

DO AFRICAN-AMERICAN MEN AND WOMEN DIFFER IN THEIR KNOWLEDGE ABOUT AIDS, ATTITUDES ABOUT CONDOMS, AND SEXUAL BEHAVIORS?

Ernest H. Johnson, PhD, Larry Gant, PhD, Yvonne A. Hinkle, BS, Douglas Gilbert, MA, Cassandra Willis, BA, and Tanya Hoopwood
Coral Gables, Florida; Ann Arbor, Michigan; and Houston, Texas

This study identified a sample of young African-American men and women classified as having multiple sex partners or one sex partner. Of the 149 men, 71 (47%) were classified as having multiple sex partners and 78 (53%) as having one sex partner. Of the 165 women, 29 (19%) were classified as having multiple sex partners and 126 (81%) as having one sex partner. Results indicated that the groups did not differ in their knowledge about acquired immunodeficiency syndrome (AIDS). However, attitudes about condom use differed significantly by gender ($P < .01$) and by multiple sex status ($P < .001$). Angry reactions regarding the negotiation of condom use occurred more with men than with women ($P < .05$). Men and members of the multiple sex partners group tended to engage in more risky sexual behavior. These two groups also had a significantly ($P < .001$) higher incidence of gonorrhea. While the multiple sex partners group had significantly more smokers ($P < .01$), drinkers ($P < .01$), and crack users ($P < .05$), men were significantly higher consumers of marijuana ($P < .001$) and alcohol ($P < .01$).

Overall, the results indicate that African Americans are knowledgeable about AIDS, but there appears to be a gap between knowledge and risky sexual behaviors. Prospective studies are needed to clarify the factors that determine the relationship (or lack of) between knowledge and risky sexual behaviors. Without such studies, a major part of the foundation that is needed for the development of sensitive and effective AIDS prevention programs for African Americans will be missing. (*J Natl Med Assoc.* 1992;84:49-64.)

Key words • sexual behavior • condom use • acquired immunodeficiency syndrome (AIDS) • sexually transmitted diseases

The representation of African Americans among individuals with the human immunodeficiency virus (HIV) exceeds the proportion of African Americans in the general population by a factor of 2.3.¹⁻³ This has held true since the first cases of HIV were reported in 1981. Although bisexual and homosexual contact between men continues to remain the most common mode of transmission among all ethnic groups, the alarming increase in the rate of HIV among heterosexual men who do not identify themselves as "gay" warrants serious attention. This is especially important in light of recent findings indicating that approximately 50% of all male heterosexual cases involve African Americans.³ Several studies of the association between intravenous (IV) drug use and the spread of HIV have

From the Department of Psychology, University of Miami, Coral Gables, Florida; the University of Michigan, Ann Arbor, Michigan; and the University of Houston, Houston, Texas. Requests for reprints should be addressed to Dr Ernest H. Johnson, Dept of Family Medicine, Morehouse School of Medicine, Southwest Professional Medical Bldg, 505 Fairburn Rd, SW, Atlanta, GA 30331-2099.

shown that a larger proportion of men with acquired immunodeficiency syndrome (AIDS) were heterosexual IV drug abusers or had a female sex partner who was an IV drug abuser.⁴⁻⁸

Among women, recent figures indicate that the number of diagnosed HIV-1 cases climbed by 45% in the past year and that the rate of HIV-1 seropositivity among young adults (18 to 35 years of age) is doubling each year.^{9,10} Human immunodeficiency virus and AIDS are among the 10 leading causes of death in women of reproductive age, and the death rate for HIV/AIDS quadrupled between 1985 and 1988 (.6 per 100 000 to 2.5 per 100 000), with the death rate for African-American women (10.3 per 100 000) being nine times the rate for white women (1.2 per 100 000). Whereas IV drug usage and needle-sharing behaviors account for some of the increase, the largest proportion of HIV cases may be a result of sexual intercourse without condoms outside of monogamous relationships or with individuals in high-risk groups.^{1,5,11} While only 12% of women diagnosed with AIDS in 1982 were likely infected through heterosexual contact, this figure rose to 26% in 1986.^{2,3} African-American and Hispanic women comprise 77% of all women infected through sexual activity, and it is estimated that heterosexual transmission of AIDS will increase seven-fold by 1992.^{3,10,12}

There is a strong need to understand the variability of high-risk sexual behaviors among African Americans. This should be accomplished within the context of studies where the aim is to understand individuals within a specific race or ethnic group rather than attempt to understand the behavior of African Americans by comparing their behavior with information from white control groups. Unfortunately, there is a notable lack of research that specifically focuses on life-styles and sexual behaviors that promote the transmission of HIV among young African-American adults. Similarly, little information is available regarding factors that might be responsible for observed racial and ethnic differences in knowledge about the spread of AIDS. One of the few studies of African-American women⁵ reports that 65% of the respondents reported no use or rare use of condoms and that less than 25% used condoms during sex as a means of reducing sexually transmitted diseases (STDs) such as AIDS. Fullilove and colleagues^{13,14} note that drug use is an understudied factor that affects sexual behavior and results in poor or impaired judgment where the end result is the practice of unsafe or unprotected sexual intercourse with partners who may be at extreme risk for HIV infection. These observations are supported by

studies conducted by the Centers for Disease Control that show interrelationships between drug use, increased sexual activity,¹⁵ and STDs.¹⁶

The omission of specific information regarding the relationship between ethnicity and high-risk sexual behavior related to HIV infection has made it difficult to determine the knowledge and attitudes that African Americans, particularly individuals engaging in "risky" sexual behaviors, maintain about AIDS. As a consequence, much of our understanding of how to change the sexual practices, attitudes, and life-styles of young African Americans has been derived from a limited number of studies comparing African Americans and whites. An earlier study by Seltzer and Smith¹⁷ supports the need for more detailed investigations of attitudes and knowledge about AIDS and condom use among African-American groups at high risk for HIV infection.

Data obtained from their large national survey indicated that while whites had greater knowledge and held less misconceptions about AIDS, significant differences between African-American and white respondents disappeared after controlling for education. African Americans were more likely than whites to say that they were more afraid of getting AIDS. African Americans were also more likely than whites to say they were at low risk (91% versus 81%), while white respondents were more likely than African Americans to report that AIDS had no impact on their life-styles (66% versus 50%). Finally, African Americans were more likely than whites to report two or more sex partners in the past year (22% versus 11%).

Among white respondents, those with multiple sex partners were better able to assess their own risk compared to respondents without multiple sex partners (24% versus 7%). However, among African Americans, there was no corresponding relationship between multiple sex partnership and perceived risk for AIDS. Interestingly enough, only 24% of the total sample who had not bought condoms during the past year said their risk was high. Among respondents with multiple sex partners, 53% of the whites and 45% of the African Americans reported buying condoms within the past year. Although there were ethnic differences in attitudes about the use of condoms and sex within or outside monogamous relationships, a more thorough investigation of these factors among African Americans may provide information that is necessary for developing effective AIDS prevention programs for African-American adults.

