

TRANSACTIONAL SEX IN DRUG USERS AS A RISK FACTOR
FOR SEXUALLY TRANSMITTED INFECTIONS

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ABSTRACT

INTRODUCTION: TRANSACTIONAL SEX (TS) INVOLVES THE EXCHANGE OF AN ECONOMIC GOOD OR SERVICE (ACCOMMODATION, TRANSPORTATION, PROTECTION OR DRUG SUPPLY) FOR ANY KIND OF SEXUAL SERVICES. SEVERAL STUDIES HAVE REPORTED A SIGNIFICANT CORRELATION BETWEEN THE CONSUMPTION OF HEROINE, CRACK-COCAINE AND OTHER STIMULANTS AND THE EXCHANGE OF SEX FOR MONEY OR DRUGS. A RISK FACTOR FOR SEXUALLY TRANSMITTED INFECTIONS ASSOCIATED WITH TRANSACTIONAL SEX DERIVES FROM THE IMPOSSIBILITY TO NEGOTIATE CONDOM USE OR REFUSE HIGH RISK SEXUAL PRACTICES. OBJECTIVE: STUDY DRUG ABUSE AND TRANSACTIONAL SEX AS RISK FACTORS FOR SEXUALLY TRANSMITTED INFECTIONS. METHODOLOGY: A DESCRIPTIVE CROSS-SECTION STUDY WAS CONDUCTED BETWEEN AUGUST AND NOVEMBER 2012. THE SAMPLE WAS MADE UP BY OF AGE, SPANISH-SPEAKING PATIENTS SEEKING MEDICAL CARE AT THE BI-NATIONAL STUDENT CLINIC (HFIT). RESULTS: IN DRUG USERS THE RISK OF CONTRACTING CHLAMYDIA INCREASED 3%, AND INCREASES 8 FOLDS FOR SYPHILIS, 3 FOLDS FOR GONORRHEA, AND 7 FOLDS FOR HEPATITIS. IN GENERAL, THE RISK OF CONTRACTING A SEXUALLY TRANSMITTED

INFECTION REPORTED WAS OR = 4.25 (2.05-8.80 IC=95%) FOR DRUG USERS PRACTICING TRANSACTIONAL SEX COMPARED TO THOSE WHO DO NOT. CONCLUSION: THE RESULTS OF THIS STUDY PROVIDE AN ACTUAL PICTURE OF THE PUBLIC HEALTH CHALLENGE THAT PROVIDING ADEQUATE MEDICAL CARE TO VULNERABLE PATIENTS REPRESENTS, SINCE THEIR SOCIAL CONTEXT—WHICH INCLUDES UNEMPLOYMENT, DRUG ABUSE, HIGH RISK SEX, MIGRATION, HOMELESSNESS AND STIGMA—CREATES A BARRIER TO ACCESS HEALTH SERVICES.

KEY WORDS: TRANSACTIONAL SEX, DRUGS, SEXUALLY TRANSMITTED INFECTIONS, HIV, PUBLIC HEALTH

INTRODUCTION

Transactional Sex Definition

Transactional sex (TS) involves the exchange of an economic good or service (accommodation, transportation, protection or drug supply) for any kind of sexual service and can take place in different social and cultural contexts. However, this transaction can have a different meaning and sense in each case (1). According to reports, it is more closely related to the female gender, drug users, individuals with a history of child abuse, individuals with economic problems, unemployed and/or homeless persons (2.) Unlike prostitution, in transactional sex there is no prior negotiation of the price, and different goods or services such as transportation, accommodation or drugs can be exchanged for sex. Prostitution, on the other hand, can be analyzed from a more formal approach: individuals actively offering their sexual services in public areas under a previously agreed price and who are usually called sexual workers (3).

Sexual behavior: drug users-transactional sex

Few studies have related sexual behavior with drug use, transactional sex, and the risk of contracting different sexually transmitted diseases. Drug users are a population group susceptible to transactional sex. Several studies have reported a high correlation

between the consumption of heroine, crack-cocaine, and other stimulants and the exchange of sex for money or drugs (4, 5). The risk probability of contracting a disease in individuals practicing transactional sex, consuming crack on a daily basis or dependent on any other drug is higher compared to the general population at large (2, 6, 7). There are studies that suggest that transactional sex among homosexuals and bisexuals is associated with drug consumption and high risk sexual behavior (8). Likewise, published studies reveal a high incidence between transactional sex and drug using men having sex with other men (6, 9, 10). Relevant data on sexual behavior reveal a significant association in individuals practicing transactional sex with a high number of different sexual partners—which, due to the type of practice is a high risk factor for contracting sexually transmitted infections (STIs)—, bisexual practices and a high number of new sexual partners (7, 8, 11),

