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Journal Title: AIDS research/AIDS policy : competing paradigms of science and public policy /

Volume: Issue:
Month/Year: 1998
Pages: 83-101

Article Author: Eric Margolis and Lisa Catanzarite

Article Title: "Sexual Behavior and Condom Use Among Injection Drug Users"

Imprint: Greenwich, Conn. : JAI Press, 1998.

ILL Number: 189494598



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SEXUAL BEHAVIOR AND CONDOM USE AMONG INJECTION DRUG USERS

Eric Margolis and Lisa Catanzarite

BACKGROUND: HETEROSEXUAL TRANSMISSION AND CONDOMS

Since 1983, when Harris and associates published the first account of heterosexual transmission from HIV infected men to their female sexual partners, it has become clear that the primary avenue for heterosexual transmission of HIV has been from injection drug users (IDUs) to their sexual partners (Booth et al. 1993; Newmeyer 1988; May 1988; Friedland and Klein 1987; DesJarlais and Friedman 1987; Guinan and Hardy 1987; Drucker 1986). Women, "now the fastest growing group of people with AIDS in the United States" (National AIDS Demonstration Research [NADR] Project 1990), are at

Research in Social Policy, Volume 6, Pages 59-82.
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ISBN: 0-7623-0421-9

particular risk from IDU partners, because IDUs are predominantly heterosexual men and because heterosexual transmission is many times more efficient from males to females than *vice versa* (Billy, Tanfer, Grady, and Klepinger 1993; Padian, Shiboski, and Jewell 1991). Nearly 36 percent of women who contracted AIDS via heterosexual contact reported sex with an IDU. Cumulatively, more than a thousand (1,228) pediatric AIDS cases are attributed to mothers who had sex with an IDU (Centers for Disease Control 1996).

Before the AIDS epidemic, drug researchers paid only cursory attention to the sexual behavior of their subjects. Most work was ethnographic or anecdotal (Hanson 1985), or concerned with pharmacological effects of various chemicals on sexual performance (Buffam 1982). As late as 1986, a study of contraceptive practices among in-treatment female heroin users found that only 3 percent used condoms and did not even mention the importance of condoms in preventing HIV transmission (Ralph 1986). After the epidemic was a known factor, research focused on IDU prostitutes, on the assumption that prostitutes offered a vector for heterosexual transmission connecting drug using subcultures with the "mainstream" (Centers for Disease Control 1987; Rosenberg, 1988; Cohen 1988; Waldorf 1990). But, prostitution may not be the main factor: IDUs themselves function as bridges to the general population by spreading HIV to non-using partners. More than half (56%) of all heterosexual cases reported between September 1989 and August 1990 were the sex partners of IDUs (Aral, Fullilove, Coutinho, and Van Den Hoek 1991). This led to an unprecedented examination of the sex lives of drug users. By the mid 1980s, epidemiologists and others had begun to publish studies focusing on behavior patterns of IDUs and their sex partners (Drucker 1986; Des Jarlais 1987a, 1987b, 1988; Friedland and Klein 1987; Guinan and Hardy 1987; Solomon and DeJong 1989; Weinstock, Lindan, Bolan, Kegeles, and Hearst 1993; Booth, Watters, and Chitwood 1993).

Condoms have been offered as an essential barrier to sexual transmission (Conant 1986; Mackintosh, Munday, Fischer, and Morgan 1986; Koop 1986), and researchers have begun to investigate condom usage in the general population. Recent studies have examined representative national samples to ascertain behavior patterns in the United States. Mosher and Pratt (1993) examined AIDS related

behavior for a national sample of sexually active women, ages 15-44, and found that 22 percent had used a condom in the previous three months. Usage rates were considerably higher for unmarried women with multiple sex partners (61%). Similarly, Tanfer and associates (1993) examined condom use among a representative sample of sexually active men, ages 20-39, in 1991, and found that 27 percent reported using a condom in the previous month. Condom use is related to perceived risk; for example, those who had a "one night stand" in the previous year were more likely to report condom use (60% vs. 28%) and men who believed they live in "high risk" communities were more likely to use condoms than those who believed they didn't. By the late 1980s, education about sexual transmission had been successful: most people were aware of the dangers. A national study revealed that 82 percent of persons at least 18 years old knew that using a condom was effective in preventing AIDS transmission through sexual activity (National Center for Health Statistics 1987). In the United States, condom usage increased dramatically. For example, use at first intercourse doubled for young women 15-19 years old, from 23 percent in 1982 to 47 percent in 1988 (Forrest 1990).

