

Sexually transmitted infections, drug use, and risky sex among female sex workers in Guyana

Introduction

In Guyana, a steep increase in HIV seroprevalence was observed among female commercial sex workers (CSWs) during the last decade; from no evidence of HIV infection in 1988, to 25% in 1993, and 46% in 1997.¹⁻³ The dynamics of transmission as well as the distribution and determinants of high risk sex among them are poorly understood. The aim of this survey was to describe factors that may facilitate HIV transmission in this population.

Method

Ethical clearance was obtained from the ministry of health. In 1997, a survey was conducted among 73 street based and 51 brothel based female CSWs. Following verbal consent, a pretested questionnaire was administered by trained interviewers to collect data on sociodemographics, condom use, sexually transmitted diseases (STDs), and drug use (alcohol, "crack" cocaine, and marijuana). Drug use was classified as "ever" versus "never." Condom use was dichotomised as consistent (always) or inconsistent (sometimes or never). Logistic regression was used to determine independent predictors of high risk sex.

Results

Their mean age was 30.6 years (SD 7.2 years) and their median time in sex work was 3.0 years. The street based and brothel based CSWs were similar with respect to age, marital status, and time in sex work.

Sixty four per cent reported a history of at least one STD; 45% had genital discharge, 16% had vaginal ulcer, 25% had syphilis, and 16% had other STDs. In addition, 33 had salpingitis. Drug users were more likely to report STDs.

None of the women admitted injection drug use. Fifty one CSWs reported marijuana use

and 27 admitted using crack cocaine. All of the crack cocaine users, except one, reported they smoked marijuana. Forty one (34.5%) indicated that they were always under the influence of alcohol while having sex with their last 10 clients. Brothel based CSWs were more likely to have been under the influence of alcohol while having sex with their last 10 clients (59.2% v 17.1%; $p < 0.001$) and less likely to use marijuana (30% v 49%; $p = 0.03$) and crack cocaine (15.7% v 26%; $p = 0.169$).

Forty four (36%) CSWs reported inconsistent condom use with clients and 88% use condoms inconsistently with their stable partner. Seventy nine CSWs reported sex during menstruation. No significant differences were found between the brothel based and street based women with respect to sex during menstruation and frequency of condom use with clients. Factors that were significantly associated with inconsistent condom use with clients and sex during menstruation are shown in table 1. Crack cocaine use predicted inconsistent condom use while marijuana predicted sex during menstruation.

Discussion

The absence of injection drug use suggests that unsafe sexual intercourse may be the major risk behaviour for acquisition of HIV. The simultaneous presence of high levels of STDs, inconsistent condom use, and multi-drug use, should be a cause for concern, as they may interact to provide fertile conditions for sexual spread of HIV. In addition to their role in enhancing HIV transmission,⁴ STDs may also be an indicator of the extent of their potential exposure to HIV infection. Consistent with research that was conducted elsewhere,^{5,6} we found that drug users were more likely to engage in high risk sex. The

exact reason for this relation in this population is unclear. The low rate of condom with stable sex partners suggests that future studies should investigate the role of these partners both as a source of HIV/STDs for the CSWs, as well as a potential bridge for HIV transmission into the community.

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Table 1 Factors associated with inconsistent condom use with clients and sex during menstruation—female sex workers in Guyana

	Risk behaviour		Sex during menstruation	
	Inconsistent condom use		Sex during menstruation	
	Univariate effect OR (95% CI)	Multivariate effect* OR (95% CI)	Univariate effect OR (95% CI)	Multivariate effect* OR (95% CI)
(1) Cocaine use	4.4 (1.9, 10.5)	5.59 (2.04,15.3)	18.5 (3.8,87.0)	6.3 (0.7, 57.6)
(2) Marijuana use	1.3 (0.6, 2.70)	—	8.10 (3.1,20.9)	4.3 (1.4, 13.5)
(3) Being married	7.4 (1.8, 30.8)	11.14 (1.92,64.7)	1.48 (0.3,7.70)	—
(4) Condom possession	0.3 (0.1, 0.90)	0.38 (0.11,1.32)	0.58 (0.2,1.50)	—
(5) Street walker	2.2 (1.0, 4.70)	2.10 (0.83,5.10)	1.63 (0.8,3.60)	—
(6) Secondary education	2.1 (1.01, 4.5)	2.30 (0.94,5.47)	1.96 (0.9,4.40)	—

OR = odds ratio; CI = confidence interval.

*Only variables that were significant on univariate analysis were placed in the multivariate model.