Not using condoms is considered a high risk sexual practice. According to reports, the probability of this type of practice with the main partner is higher (12). However, in individuals practicing transactional sex there is a higher probability that they have unprotected sex with different partners (7). One of the main problems with this practice is that it may bring about serious physical or psychological health problems. Due to greater exposition, there is a higher probability of contracting an STI in each sexual act and this can be due to the conditions agreed to in the transaction (1). Drug users classify as a high risk group, since many of them use intravenous drugs and usually share syringes, thus facilitating the transmission of HIV or other diseases (13).

Transactional sex risks

One of the risks of transactional sex derives from the impossibility of negotiating the use of condoms or refusing high risk practices. Therefore, the risk of contracting an STI is much higher (14, 15). Unprotected anal sex has a higher probability of contracting HIV or any other STI compared to unprotected vaginal sex, particularly in the case of women (16). The study revealed that unprotected anal sex is more common among high risk heterosexual groups (17); that 30 to 74% of different risk groups—such as sexually

active drug users and sexual workers—had practiced anal sex recently; and that though anal sex is less frequent than vaginal sex among heterosexuals, its practice increases when related to other risk behaviors like drug use (18), trading sex for money (19), and having multiple sexual partners (20). Taking actions to prevent and control transmission of diseases through transactional sex in a context of poverty is a challenge. However, trying to understand the contribution of transactional sex to HIV and STI incidence as well as the risk factors (e.g., drug use) is significantly important in order to implement effective strategies to prevent and reduce STI incidence and even HIV (21).

OBJECTIVE

Relate drug use and transactional sex as risk factor for contracting an STI in the vulnerable population that seeks medical assistance at the Fronteras de la Salud free clinic in Tijuana (HFIT).

METHODOLOGY

A descriptive cross-section study was conducted between August and November, 2012. The sample population was made up by of age, Spanish-speaking patients seeking medical assistance at the bi-national student clinic HFIT. Persons accompanying the patients were excluded. Prior written consent, all the persons meeting the criterion for inclusion were selected through a purposive sampling.

Those subjects eligible for the study were invited to participate in an anonymous interview applying a previously validated questionnaire, which included social and demographic data (age, gender, race, marital status, education, and housing), migration and drug use record, STI history, and sexual conduct. The relation between drug use and transactional sex was analyzed through a chi-square test and STI risk for patients practicing transactional sex was evaluated through momios ratio. Information collected was analyzed through the Statistical Package for the Social Sciences (SPSS v21) software.

RESULTS

A total of 205 participants were interviewed: 51% men (n=205) and 49% women (n=205) between 18 and 88 years old. There were 119 drug users accounting for 58% of the total sample, out of which 60% were men (n=119) and 40% were women (n=119). The average age was 39 years old. 42% (n=119) were single (see Table 1); 90% (n=119) had an educational level below high school (see Table 2); only 15% (n=119) had their own house (see Table 3); and 32% (n=119) stated they were unemployed. 74% (n=119) of the sample had a history of migration to the United States, out of which 56% (n=62) had been deported.

TABLE 1. MARITAL STATUS

Current status	Frequency	Percentage	Cumulative percentage
Single	50	42.0	42.0
Involved in a relation	7	5.9	47.9
Married	10	8.4	56.3
Consensual union	40	33.6	89.9
Separated	2	1.7	91.6
Divorced	6	5.0	96.6
Widow/Widower	3	2.5	99.2
Refuses to answer	1	0.8	100.0
Total	119	100.0	

TABLE 2. EDUCATIONAL LEVELS

Educational level	Percentage	Cumulative percentage
Never went to school	42.0	42.0
Did not finish primary education	5.9	47.9
Finished primary education	8.4	56.3
Did not finish junior high school	33.6	89.9
Finished junior high school	1.7	91.6
Did not finish senior high school	5.0	96.6
Finished senior high school	2.5	99.2
University graduate	0.8	0.8
Total	100.0	

TABLE 3. HOUSING CONDITIONS

Place	Frequency	Percentage
A friend's house	8	6.7
A relative's house	12	10.1
Shelter	5	4.2
Hotel	2	1.7
Rented room	55	46.2
In the streets	4	3.4
Pipeline	5	4.2

Own house	18	15.1
Rehabilitation center	10	8.4
Total	119	100.0

Regarding drug users, 47% stated they were injection drug users. The most frequently used drug, however, was marihuana, accounting for 76% followed by cigarro de cristal (70%), and heroine (50%). 30% said they used a combination of cocaine and heroin; 25% mixed cigarro de cristal with heroine; and 12% mixed cigarro de cristal with cocaine (n=119).

