

## Sex under Influence of Drugs: A Nationwide Survey among Iranian Female Sex Workers

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### Original Article

#### Abstract

**Background:** Due to the high level of sexual relationships, prostitute women are faced with many dangers, including acquired immune deficiency syndrome (AIDS), sexually transmitted infections (STIs), fertility problems, drug use, etc. In this regard, addict prostitute women are exposed to more risks because drug use is considered as an outstanding factor in those associated with transmission of AIDS and being in an insecure sexual relationship. The purpose of this study was to find out the variables influential on the level of drug use, before or during sexual relationship.

**Methods:** In 2010, 625 prostitute women were selected by multistage sampling from 21 centers out of 12 provinces. Then, we used a standard questionnaire for gathering data by a face-to-face interview. The multilevel ordinal logistic regression in survey model was used to find out the relationship between variables and the level of drug use before or during sexual relationship.

**Findings:** The number of monetary customers at the last working day [adjusted odds ratio (AOR): 1.87, 95% confidence interval (CI): 1.50-2.32] and having sexual relationship during the past month with monetary customers (AOR: 4.77, 95% CI: 2.61-8.70) were significantly related to the level of drug use before or during sexual relationship in the past month.

**Conclusion:** Since the level of drug use before or during sexual relationship was higher in women who had more daily sexual relationships, these women are exposed to the consequences of drug use; thus, identifying the status of this group of women is important to plan for future injuries.

**Keywords:** Drugs; Sex workers; Iran; Survey; Ordinal logistic

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## Introduction

Prostitute women are one of the affected groups in the community<sup>1</sup> and prostitution is one of the deviations closely linked to high-risk sexual behaviors. Prostitution is the selling of body in exchange for money, drugs, or medicine which, according to Gourevitch, is a social full phenomenon with multiple layers, strata, and levels, and is also associated with sexual exploitation as well as the humiliation of woman.<sup>2</sup> The lives of these women are often in a deprived social situation and they are at the risk of the prevalence of AIDS and sexual diseases as well as mental problems, depression, and anxiety.<sup>3</sup>

The number of prostitute women is estimated between 30000-60000 individuals in Iran.<sup>4</sup> Studies show that each of these women has an average of more than 7 customers in a week. It covers the minimum of 1 customer to the maximum of 30 customers in a week,<sup>5,6</sup> and the age of entrance to prostitution is between 16 and 22 years, which is above the global standard.<sup>7</sup>

In the whole world, there is a link between the number of prostitute women and those who use drugs. In most studies, drug and alcohol use are motives and the causes of entering and continuing prostitution,<sup>8</sup> and repeated use of them has a significant effect on these women and enters them into an insecure sexual relationship. Some drug users commit prostitution so as to meet their financial needs and to support their addiction, while some other prostitutes enter this profession to escape their living and work conditions.<sup>9</sup> Drug use is one of the most important factors that reduce perception of acquired immune deficiency syndrome (AIDS)-related risks. Since by drug addiction, one cannot make timely and appropriate decisions,<sup>10</sup> drug-addicted women often commit unprotected sexual relationships with high-risk partners through which they expose themselves to the risk of human immunodeficiency virus (HIV) infection.<sup>11</sup> The HIV prevalence is between 250 and 1500 times the national average among these women.<sup>12-16</sup> It is estimated that almost 11.8% of prostitute women in developing countries are HIV-infected.<sup>17</sup> Numerous changes in sexual partners and the high percent of unprotected sexual relationships have led to the fact that prostitute women, all over the world, become highly exposed to the risk

of sexually transmitted diseases (STDs) and HIV infection.<sup>18</sup> The use of condom has a major effect on the protection of prostitute women, which unfortunately is used by less than 20% of them.<sup>11</sup> The use of drugs before having sex also collapses the negotiation of using condom for having a protected relationship.<sup>19,20</sup>

Due to the increase in prostitute women and high-risk sexual relationships, its harmful effects are also increasing. Several studies have been conducted to confirm the harm done to this group of women. In a survey conducted in Iran, the percentage of prostitute women under the age of 25 using condom was less than 59% and in women over 25 years of age it was 52%.<sup>21</sup> In the city of Kerman, Iran, an investigation was conducted on the prevalence of herpes simplex virus type 2 (HSV2) and HIV in vulnerable women among whom 70.2% said that they started prostitution in ages less than 20 years old, 83% said that they used condoms when having the relationship with their monetary partners, and 45.7% said they had enough information about AIDS.<sup>22</sup> In the study on the prevalence of HIV and sexually transmitted infections (STIs) among prostitute women in Shiraz, Iran, it was shown that 79.8% of them committed prostitution because of money, 24.4% always used condom for one past month, and 72.2% had genital secretion during the last year.<sup>23</sup> In the cities of Yazd and Isfahan, Iran, the experience of prostitute women was studied, which showed that the subjects studied did not have high education, and did not inhibit in fixed houses because of their tendency to remain unknown; they had low religious beliefs and were mostly in the affected families.<sup>2</sup>

In Peru, socio-behavioral characteristics of prostitute women was analyzed, among which 31% said that they were living with a fixed husband or partner, and 90% said that they were responsible for affiliates, and the average number of years of their relationship was 4.5 years. These women introduced streets and parks as the most common workplaces.<sup>24</sup> In the study conducted in Lahore, Pakistan, the knowledge and high-risk AIDS-related behaviors and STDs were assessed, in which 86% of the subjects had heard about AIDS, and 37% had correct HIV-related information.<sup>25</sup> In a study conducted on the African prostitute woman living in America who were exposed to high-risk sexual behaviors, the

psychological effect of alcohol and drugs was dealt with, in which it was shown that 51.6% of women consumed alcohol or drugs over the past month, 42.7% used condom sometimes, and 13.2% had multiple sexual partners; and among them, STIs had a significant relationship with having multiple sexual partners.<sup>26</sup> In a study on the correlation of sex trading among drug-user women involved in committing intimate relationships, 68% said that they used crack, 8% used crystal, and 51% used heroin; 92% of them also had protected sexual relationship with their main partners and only 22% of them had protected relationships with their non-monetary partners.<sup>27</sup>

