

High-Risk Sexual Behavior and Condom Use among Gay and Bisexual African-American Men

ABSTRACT

Objectives. Little is known about the human immunodeficiency virus (HIV) high-risk sexual practices of gay and bisexual African-American men. These data are needed so that better interventions can be developed and implemented in this population.

Methods. The frequency and correlates of unprotected anal intercourse were examined among 250 gay and bisexual African-American men in the San Francisco Bay Area. The cohort was recruited in 1990 from bars, bathhouses, and erotic bookstores, and through African-American gay organizations, street outreach, advertisements in gay mainstream and African-American newspapers, health clinics, and personal referral from other participants.

Results. More than 50% of the men in our sample reported having unprotected anal intercourse in the past 6 months, a considerably higher percentage than that among gay White men in San Francisco through 1988 and 1989. Men who practiced unprotected anal intercourse were more likely to be poor, to have been paid for sex, or to have used injection drugs; to have a higher perceived risk of HIV infection; and to report less social support for concerns about risky sexual behavior. Condom norms, condom efficacy, and negative expectations about using condoms predicted these men's failure to use them.

Conclusion. In the second decade of the acquired immunodeficiency syndrome epidemic, risk reduction programs are still needed for gay and bisexual African-American men. (*Am J Public Health.* 1992;82:1490-1494)

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Introduction

Gay and bisexual African-American men account for 12% of all acquired immunodeficiency syndrome (AIDS) cases in the United States.¹ Between 1990 and 1991, there was a 31% increase in AIDS cases among gay African-American men compared with a 27% increase among gay White men.² However, after a decade of the AIDS epidemic, there are virtually no data on high-risk behavior among these men in AIDS epicenters. Several cohort studies provide evidence that gay and bisexual White men in San Francisco have substantially reduced the practice of unprotected anal intercourse.³⁻⁵ Because these studies included only small samples of African-American men, however, data are needed on the extent of AIDS risk behaviors in this population.⁶ To this end, we examined the frequency and correlates of unprotected anal intercourse among gay and bisexual African-American men in the San Francisco Bay Area.^{4,7-15}

Methods

Subjects and Procedures

Subjects ($n = 250$) in the African-American Men's Health Study were recruited in 1990 in San Francisco, Berkeley, and Oakland, California. An extensive recruitment procedure was used to increase our likelihood of sampling from as many sectors of the population as possible. The sample was recruited over an 11-month period—between November 1989 and September 1990—from bars, bathhouses, and erotic bookstores, and through gay African-American organizations, street outreach, advertisements in gay mainstream and African-American newspapers, health clinics, and personal

referrals from other study participants. Recruitment in gay institutions and on the street involved trained gay and bisexual African-American recruiters who were knowledgeable about and familiar with the sociosexual subcultures of the local African-American communities. Nine recruiters were employed in the study and received \$10.00 for each subject they recruited who completed an interview. Study participants were also reimbursed \$10.00 for each subject they referred who was successfully interviewed.

Potential subjects were screened for eligibility on the following inclusion criteria: race (African American), sex (male), age (18 years and older), and sexual identity (gay or bisexual). Respondents were interviewed between January and December 1990 by trained gay or bisexual African-American adult male interviewers. Face-to-face, anonymous interviews were 45 minutes long and were conducted in private. Subjects, who received a \$15 reimbursement to compensate them for their time, completed human subject consent forms and were reminded of the pro-

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cedures to protect their anonymity. The study was approved by the University of California, San Francisco, Institutional Review Board, and a Certificate of Confidentiality was obtained from the National Institute of Mental Health to protect the respondent further.

Measures

Respondents were asked to report their age, years of education, and income in categories for demographic purposes.

Sexual and Drug-Using Behaviors

Sexual activity. Respondents were asked to report the frequency of anal intercourse and of condom use during anal intercourse in the previous 6 months separately for both primary and secondary male partners. The primary partner was defined as the respondents' main male sexual partner with whom they live or to whom they have a special commitment, and secondary partners were defined as all other sexual partners. Sexual behavior questions included separate items on active and receptive anal intercourse to ejaculation both with and without a condom, and on insertive and receptive anal intercourse with withdrawal both with and without a condom. All sexual activities were stated in language that used colloquial terms (e.g., "butthole" for rectum, etc.) readily understood by our sample.

Injection drug use. Respondents were asked to answer yes or no to whether they had ever used injection drugs and, if yes, to identify the type of drugs used (cocaine, crack, heroin, speed) and describe their needle-sharing practices.