Slowing the epidemic among IDUs and their sexual partners required two different behavior changes. Preventing HIV transmission via unsterile injection equipment was perceived as critical. Prior to the AIDS epidemic, only a very small fraction of IDUs sterilized their "works." Behavior change here appears to have been quite effective. Shortly after the implementation of a community-based outreach program in the late 1980s, over half (57%) of (sexually active) San Francisco IDUs reported *always* effectively cleaning their works in the past six months (Margolis 1990). We think that the adoption of bleach sterilization was comparatively easy for a number of reasons: IDUs clearly perceived the danger; bleach was readily available and seen as effective; and using bleach did not conflict with other social norms or values. The second behavior change, the adoption of condoms, proved much more problematic.

Education did not lead to consistent condom use among IDUs and their sexual partners. In a national sample of 4,040 sexual partners of IDUs, "85% reported not consistently using condoms during vaginal sex, 53% engaged in oral sex without condoms, and of the 16%

engaged in anal sex, most reported doing so without a condom" (NADR, 1990). Seemingly, outreach programs were far more effective in curtailing unsafe needle use behavior than unsafe sexual practices (Magura 1990; Centers for Disease Control 1990a). In this paper, we ask: *Why was it far more difficult to effect changes in sexual practices than in needle behavior?* Answers require examining two different arenas: the public policy arena, where programs to change risky behaviors were designed, and the local community arena, where these programs were implemented (for a discussion of social arenas theory, see Strauss 1978, 1984). We look closely at sexual behavior and condom use among a group of IDUs in San Francisco. But first we address the public policy decisions that led to the creation of a demonstration research project using street "outreach" to curb unsafe needle use and sexual practices.

THE POLICY ARENA

As early as 1982, doctors were voicing concerns about rare cancers and virulent fungal infections in young, gay men in San Francisco. A year later, a second wave of infections was identified among black and Latino IDUs in the crowded ghettos of New York and New Jersey. In the spring of 1983, the core weekly publication of the Centers for Disease Control first referred to "high-risk groups." Oppenheimer (1992, p. 61) points out that, "Since no microbe had been isolated, risk designation was, in effect, regarded...as synonymous with carrier state."

In those early days, when a rapid response may have slowed the spread of the virus, a number of political and social factors made it difficult if not impossible for government leaders and public health workers to mount an effective response to the epidemic. The gay community delayed the city of San Francisco from closing the bath houses, successfully arguing that this would be an infringement on their civil rights (Shilts 1987; Brigham 1994). Criminal penalties for possession of drug paraphernalia precluded rapid implementation of interventions to prevent transmission via contaminated syringes. Additionally, needle exchange schemes and the strategies to promote the sterilization of injection drug equipment were often attacked as

"sanctioning drug use," or decried as genocidal against minority communities (cf. Quimby and Friedman 1989).

Researchers have offered a number of other explanations for the slow response of public health officials. Musheno (1994, p. 237) summarized explanations for the inadequate government reaction: (1) "bureaucratic turf battles, professional competition, and funding problems" (Shilts 1987; Broadhead and Margolis 1993); (2) "the strong tendency of complex organizations to fail routinely when confronted by crisis" (Perrow and Guillen 1990); (3) the specific and chronic failure of the health care system in the inner cities (Jonsen and Stryker 1993); and (4) the "ways the professional paradigm of epidemiology incorporates social and cultural ideas in isolating explanatory variables of disease transmission, and how the discourse of epidemiology (re)communicates these ideas as 'well-grounded scientific statements'" (Oppenheimer 1962).

Thus, AIDS came to be identified as a gay disease and a ghetto disease of junkies and prostitutes. The stigmatization of these communities and the reluctance of political officials to be associated with policies perceived as promoting deviant behavior also helps explain why AIDS prevention programs developed only slowly and took the peculiar forms that they did. Scientists, doctors, and health officers charged with protecting the public were forced to construe intervention programs as "research." In place of a coordinated national intervention effort, including the decriminalization and market-based distribution of syringes and a nationwide media-based condom campaign, a narrowly focused demonstration research strategy was eventually developed that allowed public health officials to implement complex safe sex and needle use programs in specifically targeted "risk" communities.

Thus, in 1987 the National Institute on Drug Abuse (NIDA) announced a request for proposals to "demonstrate the effectiveness of comprehensive...strategies in reducing the spread of AIDS among intravenous drug users and their sexual partners" and evaluate "the use of indigenous outreach workers to identify, reach and communicate with i.v. drug abusers and associates in their natural communities" (NIDA 1987, p. 1). NIDA "demonstration research projects" were initiated in five inner cities with high rates of HIV infection to evaluate a policy of teaching IDUs and their sexual partners to pro-

fect themselves and others by sterilizing injection paraphernalia and using condoms or other latex protection for sex. The NIDA programs, seemingly effective, were expanded to about 60 sites in nearly 50 urban areas (Brown 1991, p. 2).

