

Multiple Partners, Risky Partners and HIV Risk Among Low-Income Urban Women

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A sample of 671 predominantly single, young black women living in 10 low-income housing developments in five cities completed an anonymous questionnaire assessing factors related to their risk of contracting the human immunodeficiency virus, including their sexual behavior and condom use, and their partners' risk-related behaviors. In the two months before the 1994 survey, 17% of the women had sex with multiple partners and 22% had an exclusive partner who either had had other sexual partners in the past year or had a history of injection drug use; 40% had an exclusive partner who they believed had not engaged in these risky behaviors. During the same interval, 26% of women who had multiple partners received treatment for a sexually transmitted disease, compared with 9–11% of those who had an exclusive relationship. Condom use at last intercourse and communications about condom use were less frequent among women with an exclusive, risky partner than among those with multiple partners; attitudinal barriers to condom use did not vary, however, by the characteristics of women's relationships. (Family Planning Perspectives, 27:241–245, 1995)

The incidence of new human immunodeficiency virus (HIV) infections and of AIDS cases is increasing rapidly among American women, particularly among low-income and minority women living in inner cities.¹ Although injection drug use was the predominant HIV risk factor for women during the early years of the epidemic, sexual transmission now accounts for the majority of HIV infections and AIDS cases among women.²

Unfortunately, relatively little is known about the characteristics of sexual relationships that confer risk for HIV infection among economically disadvantaged women. Many researchers adopt an epidemiological perspective; as such, they view HIV transmission risk in terms of the number of sexual acts and the number of

partners, or they focus on the risk behaviors of individuals viewed as members of "high-risk" groups. Few researchers consider the impact of gender roles.³

Traditionally, public health messages about HIV prevention have emphasized that risk is associated with having multiple or casual sexual partners, and these messages remain necessary. However, the risk of HIV infection is not determined solely by one's own sexual behavior: Individuals who have a long-standing relationship with one partner are at risk for infection if that partner engages in high-risk practices. Sexual relationships with partners who use injection drugs have long been known to confer risk,⁴ but comparatively little attention has been directed to the vulnerability of women who have exclusive relationships with men who have other sexual partners.

Partner behavior may be a particularly salient contributor to the risk of HIV infection among economically disadvantaged women. One study found that in a national sample of predominantly minority women with sexual partners who use injection drugs, more than half had only one such partner in the six months prior to interview.⁵ The investigators concluded that these women were at risk of HIV infection primarily because they had unprotected sex with risky partners.

Other researchers, using data from the 1988 National Survey of Family Growth, found that the vast majority—97%—of sexually active women had only one sexual

partner in the three months prior to the interview.⁶ Furthermore, using data from the 1988 and 1989 General Social Surveys, these same investigators estimated that 14% of sexually active women aged 18–44 were at risk of contracting a sexually transmitted disease (STD) because they had multiple partners, whereas 12–24% were at risk because their sexual partner had other partners.

Relatively little research has examined the impact of relationship characteristics (e.g., mutual exclusivity vs. one-sided exclusivity) on the risk of HIV infection among low-income urban women, even though this population is increasingly vulnerable to HIV infection. Most analyses have focused on differences in condom use with regular and casual partners among women who are prostitutes or in drug treatment programs.⁷ Important exceptions include a study of condom use among women attending family planning clinics⁸ and analyses of data from the National AIDS Behavioral Surveys.⁹

Women who are at risk for HIV infection because they have unprotected sex with multiple partners probably confront quite different behavior change issues than women who are in exclusive relationships with nonmonogamous partners. The manner in which prevention interventions address the gender, social and political issues that surround heterosexual relationships—particularly as these issues relate to disadvantaged women—could have considerable influence on the development and implementation of successful HIV prevention approaches.¹⁰

The purpose of the study described in this article was to identify the prevalence of HIV risk factors related to characteristics of sexual relationships among low-income urban women. We were particularly interested in learning the proportion of women at risk for HIV infection because they had multiple sexual partners and the proportion at risk because their one partner engaged in risky behavior. We also assessed how selected social and psychological characteristics relevant to practicing protective behaviors differed according to characteristics of the women's sexual relationships.

