Variables Influencing Condom Use among Intravenous Drug Users

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Abstract: Correlates of condom use were identified using cross-sectional data from a convenience sample of 211 sexually active intravenous drug users enrolled in methadone maintenance in New York City. Sixty-eight percent did not use condoms at all in the previous month and only 11 percent used condoms every time. Nineteen percent were planning on conception, only 20 percent of whom had been tested for human immunodeficiency virus (HIV) antibody (all seronegative). Multiple logistic regression analysis indicated that condom use was independently associated with greater personal acceptance of condoms, greater partner receptivity to sexual protection, and recent entry to methadone treatment. *Am J Public Health* 1990; 80:82–84.)

Introduction

Thirty percent of adult AIDS (acquired immunodeficiency syndrome) cases diagnosed in the United States during 1988 involved intravenous drug users (IVDUs).[1] In New York City, at least 50 percent of IVDUs are already HIV (human immunodeficiency virus) seropositive.[2,3] There has been extensive public health focus on reducing needle-sharing and other drug-use-related HIV transmission risks within the IVDU population.[4] However, sexual contact is an important secondary means of HIV transmission among IVDUs and is the main route of HIV transmission to the general heterosexual population.[5,6] Heterosexual contact accounted for 5 percent of US adult AIDS cases diagnosed during 1988.[1] Infected IVDU women are also the primary source of perinatal HIV transmission.[7]

Condoms are an accepted measure to prevent the sexual transmission of HIV; they also can be a useful although not fully effective birth control method for seropositive women.[8–10] One recent study found that only 13 percent of IVDUs used condoms (usually inconsistently) and that 65 percent of their sexual contacts were with non-IVDUs; the sample was drawn from a treatment population with 57 percent HIV seroprevalence.[11] Overall there has been little or no change in sexual practices in response to the AIDS threat either among IVDUs[12–14] or the general heterosexual population.[6] We present a quantitative analysis of the factors influencing IVDUs' decisions about condom use.

Methods

The study sample is 289 IVDUs enrolled in methadone maintenance who had volunteered for an AIDS prevention demonstration/research project at three New York City clinics. Because participants were self-selected, they may not be entirely representative of the clinic populations. This analysis involves the 211 subjects who had reported sexual activity within the previous month. The data are derived from baseline (pre-intervention) questionnaires completed between January 1987 and February 1988. The self-administered questionnaire consisted of fixed-response, Likert-type items and was available in both English and Spanish. Research staff were present on site to assist subjects who needed help in completing the instrument. Confidentiality was guaranteed; the results were not shared with methadone clinic staff. Subjects were paid $20 in two of the clinics and $10 in the third for completing the questionnaire. The questionnaire included measures of knowledge about AIDS and its transmission; drug use and needle sharing; sexual activities and condom use; and attitudes and beliefs related to condom use.

The dependent variable was condom use, measured by the item: "In the last month, how often did you (or your partner) use a rubber (condom) for sex?" ("Never," "sometimes," "most times," or "every time"). Responses to this question were reasonably internally consistent; subjects reporting at least some use usually disagreed with a different, negatively phrased item on condom use: "I almost never have sex using rubbers (condoms)" ($r = -.70$). For the analysis condom use was dichotomized as no use vs some use in the last month. The independent variables were drawn from theory and research on the determinants of condom use in the general population[6] and among gay/bisexual men.[15]

Results

Sixty-eight percent of the subjects did not use condoms at all in the previous month and only 11 percent used condoms every time for sex. Table 1 presents a multiple logistic regression on condom use. Variables independently related to condom use were: greater personal acceptance of condoms, greater partner receptivity to sexual protection, and recent entry to methadone treatment.

Discussion

The low rate of condom use among these subjects is consistent with findings from other surveys of addicts,[11,16] gay/bisexual men,[15] and the general population.[6]

The multivariate results indicate that norms and expectations within sexual partnerships exert the primary influences on condom use for these IVDUs. Condom acceptability (believing that condoms do not impair enjoyment of sexual relations and being willing to use condoms when requested by a sexual partner) was the variable most strongly associated with condom use. Perceived partner receptivity to suggestions of condom use and other sexual risk reduction was also directly related to condom use. That is, when individuals are amenable to condom use, and when sexual partners effectively communicate reciprocal willingness, there is greater likelihood of condoms being used in that relationship.