This targeted research/intervention strategy, by flying under the political rubric of "demonstration," could try to slow the spread of the virus without drawing too much political fire. An implicit assumption was that discussing subjects taboo for the general population was not controversial for stigmatized, deviant subcultures, like prostitutes, IDUs and homosexuals. Besides, targeting high-risk groups was cost-effective, concentrating resources where virus spread appeared to be most rapid. Finally, the program bought time to change public attitudes and gave scientists the opportunity to assess intervention models.

However, this strategy entailed significant costs. First, gay men and injection drug users have always been heavily stigmatized; hence, the focus of specific interventions on *subcultures* rather than *behaviors* served to further label, isolate, and ostracize. Second, those not labeled as high-risk may have gotten a false sense of security, lulled into thinking of AIDS as a "gay" or "ghetto" disease. Perhaps most important, the concentration on high-risk communities was a substitute for broader social action to change stubborn social norms and values critical to the spread of HIV. Viruses are unaware of community borders, and infections continued to spread through crosscutting behaviors rather than through membership in specific groups. We argue that a major reason condom behavior has proved so difficult to change rests precisely in the ostensible separation of "communities at risk" from "communities at large" that inspired the design of targeted intervention projects. Assumptions about deviant subcultures encouraged a naive public policy approach, for example, that effecting change in sexual behaviors could be achieved by simple prescription ("Just Say No—unless you have a condom"). As noted, while the prescription method for risk avoidance appeared to work for needle sterilization, alternative methods were clearly needed to address the emotionally charged issues around sexual behavior.

CONTEXT: NATIONAL AIDS DEMONSTRATION RESEARCH PROJECT AND SAN FRANCISCO SITE

As noted above, NIDA instituted the National AIDS Demonstration Research (NADR), outreach, and prevention program to introduce prophylactic technologies to IDUs and their sexual partners. The investigation in this paper is based on one of the NADR project sites, in San Francisco. NADR's outreach focused on the introduction of bleach (and other needle-related prophylactic techniques) and condoms to drug using subcultures. The project also constituted the first attempt to systematically collect data on a national sample of IDUs and their sexual partners. Results describing IDU sexual behavior and condom use began reaching the professional journals in recent years (Feucht, Stephens, and Roman 1990; Kane 1990; Magura 1990; NADR 1990; Centers for Disease Control 1990a; Booth et al. 1993). This study adds to this literature; we aim to (1) provide selected descriptive information on the sexual behavior and demographic characteristics of San Francisco IDUs, (2) determine who was most and least likely to use latex protection, and (3) determine whether outreach increased the probability of latex/condom use. We highlight the complexities of effecting change in sexual behavior and inform practice with respect to AIDS risk and prevention.

FRAMEWORK

We view most IDUs as rational actors who will act to reduce risk, not as individuals too debilitated to protect against disease or with a peculiar death wish. IDUs are seen as comprising a community contiguous with mainstream communities. Our theoretical framework is essentially a model of risk aversion: we assume most IDUs behave in rational ways that are subject to intervention.

Because of the availability of prevention information and the devastating impact of AIDS in the gay male community in San Francisco (and consistent with Tanfer et al.'s [1993] findings), we hypothesize that the use of latex protection is more likely among men with male sexual partners than among other sexually active IDUs. We also test whether further differences in likelihood of latex

use (including condoms, dental dams, finger cots) exist among men with exclusively female partners and women with male and female partners.

Individuals who exchange sex for money or for drugs should be more likely to use condoms than other IDUs, since these exchanges are likely to be viewed as businesslike rather than emotional. Similarly, among individuals with multiple sex partners, the likelihood of latex use should rise with the number of sex partners; this assumes that the more sex partners, the less intimacy and the higher the perceived risk. On the flip side, IDUs with a single sex partner (in the previous six months) are more likely to be in monogamous relationships, to attach emotional significance to sex and fidelity, and to perceive lower sex-related risk; hence, IDUs with a single partner will be less likely to use protection than those with multiple partners. Another important risk factor is partners' drug use. Are IDUs who have sex with other IDUs more likely or less likely to use latex than those with nonusing partners? We test two rational alternatives: in order to protect *themselves*, individuals with exclusively IDU sex partners are more likely to use latex than those with non-IDU partners. Or, IDUs with non-IDU partners are concerned with protecting their *partners*, making them more likely to use latex than those with IDU sex partners.

Additionally, we argue that appropriate outreach *can* convince people to use condoms. Individuals who received information from community outreach workers in a street-based intervention program should be better informed about AIDS risk and therefore more likely to use protection than those who did not.

