



Published in final edited form as:

AIDS Educ Prev. 2011 October ; 23(5): 397–411. doi:10.1521/aeap.2011.23.5.397.

The Effects of Sexism, Psychological Distress, and Difficult Sexual Situations on U.S. Women's Sexual Risk Behaviors

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Abstract

Women represent almost half of the people living with HIV worldwide. Although social discrimination has been recognized as a major obstacle to HIV prevention, few empirical studies have examined the effects of sexism on women's HIV sexual risk behaviors. We analyzed data collected from an ethnically diverse sample of 754 women attending family planning clinics in the San Francisco Bay Area. A majority of respondents reported lifetime experiences of sexism (e.g., 94% reported sexual harassment). Structural equation modeling results demonstrated that experiences of sexism and reports of recent unprotected sex with a primary or a secondary sexual partner were linked through psychological distress and difficult sexual situations. Our results suggest the need to develop HIV prevention strategies for women that address two mechanisms --- psychological distress and difficult sexual situations --- that link social discrimination to women's sexual risk for HIV.

Keywords

Women; HIV risk; discrimination; sexism; psychological distress; difficult sexual situations

INTRODUCTION

The global HIV/AIDS epidemic among women continues to mount, with women representing almost half of the estimated 31 to 36 million people living with HIV worldwide (e.g., UNAIDS, 2009). In the United States, women account for more than a quarter of all new infections, representing 26% of the estimated 37,163 adults and adolescents diagnosed with HIV/AIDS during 2005 (CDC, 2008). U.S. women with HIV/AIDS disproportionately belong to ethnic minorities (81%) and are predominantly poor (CDC, 2008).

Increasingly, international HIV/AIDS organizations such as the Joint United Nations Programme on HIV/AIDS (UNAIDS; UNAIDS, 2000) and the Global Coalition on Women and AIDS (GCWA, 2006) have cited a host of gender-related issues like gender inequality in intimate relationships and income, violence, and poverty as the driving forces behind the increasing feminization of the global HIV pandemic. Accordingly, theories of gender and power figure prominently in theory on women's HIV risk (e.g., Amaro, 1995; Wingood & DiClemente, 2000). Applied to women's HIV risk, the Theory of Gender and Power (Connell, 1987) demonstrates how women's greater experiences of sexual, gender, and power inequality at the institutional and interpersonal level increase opportunities for

exposure to HIV as well as ways to intervene to protect women from HIV risk (Wingood & DiClemente, 2000). The Theory of Gender and Power asserts that the gendered relationships between women and men can be characterized by three social structures: the sexual division of labor (i.e., women and men are typically assigned to different occupations and men's work is typically valued and paid more than women's); the sexual division of power (e.g., compared to men, women have more physical exposures to adverse health outcomes such as physical abuse and more behavioral risk factors such as low condom negotiation and communication skills, lower condom use self-efficacy); and cathexis (i.e., the structure of social norms and affective attachments enforce traditional gender role norms for women and restrict women's sexuality more stringently than for men).

The theoretical HIV/AIDS prevention literature is also replete with the acknowledgement that social discrimination presents a major barrier to HIV prevention among women (see Amaro & Raj, 2000; Lane et al., 2004; Quinn, 1993; Zierler & Krieger, 1997, 1998). Yet, few empirical studies have examined its influence on women's sexual risk for HIV. Most studies to date have identified experiences of social discrimination such as racism, homophobia, and anti-immigrant discrimination as factors contributing to sexual risk for HIV among U.S. men who have sex with men (MSM; Diaz, Ayala, & Bein, 2004; Preston et al., 2004; Yoshikawa, Wilson, Chae, & Cheng, 2004), but not among women. Specifically, research with Latino MSM demonstrated that those who had experienced more poverty, homophobia, and racial discrimination were significantly more likely than those who had experienced less or no discrimination to report increased sexual and drug risk behaviors (Diaz et al., 2004).

Discrimination may influence sexual risk for HIV by acting as a stressor that generates negative emotional responses (Latkin & Curry, 2003; Williams, Neighbors, & Jackson, 2003). Psychological distress is the likely mechanism that links discrimination to HIV risk. Individuals who experience higher levels of psychological distress may be more likely to find themselves in sexual situations that make them more vulnerable to HIV, as shown in a study of U.S. Latino MSM (Diaz, et al., 2004). The empirically documented links between women's sexist experiences and psychological well-being (Klonoff, et al., 2000; Landrine, Klonoff, Gibbs, Manning, & Lund, 1995; Moradi & Subich, 2004; Schmitt, et al., 2003; Swim, et al., 2001) and the fact that sex between women and men often occurs in an unequal context where women traditionally have less sexual relationship power than their male partners (Amaro, 1995) makes understanding how women's experiences of sexism in a broader context may be related to psychological distress and sexual risk.