Sex for pay. Respondents were asked to answer yes or no to whether they had ever been paid to have sex.

Marginal status. A composite variable created from the sum of the following categorical variables—being low income (less than \$15 000 per year), having been paid for sex, and having used injection drugs—was used to assess marginal status. Because these variables were highly intercorrelated, we combined them for inclusion in the multivariate analysis. Total scores on this index ranged from 0 to 3 (0 = no to all categories, 3 = yes to all categories).

Sexual orientation. Respondents' self-rating on the two Kinsey measures of sexual experiences and fantasies in the past 2 years, scored separately on seven-point scales (0 = exclusively heterosexual, 6 = exclusively homosexual), provided an assessment of sexual orientation.

Discomfort with disclosing homosexual behavior. Respondents were questioned as to how they felt about being socially involved with gay men and about publicly disclosing that they had male lovers. Their feelings on three items were expressed on a four-point Likert scale (1 = strongly disagree, 4 = strongly agree; α (Cronbach's alpha) = .54; high scores = greater discomfort).

HIV Status

Own HIV antibody status. Respondents were asked to indicate if they had received the human immunodeficiency virus (HIV) antibody test (yes or no), how often they had been tested, if they had received their test results (yes or no), and what the results of their antibody test were (positive, negative, don't know, or decline to answer). Respondents' own antibody status was determined by their responses to this last question (1 = positive, 0 = not positive).

Partner's HIV antibody status. Respondents were asked to indicate if their primary partner had obtained the HIV antibody test (yes, no, or don't know), and what the results of their partner's test were (positive, negative, don't know, or decline to answer). Respondents' partner's antibody status was determined by their responses to the second question (1 = positive, 0 = not positive). We coded this variable as missing for those respondents without primary partners.

AIDS Information

AIDS knowledge was assessed by the extent to which respondents thought various sexual activities transmitted the AIDS virus. Knowledge was based on six items that were measured on a three-point scale (0 = does not spread the AIDS virus, 1 = spreads the AIDS virus, 2 = don't know) and recoded as the number answered correctly (α = .52; high scores = greater knowledge); therefore, "don't know" responses were counted as a wrong answer.

Psychosocial Variables

AIDS ethnocentrism. This term refers to race-relevant beliefs that African-American males espouse regarding their risks of HIV infection or AIDS. Nine items measured on a five-point scale (1 = strongly disagree, 5 = strongly agree; α = .74; high scores = greater ethnocentrism) assessed misperceptions that gay African-American men have about the AIDS epidemic (e.g., that AIDS is not a problem for them but only for gay White

men). A log transformation was used to normalize the distribution of scores on this measure.

Help-seeking. Respondents indicated whether they had sought help in changing risky sexual behavior during the past 12 months (1 = yes, 0 = no).

Social support. Respondents reported on whether they had received help from any of 10 sources of social support: primary and other sexual partners; parents; siblings; friends; medical, religious, mental health, and social service professionals; and community organizations. They rated how helpful each source of support was on a five-point scale (1 = extremely harmful, 5 = extremely helpful; high scores = more helpful). Total social support was scored as the mean helpfulness ratings across all sources from which help was received.

Perceived risk. Respondents' perception of their risk of HIV infection was assessed in terms of (1) anxiety about contracting HIV (emotional component), and (2) perceived susceptibility of contracting HIV (cognitive component). This variable was an unweighted combined score of the product of our anxiety and susceptibility variables because these two measures are highly correlated (r = .50). Anxiety was assessed by respondents' ratings of two items that expressed how worried they were about the possibility that they had or could contract the AIDS virus (3 = very worried, 0 = not at all worried; α = .67; high scores = greater anxiety). Susceptibility was assessed on a 10-point scale by respondents' combined ratings of three items that reflected what they thought their chances might be of contracting the AIDS virus (α = .82; high scores = greater susceptibility).

Attitudes about Condom Use

Condom expectations. A five-point scale was used to assess five items pertaining to respondents' expectations about the effect of using condoms during sex on their own and their partner's (1) health and (2) feelings about themselves and about their partner (1 = a very bad effect, 5 = a very good effect; α = .75; high scores = good effect of condoms). (For example, "Using condoms during sex would have what kind of an effect on your sexual pleasure?" "On your sex partner's feelings about you?" "On your partner's sexual pleasure?")