We also examined the effects of race, class background and age on the use of latex protection. Previous studies have reported contradictory findings with respect to racial/ethnic differences in condom usage. Some studies report no race/ethnicity differences when other factors are controlled (e.g., Weinstock et al. 1993, with respect to men), while others report race or ethnic differences, usually indicating higher rates of condom use among minorities than whites (e.g., Tanfer et al. 1993; Weinstock et al. 1993, concerning women); multivariate analyses are employed in some of these investigations, but not others. The propensity to use latex/condoms might be related to education (cf. Tanfer et al. 1993) or class background. We test for an

independent effect of education. And, we test age differences: older users should have greater maturity in dealing with issues of emotional commitment and lower levels of sexual risk-taking than younger IDUs.

DATA, SAMPLING, AND METHODS

The data are from structured interviews with 643 sexually active, not-in-treatment IDUs in San Francisco. Respondents were identified and recruited through a targeted sampling strategy (Watters and Biernacki 1989) to identify a population (initially defined by NIDA) that fit the following criteria: (1) at least 18 years old, (2) injected drugs in the previous six months and (3) not in a drug treatment program in the 30 days prior to the interview. Interviews were conducted between May and August of 1988, with the standardized NADR questionnaire. Eligibility was assessed at the interview site: IDUs had to display "fresh tracks," and every attempt was made to eliminate non-needle users, under-age IDUs, and others who did not meet NIDA's criteria.¹ A variety of techniques were utilized to insure that the sampling process was inclusive of San Francisco IDUs. Interview sites were set up in three inner-city neighborhoods known to have large numbers of IDUs: a church in the Western Addition, the Women's Center in the Mission District, and a single room occupancy hotel in the Tenderloin. The choice of sites was predicated on previous ethnographic studies of the geography of drug use in San Francisco (cf. Feldman et al. 1985; Feldman and Biernacki 1988). Sites were selected because of their ease of access for members of the target population, and because we hoped to capture the ethno-geographic distribution of IDUs, that is, Latinos in the Mission, African Americans in the Western Addition, and a mix from the Tenderloin, including older white IDUs and the transvestite-transsexual population (Margolis 1990). Posters plastered areas frequented by IDUs, announcing interview times and locations and a \$15 participation stipend. Many in the sample were recruited through these ads. In addition, approximately 20 indigenous Community Health Outreach Workers (CHOWS),² who were in constant contact with the target population, employed their own social networks to find and recruit

subjects, in many cases actually transporting "clients" to the interviews. CHOWs and other staff recruited to insure that the sample was inclusive in terms of race/ethnicity, gender, social status, and sexual orientation.

All sexual behavior variables capture activities *in the six months prior to the interview*. *Latex* indicates whether the respondent "never" vs. "ever" used condoms/latex in that period. *Male w/ Male Partner/s* identifies men who had any male partners, *Male w/ Female Partner/s*, for men with exclusively female partners, *Female w/ Male Partner/s*, for women with any male partners, and *Female w/ Female Partner/s* for women with exclusively female partners. *Sex w/IDU* indicates whether any sexual partners were IDUs. *Single Partner* distinguishes respondents with only one sexual partner. Among those with multiple partners, further distinctions were made: *Sex for Money* and *Sex for Drugs* indicate the respondent exchanged sex.³ *#Partners* gives the number of sexual partners greater than one (for those with multiple partners). *Outreach* indicates whether or not respondents had received AIDS prevention information from a street-based outreach project. *Age* is in years. *Race* is categorized as Black, Hispanic, white, and other; *Education* is eighth grade or less, some high school, high school graduate, some college, and college graduates.

After providing descriptive information, we employ multivariate logistic regressions to estimate the likelihood of using latex protection, and present a model with statistically significant effects only. Nonsignificant effects, omitted from the final model, are discussed in the text. Finally, and to help elucidate the findings from our multivariate analysis, we provide reasons given by respondents for lack of compliance with safer sex practices.

RESULTS

Table 1 provides descriptive information on the sample. Variables in boldface show a significant relation with condom/latex use in the multivariate analysis presented further on.

Men who had sex with at least one male partner in the past six months constituted 10 percent of the sample. Most respondents

Table 1. Descriptive Information on Sexually Active IDUs Demographic and Behavioral Characteristics, Outreach

Variable	Percentage ^a or Mean
Gender of Respondent and Partner/s	
Male w/ Male Partner/s	10%
Male w/ only Female Partner/s	60%
Female w/ Male Partner/s	28%
Female w/ only Female Partner/s	1%
Single Partner	47%
Multiple Partners	
Sex for Money	16% ^b
Sex for Drugs	10% ^b
#Partners^c	mean = 19 (s.d. = 78)
2	15%
3	11%
4-10	16%
11-666	10%
Sex with IDUs	69%
Outreach	72%
Age	mean = 38 (s.d. = 9)
Race	
Black	61%
Latino	13%
White	22%
Other	4%
Education	
0-8 Grade	6%
9-11 Grades	35%
High School Graduate	32%
Some College	24%
College Graduate	4%

Notes: a. Percentages may not add to 100, due to rounding. Number of valid cases ranges from 565-643.

b. Not asked of respondents with only one partner.

c. Those with one partner were coded to 0 on this variable.