Accordingly, in this study, we hypothesize that experiences of sexism affect psychological distress, which lead to being in difficult sexual situations, which in turn influence unprotected sex. We test this hypothesis using data collected from an ethnically diverse sample of U.S. women. Given the substantial sample size, the presence of multiple measures of difficult sexual situations, and our interest in assessing the indirect effect of sexism on unprotected sex by way of psychological distress and difficult sexual situations, we used structural equation modeling (SEM) to investigate the relationships among these variables.

METHOD

DATA COLLECTION

Data came from baseline surveys of women who enrolled in the Female Condom Intervention Trial (FEMIT), which was designed to evaluate the efficacy of female condom skills training in increasing female condom use. Details of this trial are described elsewhere (Choi et al., 2008). Recruitment occurred at family planning clinics in the San Francisco Bay Area from June 2003 to November 2004. Recruitment flyers were posted at the clinics and

three trained female recruiters approached women at the study sites to determine eligibility to participate. Women qualified for the study if they self-identified as African American, Asian, Latina, or White; were 18–39 years of age; had more than one male sex partner in the previous year; had no known allergies to polyurethane, latex, or lubricants; were HIV negative; had no plan to get pregnant within the subsequent 6 months; and were English speakers. We obtained written informed consent from those who were eligible and willing to participate in the study. The consented participants then completed a standardized baseline questionnaire using an audio computer-assisted self-administered interview (ACASI) system and received \$10 in cash immediately following the survey. The Committee for Human Research of the University of California, San Francisco approved the study procedures.

MEASURES

The survey instrument included questions about demographics, experiences of sexism, psychological distress, difficult sexual situations, and sexual risk for HIV.

Demographics—Respondents were asked about their ethnicity, age, marital status, and level of education.

Experiences of sexism—We adapted Klonoff and Landrine’s (1995) Schedule of Sexist Events scale to assess sexist experiences. Thirteen items measured lifetime experiences of sexism (e.g., “As a woman, how often have you been treated unfairly by your employers, bosses, or supervisors?”). Each sexism scale item had four response options (1 = never; 2 = rarely; 3 = sometimes; and 4 = often). Responses to these items were averaged to create a sexism scale (Cronbach’s $\alpha=.89$).

Psychological distress—We measured psychological distress by using ten items from the Anxiety and Depression subscales of the Brief Symptom Inventory (Derogotis, 1983). Each item was assessed using a five-point response set (1 = no discomfort; 2 = a little bit discomfort; 3 = moderate discomfort; 4 = quite a bit discomfort; and 5 = extreme discomfort). Items were summed to create an overall psychological distress score (Cronbach’s $\alpha=.92$).

Difficult sexual situations—We assessed three sexual situations that might make it difficult for women to practice safer sex: having sex under the influence of alcohol or drugs, trading sex for money or gifts, and having been sexually coerced. These three variables were created based on responses to partner-specific assessments of sexual practices. Respondents were first asked about the number of sexual partners they had during the 3 months prior to the interview. Starting with their most recent male partner (“partner 1”), they were asked about the number of times they had vaginal and anal intercourse with this partner during a 3-month period, and the number of times they or both they and their partners were drunk or high while having sex. Respondents were also asked whether they had received money, drugs, housing, or other valuables from the partner in exchange for sex. In addition, three questions were asked about sexual coercion by each partner: whether respondents had sex with the partner when they did not want to; whether the partner had verbally threatened them to make them have sex with him; and whether the partner had used some degree of physical force to make them have sex with him. All of the aforementioned questions were repeated up to 10 times depending on the number of partners respondents reported. Trading sex for money, engaging in sex while drunk or high, and sexual coercion were binary variables (0 = did not experience the event with any partners; 1 = experienced the event with at least one partner).