Beliefs, attitudes, and communication skills involving condoms can be addressed by methods such as cognitive-behavioral group work with addicts and, when possible, with their sexual partners.[17] In groups participants who already know that condoms do not interfere with sexual pleasure can encourage or challenge others to verify this for themselves; experience with condoms is likely to decrease resistance to

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TABLE 1—Multiple Logistic Regression on Condom Use

Variables	(N)	Percent Condom Use	Odds Ratio (95% Confidence Intervals)
Gender			
Male	(132)	31	1.00
Female	(79)	33	1.16 (.74, 1.84)
Ethnicity			
White[a]	(144)	31	1.00
Black	(31)	39	1.47 (.85, 2.55)
Hispanic	(36)	31	.96 (.54, 1.69)
Age (years)[b]			1.30 (.91, 1.84)
Under 30	(45)	31	
30–34	(76)	33	
35–39	(58)	28	
40 & over	(30)	33	
Marital status			(Not entered)[c]
Single, never married	(85)	39	
Married	(77)	26	
Other	(49)	29	
Living with a Sexual Partner[d]			
No	(74)	43	1.00
Yes	(137)	25	.70 (.44, 1.12)
Sexual Partners, Past Year			
One	(144)	27	1.00
Two or more	(66)	42	1.06 (.65, 1.71)
Sexual Partners Injecting Drugs, Past Year			
None	(140)	29	1.00
One or more	(70)	37	.98 (.62, 1.55)
Planning on Conception			
No	(170)	35	1.00
Yes	(39)	18	.84 (.46, 1.50)
Frequency of Heterosexual Relations, Past Month			1.91 (.83, 4.39)
One or two times	(84)	26	
One day a week	(26)	38	
A couple days a week	(78)	38	
Almost every day	(20)	20	
IV Drug Use Risk, Past Month[e]			
None	(125)	30	1.00
Injects, no needle sharing	(50)	34	1.09 (.67, 1.76)
Injects and shares needles	(36)	36	1.11 (.62, 1.97)
Knows AIDS/ARC Victims[f]			
None	(130)	26	1.00
One or more	(81)	41	1.50 (.98, 2.29)
Knows HIV Serostatus			
No	(174)	30	1.00
Yes, Seronegative	(30)	40	.80 (.29, 2.21)
Yes, Seropositive	(7)	43	1.39 (.81, 2.39)
Fatalism about AIDS[g]			
Agrees will get AIDS	(48)	40	1.00
Disagrees will get AIDS	(160)	29	.79 (.60, 1.62)
Condom Reliability[h]			
Agrees condoms break	(124)	27	1.00
Disagrees condoms break	(82)	40	1.12 (.73, 1.70)
Knowledge of Sexual Risks[i]			.91 (.71, 1.16)
Low	(52)	36	
Medium	(98)	34	
High	(61)	24	
Condom Acceptability[j]			1.75 (1.21, 2.52)
Low	(29)	10	
Medium	(116)	24	
High	(63)	56	
Condom Efficacy against AIDS[k]			1.13 (.76, 1.67)
Low	(91)	24	
Medium	(53)	28	
High	(66)	44	
Partners' Receptivity to Protection[l]			1.47 (1.02, 2.12)
Low	(24)	13	
Medium	(47)	26	
High	(135)	37	
Perceived Past Exposure to HIV[m]			1.07 (.75, 1.52)
Low	(33)	21	
Medium	(75)	35	
High	(103)	33	
Perceived Susceptibility to AIDS[n]			1.27 (.90, 1.79)
Low	(55)	27	
Medium	(88)	26	
High	(67)	42	
Time in Methadone Program[o]			.83 (.72, .96)
1–11 months	(50)	40	
12–23 months	(43)	39	
24–35 months	(27)	26	
36–47 months	(11)	0	
48 months and over	(78)	28	