Condom self-efficacy. The effectiveness of respondents' own use of condoms was measured on a five-point scale by respondents' beliefs about three items that

TABLE 1—Demographic and Sexual Characteristics of the Sample (n = 250)

	%
Age,^a y	
Less than 20	1
20–29	37
30–39	60
More than 39	2
Income^b	
Less than \$5000	24
\$5001–\$10 000	18
\$10 001–\$20 000	27
\$20 001–\$30 000	20
\$30 001–\$40 000	7
More than \$40 000	4
Education,^c y	
Less than 12	10
12	34
13–16	50
More than 16	6
Marital status	
Single	89
Divorced	8
Separated	2
Married	<1
Widowed	<1
Prostitution and injection drug use	
Engaged in prostitution	37
Used injection drugs	25
Sexual experiences in past 2 years	
Exclusively homosexual	65
Mostly homosexual	10
More homosexual than heterosexual	11
Equally homosexual/heterosexual	8
More heterosexual than homosexual	4
Mostly heterosexual	2
Exclusively heterosexual	0
Sexual fantasies in past 2 years	
Exclusively homosexual	52
Mostly homosexual	15
More homosexual than heterosexual	13
Equally homosexual/heterosexual	14
More heterosexual than homosexual	4
Mostly heterosexual	<1
Exclusively heterosexual	<1

^aMean = 31 y, SD = 5.4.
^bMedian range = \$10 000–\$15 000.
^cMean = 13 y, SD = 2.1.

described their ability to perform behaviors that reduce the chances of sexually contracting HIV (1 = strongly disagree, 5 = strongly agree; $\alpha = .56$; high scores =

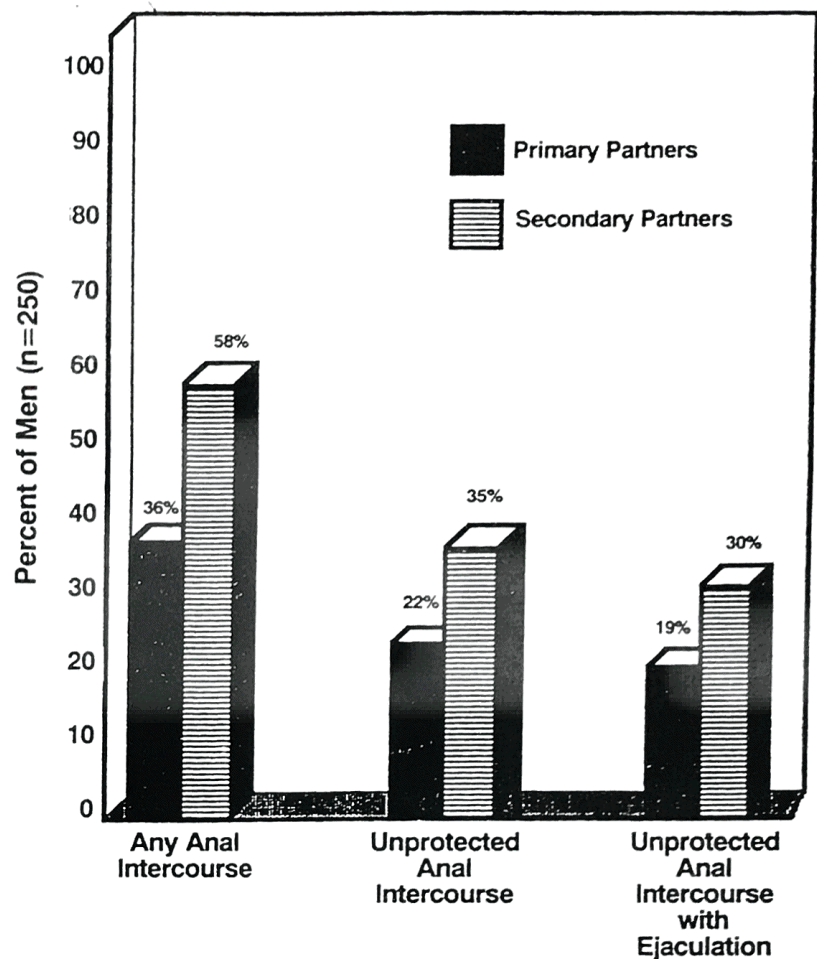


FIGURE 1—Percentage of men who engaged in anal intercourse with primary and secondary male partners within the past 6 months.

greater self-efficacy). For example, “If your sex partner does not want you to use condoms, there is little you can do about it”; “In the heat of passion, you have a difficult time using a condom.”