Because condoms are effective in reducing the spread

of STDs, it would seem reasonable to assume that it is important to determine attitudes about the use of condoms among young African-American adults who engage in behaviors likely to increase their risk of HIV infection. Therefore, this study was designed to describe and compare the attitudes about condom use among African-American men and women who were sexually involved with multiple partners and their counterparts who were involved with a single partner. This study also was prompted by the fact that a relatively large percentage of AIDS cases (21%) are among young adults between the ages of 20 and 29.² Another goal was to determine whether African-American men and women differ in their knowledge about AIDS.

Finally, the study sought to determine whether the prevalence of STDs and drug use is higher among African-American men and women with multiple sexual partners. Several hypotheses were formulated:

- African-American men and women with multiple sexual partners have a lower level of knowledge about AIDS and the use of condoms as a means of preventing the spread of AIDS.
- Drug use and the prevalence of STDs is higher among African-American men and women with multiple sexual partners.
- African-American men have more negative attitudes and emotional reactions, particularly anger, regarding the use of condoms than African-American women.

METHODS

These data were collected as part of a larger study of the interrelationships between drug use, attitudes, and knowledge about AIDS, and condom use among African-American young adults. The participants for this inquiry were 149 African-American men and 165 African-American women attending college in the southern United States. The subjects were administered the self-report questionnaires in small groups. After the questionnaires were completed, the forms were sealed in a large envelope and a subject number was assigned at the time the data were entered into computer—usually within 2 days.

For purposes of this study, a subject was classified as having multiple sexual partners if he or she answered “yes” to the following question: “At the current time, I have more than one girlfriend (boyfriend) whom I have sexual relations with on a regular basis.” Subjects were classified as having one sexual partner if they responded “no” to the question. Of the 149 men, 71

(47%) reported that they were currently involved with more than one sexual partner while 78 men were classified as having one sexual partner. Of the African-American women who completed the study, 29 (19%) were classified as having multiple sexual partners while 136 women were classified as having one sexual partner.

Measurement Instruments

The following self-report instruments were employed in the study, and the individual items and response formats comprising each scale can be obtained from the authors.

Attitudes Toward Condom Usage Questionnaire. The Attitudes Toward Condom Usage Questionnaire (ATCUQ) was developed by Brown¹⁸ to measure people’s opinions about the use of condoms as contraceptive devices. The questionnaire consists of 40 questions (statements) that require the respondent to indicate whether they agree or disagree with the statements using the following scale: 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, and 5 = strongly agree.

The psychometric properties of the ATCUQ have been investigated by Brown, who reported an internal consistency reliability of .93 with an average item-total correlation of .24. Item-total correlations for subjects in this study ranged from .05 to .71 with the average being .41. The factor analysis of the ATCUQ by Brown revealed that the scale is comprised of five distinct factors. Our examination of the factor structure revealed that five subscales, comprised of only 21 of the original items, could be formed. Furthermore, the items retained for the subscales had a factor loading of .35 or greater and did not load more than .25 on the other factors. Based on these criteria, we formed five subscales that measured distinctly different attitudes about the use of condoms.

The first scale measures attitudes about condoms as a contraceptive device. The scale has five items (2, 12, 34, 35, 38), and the factor loading ranged from .37 to .81 with the average being .66. The second scale has four items (14, 18, 19, 23) loaded on factor two with the average loading being .55. The items on this scale appear to be assessing whether condoms are viewed as being uncomfortable and interrupting sexual intercourse.

The third scale was comprised of five items (7, 8, 16, 24, 36), and the average factor loading was .52. The items on this factor measure attitudes about the acceptability of condoms. The fourth scale was comprised of four items

TABLE 1. DEMOGRAPHIC CHARACTERISTICS

Variables	Men		Women	
	Multiple Partners (n=71)	Single Partners (n=78)	Multiple Partners (n=29)	Single Partners (n=136)
Age	23.4 ± 5.2	21.9 ± 4.8	22 ± 5.3	21.1 ± 4.3
Marital Status				
Single	90%	85%	80%	87%
Married	3%	6%	3%	6%
Separated/divorced	4%	6%	7%	6%
Living together	3%	3%	10%	1%
College				
1 to 3 years	56%	61%	68%	71%
4 years	41%	36%	32%	29%
More than 4 years	3%	3%	0	0

(5, 11, 17, 40) loaded on factor four, and the average factor loading was .61. These items tap into attitudes about how condoms add to sexual excitement. Finally, the fifth scale was comprised of three items (15, 29, 33), and the average factor loading was .60. The items on this scale measure attitudes about whether condoms are inconvenient and interrupt foreplay.

Condoms Emotional Reactions Scale. The Condoms Emotional Reactions Scale (CERS) is a 13-item self-report questionnaire that was developed to measure the intensity of anger experienced in relationship to condom use. Item total correlations for subjects in the present inquiry ranged from .43 to .71 with the average being .62. The CERS is modeled after the State Anger Scale developed by Spielberger¹⁹ and the State Anger Reaction Scale that was developed by Johnson et al.²⁰⁻²² Both instruments measure the intensity of angry reaction experienced in stressful social situations. However, neither of the instruments included items that assessed angry reactions associated with the use (or lack of use) of condoms or other relevant behaviors during sexual intercourse.

AIDS Knowledge and Attitude Survey. This questionnaire was developed by Thomas et al²³ and consists of 101 questions regarding knowledge and attitudes about AIDS. The questions in the knowledge section addressed the following broad domains:

- nature of AIDS,
- transmission of HIV,
- risk reduction, and
- knowledge of risk groups.

The questionnaire also focused on known risk factors for HIV infection and simply asked if the respondents

had ever engaged in certain risk behaviors regardless of frequency or immediacy. Other items assessed whether the respondents had been previously treated for STDs. Questions were presented in a forced-choice style, with response choices of “true,” “false,” and “do not know.” A knowledge scale score was derived by totaling the “correct responses” (1 point each) for each of the 29 AIDS knowledge items, which yielded a summary score that ranged between 0 and 29. The overall reliability of the 29-item AIDS knowledge questionnaire, using Cronbach’s alpha to measure the internal consistency, was .81 for the sample of 975 African-American college students used to create the questionnaire.²³

Drug Use. Individual items were used to measure the frequency with which several well-known drugs (ie, alcohol, cigarettes, marijuana, crack, and cocaine) are used. The questions required the respondents to indicate whether they 1) never used; 2) used, but quit; 3) used rarely; 4) used sometimes, but not daily; 5) used once a day; 6) used twice a day; 7) used five times a day; or 8) used more than five times a day. For analysis purposes, three drug use groups were created for each variable. Subjects were classified as a nonuser if they endorsed response 1, an ex-user if they endorsed response 2, and a current user if they endorsed responses 3 through 8. All users were collapsed into the single groups because of the small number of subjects who reported using drugs more than once a day on a daily basis.