Regarding transactional sex behavior, there was a mean of 24 sexual couples for drug users. A 36% cumulative percentage of men drug users have homoerotic practices (see Table 5). 54% of drug users said they have had relations with other injection drug users. Moreover, 21% of drug users practice transactional sex without using condoms (see Table 4).

The association between drug use and transactional sex was $X^2 (1, N=205) = 37,03 p < 0,05$, in which all persons interviewed who practice transactional sex are drug users. Money, drugs, and accommodation were found to be the most frequently traded goods for sex. Receptive oral sex was most frequent among men while vaginal sex was most frequent among women.

TABLE 4. USE OF CONDOM IN TS USERS

Use of condom	Frequency	Percentage	Cumulative percentage
Never	11	27.5	27.5
Rarely	4	10.0	37.5
Occasionally	6	15.0	52.5
Almost always	8	20.0	72.5
Always	11	27.5	100.0
Total	40	100.0	

TABLE 5. SEX IN SEXUAL COUPLES IN TS USERS

Gender	Frequency	Percentage	Cumulative percentage
All men	14	19.7	19.7
All women	43	60.6	80.3
Both men and women	5	7.0	87.3
More men than women	3	4.2	91.5

More women than men	4	5.6	97.2
Does not know	1	1.4	98.6
Does not answer	1	1.4	100.0
Total	71	100.0	

The study revealed that the most common diseases among drug users were syphilis, gonorrhea, chlamydia, HIV, and hepatitis. Based on this data and the momios ratio test the risk in this population of contracting chlamydia was 3% and increases 8 folds for syphilis, 2 folds for HIV, 3 folds for gonorrhea, and 7 folds for hepatitis transmission (see Table 6).

TABLE 6. RISK ESTIMATION IN DRUG USERS

Infection	Odds Ratio N=205	IC=95%	
		Min.	Max.
Syphilis	8.48	1.92	37.36
Chlamydia	1.03	1.01	1.07
Gonorrhea	3.02	1.17	7.81
Hepatitis	7.00	1.57	31.16
HIV	2.01	0.049	21.50

In general, the risk of contracting a sexually transmitted infection reported was OR= 4.25 (2.05-8.80 IC=95%) for drug users practicing transactional sex compared to those who do not.

DISCUSSION

In the study, more than half of the sample population was drug users with greater prevalence among males. It was considered that this gender was a risk factor for assuming this conduct related to drug consumption and lack of economic means to get the drug. We found those who were single or living in consensual union were more prone to use drugs than those who had a stable couple relation or were divorced, separated or a widow/widower. As to sexual behaviors, we observed an increased number of different partners and a high percentage of homoerotic practices among drug users compared to those who did not do drugs. More than half of drug users stated having had sex with injection drug users.

It is well documented that commercial sex, particularly in North Tijuana, is a key risk factor for sexually transmitted infections. This type of sex has become a profitable business allowing establishing the conditions under which it is performed such as the use of hotels located near the point of contact, regulation of zones of tolerance by the municipality or government, etc. This has led to better health control, unlike transactional sex where the impossibility of negotiating the use of condoms and/or other preventive measures together with lack of economic means and the circumstances under which it is practiced, largely prevents this problem from being an issue to be dealt with in infection prevention strategies. Being a frequent activity among these persons, greater attention should be paid to this problem in public health strategies.

The results of this study provides a true picture of the public health challenge in Tijuana to provide adequate health services to vulnerable persons, since their social context—characterized by unemployment, drug consumption, high risk sex, migration, homelessness, and stigma—presents a barrier to access health services.

Undoubtedly, there are equally or more important factors contributing to the prevalence of certain high risk behaviors and to the probability of contracting a disease but all persons have a right to health. Therefore, we consider advisable to pay more attention to drug users—who consequently practice transactional sex and represent a risk factor for contracting STIs—for timely detection and prevention strategies. We hope that this study will provide an opportunity for the health care and health right of persons under these conditions who want to improve their health status.

CONCLUSION

This study concludes that mostly unprotected sexual practices are a significant risk for contracting STIs. Added to drug addiction and poor economic status, the study shows that this group of persons is highly vulnerable not only to contracting STIs but other serious conditions that endanger their health. Therefore, specialized clinics should be set up for a comprehensive treatment of persons with drug addiction problems, in order to improve their health conditions.