Condom norms. Five items were used to assess respondents’ perceptions of reference group norms regarding condom use (1 = strongly disagree, 4 = strongly agree; $\alpha = .58$; high scores = greater agreement that condom use is normative). For example, “Most of your friends think that condoms are just too much of a hassle to use”; “Most of your friends think you should always use condoms when having sex with a new person.”

Statistical Analyses

We chose unprotected anal intercourse and condom use among those practicing anal intercourse as the dependent variables. Multivariate relationships were

examined using multiple logistic regression. We organized the analyses to answer two questions separately: (1) Who was engaging in high-risk sex? (2) What variables explain the process of engaging in high-risk sexual behavior? Missing data were handled using the approach described by Cohen and Cohen.¹⁶ This procedure involves replacing empty cells with mean values in a manner that does not bias the regression coefficients. Except for variables expected to be missing (e.g., self-reported HIV antibody status for respondents never tested), missing data amounted to less than 3% for all variables.

Results

Table 1 presents the demographic characteristics of the sample. Sixty percent of the respondents were in their 30s, and 37% were in their 20s. One-third had

TABLE 2—Correlates of Any Unprotected Anal Intercourse in Past 6 Months, among Gay and Bisexual African-American Men (n = 248)^a

	Adjusted Odds Ratio	95% Confidence Interval	P Value
Social structural correlates			
Age	1.01	0.95, 1.06	NS
Marginal status ^b			
1 vs none	1.54	0.75, 3.15	NS
2 vs none	3.43	1.64, 7.18	.01
3 vs none	3.81	1.46, 9.99	.01
Discomfort with disclosure of homosexual behavior	1.15	1.02, 1.29	.02
Own positive antibody status	1.63	0.65, 4.07	NS
Partner's positive antibody status	1.05	0.26, 4.28	NS
Psychosocial correlates			
AIDS ethnocentrism	3.44	0.48, 24.87	NS
AIDS knowledge	1.15	0.67, 1.96	NS
Perceived risk	2.50	1.46, 4.26	.01
Help seeking	0.94	0.27, 3.28	NS
Social support	0.51	0.26, 0.98	.05

^aTwo respondents were not sexually active.^bDefined as being low income, having been paid for sex, and/or having used injection drugs.**TABLE 3—Correlates of Condom Use (Always vs Sometimes/Never) in the Past 6 Months, among Gay and Bisexual African-American Men (n = 183)^a**

	Adjusted Odds Ratio	95% Confidence Interval	P Value
Social structural correlates			
Age	0.98	0.92, 1.04	NS
Marginal status ^b			
1 vs none	0.44	0.20, 0.99	.05
2 vs none	0.27	0.11, 0.65	.04
3 vs none	0.30	0.10, 0.89	.03
Discomfort with disclosure of homosexual behavior	0.88	0.77, 1.01	NS
Own positive antibody status	0.89	0.32, 2.43	NS
Partner's positive antibody status	0.90	0.20, 4.00	NS
Psychosocial correlates			
AIDS ethnocentrism	0.71	0.03, 16.04	NS
AIDS knowledge	0.85	0.39, 1.82	NS
Perceived risk	0.51	0.24, 1.11	NS
Condom norms	1.38	1.15, 1.65	.001
Condom efficacy	1.39	1.18, 1.64	.001
Condom expectations	1.18	1.02, 1.37	.02

^aDistributed among 38% who always used condoms (n = 69), 39% who sometimes used condoms (n = 72), and 23% who never used condoms (n = 42).^bDefined as being low income, having been paid for sex, and/or having used injection drugs.

12 years of education, and half had between 13 to 16 years. The sample was relatively poor, with 57% earning \$15 000 or less per year. Most of the participants were single. Table 1 also shows that most participants reported their sexual experiences and sexual fantasies as primarily homosexual or bisexual within the past 2 years.

Figure 1 depicts the percentage of men (73%, or 183 of 250) engaging in anal intercourse with primary and secondary male partners within the past 6 months. A sizable proportion of the sample had engaged in unprotected anal intercourse with primary (22%, n = 54) or secondary (35%, n = 87) male partners. Of the 183 men practicing anal intercourse, 69 (38%)

reported that they always used condoms, 72 (39%) reported that they sometimes used condoms, and 42 (23%) reported that they never used condoms. Also, not shown in the figure, a small proportion of the total sample had engaged in unprotected vaginal intercourse with primary (7%, n = 18) or secondary (12%, n = 31) female partners.