RESULTS

Sample Characteristics

Table 1 presents characteristics of study participants.

On the average, men were older than women by about 2 years (22.4 versus 20.5, $P < .001$). Both men and women in the multiple partner group were more than 2 years older than respondents in the one partner group (22 versus 20.8, $P < .01$). A substantial majority of the sample were single, varying (nonsignificantly) by group from 80% to 90%. No significant differences by gender or by multiple/single sex partner group were identified. All respondents indicated they were attending college. No group differences in educational status were identified; however, differences in percentage reported at various levels of college attendance due to gender approached significance ($P < .10$).

AIDS Knowledge

The percent of correct responses to the 29 items in the AIDS Knowledge questionnaire are presented in Table 2. A comparison of total scale scores for the four groups was derived by totaling the correct responses for each of the 29 items. Women, regardless of partner status, had a greater average number of correct responses than men ($F = 14.37$, $P < .001$). Nonetheless, the majority of men and women in both groups correctly responded to the basic facts about AIDS (eg, what AIDS is and how it is transmitted). No significant differences between the multiple versus the single sex partner groups were noted for the total AIDS knowledge scores ($F = 1.12$), and the interaction between gender and multiple partnership was not significant ($F = 2.20$).

A number of group differences in AIDS knowledge that focused on the cause of AIDS and the transmission of the virus were identified. Women, regardless of the number of sex partners, reported a greater percentage of correct answers than men for items related to transmission of HIV (eg, "You can get AIDS from having sex from someone who has AIDS," "Receiving a blood transfusion with infected blood can give you AIDS," and "All gay women have AIDS").

Women in the multiple partner category had the least number of correct responses among all groups on the items related to the cause of AIDS (eg, "AIDS is caused by the same virus that causes venereal disease," "The cause of AIDS is unknown," and "AIDS is caused by bacteria") and items related to the progression of the disease (eg, "People with AIDS usually have other diseases as a result of AIDS"). Men in the single sex partner category had the least number of correct responses among all groups on the items referring to the transmission of the virus (eg, "You get AIDS from what you eat," "You can get AIDS from having sex with someone who has AIDS," "Receiving a blood

transfusion with infected blood can give you AIDS," "You can get AIDS by sharing a needle with a drug user who has the disease," and "All gay women have AIDS"). Finally, more men and women in the single sex partner category correctly indicated that AIDS was not caused by bacteria ($P < .01$) than those in the multiple partner category.

Attitudes Toward Condom Usage Questionnaire (ATCUQ)

The individual items of the ATCUQ for the four groups were compared using a 2×2 analysis of variance. Table 3 presents means, standard deviations, and F values (main effects and interactions) for the ATCUQ items. A main effect for gender was found for 23 (57.5%) of the 40 items. The items fell roughly into two related clusters: condoms perceived as uncomfortable or interruptive of sex (ie, items 14, 18, 19, 22, 23) and condoms perceived as inconvenient and interruptive of foreplay (ie, items 15, 20, 27, 28, 29, 33). Generally, men felt condoms were more uncomfortable and inconvenient than women.

Main effects for multiple partnerships were found for 18 (45%) of 40 items. As with gender main effects, these items fell into the clusters of condoms as uncomfortable/interruptive of sex and condoms as inconvenient and interruptive of foreplay. Overall, African-American men and women in multiple partnerships expressed more negative attitudes toward condoms than women and men in the single partner groups. Women and men in single partner groups expressed interesting item differences from their counterparts in attitudes toward condoms that were not found in analysis of gender main effects. For example, men and women in the single partner groups expressed a greater intention to use condoms ($P < .01$), liked the idea of using condoms ($P < .001$), felt condoms were pleasant to use ($P < .05$), and felt using condoms added to excitement ($P < .001$).

Finally, significant interaction effects were identified for seven (17.5%) of the 40 variables. African-American men in the multiple partner group expressed greatest agreement with the statement that condoms are safer than any other method except abstinence (item 12, $P < .01$). They also expressed greatest agreement with the idea that condoms make sex unenjoyable ($P < .05$). African-American men in the single partner group felt strongest that women think men who use condoms are "jerks" ($P < .01$). In contrast, African-American women with multiple sex partners expressed greatest negative attitudes (ie, agreement) with the sentiments

TABLE 2. KNOWLEDGE ABOUT AIDS FOR AFRICAN-AMERICAN MEN AND WOMEN AS A FUNCTION OF MULTIPLE SEX PARTNERS

Questionnaire No. & Statement	Correct Answer	% Men*		% Women*		χ^2
		Multiple Partners	Single Partner	Multiple Partners	Single Partner	
1. Your body can't fight off infections caused by AIDS	T	98	96	93	96	
2. AIDS is caused by a virus	T	88	88	90	85	
3. Stress causes AIDS	F	98	96	100	100	
4. Kiss someone with AIDS, you will get it	F	86	89	89	95	
5. Touch someone with AIDS, you will get it	F	96	96	93	99	
6. All gay men have AIDS	F	95	84	89	92	6.16†
7. Anybody can get AIDS	T	97	86	93	90	
8. You get AIDS from what you eat	F	97	89	96	96	8.77‡
9. Women are more likely to get AIDS during their period	F	89	91	95	95	
10. AIDS is spread by using someone's personal belongings, like a comb	F	95	96	97	97	
11. AIDS is not at all serious, it is like having a cold	F	96	93	97	97	
12. AIDS is caused by the same virus that causes venereal disease	F	84	87	67	90	9.62‡
13. AIDS is caused by the same virus that causes herpes	F	92	85	92	89	
14. The cause of AIDS is unknown	F	53	66	39	66	8.79‡
15. You can get AIDS by being around someone with AIDS	F	95	94	93	95	
16. You can get AIDS from having sex with someone who has AIDS	T	91	89	100	98	10.1§
17. If a pregnant woman has AIDS, there is a chance it may harm her unborn baby	T	96	96	100	100	7.11†
18. Most people who get AIDS usually die from the disease	T	94	86	89	90	
19. Using a condom during sex can lower the risk of getting AIDS	T	96	90	93	95	
20. You get AIDS by shaking hands with someone who has the disease	F	94	93	89	96	
21. Receiving a blood transfusion with infected blood can give you AIDS	T	91	87	100	98	11.82§
22. You can get AIDS by sharing a needle with a drug user who has the disease	T	99	92	100	99	9.80‡
23. AIDS is a life-threatening disease	T	97	94	93	99	
24. People with AIDS usually have other diseases as a result of AIDS	T	76	74	52	80	9.14‡
25. All gay women have AIDS	F	92	86	97	98	9.92§
26. There is no cure for AIDS	T	94	91	82	94	6.42†
27. You can avoid getting AIDS by exercising regularly	F	91	95	97	99	6.15†
28. AIDS can be cured if treated early	F	95	89	96	93	
29. AIDS is caused by bacteria	F	48	68	27	57	13.86§
Total Scale Score		23 ± 5.1	21.7 ± 6.8	23.9 ± 2.4	24.4 ± 3.3	

*Percentages are for the correct answer.