Sexual risk for HIV—Respondents were asked about the number of times they used male and female condoms during vaginal and anal intercourse with each sexual partner (up to ten partners) during a 3-month period. Sexual risk for HIV was defined as having had one or more vaginal or anal sex episode during the previous three months with a primary or a secondary sexual partner that was not condom-protected. These variables were derived from responses to partner-specific assessments of anal and vaginal intercourse and condom use. For each sexual partner, respondents were asked whether they considered the partner to be a spouse or boyfriend. From those responses, a binary variable was created indicating whether the woman had at least one partner whom she considered to be a spouse or boyfriend (1) versus no partner whom she considered to be a spouse or boyfriend (0).

DATA ANALYSIS

One-way frequency tables and measures of central tendency and variability were generated to describe the characteristics of the sample. Bivariate correlations were generated among continuous and binary variables using *Mplus* (Muthén & Muthén, 2007) to describe bivariate relationships among the variables studied. *Mplus* was also used to fit the structural equation models presented below. To evaluate structural equation model fit, we report the chi-square test of absolute model fit and several descriptive fit indices, noted below. We used the weighted least-squares mean and variance-adjusted (WLSMV) estimator available in *Mplus* to compute model fit chi-square values (Flora & Curran, 2004). Even with corrections for non-normal data, the chi-square test of absolute model fit can be sensitive to trivial misspecifications in the model's structure (Bollen & Long, 1993). Consequently, we report the following descriptive measures of model fit that are often used to evaluate the soundness of a model: weighted mean residual (WRMR), the Comparative Fit Index (CFI; Bentler, 1980), and the Root Mean Square Error of Approximation (RMSEA; Browne & Cudek, 1993). CFI values exceeding .95, RMSEA values below .06, and WRMR values at or below unity are suggestive of approximate model fit (Hu & Bentler, 1999; Yu, 2002).

The proposed structural equation model is depicted in Figures 1 and 2 and follows from Diaz and colleagues' earlier work with MSM populations (Diaz, et al., 2004). In the model, sexism and having a spouse or boyfriend explain variance in psychological distress and difficult sexual situations, which in turn affect the likelihood of a woman engaging in unprotected intercourse. To allow for the possibility of different emergent relationships among endogenous and exogenous variables, the primary and secondary partner outcomes were modeled separately. Sexism and psychological distress were measured by previously-established multi-item scales. Sexism was treated as an exogenous variable whereas psychological distress was an endogenous variable. To account for imperfect reliability of the scale scores, we created latent variables to represent the sexism and psychological distress constructs with each latent variable being measured by its corresponding scale score and the residual variance of the scale score fixed to $(1 - \text{scale reliability}) * \text{scale variance}$ (Hayduk, 1987). Difficult sexual situations were modeled as an endogenous latent variable measured by the observed binary variables having sex under the influence of alcohol or drugs, trading sex for money or gifts, and having been sexually coerced. Any unprotected sexual intercourse was treated as an endogenous observed variable and is the distal dependent variable in the proposed structural equation model. Having a spouse or boyfriend was treated as an exogenous binary control variable.

The factor loading of one observed indicator per latent variable was fixed at unity in order to identify the models. To compute optimal standard errors and confidence limits for the indirect influence of sexism on unprotected sex via psychological distress and difficult sexual situations, we employed the bias-corrected bootstrap method (MacKinnon, Lockwood, & Williams, 2004; Shrout & Bolger, 2002). Following recommendations (Hox,

2002), we set the number of bootstrap samples to 5000. For each estimated parameter, we report its unstandardized estimate, 95% confidence limits, and the standardized parameter estimate. To quantify the aggregate standardized effects of explanatory variables on psychological distress, risky sexual situations, and the unprotected sex outcome variables, we also report the R^2 values for those variables.

RESULTS

SAMPLE CHARACTERISTICS

The baseline data sample of 754 women was ethnically diverse (10% Asian, 11% African American, 17% Latina, and 62% White). A majority of these women were never married (90%), were under 25 years old (77%; mean, 22), and attended college (51%). The median number of male sex partners reported in the previous three months was 1 (range, 0 – 8). A majority of the sample (72%) had a primary sexual partner they identified as a spouse or boyfriend. The median number of vaginal and anal sex acts reported during the prior three months was 8 (range, 0 – 242). The median number of vaginal and anal sex acts with a primary and a secondary sexual partner reported during the prior three months was 4 (range, 0 – 242) and 0 (range, 0 – 102), respectively. However, 63% and 35% reported at least one episode of unprotected vaginal or anal intercourse with a primary and a secondary sexual partner during the prior three months, respectively.