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Table 1. Percentage distribution and number of women in 10 low-income housing developments, by sexual behavior in the two months preceding the survey and perception of partner's risk behavior

Sexual behavior and perception of partner	%	No.
Multiple partners	17.1	115
Exclusive, risky partner	21.6	145
Partner thought to have had other partners in past year	19.7	132
Partner thought to have ever injected drugs	1.9	13
Exclusive, low-risk partner	39.5	265
Not sexually active	20.6	138
Missing data	1.2	8
Total	100.0	671

Methods

The Sample

Anonymous questionnaires were administered in the spring of 1994 to women aged 18 and older* living in two housing developments in each of five cities: Cleveland; Milwaukee; Roanoke, Va.; Rochester, N. Y.; and Seattle. The developments were selected because of their location in low-income areas where STDs and drug use were prevalent. Each development had 60–150 units; most units had a single female head of household. Women in the developments were informed about the study through print announcements and subsequently were approached by female research staff members who asked them to participate. Approximately 80% of the women living in the developments completed questionnaires.

In each housing development, a research staff member explained to women in small-group settings that the study pertained to women's health behavior, that their responses could provide information that might lead to better ways of preventing AIDS and to improved health pro-

*During data entry, we found that five respondents younger than 18 had completed questionnaires. Their data are included in the analyses in this article.

†The selection of a two-month recall period for the women's sexual behavior and a one-year period for their partners' sexual behavior is based in part on a published review of the literature on response bias in assessments of sexual behaviors. The authors of that review concluded that recall periods of one or two months were optimal in assessing frequencies of sexual behavior and that a one-year recall period is most meaningful in assessing numbers of sexual partners. (See: J. A. Catania et al., "Response Bias in Assessing Sexual Behaviors Relevant to HIV Transmission," *Evaluation and Program Planning*, 13:19–29, 1990.)

‡We group both types of risk behavior together because the number of women reporting that their main partner had ever injected drugs was small (see Table 1).

§In this study, simply having knowledge of a partner's risky behaviors is not viewed as a "risk-protective" factor. To decrease her risk, the woman must use this knowledge and act in a manner that guards her safety.

grams for women, and that they would be asked questions about their sexual relationships and behavior. The research staff member acknowledged the personal nature of the questions, reminded the women that their information was completely anonymous and emphasized the importance of truthful responses.

To ensure the comprehensibility of questions for women who had low reading-skill levels, the questions were projected on an overhead screen and read aloud by a research staff member; to ensure privacy for all participants, the women wrote their answers on questionnaire forms. It took approximately 30 minutes to complete the questionnaire. Upon completing the questionnaire, the women received \$15 for their time and assistance; \$5 was to be used to defray the cost of child care.

Of the 671 women who completed the questionnaire, 82% were black, 10% were white and 5% were Hispanic; the remaining 3% belonged to a variety of racial or ethnic groups. The women were 33.2 years old, on average; their ages ranged from 15 to 76. In all, 39% had not completed high school, 38% had a high school or equivalent degree and 22% had advanced beyond high school. Some 93% had children, and the mean number of children was three; 63% of the women had a monthly income of \$700 or less.

Measures

The 67-item questionnaire elicited demographic information and assessed a number of areas relevant to HIV prevention.

• *Relationship characteristics.* The measure of HIV risk associated with women's sexual relationships was based on participants' reports of their level of certainty regarding whether their main or regular partner in the two months before the survey had had other sexual partners in the past year[†] and whether he had ever injected drugs. Possible answers were "Sure he did not," "Pretty sure he did not," "Pretty sure he did" and "Sure he did." The same questions were then asked about other men the women had had sex with in the past two months. The women were also asked to report the number of times in the past two months they had had sex with men other than their main or regular partner; their responses were used to identify women who had had multiple partners in the past two months.

On the basis of these data, women were assigned to one of four risk groups: women who had had multiple male partners in the past two months; women who had had an exclusive partner who they knew or believed had engaged in risky be-

havior (i.e., had had other sexual partners in the past year or had ever injected drugs);[‡] women who had had an exclusive, low-risk male partner (i.e., one who they knew or believed had not engaged in risky behavior); and women who had not been sexually active in the past two months. These four groups were then compared with respect to their perceived risk of AIDS and preventive behaviors.[§]

• *Perceived HIV risk.* The women were asked to consider their behavior over the past two months and estimate their "risk for getting the AIDS virus," using a five-point scale ranging from "no risk" to "a lot of risk."