† $P < .10$.

‡ $P < .05$.

§ $P < .01$.

that using condoms was unappealing, ruined the sex act, led to discomfort for both partners, and were unreliable.

Further analyses were conducted on the derived subscales. The means for the five subscales are presented at the end of Table 3. African-American men were significantly more likely to feel condom use interrupted pleasure ($F=16.05$, $P<.001$) and was inconvenient or interrupted foreplay ($F=21.16$, $P<.001$) than African-American women. These findings were paralleled by multiple and single partner groups. Men and women with multiple partners found condom use to be more uncomfortable ($F=7.86$, $P<.01$) and inconvenient/interrupting foreplay ($F=24.91$, $P<.001$) than the single partner groups.

A total scale score was computed by summing the 40 individual items of the ATCUQ. Men were significantly more negative than women in their expressed attitudes toward condoms ($F=6.89$, $P<.01$). Also, women and men in multiple partner groups reported more negative attitudes toward condoms than the single partner groups ($F=9.89$, $P<.001$). A second total subscale score was computed by summing the 21 items that loaded on the five subscales. Men were significantly more negative than women in their attitudes toward condoms using this total subscale score ($F=8.01$, $P<.01$); there were no effects for partner status.

Condoms Emotional Reaction Scale

The individual items of the CERS for the three groups were compared using 2×2 ANOVAS. Results of these analyses (Table 4) reveal a main effect for gender in seven (54%) of the 13 items. Regardless of partner group, African-American men reported greater anger than African-American women on five of the 13 CERS items. African-American men experienced a greater intensity of anger regarding the perceptions that their partners might not reach orgasm while wearing a condom ($F=12.96$, $P<.001$), condoms will interrupt foreplay ($F=15.9$, $P<.001$), condoms interfere with sexual pleasure ($F=21.68$, $P<.001$), partners refused sex unless condoms were used ($F=21.63$, $P<.001$), or partner rejection if he or she is asked about previous sexual contacts ($F=6.54$, $P<.01$).

Differences in anger expression as a function of multiple/single partner group also were noted. African-American men and women in the multiple partner group experienced greater anger regarding the perception that condoms interrupt foreplay ($F=6.41$, $P<.01$), interfere with sexual pleasure ($F=6.38$, $P<.01$), or sex is refused unless condoms are used ($F=7.45$, $P<.01$). Interestingly, African-American men and women in the

single partner groups experienced more intense anger when partners insisted on not wearing condoms ($F=9.22$, $P<.05$) or joked about using a condom ($F=7.38$, $P<.01$).

Several interactions were identified. Women in the multiple partner group experienced the greatest intensity of anger when their partners refused sex unless condoms were used ($F=10.85$, $P<.001$) or inquired about their past sexual behavior ($F=9.45$, $P<.01$). These women also expressed greatest intensity of anger when they were seen purchasing condoms by someone they knew ($F=8.44$, $P<.05$). A total CERS scale score was computed by summing the individual items. Men reported a higher anger scale score than women ($P<.05$). A significant interaction effect was found in the total scale score with women in the multiple partner group reporting greatest anger and women in the single partner group reporting the least anger of the four groups ($P<.05$).

Perceived Risk of Exposure to AIDS

Groups also differed in their perceived risk of being exposed to AIDS (Table 5). Proportionately, men were less worried about getting AIDS ($P<.01$) and felt themselves less likely than most people to get AIDS ($P<.01$) than women. Of all groups, men in the single partner group were most likely to report they were less likely than most to get AIDS ($P<.05$). However, a greater proportion of men considered themselves a member of the AIDS high-risk group ($P<.01$) than women. The proportion of both men and women with multiple partners reporting themselves as members of the AIDS high-risk groups was greater than men and women with single partners ($P<.001$). Furthermore, more men with multiple partners considered themselves to be members of a high-risk group than any of the other three groups ($P<.001$). Comparisons of total scale scores revealed significant main effects for partner categories. Respondents in the multiple partner category reported greater perceived risk than those in the single partner categories ($P<.001$). No significant differences were detected between men and women.

Drug Use

The data presented in Table 6 show that the patterns of drug use moderately distinguished the four groups. Many more men than women reported drinking ($F=6.58$, $P<.01$) and marijuana use ($F=10.5$, $P<.001$). Groups also differed on drug use by partner status; both men and women in multiple partner groups reported more smoking ($P<.01$), drinking ($P<.01$), and use of crack ($P<.05$) than those with single partners.

TABLE 3. ATTITUDES ABOUT CONDOM USE: MEANS AND STANDARD DEVIATIONS FOR AFRICAN-AMERICAN MEN AND WOMEN AS A FUNCTION OF MULTIPLE SEX PARTNERSHIPS

Variable	Men*		Women*		χ^2 Analyses		
	Multiple Partners (n=71)	Single Partner (n=78)	Multiple Partners (n=29)	Single Partner (n=136)	Gender	Multiple	Gen x Mul
	1. Condoms are too much trouble	2.8±1.7	2.2±1.2	2.7±1.2	1.8±1.2	10.12†	16.56†
2. Condoms are unreliable	3.2±1.5	2.5±1.3	2.8±1.3	2.2±1.2	10.88†	13.22†	.03
3. Condoms are pleasant to use	2.4±1.3	2.8±1.1	2.5±.9	2.8±1.2	1.71	4.98‡	.18
4. Neatness of condoms—no wet spots—makes them attractive	2.3±1.5	2.8±1.1	2.4±.9	2.9±1.3	4.35‡	7.98§	.02
5. Use of condom adds to excitement	1.9±1.1	2.5±.9	1.8±.8	2.3±1	.05	18.55†	.07
6. If female can participate in putting it on	3.5±1.2	3.1±1.1	3.1±.9	2.7±1.3	15.72†	6.84§	0
7. There is no reason why a woman should be embarrassed to suggest a condom	3.5±1.7	3.9±1.3	4.1±.8	3.9±1.4	4.01‡	.88	1.65
8. Women think men who use condoms show concern	3.6±1.1	3.6±1	4.1±.8	3.9±1.3	8.14§	.07	.22
9. I intend to use condoms	3.6±1.5	3.7±1.3	3.1±1.2	3.7±1.3	.67	7.83§	.02
10. Proper use can enhance sex	2.6±1.4	3.1±1.1	2.4±1.4	2.8±1.2	.06	2.72	2.16
11. People use them as an erotic part of foreplay methods	2.9±1.1	2.9±1	3.1±1.1	2.8±1	.41	1.56	.53
12. Condoms are safer than other methods	3.9±1.4	3.6±1.3	3±1.2	3.5±1.4	5.67§	.04	5.62§
13. Don't like the idea of using	2.9±1.5	2.4±1.2	3.3±1.4	2.3±1.4	1.31	18.6†	1.55
14. They look ridiculous	2.7±1.2	2.5±1.2	2.6±.9	2.1±1.1	10.31†	3.73‡	1.55
15. Condoms are inconvenient	3.2±1.5	2.6±1.2	2.9±1.1	2.2±1.3	14.90†	15.13†	.21
16. No reason to be embarrassed by using condoms	3.8±1.2	3.7±1.2	3.9±.9	3.9±1.3	1.25	.21	.01
17. Putting on an erect penis can be a real sexual turn-on	3±1.3	2.9±1.1	3.1±.9	2.8±1.2	.26	1.15	.24
18. Condoms are uncomfortable	3.2±1.2	2.9±1.2	2.9±1.1	2.6±1.3	7.1§	3.4	0
19. Condoms make sex unenjoyable	3±1.2	2.7±1.1	2.2±1.1	2.5±1.2	9.17§	.34	3.82‡
20. Would avoid condoms if possible	3.2±1.7	2.9±1.3	3.3±1.4	2.3±1.4	11.65†	8.96§	2.47