EXPERIENCES OF SEXISM

Reports of lifetime experiences of sexism were common in our sample (Table 1). More than two thirds (Table 1) reported having ever experienced unfair treatment as a woman by teachers, school administrators, or coaches (67%), by employers (69%), and by co-workers or fellow students (68%). Nearly everyone reported having been called a sexist name (94 %).

PSYCHOLOGICAL DISTRESS AND DIFFICULT SEXUAL SITUATIONS

Table 2 shows various symptoms of psychological distress that participants reported that they had experienced one month prior to interview. More than two-thirds reported symptoms of anxiety (e.g., 70% feeling tense) and depression (e.g., 75% feeling lonely). Sixty-six percent of the sample reported having had sex under the influence of alcohol or drugs in the past three months. Eighteen percent reported having been sexually coerced by the partners with whom they had had sex in the past three months. Four percent reported having traded sex for money or gifts in the past three months.

CORRELATES OF UNPROTECTED SEX

To describe the correlates of unprotected sex on a bivariate basis, we computed correlations among the following variables: sexism, psychological distress, trading sex for money, sex while drunk or high, sexual coercion, having a spouse or boyfriend, and one or more unprotected sex acts with a primary or a secondary sexual partner. On a zero-order basis, sexism was not associated with any unprotected sex with a primary sexual partner, but it was associated with any unprotected sex with a secondary sexual partner ($r = .10$) and it was positively associated with psychological distress and sexual risk factors (Table 3). In turn, psychological distress was positively associated with sexual risk factors and unprotected sex with a secondary sexual partner. Zero-order correlations cannot capture the full complexity of multivariate relationships among variables, however. Given that we postulated a specific sequence of linkages among the measured variables in this study based on previous findings in the literature (Diaz, et al., 2004), our next step was to fit a structural equation model to these data. Moreover, moderately strong correlations between trading sex, sexual coercion,

and sex while drunk or high and the importance of accounting for measurement error in mediation models (Hoyle & Kenny, 1999) prompted us to model these three sexual risk factors as indicators of a latent variable that captured their common variance in the structural equation model described below.

PATHWAYS OF SEXUAL RISK

As described previously, we postulated a structural equation model in which experiences of sexism were linked to psychological distress, which in turn were linked to difficult sexual situations, which influenced unprotected sex with a primary or a secondary sexual partner, respectively. Difficult sexual situations were measured by sexual coercion, engaging in sex while drunk or high, and trading sex for money or gifts (see Figures 1 and 2).

The fit of this model for primary partners was judged to be excellent: $\chi^2 (N = 754; DF = 8) = 9.57, p = .30; CFI = 1.00, RMSEA = .02, WRMR = .49$. Table 4 displays the model's parameter estimates and 95% confidence intervals. Sexism was positively associated with psychological distress, psychological distress was positively associated with difficult sexual situations, and difficult sexual situations were positively associated with unprotected sex with a primary sexual partner (Table 4). As well, sexism was positively associated with difficult sexual situations (Table 4). Having a spouse or boyfriend was not associated with psychological distress, but it was positively associated with difficult sexual situations and having unprotected sex with a primary sexual partner (Table 4). Having a spouse or boyfriend and sexism were mildly negatively associated ($B = -.02; 95\% CI = -.04, -.004; r = -.09; p < .05$). R^2 was 11% for psychological distress, 25% for difficult sexual situations, and 65% for unprotected sex with a primary sexual partner.

The model includes three indirect paths linking experiences of sexism to having had unprotected sex with a primary sexual partner. The first path connects sexism to unprotected sex with a primary sexual partner via difficult sexual situations. This effect was positive and statistically significant ($B = .08; 95\% CI = .03, .19; \beta = .05; p < .01$). The second indirect path connects sexism to unprotected sex via psychological distress. This effect was negative, but not significant ($B = -.02; 95\% CI = -.07, .02; \beta = -.01; p > .05$). The third indirect path connects sexism to unprotected sex via psychological distress and difficult sexual situations. This effect was positive and statistically significant ($B = .04; 95\% CI = .01, .08; \beta = .02; p < .01$). The sum of these three indirect effects quantifies the joint indirect influence of sexism on unprotected sex and was statistically significant ($B = .10; 95\% CI = .03, .21; \beta = .05; p < .01$). The total effect of sexism on unprotected sex is the sum of the direct effect of sexism on unprotected sex ($B = -.12; 95\% CI = -.27, .01; \beta = -.07; p > .05$) and the sum of the indirect effects reported immediately above. This total effect was not significant at the .05 level ($B = -.02; 95\% CI = -.14, .09; \beta = -.01; p > .05$).