[a]Includes 5 "others."
[b]Entered in regression as a continuous variable. Odds ratio is for a 5-year age interval.
[c]Not entered in the logistic regression because of high association with next variable, "Living with a Sexual Partner."
[d]"Are you now living with someone with whom you have a sexual relationship?"
[e]"In the last month, how often did you shoot up any drugs?" and "In the last month, how often did you share a needle or works with someone?"
[f]"How many people with AIDS or ARC (AIDS-related complex) do you know personally?"
[g]"My gut feeling is, I'm going to get AIDS sooner or later."
[h]"I don't like using rubbers (condoms) because they sometimes break."
[i]The correct answers were summed for seven items: "You could get AIDS by having unprotected sex with a person who shot drugs" (T); "only homosexuals can give you AIDS through sexual relations" (F); "pregnant women who carry the AIDS virus can pass it to their newborn children" (T); "anal intercourse is the only way sex can give you AIDS (F); "a positive AIDS antibody test means you could give the AIDS virus to someone through sex" (T); "you can give the AIDS virus to someone else by sex or needle-sharing even if you feel healthy" (T); "you can't get AIDS just by oral sex (F)." Higher knowledge = higher score. Entered in regression as a continuous variable.
[j]Two items were summed: "I don't like using rubbers (condoms) because they cut down on my enjoyment" (agree =0, not sure = 1, disagree = 2); "I would use rubbers (condoms) if my partner asked me" (agree = 2, not sure = 1, disagree = 0). Higher acceptability = higher score. Entered in regression as a continuous variable.
[k]Two items were summed: "Using a rubber (condom) can help protect you from getting AIDS" (agree = 2, not sure = 1, disagree = 0); "there's no way to have 'safe sex' with someone who's carrying the AIDS virus" (agree = 0, not sure = 1, disagree = 2). Higher perceived efficacy = higher score. Entered in regression as a continuous variable.
[l]Two items were summed: "My sex partner would be insulted if I suggested that we use a condom" (agree = 0, not sure = 1, disagree = 2); "my sex partner would be insulted if I suggested any changes in the way we have sex" (agree = 0, not sure = 1, disagree = 2). Greater receptivity = higher score. Entered in regression as a continuous variable.
[m]Two items were summed: "I've already done plenty that could have exposed me to AIDS" (agree = 2, not sure = 1, disagree = 0); "I never did anything that could give me AIDS" (agree = 0, not sure = 1, disagree = 2). More exposure = higher score. Entered in regression as a continuous variable.
[n]Two items were summed: "I'm worried that some of my sexual partners could give me AIDS" (agree = 2, not sure = 1, disagree = 0); "I'm worried about my chances of getting AIDS" (agree = 2, not sure = 1, disagree = 0). Higher susceptibility = higher score. Entered in regression as a continuous variable.
[o]Odds ratio is for a 6-month interval. Entered in regression as a continuous variable.

continued

their use.[18] Participants can also practice communication and negotiation skills pertinent to sexual relationships. Even if neither partner personally objects to condom use, as our data suggest is often true, one partner must nevertheless take the initiative and broach the subject of use.

Addicts who recently entered methadone treatment were more likely to use condoms. This relationship requires more detailed investigation.

It is of particular concern that, of the 39 subjects (19 percent) planning on conception, only 20 percent reported being tested for HIV antibody (all seronegative). These findings held true equally for men and women. AIDS health education must emphasize the importance of HIV testing for IVDUs who wish to conceive, given the at least 30 percent risk that seropositive women will bear infants who will develop HIV-related illness.[19,20]

The study has several limitations. Causal interpretations should be considered tentative because the data are cross-sectional. The subjects were all in methadone treatment; an estimated 15 percent of IVDUs in New York City are in treatment at any given time.[21] It is possible that a study of street addicts would yield different results, but note that we found no association between current intravenous drug use and condom use for our sample (Table 1). Not all variables hypothesized or found to be associated with condom use in the research literature were measured by the study. These include a possible belief that condoms make sex seem premeditated, possible embarrassment in purchasing condoms, and the cost of condoms for low-income persons. The first two factors, however, have seemed particularly important only for adolescents.[22–24] The cost of condoms has become a less pertinent consideration for addicts since many drug abuse treatment programs (including the study clinics), as well as AIDS prevention outreach projects, have been distributing condoms for free.

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