*Mean ± standard deviation.

†P<.001.

‡P<.05.

§P<.01.

|| P<.10.

TABLE 3. ATTITUDES ABOUT CONDOM USE: MEANS AND STANDARD DEVIATIONS FOR AFRICAN-AMERICAN MEN AND WOMEN AS A FUNCTION OF MULTIPLE SEX PARTNERSHIPS (CONTINUED)

Variable	Men*		Women*		χ^2 Analyses		
	Multiple Partners (n=71)	Single Partner (n=78)	Multiple Partners (n=29)	Single Partner (n=136)	Gender	Multiple	Gen x Mul
21. I would be comfortable suggesting that my partner and I use condoms	3.5 ± 1.2	3.3 ± 1.3	3.2 ± 1.2	3.5 ± 1.4	.11	.02	1.65
22. Condoms ruin the sex act	2.8 ± 1.3	2.8 ± 1.3	2.9 ± 1.1	2.2 ± 1.1	13.06†	2.66	4.75‡
23. Discomfort for both partners	2.8 ± 1	2.7 ± 1.2	3.1 ± 1.4	2.4 ± 1.2	3.97‡	4.66‡	4.36‡
24. Females think men who use condoms are jerks	2.1 ± .9	2.3 ± 1.1	2.1 ± 1.1	1.6 ± .9	17.52†	1.14	6.44§
25. Idea of using condoms does not appeal to me	2.5 ± 1.4	2.6 ± 1.3	3 ± 1.1	2.2 ± 1.3	1.12	2.31	7.55§
26. Interrupts foreplay	3.3 ± 1.2	2.7 ± 1.2	2.9 ± 1.2	2.4 ± 1.3	10.49†	10.35†	.02
27. What to do with condom after use is a problem	2.8 ± 1.5	2.4 ± 1.3	2.3 ± .9	1.9 ± 1	21.22†	7.8§	0
28. Using is disgusting	2.6 ± 1.5	2.1 ± 1.2	2.6 ± 1.3	1.7 ± .9	13.08†	17.65†	1.51
29. Condoms take out romance	3.2 ± 1.6	2.8 ± 1.3	3.1 ± 1.2	2.3 ± 1.3	14.43†	11.9†	.87
30. Don't like partners to use	2.6 ± 1.1	2.7 ± 1.1	3.1 ± 1	2.6 ± 1.3	.02	1	3.48
31. I don't think condoms interfere with enjoyment of sex	2.7 ± 1.3	3 ± 1.1	2.9 ± 1.1	3.1 ± 1.4	2.4	2.65	.27
32. No way they can be pleasant	2.8 ± 1.3	2.6 ± 1.1	2.8 ± .9	2.1 ± 1.1	10.67†	7.54§	1.43
33. Takes time out of foreplay	3.4 ± 1.5	2.9 ± 1.3	2.9 ± .9	2.4 ± 1.2	18.65†	9.33§	0
34. I think condoms are excellent means of contraception	3.4 ± 1.3	3.5 ± 1.2	3.4 ± .9	3.5 ± 1.3	.49	.56	.01
35. Condoms seem unreliable	2.5 ± 1.1	2.5 ± 1.2	2.8 ± 1.2	2.2 ± 1.2	2.67	2.15	3.61‡
36. There is no reason why a man should be embarrassed to suggest using condoms	4 ± 1.1	3.8 ± 1.3	4.1 ± .7	3.9 ± 1.4	.06	2.11	0
37. Men who use a condom are sexier	2.8 ± 1.1	2.8 ± 1.1	2.8 ± .9	2.5 ± 1.2	2.6	.52	.57
38. Condoms are a highly satisfactory form of contraception	3 ± 1.5	3.4 ± 1.3	3.5 ± .8	3.5 ± 1.2	4.09‡	2.28	1.26
39. I would have no objection if my partner suggested that we use condoms	3.4 ± 1.4	3.6 ± 1.3	3.6 ± .9	3.8 ± 1.3	3.53	.98	.01
40. A skillful woman can make using condoms erotic	3.8 ± 1.4	3.5 ± 1.3	3.4 ± 1.1	3.3 ± 1.4	5.84§	1.6	.3

*Mean ± standard deviation.

†P<.001.

‡P<.05.

§P<.01.

|| P<.10.

TABLE 3. ATTITUDES ABOUT CONDOM USE: MEANS AND STANDARD DEVIATIONS FOR AFRICAN-AMERICAN MEN AND WOMEN AS A FUNCTION OF MULTIPLE SEX PARTNERSHIPS (CONTINUED)

Variable	Men*		Women*		χ^2 Analyses		
	Multiple Partners (n=71)	Single Partner (n=78)	Multiple Partners (n=29)	Single Partner (n=136)	Gender	Multiple	Gen × Mul
Factor 1: Contraceptive	15.8 ± 4.3	14.7 ± 4	15.3 ± 2.5	14.6 ± 4.3	1.17	2.78	.14
Factor 2: Uncomfortable/ Interrupts Sex	17.4 ± 6.1	16 ± 5.3	16.5 ± 4.7	13.6 ± 5.6	16.05†	7.86§	.98
Factor 3: Acceptability	16.8 ± 4.4	16.8 ± 3.4	18.4 ± 2.1	16.9 ± 4.7	.94	1	1.68
Factor 4: Add Excitement to Sex	11.6 ± 3.4	11.3 ± 3.3	11.4 ± 1.8	10.9 ± 3.6	1.04	.56	.01
Factor 5: Inconvenient/ Interrupts Foreplay	9.3 ± 3.9	7.4 ± 3.1	8.6 ± 2.4	6.2 ± 3	21.16†	24.91†	.27
Total (40 items)	70.9 ± 16.7	65.6 ± 14.9	70.1 ± 9.2	61.9 ± 16.9	6.89§	9.89†	.45
Total (21 items)	28.9 ± 9	31.5 ± 8.6	32.6 ± 6.7	33.4 ± 10.4	8.01§	2.32	.47

*Mean ± standard deviation.