The fit of the corresponding model for unprotected sex with secondary partners was judged to be excellent: $\chi^2 (N = 754; DF = 7) = 8.54, p = .29; CFI = 1.00, RMSEA = .02, WRMR = .48$. Table 5 displays the model's parameter estimates and 95% confidence intervals. The direct effects were substantively identical to those obtained for the unprotected sex with primary partner outcome: Sexism was positively associated with psychological distress, psychological distress was positively associated with difficult sexual situations, and difficult sexual situations were positively associated with unprotected sex with a secondary sexual partner (Table 5). As well, sexism was positively associated with difficult sexual situations and having a spouse or boyfriend was not associated with psychological distress, but it was positively associated with difficult sexual situations. Having a spouse or boyfriend was negatively associated with having unprotected sex with a secondary sexual partner (Table 5). R^2 was 11% for psychological distress, 25% for difficult sexual situations, and 52% for unprotected sex with a secondary sexual partner.

The first indirect path connecting sexism to unprotected sex via difficult sexual situations was positive and statistically significant ($B = .30$; 95% CI = .14, .53; $\beta = .17$; $p < .01$). The second indirect path connecting sexism to unprotected sex via psychological distress was negative, but not significant ($B = -.06$; 95% CI = $-.15, .01$; $\beta = -.03$; $p > .05$). The third indirect path connecting sexism to unprotected sex via psychological distress and difficult sexual situations was positive and statistically significant ($B = .13$; 95% CI = .07, .22; $\beta = .07$; $p < .05$). The joint indirect influence of sexism on unprotected sex was statistically significant ($B = .36$; 95% CI = .20, .60; $\beta = .20$; $p < .01$) and the total effect was significant at the .05 level ($B = .36$; 95% CI = .01, .34; $\beta = .10$; $p < .05$).

Taken collectively, these results suggest that the influence of lifetime sexism experiences on recent unprotected sexual behavior with primary and secondary sexual partners operates indirectly via two pathways (Figures 1 and 2). The first pathway suggests that experiences of sexism increase the likelihood of women finding themselves in difficult sexual situations, which in turn increases the likelihood of unprotected sex. The second pathway implies that experiences of sexism increase psychological distress, which in turn increases the likelihood of women experiencing difficult sexual situations, which is linked to an increased probability of unprotected sex.

DISCUSSION

Although social discrimination has been a recurrent theme in much of the HIV prevention literature focused on women and HIV/AIDS, our study is one of the first to examine empirically the effects of sexism on women's sexual risk behaviors. We found that sexism was not directly associated with unprotected sex with a primary or a secondary sexual partner, but was indirectly associated with unprotected sex with a primary or a secondary sexual partner, through two mechanisms: psychological distress and difficult sexual situations. This result corroborated a previous study that identified psychological distress and difficult sexual situations as factors mediating the effects of social discrimination on HIV risk sexual behaviors among Latino MSM (Diaz, et al., 2004).

Our research suggests that psychological distress is a probable pathway by which women's experiences of sexism may relate to unprotected sex. This finding is consistent with other research that has found links between women's experiences of sexism and psychological distress (Moradi & Subich, 2003) in general, and in particular, between women's experiences of sexism, psychological distress, and binge drinking and smoking (Zucker & Landry, 2007). The reason that sexism may be so distressing is that it is personal and degrading (in contrast to generic stressors such as losing one's keys), and directly threatens the self-concept (Landrine & Klonoff, 1997).

As for the link between psychological distress and difficult sexual situations, our study's findings accord with previous research demonstrating that people with higher levels of psychological distress, because of their poorer mental health and often increased substance use, are often less motivated or able to engage in safer sex behaviors than their counterparts with less or no psychological distress (Brown-Peterside, Ren, Chiasson, & Koblin, 2002; el-Bassel et al., 1997; Kalichman & Stevenson, 1997; Kelly, Murphy, Bahr, Koob, & al, 1993). Moreover, the high reported rates of psychological distress in our sample in which the majority of women reported having recent experiences of anxiety or depression may represent a greater predisposition to sexually risky behaviors (Campbell, Sefl, & Ahrens, 2004; Edwards, Halpern, & Wechsberg, 2006; Wingood & DiClemente, 1998) compared with those with no or lesser psychological distress.