• *Condom use.* Respondents were asked if condoms were used the last time they had had sex with a man. To assess condom use intentions, the women were asked how strongly they agreed with each of three statements: "If I wanted to have sex with a male partner, I will first talk with him about using a condom"; "I will use a condom the next time I have sex with a male partner"; and "I will say 'no' to sex with a male partner if he wouldn't use a condom." Responses were recorded on a four-point scale, ranging from "strongly disagree" to "strongly agree"; a woman's intention score was the average of the values provided. Cronbach's alpha for the three items was 0.82.

For the measure of barriers to condom use, the participants were asked to use the same four-point scale to indicate their level of agreement with each of five statements: "I do not plan to use condoms"; "Sex is not as good with a condom"; "Using condoms means that you don't trust the other person"; "I do not have a need to use condoms"; and "My partner would react badly if I suggested the use of a condom." Cronbach's alpha for the five items was 0.68.

• *STD treatment.* Respondents were asked if they had received treatment for an STD in the past two months from a doctor or nurse or in a clinic.

• *Talking about condoms and AIDS.* The women were asked how many times in the past two months they had talked with their sexual partner about using condoms and about AIDS concerns. In addition, as a measure of the general salience of AIDS concerns, they were asked how many times in the past two months they had talked about AIDS with other women in the development. These items were dichotomized (no conversations vs. any conversations).

Results

Relationship Characteristics

Overall, 17% of the women had multiple partners in the two months preceding the survey, 61% had an exclusive partner and

21% were not sexually active (see Table 1). On average, those with multiple partners had intercourse slightly fewer than five times and had two partners in the past two months (not shown).

Among the 61% who had sex only with their regular partner, about two-thirds (40% of all women) were sure or pretty sure that he had not had other partners in the past year and had never injected drugs. In all, 22% believed that their partner had engaged in risky behavior; far more thought he had had another partner than thought he had ever used injection drugs—20% vs. 2%.

Further, the proportion of women reporting a risky sexual partner was greater than the proportion reporting multiple partners (22% vs. 17%). This finding could reflect the different recall periods used for a woman's sexual behavior and that of her partner. Specifically, the likelihood that a woman had multiple partners could have exceeded the likelihood that her main partner had done so if a one-year recall period had been used for the former and a two-month period had been used for the latter.

Perceived HIV Risk

When asked to estimate their perceived risk of HIV infection on the basis of their sexual behavior during the preceding two months, 82% of the women reported that they were at no risk or very little risk of infection, and 12% considered themselves to be at some risk; only 6% perceived that they were at quite a bit or a lot of risk.

A one-way analysis of variance revealed significant differences between the group means (see Table 2). Women who had multiple partners and women who had an exclusive, risky partner correctly perceived themselves to be at greater risk than others; however, the low value of the means (2.1 for each of these groups) indicates that even women who engage in risky behavior or have partners who do so consider themselves to be at "very little risk" of HIV infection. Finally, women who were not sexually active in the previous two months perceived themselves to be at less risk for HIV infection than did women who had an exclusive relationship with a low-risk partner.

Condom Use

Among sexually active women, 30% had used a condom at last intercourse. The proportion differed significantly according to whether the women had multiple partners, an exclusive, risky partner or an exclusive, low-risk partner. As Table 2 shows, the level of condom use was highest among women

Table 2. Mean scores and percentages measuring women's sexual behavior in the two months preceding the survey