† $P < .001$.‡ $P < .05$.§ $P < .01$.|| $P < .10$.

Sexual Behavior and STDs

The data presented in Table 7 show the percentage of STDs and sexual behaviors among African-American men and women in the four groups. A chi-square analysis of percentages revealed numerous differences in reports of sexual behavior. Generally, more men than women reported oral sex ($P < .01$) and sex with a prostitute ($P < .001$). Women and men in multiple partnerships reported more anal sex, oral sex, and sex with prostitutes ($P < .001$) than men and women in single partner groups. Of particular interest was the finding that African-American women in the multiple partnership group elicited the largest proportion of reports of anal sex ($P < .01$) and oral sex ($P < .001$) of all four groups. Men with multiple partners reported the greatest proportions of sex with prostitutes ($P < .001$) of the four groups. Finally, groups did not differ significantly in the use of condoms: approximately one third of men in both groups and women in the single group used condoms. Interestingly, less than one sixth of women in the multiple partner group reported using condoms.

A chi-square analysis of percentages revealed significant differences across groups in reports of treatment for gonorrhea and syphilis. Men were more likely than women to report previous treatments for gonorrhea ($P < .001$) and syphilis ($P < .05$). Men and women with multiple partners also were more likely to report treatment for gonorrhea than the single partner groups ($P < .001$). Men with multiple partners were more than

three times as likely to report treatment for gonorrhea ($P < .001$) than any other group. There were no significant group differences reported for herpes or genital warts. There was an interesting but nonsignificant trend for men to report positive testing for AIDS more than women. In the total population of 314 African-American students, 13 individuals (9 men and 4 women) indicated that they had tested positive for AIDS. The differences in the percentages for men (6.5%) and women (1.5%) approached significance ($P < .10$).

DISCUSSION

While bisexual and homosexual contact between men and drug injection behaviors remain the most common routes of HIV transmission, the alarming increase in heterosexual transmission of HIV among African Americans must not be ignored. Furthermore, the incredible increase in prevalence rates of STDs among African-American youth—providing yet another route of HIV transmission and infection—compounds the problem.^{2,3,9,10} In the present study, 13 (4.14%) (9 men and 4 women) of the 314 young adults had tested positive for AIDS. While this figure is a bit high, there is little to suggest that it does not accurately reflect the extent of this problem among African-American young adults.

What is most alarming about these phenomena is that STDs and AIDS remain almost entirely preventable. Numerous studies^{15,16,24,25} provide compelling informa-

TABLE 4. EMOTIONAL REACTIONS SCALE: MEANS AND STANDARD DEVIATIONS FOR AFRICAN-AMERICAN MEN AND WOMEN AS A FUNCTION OF MULTIPLE SEX PARTNERS

Variable	Men*		Women*		χ^2 Analyses		
	Multiple Partners	Single Partner	Multiple Partners	Single Partner	Gender	Multiple	Gen X Mul
1. You think a condom may be uncomfortable for your partner	1.6±.8	1.8±1	1.7±.8	1.6±1	1.57	.55	1.06
2. Your partner may not reach orgasm while using a condom	2.3±1.1	2.3±1.1	1.9±.9	1.8±1.1	12.96†	.18	.17
3. Condoms interrupt foreplay	2.4±1.3	2±1.2	2±.9	1.7±.9	15.9†	6.41‡	.03
4. Condoms interfere with sexual pleasure	2.7±1.3	2.2±1.2	2±.7	1.8±1.2	21.68†	6.38‡	.37
5. Partner refuses sex unless you use condoms	1.9±1.1	1.9±1.2	2.2±1.3	1.2±.8	21.63†	7.45‡	10.85†
6. You are seen by someone you know purchasing condoms	1.3±.9	1.6±.9	1.7±1.1	1.2±.8	1.79	.04	8.44‡
7. Partner inquires about your past sexual behavior	1.5±.9	1.7±.9	1.8±1.1	1.3±.8	3.38§	.13	9.54‡
8. You think your partner will reject you if you asked about his (her) previous sexual contacts	2.2±1.3	2.1±1.1	2±1.2	1.7±1.2	6.54‡	.83	.68
9. Your partner insists on not wearing a condom	1.7±1.4	2.2±1.4	2.3±1.2	2.5±1.4	8.88‡	9.22	1.10
10. Your partner "jokes" about the use of a condom	1.3±.9	2±1.1	1.9±1	1.9±1.2	3.91	7.38‡	4.03
11. You read that AIDS came from Africa	2.9±1.3	2.9±1.2	3.1±1.2	2.6±1.4	1.63	2.12	1.4
12. You read or heard that AIDS is a "more serious" problem for blacks than whites	3±1.3	2.8±1.3	3±1.1	2.9±1.4	0	1.32	.18
13. You read or heard that black IV drug users are chiefly responsible for the transmission of AIDS	3.1±1.3	3±1.2	3.4±1.1	3.1±1.3	.32	1.45	.49
Total Scale Score	27.3±10.3	28±9.4	28.9±7	24.8±9.5	3.58 	.98	3.68

*Mean ± standard deviation.

† $P < .001$.‡ $P < .01$.§ $P < .10$.|| $P < .05$.

tion that using condoms is an effective means of preventing STDs and offers substantial protection against HIV exposure. Furthermore, the findings of this research team^{26,27} and others suggest that African-

Americans are in fact aware that these diseases are preventable with the use of condoms. Yet, our studies of a select population of African-American college students (men and women) reveal a distressing picture. In

TABLE 5. PERCEIVED RISK OF BEING EXPOSED TO AIDS FOR AFRICAN-AMERICAN MEN AND WOMEN AS A FUNCTION OF MULTIPLE SEX PARTNERS

Variable	No. Men (%)		No. Women (%)		χ^2 Analyses		
	Multiple Partners	Single Partner	Multiple Partners	Single Partner	Gender	Multiple	Gen \times Mul
Afraid of getting AIDS	55 (81)	58 (79)	21 (72)	104 (80)	.11	.08	.98
Not worried about getting AIDS	30 (42)	28 (39)	8 (28)	34 (26)	6.61*	1.54	6.81†
I am less likely than most people to get AIDS	32 (49)	40 (62)	10 (36)	49 (41)	6.69*	.22	8.91‡
I am not the kind of person who is likely to get AIDS	37 (54)	36 (55)	14 (50)	57 (47)	1.45	.34	1.54
I would rather get any other disease than AIDS	52 (84)	45 (70)	20 (74)	80 (79)	.05	.88	3.69
I consider myself a member of the AIDS high-risk group	18 (28)	2 (3)	5 (17)	3 (2)	8.39*	34.99§	37.52§
Total Scale Score 	3.4 \pm 1.1	2.9 \pm 1	3.4 \pm 1.1	3.1 \pm .9	.13	9.97§	.47

* $P < .01$.