Our study's finding that difficult situations for women, particularly coerced sex, are linked to increased reports of unprotected sex reflects the public health epidemic of sexual violence against women. The National Violence Against Women Survey (NVAWS; Tjaden & Thoennes, 2006) found that 1 in 6 women in the U.S. had been raped at some point in their lifetimes. Eighteen percent of women in this study reported being sexually coerced by a partner in the past 3 months, a figure that is substantially higher than the 0.3% of women surveyed in the NVAWS who reported being raped in the 12 months prior to the NVAWS. There are several possible explanations for the higher reports of coerced sex among this sample. One explanation may be that different wording of questions used in our study and in the NVAWS. To measure experiences of coerced sex, we asked respondents whether in the past three months they had ever been physically forced by a partner to have sex when they did not want to. By contrast, the NVAWS asks a series of explicit screening questions about attempted and actual rape (anal, oral, and vaginal) across the lifespan by different perpetrators (e.g., "man or boy" "anyone, male or female"). Thus, the different nature of the questions and time periods may explain the higher reports of rape among the women in our sample. Another explanation for the findings is that the women in our sample may have differed from those in the NVAWS sample by demographic characteristics such as ethnicity, socioeconomic status, and age. Our sample, for example, was predominantly young. The prevalence of rape among younger women is higher than that of older women, with one in five (22.4%) women surveyed in the NVAWS reporting that they were between the ages of 18 and 29 when they were raped. The mean age for women in our sample was 22. Thus, our research joins a lengthy and growing list of empirical studies documenting the link between sexual violence and HIV risk for women (e.g., Beadnell, Baker, Morrison, & Knox, 2000; Champion, Shain, Piper, & Perdue, 2001).

The important contributions of our research to increasing knowledge about the effects of social discrimination on women's HIV risk behaviors notwithstanding, there are some limitations to our study. Because our data came from a convenience sample of women attending family planning clinics, we are limited in generalizing our findings to women. Also, the cross-sectional nature of our data precludes us from drawing strong causal inferences regarding the impact of sexism on unprotected sexual behavior. Moreover, one of the limitations of structural equation models is that multiple equivalent models may fit the data equally well. For instance, it is possible that psychological distress prompts women to recall previous episodes of sexism with greater acuity rather than the reverse, as we postulate. More generally, it is also possible that third variables could influence the associations between sexism, psychological distress, difficult sexual situations, and unprotected sex and that these processes are not static constructs, but influence each other to change dynamically over time as women age and develop a richer set of life experiences. An additional influence on women's risk behaviors is the attitudes and behaviors of their sexual partners. For instance, sexism among women's romantic and sexual partners could be linked with women's HIV risk behaviors. Future research involving longitudinally-collected data can reduce the number of plausible equivalent models, enable the study of the dynamic interplay of these various constructs, and also allow incorporation of additional relationship variables such as couple satisfaction with the relationship and partner attitudes towards safe sex practices to enable researchers to tease apart the influences of other variables on these associations.

In demonstrating that social discrimination is an important, albeit understudied, variable for understanding women's sexual risk behaviors, our study implies that interventions that acknowledge and incorporate the effects of sexism on women's increased risk may hold more promise for HIV prevention than those that stress HIV prevention issues and strategies (e.g., condom use) solely (Lane, et al., 2004). Another implication of our research is that a dire need exists for anti-sexism interventions for men and boys in the U.S. In advocating for

men and boys' greater involvement in gender inequality programs to reduce women's HIV risk, the Global Coalition on Women and AIDS (2006) notes that partnerships with men and boys are critical "because men shape so much of the world in which women live." Interventions for men such as Instituto Promundo in Brazil and Men As Partners in South Africa have demonstrated marked success in changing traditional gender perspectives among male participants (The Global Coalition on Women and AIDS, 2006). These interventions have also decreased HIV risk. Men in the Brazilian program, for example, were more likely to report condom use and less likely to have sexually transmitted infections than their non-participating peers.

Thus, we join Dworkin and Ehrhardt (2007) in advocating for interventions to broaden the "ABC" (abstinence, be faithful, condom use) initiatives to include strategies focused on gender relations, economics, and migration. More specifically, our study's results suggest that HIV prevention interventions for women should address two mechanisms—psychological distress and difficult sexual situations—in order to understand the relationship between sexism and women's HIV risk behaviors. Our research implies that the hope of preventing HIV in women, particularly young women like those in our sample, may lie in addressing women's mental health needs, enhancing women's social support, and training women to avoid or escape difficult sexual situations.