(60%) were behaviorally heterosexual men; 28 percent were women with at least one male partner; and 1 percent were women with only female partners. Forty-seven percent of sexually active IDUs had only a *Single Partner*, just over a quarter had 2-3 partners and about another quarter, four or more sex partners in the past six months. Sixteen percent exchanged sex for money; 10 percent bartered sex for drugs. Most IDUs had sex with other IDUs (69%); this leaves a sizeable minority whose partners were exclusively non-users, highlight-

ing the permeability of borders between IDU groups and wider communities. Seventy-two percent of IDUs received AIDS-related outreach information. Mean age was 38. Most respondents were black (61%), followed by Anglos (22%), then Latinos (13%). Most IDUs had at least some high school; 28 percent had attended or completed college.

Table 2 provides information on recent sexual activities. The overall percentage who ever used condoms/latex (in bold type) is the dependent variable for the logistic regressions. Detail on selected sexual activities and latex use for those activities is also given.

Somewhat less than half (43%) of sexually active respondents used condoms/latex. Other findings include: 26 percent had coitus during menses, a high risk behavior (due apparently to the increased lymphocyte population in the genital tract during menses, cf. Van de Perre et al. 1988), and of these only 27 percent used condoms for this activity. Notably, 27 percent engaged in anal intercourse, and this activity is by no means restricted to men-with-men: 23 percent of the

Table 2. Descriptive Information on Condom/Latex Use and Sexual Activities Ever in Past 6 Months

Used Condom or Other Latex Protection	Percent used Latex 43%	
	Percent Did Activity ^a	Percent of Participants Used Latex
Engaged in Vaginal Intercourse Condom for Vaginal Intercourse	90%	41%
Engaged in Vaginal Intercourse During Menses Condom for Vaginal Sex During Menses	26%	27%
Engaged in Fellatio Condom for Fellatio	75%	25%
Engaged in Cunnilingus During Menses Latex for Cunnilingus During Menses	14%	18%
Engaged in Anal Intercourse Condom for Anal Intercourse	27%	37%
Engaged in <u>Insertive</u> Anal Intercourse Condom for Insertive Anal Sex	21%	37%
Engaged in <u>Receptive</u> Anal Intercourse Condom for Receptive Anal Sex	10%	46%

Note: a. Number of valid cases ranges from 599-639-639 for variable, Ever Used Condom/Latex.

Table 3. Logistic Regression Predicting Condom/Latex Use Among Sexually Active IDUs

Variable	B	S.E.	2-Tail Signif.	Odds Multiplier
Single Partner	-.7272	.2327	.0018	.4833
Sex for Money	.7920	.3353	.0182	2.2079
Sq.Root #Partners	.0938	.0480	.0507	1.0984
Sex w/IDU	-.8173	.2174	.0002	.4416
Male w/ Male Partner/s	.8630	.3106	.0090	2.3703
Age	.0247	.0111	.0265	1.0250
Outreach	.4493	.2166	.0380	1.5672
Constant	-1.0120	.5306	.0565	

N = 536

Note: Model Fit: Information Chi-Square 74.42, df = 7, p < .00001.

behaviorally heterosexual men and 14 percent of the behaviorally heterosexual women in the sample had anal sex. Only 37 percent of those who engaged in anal sex reported using protection.⁴

Table 3 provides the heart of the analysis: results from the logistic regression model that best estimated latex use. The findings indicate that IDUs with multiple partners who traded sex for money were most likely to use condoms/latex, followed by those with multiple partners but no cash-sex exchange; IDUs with one partner were least likely to use protection, net of other factors.⁵ Further, the more partners, the greater the probability of condom use.⁶ Notably, respondents who had sex with other IDUs were far less likely to use condoms/latex than were users with exclusively non-IDU sex partners. The low rate of latex use among those with IDU sex partners is unrelated to needle sharing with those partners, and hence, cannot be considered a well-calculated risk.⁷ Not surprisingly, gay/bisexual men were significantly more likely to use latex than other IDUs. The older the IDU, the more disposed to using condoms/latex. Those who received information from a street-based intervention program were more likely to use condoms than others. *Race* is excluded in the model in Table 3 because it was unrelated to latex use, in both bivariate and multivariate analyses. Education and Sex for Drugs were also unconnected to condom/latex use.

