in which sexual minority individuals who experienced discrimination-related stressors showed greater adverse mental health outcomes (e.g., depressive symptoms and suicide ideation) than did sexual minorities not subjected to such stressors.¹⁹ Our findings extend previous research by showing an association of minority stress with a nonmental health outcome. Furthermore, biopsychosocial models^{44–47} posit that social discrimination may lead to poor health outcomes by increasing detrimental physiological and psychological stress responses, including maladaptive coping and lower thresholds for coping with new stressors. Our findings and those of others^{48–50} suggest that increased sexual risk behavior is a potential maladaptive

avoidance or escape strategy for coping with stressors such as discrimination.

Decreasing maladaptive coping from discrimination-related trauma may be an important target for interventions in this population. However, little is known about the types and success of specific coping strategies African American MSM use in response to discrimination. The literature on resilience among African Americans describes reliance on family and community networks for social support, religion and spirituality, and racial pride as adaptive strategies for coping with stress, including stress from racism.^{51–55} Additional formative work is critically needed to develop interventions to strengthen use of adaptive coping strategies and reduce use of avoidance or escape and other maladaptive strategies. Furthermore, such interventions must take into account that African American HIV-positive MSM experience compounded minority stress as members of multiple stigmatized social groups. For instance, social support, although important, may be difficult to garner for these men because of stigmatization on the basis of sexual orientation and serostatus in African American communities and race in White gay communities.^{56,57}

Limitations

These findings are not generalizable to the broad population of African American MSM living with HIV, as we did not randomly select the sample and we limited it to 1 geographical area in Southern California.

In addition, causality cannot be inferred from our cross-sectional study regarding the positive association of discrimination-related trauma with sexual risk. Recent research on seroadaptive behaviors, in which MSM adapt their sexual behaviors on the basis of the serostatus of their partners,^{57–59} suggests that serosorting or strategic positioning (i.e., assuming a sexual position that lowers the risk of transmitting HIV) may in part explain our findings of differential behaviors with HIV-negative or unknown HIV status partners compared with HIV-positive partners. Because we did not specifically ask about seroadaptive behaviors, we cannot rule out such practices as a confounding factor.

In addition, because of our small sample size, the study was not sufficiently powered

to examine the effects of different types of interpersonal trauma. Nor were we able to examine the effects of discrimination-related trauma because of HIV serostatus, sexual orientation, or race/ethnicity separately. Furthermore, our measures of discrimination-related interpersonal trauma are self-reported and subject to the limitations of other self-reported measures. Of note, several studies suggest that discrimination is often underreported,^{60,61} and thus our findings may be underestimates of the true effects.

Conclusions

The African American MSM living with HIV in this study reported high levels of interpersonal trauma, including CSA, sexual assault, and other physical assault, a substantial proportion of which they believe stemmed from discrimination on the basis of their race, sexual orientation, or HIV status. Discrimination-related trauma may be a sizeable and overlooked stressor, particularly in populations faced with multiply stigmatized identities or conditions.

Future work is needed to identify intervention strategies sensitive to these multiple conditions to reduce the harmful psychological and behavioral effects of discrimination and ultimately reduce HIV-related health disparities among African American MSM. ■

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This article was accepted June 26, 2012.

Contributors

E. L. Fields conducted the literature review, helped to conceptualize the analysis plan and interpret the results, and led the writing of the article. L. M. Bogart led the primary study design, conceptualized the analysis plan, and helped to interpret the results and draft the article. F. H. Galvan and G. J. Wagner helped to design the

primary study and to interpret the results. D. Klein managed the data, conducted the statistical analyses, and helped to interpret the results. M. A. Schuster helped to interpret the results and draft the article. All authors reviewed and approved of the final article.

Acknowledgments

This research was supported by the National Institutes of Mental Health (grant R01 MH72351 to L. M. B.), the Boston Children's Hospital Division of Adolescent/Young Adult Medicine (grant MCH/HRSA LEAH T71 MC00009 to E. L. F.), and Harvard Medical School.

We would like to thank Charisma Acey, Denedria Banks, E. Michael Speltie, and Kellii Trombacco for their assistance; Charles Hilliard, PhD, and the staff and clients of SPECTRUM at the Charles Drew University of Medicine and Science; and AIDS Project Los Angeles, Minority AIDS Project, and OASIS, for their support.

Human Participant Protection

Institutional review board approval was provided by the RAND Corporation, Charles Drew University of Medicine and Science, and Boston Children's Hospital. The National Institutes of Health issued a certificate of confidentiality.

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