† $P < .10$.

‡ $P < .05$.

§ $P < .001$.

|| A higher value indicates greater perceived risk.

TABLE 6. DRUG USE AMONG AFRICAN-AMERICAN MEN AND WOMEN AS A FUNCTION OF MULTIPLE SEX PARTNERS

Variable	Men*		Women*		χ^2 Analyses		
	Multiple Partners	Single Partners	Multiple Partners	Single Partners	Gender	Multiple	Gen \times Mul
Smoke	1.6 \pm 1.8	1.3 \pm .9	2 \pm 1.8	1.3 \pm .9	.07	8.34†	2.56
Drink	3.1 \pm 1.6	2.5 \pm 1.3	2.7 \pm 1	2.3 \pm 1.2	6.58†	9.63†	.37
Marijuana	1.6 \pm 1.2	1.6 \pm 1.6	1.3 \pm .9	1.1 \pm .8	10.50‡	.29	.10
Crack	1 \pm .4	1.3 \pm 1.5	.9 \pm .2	1 \pm .7	2.68§	3.61	1.58
Cocaine	1.1 \pm .5	1.3 \pm 1.5	1.1 \pm .5	1 \pm .8	2.39	1.47	1.79

*Mean \pm standard deviation.

† $P < .01$.

‡ $P < .001$.

§ $P < .10$.

|| $P < .05$.

essence, our results suggest that common notions of the interrelationship between knowledge, attitudes, and behavior that underlie health-related behavior in particular and behavioral change in general must be seriously questioned as it pertains to risky sexual behaviors among African Americans.

In short, if college-educated African Americans are knowledgeable about factors associated with the transmission and prevention of HIV and AIDS, why do many of them continue to engage in high-risk behaviors that can lead to sterility, disfigurement, and death? Our findings shed some light on this question. In the current

study, we identified a group of men (47%) and women (19%) who reported that they are sexually involved with multiple partners. We discovered that African-American men differ significantly from women in their level of knowledge about AIDS, attitudes about using condoms, previous exposure to STDs, and risky sexual behaviors. We also identified a few important misperceptions that African Americans have about the transmission of AIDS. Before these issues are addressed, several limitations of our research design and subsequent generalizability of the findings must be acknowledged.

TABLE 7. SEXUAL BEHAVIOR AND PREVIOUS TREATMENT FOR SEXUALLY TRANSMITTED DISEASES

Variable	No. Men (%)		No. Women (%)		χ^2 Analyses		
	Multiple Partners	Single Partner	Multiple Partners	Single Partner	Gender	Multiple	Gen X Mul
Sex with males	3 (4)	7 (10)	29 (100)	94 (71)	145.9*	7.08†	154.88*
Sex with females	68 (97)	51 (70)	3 (10)	4 (3)	195*	55.89*	206.49*
Anal sex	17 (24)	10 (14)	8 (28)	10 (8)	3.51‡	12.05*	13.66†
Oral sex	47 (66)	26 (37)	21 (72)	35 (27)	8.19†	38.01*	40.36*
Sex with prostitute	20 (29)	6 (9)	3 (10)	0 (0)	24.63*	32.38*	44.7*
Always used condoms in the past year	24 (35)	21 (34)	4 (14)	34 (28)	2.62	.08	4.99
Condoms not necessary if you love partner	14 (23)	16 (23)	7 (26)	19 (16)	1.31	1.11	2.74
Gonorrhea	19 (27)	6 (8)	2 (7)	6 (4)	12.81*	16.11*	25.33*
Syphilis	5 (7)	5 (7)	0 (0)	3 (2)	5.03§	.19	5.33
Herpes	4 (6)	4 (6)	2 (7)	1 (1)	4.05	2.99	7.03
Genital warts	6 (8)	3 (4)	3 (10)	5 (4)	.29	3.32‡	3.48
Tested positive for AIDS	5 (7)	4 (6)	0 (0)	4 (3)	2.85‡	.25	3.57

* $P < .001$.† $P < .01$.‡ $P < .10$.§ $P < .05$.

First, this study was correlational or cross-sectional, and we experienced the same difficulties as other investigators in establishing causal directions. For example, we do not know if the behaviors (eg, condom use and attitudes) of the multiple partners occurred prior to the individuals becoming a multiple partner or after the fact. In developing the categories of multiple partners and single partners, we may have confounded monogamous relationships with serial monogamous relationships. We do not know the extent that this renders our information problematic. However, it is likely that confounding would have been demonstrated if the two groups showed fewer differences or if the pattern of differences between multiple and single partners were not consistent for both men and women. In this inquiry, we also had some difficulty measuring certain behaviors. For example, in our measure of anal intercourse we did not distinguish between receptive or insertive behaviors. Similarly, in our assessment of drug use, we did not determine whether drugs were used as part of sexual foreplay. Even with these limiting factors, there is little reason to doubt the accuracy and reliability of our data.

We view the findings of sexual behavior, STDs, and perceived vulnerability of exposure to AIDS with alarm. How can it be that intelligent, well-educated African-American men and women can engage in high-risk sexual behaviors and apparently deny their vulnerability to HIV and AIDS infection? It appears

that these African-American college students may not engage in "safe" sex practices because of a sense of invulnerability or because of the belief that if a partner had HIV or AIDS, they would inform others about the condition. Other individuals may deny their vulnerability or not take proper precautions because of strong beliefs that only homosexuals, IV drug users, and prostitutes get HIV and AIDS. With these types of misperceptions in mind, what should be done to develop meaningful, effective, and culturally sensitive intervention programs? One of the answers lies in education. There is already a basic understanding of what AIDS is, but there are a few misperceptions that need to be targeted. For example, the belief that AIDS is caused by a bacteria or the same virus that causes venereal disease needs to be addressed and refuted by public health messages. There is also a strong need to determine the extent to which these information deficits are present among members of other African-American groups.

Consistent with our previous studies and those of other investigators,²⁶⁻²⁹ we found that African-American men and women have a good deal of correct information about HIV/AIDS. These groups understand the basics of HIV transmission, correct identification of high-risk population groups and behaviors, and ways of preventing the spread of the virus. Nevertheless, we noted some information deficits within this population. On the average, women reported more correct knowl-

edge about HIV/AIDS than men, while men and women with multiple partners knew less about AIDS etiology (eg, AIDS is caused by bacteria and the same virus that causes venereal disease) than their counterparts in the single partner group. Perhaps these findings indicate that young adults with multiple sex partners do not perceive themselves to be at risk for AIDS because AIDS is caused by treatable conditions (bacteria and viruses that cause VD). In the present study, we found that regardless of the level of knowledge, approximately two thirds of our college sample continue to engage in these behaviors. In other words, knowledge about HIV and AIDS does not appear to be strongly related to risky sexual behaviors. Perhaps the cultural relevancy of the measurement of sexual behaviors and attitudes is what contributes to the lack of a significant relationship between knowledge and behavior.