In an attempt to elucidate lack of compliance with safe sex practices, we examined the reasons IDUs gave for not using latex (for those who reported not *always* using protection) in Table 4. Respondents could cite multiple reasons or no reasons; because the survey protocols did

Table 4. Reasons Given for Not Always Using Condoms or Other Latex Protection^a

Reason	N	%	N responding
Respondent Doesn't like Condoms	173	66%	263
Men	137	72%	191
Women	35	51%	69
Partner/s Don't like Condoms	87	44%	196
Men	47	37%	127
Women	40	58%	69
Can't Get Aids from Partner/s	83	47%	176
Can't Give Aids to Partner/s	71	40%	176
Partner Thinks S/He is Safe	65	37%	175
Too High	52	20%	265
Wants Baby	42	14%	301
Accusing Partner/s	24	14%	176
Uncomfortable Talking About	27	10%	264
Afraid of Getting Hurt	8	4%	198

Note: a. Respondents named all reasons that applied. Categories are not mutually exclusive.

not aim for systematic responses, these results should be regarded as suggestive only.

The most common reasons given for not using latex were simply that the respondent did not like condoms/latex (66%) and/or the sexual partner/s did not (44%). Men were more likely to report not liking condoms (72% of the men and 51% of the women responding), while women were more likely to report their partner's dislike (58% of women, 37% of men). The next most common reasons were the beliefs that the respondents could not *get* AIDS from partner/s (47%), could not *give* AIDS to partner/s (40%), or that partner/s thought themselves to be safe (37%). Being too high was reported by 20 percent. Small subgroups wanted a baby (14%), felt they would be accusing their partner/s (14%) or were uncomfortable talking about condoms (10%). Only a tiny fraction reported being afraid of getting hurt (4%) as a reason for not using protection.

DISCUSSION AND CONCLUSIONS

Compliance with condom use, while apparently higher among IDUs in San Francisco than in other cities (cf. NADR 1990) or in the general

population (cf. Tanfer et al. 1993; Mosher and Pratt 1993), continues to be problematic, particularly for sexual practices known to be highly perilous for HIV transmission: Anal intercourse is practiced by a large share of IDUs—including many heterosexuals—and relatively few (37%) report condom use for this high-risk activity. Further, about a quarter of IDUs had coitus during menses, despite its high risk (cf. Van de Perre et al. 1988), and only 27 percent of these participants used condoms. This suggests a lack of understanding that intercourse during menses is especially dangerous, and moreover, a tendency to view condoms in terms of *birth control*. If condoms are seen as contraception, then heterosexuals will not utilize them during menses, nor—perhaps more importantly—for anal sex.

Problematic also is the low rate of safer sex among those with one partner.⁸ In monogamous relationships, introducing condoms may be very difficult, given the emotionally laden, symbolic meanings of condom use (cf. Gillman and Feldman 1990 for a qualitative study of monogamous couples in our San Francisco sample). But, the higher probability of condom use among those with multiple partners, and the even higher rates for those who trade sex for money, indicate that these groups are at least somewhat concerned with safer sex practices. Notably, the higher likelihood of condom use among those who trade sex for money is not strictly due to having more sexual partners. Because those who trade sex for cash are likely to view the exchange as a business transaction, the introduction of latex should be facilitated. The fact that condom use increases with number of partners also suggests rational risk reduction. Further, since quantity is probably inversely related to degree of emotional involvement with partners, these findings are consistent with our contention that lesser emotional involvement facilitates condom use. (We also note that the effect of number of partners is related, in part, to the greater number of *opportunities* to use protection in the past six months.) We suspect that IDUs who barter sex for drugs do not view the exchange as a business deal, since trading sex for drugs was unrelated to condom use. Perhaps these IDUs regard the sex as part of the "fun" of the drug experience; or, this group may include those so desperate for the high that they disregard safety.

Most dangerous, in our view, is the tendency for IDUs with IDU sex partners not to use latex protection. This is clearly a high risk

practice since most IDUs in our sample share works with people other than their sex partner/s (89% of all respondents and 87% of those with one sex partner), escalating their risk of HIV infection. For IDUs with multiple partners, this finding suggests general risk-taking behavior among IDUs, and importantly suggests that unsafe sexual practices could spread the virus widely in San Francisco both inside and *outside* the IDU community. The latter is quite possible, since IDUs with IDU partners may also have sex with non-users. On the flip side, the *higher* probability of condoms/latex use for those without IDU sex partners suggests that this group may be exhibiting some responsibility to their non-using partners: that is, protecting partners by using condoms.

