Psychosocial Predictors of HIV Risk Among Adolescent Offenders Who Abuse Drugs

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AIDS has become the sixth leading cause of death among youths between the ages of 15 and 24. The risk of contracting HIV is even greater for adolescent offenders who abuse drugs than for other adolescent youths (1,2). Compared with other populations of adolescents who do not abuse drugs or engage in illicit activities, this population is thought to be at highest risk of HIV infection due to higher levels of risk behavior (3–6); psychopathology such as conduct disorder, impulsivity, affective lability, and impaired attention and judgment (7); lower self-efficacy (belief in one's ability to act effectively) and more risky perceived peer norms about sex practices (8); and different patterns of HIV risk factors such as trading sex for money, drugs, food, and shelter (3,9).

Gillmore and associates (10) reported that compared with other youths, juvenile offenders have a disproportionately high risk of contracting HIV and other sexually transmitted diseases (STDs). Compared with peers, minority juvenile offenders initiate sexual intercourse at a younger age, have higher pregnancy and STD rates, use condoms less frequently, have less knowledge about HIV, perceive themselves as less susceptible to contracting HIV, have lower self-efficacy to prevent HIV infection, and have less favorable views of safer-sex practices (10). Other data suggest that, compared with nonincarcerated peers, adolescent offenders have more permissive attitudes toward sex, show greater disdain for safer-sex practices, and have less power to control their environment to protect themselves from contracting HIV (11).

Family dysfunction may also mediate HIV risk for adolescents (12–14). For example, particularly relevant mediating factors of HIV risk may be chemical dependency; physical, emotional, and sexual abuse; parent-adolescent conflict; family solidarity and closeness; and lack of family and peer support for abstinence or safer-sex practices (13,15,16).

Despite the high risk levels among drug-abusing adolescent offenders, little research has been conducted to delineate the mechanisms associated with the adoption of safer-sex practices among drug-abusing adolescent offenders. More information is needed about the type and range of adolescent sexual behavior to help develop interventions that target adolescents within the context of adolescent sexual behavior, focusing on the individual and his or her social context.

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Methods

Participants were 65 consecutive admissions between October 1995 and May 1996 to an inpatient adolescent substance abuse program. The subjects had a history of having engaged in consensual sexual intercourse, their HIV status was reported as seronegative or unknown, and they had no current evidence of psychotic symptomatology or gross cognitive dysfunction. After giving informed consent, the youths were administered a structured interview to gather sociodemographic information and information about their HIV-related knowledge and attitudes, history of sexual abuse, and sexual and drug use behaviors

Forty-six subjects (70 percent) were males. Subjects' mean±SD age was 15.5±1.4 years, and mean±SD age at first drug use was 13.2±2 years. The mean education level was 9±1.7 years. Subjects were predominantly ethnic minorities; 20 subjects (31 percent) were African American, 33 (51 percent) were Hispanic, 12 (18 percent) were non-Hispanic white, and two (3 percent) were from other groups.

In the 30 days before admission to the program, 52 subjects (80 percent) used cannabis, 36 (56 percent) used alcohol, 18 (27 percent) used cocaine, seven (11 percent) used roofies (flunitrazepam), five (8 percent) used hallucinogens, four (6 percent) used ecstasy, three (5 percent) used inhalants, one (2 percent) used amphetamines, and one (2 percent) used

poppers (amyl nitrite). Injection drug use was acknowledged by two subjects (3 percent).

Results

All subjects had been sexually active during their lifetime. In the month before treatment, 29 subjects (45 percent) reported having one sex partner, and 16 (24 percent) reported having more than one partner. The number of lifetime sex partners ranged from one to 30, with a mean±SD of 7.2±6.7 partners.

Approximately half of the subjects reported never having used a condom, and only about a third reported consistently using condoms during penetrative intercourse. Forty-five subjects (69 percent) reported having had sex while intoxicated with alcohol or other drugs at some time in their life. Eleven subjects (17 percent) admitted to exchanging sex for money, and ten (15 percent) acknowledged trading sex for illicit psychoactive drugs. Eight subjects (12 percent) reported that they had at some point been diagnosed with a sexually transmitted disease.