Culturally sensitive education is one of the keys that may help alleviate the crisis in the African-American community. An example of a culturally sensitive campaign may be to deal with the issues of "man sharing." As indicated by several African-American women writers,^{30,31} man sharing among African-American women may be as common as the cold. If the major cause for the sharing of African-American men is the lack of availability of "good men," then perhaps we might want to take a different approach in describing how African Americans may need to deal with the problems of having multiple sex partners. Exactly what will constitute this educational campaign is a bit unclear, but it will need to deal explicitly with the sexual behaviors and attitudes of African Americans and focus directly on sensitive issues regarding the advantages and disadvantages of "man sharing."

Although African Americans might be knowledgeable about AIDS, they are not knowledgeable about who can get it. African Americans, even those with multiple sex partners, see themselves as immune to AIDS probably because it is considered to be a "gay disease" or a "white man's disease." More information (eg, advertisements, articles, and pamphlets) needs to be created so that African Americans can see themselves as people who are putting themselves at risk by engaging in risky behaviors. The education needs to be put in terms that will impart on African Americans the seriousness of the problem, such as, "There is a genocide of African-American men and women occurring."

One of the problem behaviors that was identified in the current study was the intensity of anger and irritability associated with the use of condoms. Interper-

sonal problems associated with the management of anger are related to a wide range of health and psychological problems, but very little is known about how the expression of strong emotions regulates safe sexual behavior (eg, using condoms). While frustration is often associated with anger, the source of the frustration is likely to be difficult to pinpoint. For many African Americans, much of the frustration is associated with the lack of economic, social, and political empowerment. In other words, there are so few resources that African Americans control that it is possible their interpersonal relationships are often used to vent the resentment they have about their circumstances or to demonstrate that they can at least have control over their spouse or lover.

There are many long-standing communication problems in the relationships between men and women, and African Americans are not immune to these difficulties. African Americans are only beginning to understand the impact that these problems have on the engagement in health behaviors such as following advice from physicians (eg, taking antihypertensive medications) or using a condom to lower the risk of an unwanted pregnancy. If we knew all of the answers and if medical and public health professionals were more successful in convincing African Americans to modify health practices, African Americans would not be faced with a large number of unwanted pregnancies or excessive deaths due to hypertensive complications. Similarly, we do not have all of the answers concerning the development of prevention programs for HIV and AIDS. We believe that advances in the development of culturally sensitive AIDS prevention programs are hindered because African Americans are not being asked questions that probe into the sexual behaviors and attitudes of groups who are at risk for AIDS yet do not consider themselves at risk. Many of these men and women may be the same individuals who practice man sharing and who are sexually involved with multiple partners.

In the present study, we found modest but consistent differences in the use of drugs by groups. On the average, men drank alcoholic beverages and smoked marijuana more often than women, and both men and women with multiple sex partners reported more smoking, drinking, and use of crack cocaine than their counterparts. None of our measures of drug use allowed us to determine precisely the extent to which drug use occurred before, during, or after engagement in risky sexual behavior. Nevertheless, there are well-documented reports of associations between multiple

sex partners, unprotected sex, and the trading of sex for drugs.^{13,14,32,33} Given the extent that drugs are used and abused by young adults, it would appear that there is a critical need for future research to look more closely at the interrelationships between drug use and sexual behaviors. Future research also needs to examine what extent the use of drugs during sexual foreplay contributes to the lack of condom use and the engagement in risky sexual behaviors (eg, unprotected anal intercourse).

Our data show that a larger percentage of men and women with multiple sex partners were sexually active. Women and men in the multiple partner group reported far greater involvement in high-risk sexual behaviors that can lead to HIV infection, such as unprotected vaginal and anal sexual intercourse, oral sex, and sex with prostitutes. While we do not know the serostatus of the partners, the involvement in these behaviors is still cause for great concern. Men in the multiple partner group report the greatest frequency of sex with prostitutes. Again, we did not inquire as to whether these encounters involved the use of condoms. However, based on the relatively small proportion of men and women who reported using condoms, many of the encounters probably did not involve the use of condoms. What is puzzling about this pattern of behavior is that men in general reported less worry about AIDS, but a larger percentage of men (6.5%) than women (1.5%) had already been exposed to the HIV virus and a large percentage of men had been treated for gonorrhea and syphilis. Overall, men reported treatment for gonorrhea and syphilis more often than women, but this was partially influenced by whether the man was involved with multiple partners. Although knowledge about the causes and consequences of AIDS is quite high among members in this study, attitudes about the acceptability and comfort of condoms may be important determinants of whether knowledge is put to use.

In the present study, we found men to be more negative and experience greater anger reactions about the use of condoms than women. Regardless of involvement with a single partner or multiple partners, African-American men felt condoms were uncomfortable, inconvenient, and interruptive of foreplay and sex. Interestingly enough, both men and women with multiple partners expressed more negative attitudes and experienced more anger about using condoms than people in the single partner category. Perhaps, as our data show, men in the single partner group use condoms because they have discovered ways or partners that can use condoms to enhance sexual excitement. On the

other hand, condoms may be used more often by this group because they are successful in using their strong emotional responses to convince their partner that using condoms is serious business. For such groups of African-American men and women, using condoms might well be perceived as positive, pleasant, and erotic or as a means of avoiding a serious fight with their partner. Future research is needed to sort out these interrelationships because they may provide invaluable insights about the sexual communication pattern of African-American men and women.

SUMMARY

The spread of STDs and AIDS among African-American college students is a disturbing problem. These problems are made worse by the failure of African Americans to perceive the seriousness of the problems and for individuals to honestly evaluate the riskiness of their sexual behaviors. In the present study, we identified a relatively large group of men and women who have multiple sexual partners, but they do not worry about being exposed to AIDS. This observation is disturbing because many of these individuals have been exposed to STDs, yet they continue to engage in risky sexual behaviors and do not use condoms with their partners. Knowledge about the causes and prevention of AIDS, while extremely high among subjects in the present inquiry, appears to not be strongly related to safe sex practices. In the present study, we also discovered that angry reactions related to the lack of condom use may be an important determinant of whether African Americans use condoms. We also discovered that drug use was higher among individuals with multiple partners, particularly men. However, in our assessment of drug use, we did not determine whether drugs were used as part of sexual foreplay or whether drug use was related to risky sexual behaviors.

Future research should focus on the variability of sexual behaviors within African-American populations. Without a thorough understanding of the attitudes and sexual behaviors of African-American population groups, we will be stuck in a situation where the development for prevention and intervention programs will be based on inadequate knowledge. In other words, the development of effective AIDS education and prevention programs will require an understanding and sensitivity to ethnic and cultural factors that affect both the modes of virus transmission and the readiness and willingness of individuals to absorb information that provides a reasonable motive to make changes in risky sexual behaviors.

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