The high likelihood of condom use among males with male partners was clearly a risk reduction strategy (since birth control is not at issue) and was certainly related to widely available information on HIV and the devastating effects of AIDS in the gay community. We think that social norms regarding condoms underwent a much more profound transformation in the San Francisco gay and bisexual community than in the IDU population or the population at large. Compliance with safer sex protocols is clearly problematic among IDUs (and the general population). But, it is amenable to change: the analyses show that IDUs who received information from the outreach project were more likely to use latex than those who did not. This suggests that social norms and behaviors can be influenced via targeted education projects.

In contrast to other studies, the only demographic factor relevant to condom use was age. And, contrary to Tanfer and associates's (1993) findings on the general population of young men (20-39 year olds), we found that older IDUs were more likely to use latex protection than younger IDUs. We interpret this as an effect of maturity.⁹ In general, recklessness probably declines with age; and, it is likely that older IDUs have been managing their habits longer than younger IDUs (though we did not test the effect of years of injection drug use on the probability of using latex).¹⁰

Schooling was unrelated to safer sex. If education contributes to personal efficacy or rational decision making, such effects were not evident in our sample. Race was unrelated to using condoms, *in bivariate and multivariate models*. We regard this as a particularly

important result. Other studies have focused on race as a salient divisor for risky sexual behavior, even when differences appear insignificant, for example, Feucht and associates (1990) provide analyses of condom use and anal sex separately for black and white IDUs, though race differences were *minimal*. We find such an emphasis to be misplaced and suggest wider use of multivariate analyses to disentangle effects of demographic and other characteristics that may contribute to safer practices.

We further attempted to elucidate the reasons that IDUs did not consistently comply with safer sex protocols. In general, the responses suggest avoidance behavior. This appears especially true for the considerable number of IDUs who reported believing that they could not give AIDS to or receive AIDS from their current partner/s and those whose partner/s thought themselves to be safe. These beliefs are out of sync with reality, given the high rates of needle sharing (83%) and sex with other IDUs (69%), in conjunction with only moderate rates of effective cleaning (57%) and safe needle use (60%). Our interpretation is supported by the fact that reasons for not using condoms were *unrelated* to safe needle use practices or to knowledge of serostatus. (Results available upon request.) Noncompliance appears to be a preference, as suggested by the high percentage of IDUs who indicated that they or their partner/s simply *didn't like condoms*. Further, the fact that women appear more willing to practice unsafe sex because of the preferences of their partners than do men, suggests that women may have less power than men in negotiating condom use. We do think, however, that avoidance behaviors and preferences are amenable to change, given the appropriate public education and outreach strategies. And, this is likely to be true not just for IDUs (or gay men), but for the population at large.

Our study suggests that outreach efforts can increase compliance with safer sex practices. However, it may be that messages to IDUs should be more explicit: for example, outreach could address the increased risks associated with coitus during menstruation and anal sex, as well as the special risk posed by IDU sex partners. Further, increased efforts could be targeted at monogamous IDUs, younger users, and those with IDU sex partners, since these groups appear least likely to use latex protection. Conversely, perhaps nothing

more should be done. It may be the case, as many believe, that this is a debilitated population unable to act in a rational and consistent manner.

But, sociological explanations can help elucidate the less than optimal compliance rates. Injecting drugs or exchanging sex for money should be conceptualized as behaviors that change over time; yet, most studies to date are based on assumptions that the "spoiled identity" of IDU or prostitute is forever. Despite Goffman's (1963) work on how stigma functions, and Becker's (1963) classic description of drug use as a career, NIDA's focus on epidemiological "risk factors" led researchers to construct analytic categories defining subjects as either junkie or not, whore or not. By contrast, Biernacki (1986) offered a view of heroin addiction as a life stage, where injectors were members of wider communities, and it was precisely community connections that allowed some addicts to stop using and leave the IDU subculture behind. Failure to perceive these wider connections limits the effectiveness of our interventions.

Condom use involves fundamental attitudes, values, norms, and taboos, as well as gendered power relations. In this, IDUs and their sexual partners are clearly not a distinct community but are ecologically contiguous with the dominant culture. IDUs and prostitutes are tied to social circles, neighborhoods, job networks, kinship groups, and families in the same way as everyone else. They have friends and, moreover, sex partners from the wider community.

Effective public policy requires recognition that the social norms governing condom use among IDUs resemble those in the dominant society. Introducing a condom in a sexual relationship is more complex than introducing bleach to a circle of drug injectors. The fact that IDUs with one sex partner were unlikely to use condoms may suggest that for them, just as for other couples, concerns about fidelity and love confound decisions about safer sex practices (see, e.g., Gillman and Feldman 1990). Similarly, the fact that IDUs who traded sex for money were more likely to use condoms than others indicates that the exchange relationship and the cathectic love relationship are governed by fundamentally different norms: prostitutes are frequently more in control of the terms of professional transactions than of their emotional relationships.