Acknowledgments

This research was supported by the National Institute of Child Health and Human Development grant R01 HD39118.

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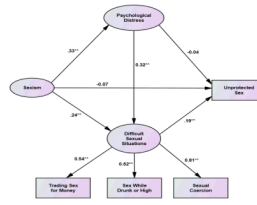


FIGURE 1. Hypothesized Structural Equation Model for Any Unprotected Sex with a Primary Sexual Partner: Standardized Path Weights (N=754)* $p < 0.05$; ** $p < 0.01$



FIGURE 2. Hypothesized Structural Equation Model for Any Unprotected Sex with a Secondary Sexual Partner: Standardized Path Weights (N=754)

TABLE 1

Lifetime Experiences of Sexism^a (N=754)

| Variable | % | N |
|---|----|-----|
| Treated unfairly by teachers, school administrators, or coaches | 67 | 503 |
| Treated unfairly by your employers, bosses and supervisors | 69 | 521 |
| Treated unfairly by your co-workers or fellow students | 68 | 512 |
| Treated unfairly by people in service jobs such as store clerks or waiters | 59 | 445 |
| Treated unfairly by people in helping jobs such as doctors, nurses, or dentists | 32 | 244 |
| Treated unfairly by a boyfriend, husband or other important men in ones life | 80 | 602 |
| Treated unfairly by family ^b | 56 | 418 |
| Have been denied a raise, a promotion, a job or something at work one deserved ^b | 43 | 325 |
| Have people made inappropriate or unwanted sexual advances at you | 94 | 711 |
| Had been really angry about something sexist that was done | 86 | 646 |
| Had been called a sexist name like bitch, cunt, chick or other names | 94 | 712 |
| Had been made fun of, picked on, pushed, shoved, hit or threatened with harm | 55 | 418 |
| Had been really angry about sexist or sexual jokes | 79 | 594 |

^a Respondents reported experiencing sexism “rarely,” “sometimes,” or “often” in their lifetime.

^b N = 753.

TABLE 2Experiences of Psychological Distress in the Past Month^a (N=754)

| Symptom | % | N |
|-----------------------------------|----|-----|
| Feeling tense or keyed up | 70 | 528 |
| Nervousness or shakiness inside | 62 | 469 |
| Feeling restless | 54 | 406 |
| Feeling fearful | 52 | 392 |
| Suddenly scared for no reason | 44 | 333 |
| Spells of terror or panic | 30 | 230 |
| Feeling lonely | 75 | 569 |
| Feeling blue | 73 | 584 |
| Feeling no interest in things | 54 | 409 |
| Feeling hopeless about the future | 56 | 424 |
| Feelings of worthlessness | 41 | 310 |
| Thoughts of ending life | 24 | 183 |

^a Respondents reported experiencing psychological distress “a little bit discomfort,” “moderate discomfort,” “quite a bit discomfort,” or “extreme discomfort” in the past month.

TABLE 3

Bivariate Correlations among Observed Variables (N = 754)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|--------|--------|--------|--------|--------|--------|---------|
| 1. Sexism | 1.00 | — | — | — | — | — | — |
| 2. Psychological distress | .30*** | 1.00 | — | — | — | — | — |
| 3. Trading sex for money or gifts | .09* | .11** | 1.00 | — | — | — | — |
| 4. Sex while drunk or high | .15*** | .14*** | .07* | 1.00 | — | — | — |
| 5. Sexual coercion | .16*** | .23*** | .22*** | .19*** | 1.00 | — | — |
| 6. Spouse or boyfriend | -.09* | -.01 | -.01 | .08* | .12** | 1.00 | — |
| 7. Any unprotected sex with a primary sexual partner | -.06 | -.02 | .01 | .13** | .12** | .81*** | 1.00 |
| 8. Any unprotected sex with a secondary sexual partner | .10** | .11** | .13*** | .17*** | .17*** | -.36** | -.26*** |

Correlations were estimated via full information maximum likelihood using *Mplus*.* $p < .05$;** $p < .01$;*** $p < .001$.