Despite considerable HIV sexual risk behavior, only 13 subjects (20 percent) labeled their behavior in the 30 days before treatment as placing them at risk for contracting HIV. Perceived susceptibility to contracting HIV was moderately low, whereas HIV-related anxiety was neutral to moderately high. HIV-related knowledge was adequate; on a brief quiz, subjects answered a mean of 82 percent of the items correctly. However, they held several common misperceptions. These included believing that serial monogamy was protective against contracting HIV and that HIV could be spread through "dry" kissing or mutual masturbation.

Belief in the effectiveness of condoms in reducing HIV risk (response efficacy) and confidence in being able to use condoms or otherwise control risk exposure level (self-efficacy) were both moderately high. Intentions to adopt a safer level of condom use and safer-sex behaviors with partners in the 30 days after discharge were also moderately high. Attitudes toward condom use were moderately positive.

A few significant gender differences were observed. Females reported more cocaine use than males in the 30 days before treatment (21 versus 8.6 mean episodes of use; $t=2.19$, $df=21$, $p<.05$). Significantly more females acknowledged a history of having been forced to engage in nonconsensual sex (35 percent versus 4 percent of males; $\chi^2=13.8$, $df=1$, $p<.001$).

When a one-way analysis of variance followed by the least-significant-difference post hoc test was used, a few ethnic differences were also evident. African Americans initiated sexual activity at an earlier age ($F=4.8$, $df=2,67$, $p<.02$), and non-Hispanic whites initiated drug use at an earlier age ($F=3.8$, $df=2,32$, $p<.04$). Hispanics had greater intentions to reduce the number and the riskiness of their partners (sex partner risk) in the 30 days after discharge ($F=3.7$, $df=2, 64$, $p<.03$).

Bivariate correlates of condom use during the 30 days before treatment included greater HIV-related anxiety ($r_{pb}=.38$, $p<.02$), better sexual self-efficacy ($r_{pb}=.50$, $p<.002$), more positive attitudes toward condoms ($r_{pb}=.54$, $p<.001$), greater intentions to use condoms in the 30 days after treatment ($r_{pb}=.60$, $p<.001$), and less use of injection drugs in the 30 days before treatment ($r_{pb}=.29$, $p<.05$).

Logistic regression analysis was used to determine predictors of condom use. Predictors were greater intentions to use condoms, fewer intentions to reduce sex partner risk, and increased self-efficacy (model $\chi^2=31.4$, $df=3$, $p<.001$).

Bivariate correlates of having more sex partners in the 30 days before treatment included more positive attitudes toward condoms ($r_{pb}=.27$, $p<.05$), having gay or bisexual partners ($r_{pb}=.31$, $p<.02$), trading sex for drugs ($r_{pb}=.51$, $p<.001$), and trading sex for money ($r_{pb}=.36$, $p<.004$).

Using condoms was unrelated to engaging in nonmonogamous sex. Multiple linear regression analysis showed that more positive attitudes toward condoms and having gay or bisexual partners were predictive of having more sex partners in the 30 days before treatment (adjusted $R^2=.18$, $F=6.6$, $df=2,50$, $p<.003$).

Discussion and conclusions

The study found considerable HIV sexual risk behavior among this sample of 65 disenfranchised, drug-abusing juvenile offenders. These youths typically failed to perceive themselves as at risk for contracting HIV, even though they generally had adequate levels of knowledge about the virus. Interventions with this population should seek to instill accurate perceptions of risk and clarify any remaining misperceptions about HIV transmission. Psychoeducational interventions to enhance self-efficacy may be particularly effective in increasing condom use in this population.

Gender-specific interventions may be needed for female adolescent drug abusers to address more serious addiction problems, as well as past experience with nonconsensual sex that may hinder the ability to successfully refuse unwanted sexual advances or negotiate safer-sex practices. As indicated by Miller and colleagues (17), female adolescents typically have sexual partners who are older. The older the male sex partner, the greater possibility of risk for HIV transmission because the male is more likely to have had multiple partners and more varied sex and drug experiences. In addition, it is likely that power differences are greater between older and young partners, which may contribute to greater HIV risk and nonconsensual sex.

The findings demonstrate a strong need for designing, testing, and evaluating HIV prevention interventions for this vulnerable population. Further investigation is also needed to understand the relation between HIV risk and systems of family and social support, family dysfunction, and gender-specific behavior for drug-abusing adolescent offenders. ♦

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