We suspect that people maintained a high level of cognitive dissonance, rationalizing, ignoring, or failing to perceive danger in their sexual behavior. Condom use is stigmatized and frequently comes in conflict with powerful norms and values. Profound sociological factors may help explain why more IDUs do not practice safer sex. Much remains to be done to address AIDS transmission and risk exposure. We need more research on the most effective types of outreach, and we need to identify the other environmental and individual factors that contribute to safer sex. Analyses that model individuals' networks of injecting and sex partners would also contribute greatly to our knowledge. Our findings suggest that outreach can influence risky sexual behavior on the part of IDUs, and such efforts should certainly continue. But, if we are to change the norms governing condoms, we cannot simply apply targeted interventions to "high risk" groups. Public education and outreach projects are needed to change the dominant norms governing condom usage and sexual practices as well.

ACKNOWLEDGMENT

We would like to thank Michael Musheno, Richard Berk and David Grusky, as well as John K. Watters and Patrick Biernacki (posthumously), Harvey Feldman, and the staff at the Mid-City Consortium to Combat AIDS. This research was supported by grants from the National Institute on Drug Abuse #s 5R01DAV4319 and 5R18DAO5879-01. Also, Catanzarite gratefully acknowledges partial financial support from the National Institute for Mental Health (#MH-19127). Earlier versions of this paper were presented at the Pacific Sociological Association Annual Meeting, San Diego, April 1994, the American Sociological Association Annual Meeting, Cincinnati, Ohio, August 1991, and the National Institute for Mental Health AIDS Conference, February 28-March 1, 1991, Washington, D.C.

NOTES

1. A bigger problem than interviewing those who were not eligible was eligibles taking the instrument more than once. We made efforts to prevent this (albeit with uncertain success) and cleaned the data carefully, using birthdate and other variables to identify and remove duplicate interviews.

2. CHOWs were employed to distribute bleach and condoms and conduct "street-based education" with IDUs, sex workers, and others. See Broadhead and Fox (1990), Margolis (1990, 1991), and Fox (1991) for detailed and sometimes contradictory descriptions of the outreach effort.

3. The survey protocol omitted the sex trade questions for those with one partner; it is reasonable to assume that these IDUs didn't exchange sex. Another limitation of the questionnaire is that it did not distinguish on which side of the transactions respondent were.

4. Further analyses reveal that condom use for anal sex was much less prevalent among behaviorally heterosexual men and women than among gay/bisexual men (chi-square = 5.70, $df = 1$, $p < .017$ for receptive anal sex; 8.63, $df = 1$, $p < .003$ for insertive anal sex). The majority of men with male partners used condoms both for insertive (55%) and receptive anal sex (60%). But only 28 percent of the heterosexual men and 30 percent of the women who had anal intercourse used condoms for this risky behavior.

5. Respondents were effectively divided into three groups by the inclusion of the two variables, *Single Partner* and *Sex for Money*; the reference group (omitted category) is IDUs with multiple partners who did not trade sex.

6. The nonlinear effect indicates that the probability rises with number of partners up to a point, then levels off.

7. If IDUs shared needles only with their sex partner/s, this finding might be considered somewhat rational. However, in other analyses, we found no relation between condom use and *sharing needles with sex partner*, regardless of whether or not IDUs were among sex partners.

8. If these IDUs were indeed in long-term, monogamous relationships and shared needles only with their partner, the tendency not to use latex might be considered less serious. This is usually not the case. Needle sharing is extremely widespread: in our sample, a full 87 percent of those with a single partner reported sharing needles with IDUs *other than their sexual partner*.

9. The linear effect of age also suggests that condom use is probably not viewed strictly in terms of birth control, since older IDUs are less likely to be fertile or have partners who are.

10. In support of this notion, Margolis and Catanzarite (1990) found that always cleaning needles was positively associated with age among IDUs in San Francisco.

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PUBLIC SCHOOL POLICIES IN THE AGE OF AIDS

Tina Richerson and Eric Margolis

It was in American schools that racial equality acquired new meanings, and in the aftermath of busing and black power came other questions concerning sexual equality and student freedoms and fair treatment of the handicapped. School boards debated these matters; class hours were given over to previously undreamt of topics; parents argued; organizations were formed; lawsuits were filed; state and federal officials intervened or stayed away—the entire arsenal of American political life was put on display.

—So too with AIDS (Kirp et al. 1989, pp. 18-19).

INTRODUCTION

Each day one quarter of the U.S. population assembles in public schools—teachers, students, janitors, administrators, cooks—all sharing the same air, restrooms, and drinking fountains. In such an

Research in Social Policy, Volume 6, Pages 83-101.
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 ISBN: 0-7623-0421-9