Measure	Multiple partners	Exclusive, risky partner	Exclusive, low-risk partner	Not sexually active	F or χ^2 (p-value)
Mean perceived risk of HIV infection	2.1 (1.1)*	2.1 (1.1)*	1.6 (0.9)†	1.2 (0.8)‡	24.7 (<.001)
Mean condom use intentions	3.2 (1.0)	3.2 (0.9)	3.0 (1.0)*	3.4 (1.0)†	4.9 (.002)
Mean condom use barriers	2.0 (0.8)	2.0 (0.8)	2.2 (0.8)	2.1 (0.9)	2.3 (.077)
% used condom at last intercourse	53.0*	28.3†	20.8†	na	40.1 (<.001)
% treated for an STD in past two months	26.1*	11.1†	8.7†	7.3†	27.2 (<.001)
% talked about condoms with partner	73.2*	54.7†	26.2	na	78.7 (<.001)
% talked about AIDS with partner	65.8*	62.0*	45.0†	na	18.2 (<.001)
% talked about AIDS with other women	48.2*	36.3	31.1†	33.1	10.2 (.006)

Notes: Perceived risk of HIV infection is measured on a five-point scale; condom use intentions and barriers are measured on four-point scales. The standard deviations of the means are shown in parentheses. F-values are for means; χ^2 values are for percentages. Within a row, values with different symbols are significantly different from each other at $p < .05$. na=not applicable.

with multiple partners (53%) and lowest among those who had an exclusive, low-risk partner (21%); only 28% of women with an exclusive, risky partner had used condoms at last intercourse.

Nearly three-fourths of the women reported that they intended to either talk with their partner about using condoms, use condoms the next time they had intercourse or say no to sex if their partner refused to use condoms (not shown). Indeed, the women in this sample were much more likely to strongly agree with each of these three actions than they were to strongly disagree (43% vs. 6%).

A one-way analysis of variance showed that women who were not sexually active expressed a significantly stronger condom use intention (3.4) than did women who had an exclusive, low-risk partner (3.0). No other pairwise mean differences for condom use intentions were statistically significant.

Responses to the five-item condom barrier scale reveal that 30% of the women had some reservations regarding condom use (not shown). The respondents were more likely to strongly disagree with each statement than they were to strongly agree (14% vs. 4%). No statistical difference emerged among group means in a one-way analysis of variance—that is, women in all four groups tended to "sort of disagree" that the cited issues were barriers to condom use.

STD Treatment

In the two months before the survey, 12% of the women were treated for an STD. Results of chi-square testing suggested that the proportion receiving care for an STD was significantly higher among women

who had multiple partners than among women in each of the three remaining groups (26% vs. 7–11%).* No other group differences were statistically significant.

Talking About Condoms and AIDS

Of the women who were sexually active in the two months before the survey, 44% reported having talked about condom use with their partners. Women who had multiple partners were the most likely to have had these conversations (73%), and women who had a risky partner were more likely than those with a low-risk partner to have done so (55% and 26%, respectively); the differences between groups were statistically significant.

Some 54% of sexually active respondents had talked about AIDS concerns with their partners. Again, group differences were significant: Women who had multiple partners and those who had an exclusive, risky partner were more likely to have talked about their AIDS concerns than were women who had an exclusive, low-risk partner (62–66% vs. 45%).

Finally, 36% of the sexually active women had talked about their AIDS concerns with other women in the past two months. Women who had multiple partners were significantly more likely to have conversations about AIDS concerns with their female friends than were women who had an exclusive, low-risk partner (48% and 31%, respectively). No other pairwise differences were statistically significant.

*Some women who were not sexually active in the two months before the survey reported treatment for an STD during that period. Such reports may reflect ongoing treatment of a chronic STD or treatment of infections that were contracted prior to and detected within the two-month period.

Discussion

In this sample of low-income and largely single, young black women, 17% were at risk for HIV infection because they had multiple sexual partners. However, more women—22%—were at risk because they had an exclusive sexual relationship with a partner whom they knew or believed either to have had other sexual partners or, less commonly, to have a history of injection drug use. This difference is consistent with findings reported for a national sample of female sexual partners of male injection drug users¹¹ and for a national sample of adult women.¹²

Given that the risk of exposure to the common bacterial STDs increases with the number of recent sexual partners, and that the risk of HIV infection increases with the lifetime number of partners,¹³ these findings have important implications for public health messages and HIV/AIDS prevention programs. Prevention-oriented interventions should motivate individuals to reduce their number of sexual partners. At the same time, they need to inform individuals that they can be at elevated risk for HIV infection even when they have an exclusive sexual relationship if their partner has other sexual partners. One indication of such women's infection risk is that in our sample, about one in 10 women in an exclusive relationship with a risky partner or an exclusive relationship with a low-risk partner had recently been treated for an STD.