Table 2 presents the adjusted odds ratios from the multivariate model to describe the relationship between each of the predictor variables and the practice of unprotected anal intercourse for all sexually active men. Men with two or more marginal status indicators (e.g., being low income, having been paid for sex, and/or having used injection drugs), those who had felt discomfort with publicly disclosing their homosexuality, those who perceived themselves at greater risk, and those who felt they did not receive support for their concerns about unsafe sex were more likely to practice unprotected anal intercourse.

Table 3 presents the relationships between each of the predictor variables and condom use among those men who had practiced anal intercourse within the past 6 months. Men who were more likely to use condoms had stronger beliefs that condom use was normative, stronger beliefs that they could practice safe sex, and more positive expectations about using condoms. Men who were low income, had been paid for sex, and/or had injected drugs were less likely to use condoms. Results approached significance ($P = .06$) for differences in condom use between men who had and had not experienced discomfort with publicly revealing their homosexuality.

Discussion

Gay and bisexual African-American men reported a substantially higher prevalence of unprotected anal intercourse during the past 6 months (52%) in 1990 than did gay and bisexual White men in the AIDS Behavioral Research Project (15%) and the San Francisco Men's Health Study (20%) in 1988.³⁻⁵ These results suggest that, in the second decade of the AIDS epidemic, behavioral interventions are urgently need to help African-American men reduce their high-risk behaviors.

Gay and bisexual African-American men in the San Francisco Bay Area were more likely to have practiced unprotected anal sex if they were low income, had been paid for sex, and/or had injected drugs.

Those who practiced anal intercourse without condoms correctly perceived themselves to be at risk for HIV infection. Therefore, campaigns to increase risk perceptions are not enough to cause these men to discontinue their high-risk behavior.

The importance of positive condom attitudes as a predictor of condom use is not surprising because same-sex activity is motivated by sexual pleasure or satisfaction rather than by a desire to reproduce. Therefore, risk reduction campaigns for African-American men should increase skills to eroticize condoms and to enhance their use, increase perceptions that condoms can prevent disease, and modify norms about condom use.

The fact that a nontrivial minority of our sample engaged in unprotected vaginal intercourse supports the view that bisexual activity may be an important source of HIV transmission in the African-American population. Interventions for bisexually active men may require different strategies than those for men who engage exclusively in homosexual behavior. The design, recruitment, and implementation of these interventions must consider the involvement of these men's female partners (e.g., sexual roles, relationship differences in power, venues for coed socializing).

The difficulty in reaching men at risk in this study (i.e., those with at least two of the three risks that defined marginal status) should be considered in the delivery of risk reduction campaigns. Since this additive risk factor always involves economic motivation, financial incentives may have to be offered to recruit eligible participants for these intervention programs. Perhaps interventions need to use outreach and street intercept techniques to reach those men most at risk. Also, these interventions should address the concerns of men who may be uncomfortable with public disclosure of their homosexuality. Interventions could include efforts to improve these men's acceptance of public awareness of their same-sex behavior and identity (e.g., use of popular role models who publicly self-identify as homosexual).

The present study has several methodological limitations. A few of the variables have only modest inter-item reliability but were still reported in our results because they were significantly associated with the dependent variable in the regression analysis. With regard to sampling limitations, our payment of participants may have led to an overrepresentation of men

who needed money. Although the direction of any bias from paying participants is unknown, the significant positive association between our marginal status variable and unprotected anal intercourse is important from a public health perspective. These men are included among the group of gay and bisexual African-American men who need to be reached and helped to reduce HIV high-risk behaviors. While the validity of our self-report data may raise social desirability questions, there is no established method to determine the validity of self-reports of sexual behavior.¹⁷⁻¹⁸ Also, we are less inclined to expect dishonest reporting because respondents were assured of the anonymity of their responses both when being recruited and before being interviewed. We are now conducting follow-up assessments of this cohort to generate longitudinal data on the predictors of behavioral change.

In summary, the data from this study, one of the first of non-White homosexual men, indicate a high prevalence of risky sexual behavior among gay and bisexual African-American men. The implications of our data are that interventions are needed to promote these men's use of condoms by improving their positive expectations of condoms and by helping them to agree with the social norm that unprotected anal intercourse is unacceptable. These attitudes would then need to be bolstered by offering gay and bisexual African-American men the opportunity both to acquire the social skills needed to enjoy using condoms and negotiate condom use successfully with their sexual partners, and to actually adopt the safe-sex norms they have endorsed. □

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