REFERENCES

1. Theodore F, Gutiérrez J, Torres P, Luna G. Compensated sex: A practice at the heart of young Mexican women's vulnerabilities. *Salud Pública Mex* 2004; 46:104-12.
2. Edwards J, Halpern C, Wechsberg W. Correlates of exchanging sex for drugs or money among women who use crack cocaine. *AIDS Education and Prevention* 2006; 18:420-9.
3. Jewkes R, Dunkle K, Nduna M, Shai NJ. Transactional sex and HIV incidence in a cohort of young women in the stepping stones trial. *J AIDS Clinic Res* 2012; 3:5.
4. Bennett T, Holloway K, Farrington D. The statistical association between drug misuse and crime: A meta-analysis. *Aggressive Violent Behavior* 2008; 133(2):107-18.
5. Ratner MS, editor. *Crack Pipe as Pimp: An Ethnographic Investigation of Sex-For-Crack Exchanges*. New York: Lexington; 1992.
6. Latkin CA, Hua W, Forman VL. The relationship between social network characteristics and exchanging sex for drugs or money among drug users in Baltimore, MD, USA. *Int J STD AIDS* 2003; 14(11):770-5.
7. Baseman J, Ross M, Williams M. Sale of sex for drugs and drugs for sex: An economic context of sexual risk behavior for STDs. *Sexually Transmitted Diseases* 1999; 26(8):444-9.
8. Weber AE, Craib KJP, Chan K, et al. Sex trade involvement and rates of human immunodeficiency virus positivity among young gay and bisexual men. *Int J Epidemiology* 2001; 30(6):1449-54.
9. Newman PA, Rhodes F, Weiss RE. Correlates of sex trading among drug-using men who have sex with men. *Am J Public Health* 2004; 94(11):1998-2003.

10. Booth RE, Kwiatkowski CF, Chitwood DD. Sex related HIV risk behaviors: Differential risks among injection drug users, crack smokers, and injection drug users who smoke crack. *Drug Alcohol Depend* 2000; 58(3):219-26.
11. Weber AE, Boivin JF, Blais I, Haley N, Roy E. HIV risk profile and prostitution among female street youths. *J Urban Health* 2002; 79(4):525-35.
12. Ward H, Day S, Weber J. Risky business: Health and safety in the sex industry over a 9 year period. *Sex Transm Infect* 1999; 75(5):340-3.
13. Bobashev G, Zule W, Osilla K, Kline T, Wechsberg W. Transactional sex among men and women in the South at high risk for HIV and other STIs. *Journal of Urban Health: Bulletin of the New York Academy of Medicine* 2009.
14. Roth AM, Rosenberger JG, Reece M, Van der Pol B. A methodological approach to improve the sexual health of vulnerable female populations: Incentivized peer recruitment and field-based STD testing. *J Health Care Poor Underserved* 2012; 23(1):367-75.
15. Dunkle KL, Jewkes RK, Brown HC, Gray GE, McIntyre JA, Harlow SD. Transactional sex among women in Soweto, South Africa: Prevalence, risk factors and association with HIV infection. *Soc Sci Med* 2004; 59(8):1581-92.
16. Tian LH, Peterman TA, Tao G, et al. Heterosexual anal sex activity in the year after an STD clinic visit. *Sex Transm Dis* 2008; 35(11):905-9.
17. Halperin DT. Heterosexual anal intercourse: Prevalence, cultural factors, and HIV infection and other health risks, Part I. *AIDS Patient Care STDS* 1999; 13(12):717-30.
18. Decker MR, Raj A, Gupta J, Silverman JG. Sex purchasing and associations with HIV/STI among a clinic based sample of US men. *J Acquir Immune Defic Syndr* 2008; 48(3):355-9.

19. Reynolds GL, Latimore AD, Fisher DG. Heterosexual anal sex among female drug users; U.S. national compared to local Long Beach, California data. *AIDS Behav* 2008; 12(5):796-805.
20. Bogart LM, Kral AH, Scott A, et al. Sexual risk among injection drug users recruited from syringe exchange programs in California. *Sex Transm Dis* 2005; 32(1):27-34.
21. Johnson WD, Diaz RM, Flanders WD, et al. Behavioral interventions to reduce risk for sexual transmission of HIV among men who have sex with men. *Cochrane Database Syst Rev* 2008; 16(3):CD001230.