Our finding that condom use is more likely among women with multiple partners than among those with an exclusive, risky partner is similar to other research results.¹⁴ Additionally, we found that condom use was no more likely among women with an exclusive, risky partner than among those with a low-risk partner. The low level of condom use among women in exclusive sexual relationships with risky partners makes these women very vulnerable to HIV infection.

Other results of our analysis point to the added vulnerability of women who have an exclusive, risky partner: Although these women were comparable to women with multiple partners as regarded their perceived risk for HIV infection and intention to use condoms, they were less likely to discuss condom use with their partner. That women with an exclusive, risky partner apparently find it relatively difficult to bring up or negotiate condom use with their partner suggests that these women may face different challenges practicing safer sex behaviors than do women with multiple partners.

Although the condom use barriers scale

did not distinguish among the groups of women in different relationships, further research is needed to explore obstacles to self-protection efforts. Such obstacles include resistance to condom use and denial of the need for taking protective steps in primary relationships. They also include the psychological, social and economic costs of insisting on safer sex in the context of an exclusive relationship with a risky partner.

The fact that differences in women's relationships with men were associated with reported condom use but not with perceived barriers to condom use or condom use intentions reinforces two points made by many women. First, educators, providers and researchers need to educate males regarding the value and importance of using condoms correctly and consistently with their sexual partners. Second, researchers and manufacturers need to develop and provide women with barrier methods that they can control.¹⁵

Limitations of the present study include its reliance on self-reported data, although our use of anonymous surveys was intended to minimize response bias. Our use of a two-month recall period may have resulted in our underestimating the HIV risk level of the study population, since risky behavior occurring more than two months prior to the survey was not assessed.

Further, we did not obtain information corroborating respondents' beliefs about their regular partners' risky behavior; some women may not have known or may not have had accurate information about such behavior. Finally, the survey methodology's limitation on the number (and type) of questions that could be asked hindered our exploration of ways in which being in a long-term relationship can affect a woman's decision to ask her partner to use a condom or adopt additional safer sex behaviors that would protect her, her partner and her family.

As an increasing and disproportionate number of women have become infected with HIV, researchers have focused on the nature of women's sexual relationships with men. For example, the authors of one study have argued that women's use of condoms cannot be understood without taking into account "the gendered power relations which construct and constrain women's sexual choices and decisions."¹⁶ This focus on gender and women's inequality has also been explored by other researchers.¹⁷

Such analyses are long overdue. However, if researchers focus on the "constraints" that relationships place on women, they may underestimate or ignore completely women's capacity to in-

fluence and change their relationships. Moreover, to the extent that researchers emphasize the economic or instrumental reasons for sexual behavior, they suggest that love and emotion have little to do with the reasons why women have sex or make the choices that they do.¹⁸ In sexual relationships, women and men seek sexual pleasure, closeness, intimacy and safety; they want and need to trust, if not love, their sexual partners.¹⁹ Such important constructs are difficult to examine with quantitative methodologies.

Thus, more intensive and broader based qualitative research will be needed if we are to further our understanding of the nature of intimate relationships. Under a broader view of AIDS and HIV prevention, researchers might use qualitative research to understand how relationships shape (and are shaped by) the choices and behaviors of women and men.²⁰ More important, such an approach invites researchers from different disciplines to collaborate with one another and combine micro-level and macro-level analyses.

A micro-level analysis might seek to identify and explain the prevalence and predictors of HIV risk behavior²¹ or the psychosocial processes that contribute to declining condom use by males as the relationship continues;²² or it might examine how individuals' communication, decision-making and conflict-management styles change over time and affect condom use. A macro-level analysis might explore how changes in the number of employment opportunities and the number of available sexual partners influence individuals' perceptions of their choices, as well as the actual choices they make.²³

However, an analysis of factors operating at both levels might seek to explain how desire to trust one's partner, lack of effective communication skills, gender-based inequalities in social influence and shifts in the national economy affect women's and men's choices and behaviors.²⁴ Because such analyses would focus attention on dynamic social processes and relationships, they hold forth the promise of more effective HIV prevention programs.

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