TABLE 4

Unstandardized Regression Weights (B) and 95% Confidence Intervals (CI), and *p*-Values from the Hypothesized Structural Equation Model for Any Unprotected Sex a Primary Sexual Partner (N=754)^a

| Outcome ^a | Explanatory ^b | B | 95% CI ^c | <i>p</i> ^d |
|---|-----------------------------|--------|---------------------|-----------------------|
| Trading sex for money or gifts | Difficult sexual situations | 1.00 | — | — |
| Sex while drunk or high | Difficult sexual situations | 0.97 | (0.63, 1.81) | < .01 |
| Sexual coercion | Difficult sexual situations | 1.50 | (1.02, 2.81) | < .01 |
| Psychological distress | Sexism | 5.32 | (4.04, 6.65) | < .01 |
| Psychological distress | Spouse or boyfriend | -0.32 | (-1.75, 1.10) | <i>ns</i> |
| Difficult sexual situations | Sexism | 0.27 | (0.12, 0.48) | < .01 |
| Difficult sexual situations | Psychological distress | 0.02 | (0.01, 0.03) | < .01 |
| Difficult sexual situations | Spouse or boyfriend | 0.27 | (0.13, 0.47) | < .01 |
| Any unprotected sex with a primary sexual partner | Difficult sexual situations | 0.35 | (0.15, 0.71) | < .01 |
| Any unprotected sex with a primary sexual partner | Psychological distress | -0.004 | (-0.01, 0.003) | <i>ns</i> |
| Any unprotected sex with a primary sexual partner | Sexism | -0.12 | (-0.27, 0.01) | <i>ns</i> |
| Any unprotected sex with a primary sexual partner | Spouse or boyfriend | 1.65 | (1.53, 1.74) | < .01 |

^a Outcome refers to mediating or dependent variables in the structural model. The dependent variable "Any Unprotected Sex" refers to one or more unprotected vaginal or anal sex acts in the last three months with primary sexual partners (1) vs. no such acts (0).

^b Explanatory refers to explanatory or independent variables in the structural model.

^c Bias-corrected 95% confidence intervals were estimated from 5,000 bootstrap samples.

^d If the bootstrap 95% confidence interval does not include zero, the effect is statistically significant at $p < 0.05$. If the bootstrap 99% confidence interval does not include zero, the effect is statistically significant at $p < 0.01$.

TABLE 5

Unstandardized Regression Weights (B) and 95% Confidence Intervals (CI), and *p*-Values from the Hypothesized Structural Equation Model for Any Unprotected Sex a Secondary Sexual Partner (N=754)^a

| Outcome ^a | Explanatory ^b | B | 95% CI ^c | <i>p</i> ^d |
|---|-----------------------------|-------|---------------------|-----------------------|
| Trading sex for money or gifts | Difficult sexual situations | 1.00 | — | — |
| Sex while drunk or high | Difficult sexual situations | 0.90 | (0.60, 1.59) | < .01 |
| Sexual coercion | Difficult sexual situations | 1.25 | (0.85, 2.14) | < .01 |
| Psychological distress | Sexism | 5.32 | (4.04, 6.65) | < .01 |
| Psychological distress | Spouse or boyfriend | -0.32 | (-1.75, 1.10) | <i>ns</i> |
| Difficult sexual situations | Sexism | 0.27 | (0.12, 0.48) | < .01 |
| Difficult sexual situations | Psychological distress | 0.02 | (0.01, 0.03) | < .01 |
| Difficult sexual situations | Spouse or boyfriend | 0.30 | (0.15, 0.51) | < .01 |
| Any unprotected sex with a secondary sexual partner | Difficult sexual situations | 1.10 | (0.72, 1.99) | < .01 |
| Any unprotected sex with a secondary sexual partner | Psychological distress | -0.01 | (-0.03, 0.001) | <i>ns</i> |
| Any unprotected sex with a secondary sexual partner | Sexism | -0.19 | (-0.44, 0.02) | <i>ns</i> |
| Any unprotected sex with a secondary sexual partner | Spouse or boyfriend | -1.23 | (-1.50, -1.03) | < .01 |

^a Outcome refers to mediating or dependent variables in the structural model. The dependent variable "Any Unprotected Sex" refers to one or more unprotected vaginal or anal sex acts in the last three months with secondary sexual partners (1) vs. no such acts (0).

^b Explanatory refers to explanatory or independent variables in the structural model.

^c Bias-corrected 95% confidence intervals were estimated from 5,000 bootstrap samples.

^d If the bootstrap 95% confidence interval does not include zero, the effect is statistically significant at $p < 0.05$. If the bootstrap 99% confidence interval does not include zero, the effect is statistically significant at $p < 0.01$.