A study was conducted on assessing the difference between opioid-dependent and non-drug user women on delay discounting of condom-protected sex, in which 37% of opioid-dependent women stated that they used injective drugs and 74% had used drugs in the past 30 days. Opioid-dependent women had condom-protected sex less than non-drug using women.<sup>11</sup> And in another study conducted on prostitute women using drugs, 40% of women said that they had sexual relationship so as to get money or drugs, and 7.8% of them had more than 50 customers, and there existed a significant relationship between those with more than 50 customers and HIV infection.<sup>28</sup> Deep-rooted negligence and the treatment of vulnerable women has caused this problem to affect many different sections of society. The objective of this study was to estimate the prevalence level of drug use before committing sexual relationship and to examine the factors influencing the use of drugs before or during sexual relationship in vulnerable women in Iran. It is hoped that by identifying these factors and introducing them to the relevant policy makers and taking appropriate interventions by them, the harms to this group of women be reduced.

## Methods

The data used in this study were collected by a multistage sampling, where 12 provinces were selected out of 31 provinces of the country, and then 21 centers were selected out of these 12 provinces, and each province was sampled at a maximum of 2 centers. Sampled centers are formed by private organization and public STD

clinics serving only vulnerable women (13 centers) and drop in centers that serve both vulnerable men and women. In these centers we only sampled from vulnerable women (8 centers). Between 30 and 45 qualified persons were sampled from the people daily visiting each center to receive the services, and the total number of the women attending the study was 872, out of which 28.38% stated that they had never used drugs, and 71.64% said that they had experienced drug use during their lifetime. On the other hand, we examined that how much prostitute women used drugs in their sexual relationship during or before sex. With this in mind, 247 women who participated in the study were excluded from our study because they never consumed drugs during their lifetime. Finally, 625 prostitute women were entered in the study. The questionnaire was filled in by trained interviewers. The interviewers approved the inclusion criteria for vulnerable women to enter the study, and then explained the benefits of the study and the possible harms to the participants. Only women were entered in the study that had at least 18 years of age, committed prostitution over six months in their lifetime, and had at least one prostitution behavior in the last 12 months. In each part of the interview, participants who were reluctant to respond were excluded from the study. Verbal informed consent was taken from each participant. The interview was done face-to-face with a standard questionnaire. Questionnaire questions included demographic characteristics, history of sexual relationship and work, and drug use risks, which were developed based on the previous questionnaires by Family Health International (FHI) 3 which also includes local and international indicators. A number of other indicators that have been added include places used by vulnerable women for finding customers or having sexual relationships, knowing existing places for HIV test, and so on.

**Dependent variable:** The participants in this study were asked that how many times they had used drugs (such as opium, cocaine, opium syrup, hashish, heroine, crystal, and psychotropic substances such as ecstasy, norgesic, and temgesic) in the past month before or during sexual relationships whose responses were considered as the choices of never, sometimes, and always.

**Independent variables:** Independent variables included: age ( $\geq 25$ ,  $< 25$ ), level of education (elementary and less, middle-diploma, academic), marital status (single, married, divorced, widow), monetization by any way other than sex, having a guardianship, age of first sex ( $\geq 16$ ,  $< 16$ ), experience of working in team houses to find a customer or having sexual relationship, finding a customer in a team house, finding a customer in public places, finding a customer through a mobile phone, finding a customer over the internet, having fixed customers, finding a customer by the introduction of previous customers or friends, history of abortion, the use of condom in sexual relationships with a monetary or non-monetary partner, number of customers at the last working day ( $> 1$ ,  $\leq 1$ ), the use of condom in the last relationship with a monetary customer, having a relationship with a monetary customer during the past month, having a non-monetary partner, sexual persecution and violence during the past month, having forced sexual relationship during the past month, having abnormal secretion of the genital area during the last year, having genital ulcers during the past year, having alcohol drink experience ever, history of the consumption of injective drug, receiving a free condom during the past year, receiving a new syringe in the past year, having heard about AIDS, knowledge of AIDS (negative, false, positive), seeing oneself at the risk of AIDS, and doing an AIDS test.

The weight prevalence of drug use before or during sexual relationship in the past month was calculated based on the variables studied. The collected data had a two-level structure: the first, level of the province and the second, level of the participants. In order to consider the unequal population of the provinces, we used weighting analyses in a way that weights on province level were considered as reverse of province selection probability, and on the individual level, they were considered as reverse of the individuals' selectin probability from each province. Because the dependent variable was ordinal and the data were in hierarchical structure, the multilevel ordinal logistic regression in survey model was used. The proportionality odds assumption was checked, which was met. Initially, the univariate models were processed. Variables with a P-value of less than 0.200 were entered in the multiple

model. Subsequently, in the multiple model, variables with high P-value were deleted, respectively, until the P-value of all variables became below 0.050; and finally, the adjusted odds ratio (AOR) along with the confidence interval (CI) of 95% and P-value were reported. We analyzed data in Stata software (version 14 for windows, TX, USA).

**Ethical considerations:** The goal of this study was first explained to potential subjects. Those who consented to participate in our study filled in the questionnaire. This study was reviewed and approved by the Ethics Committee of Kerman University of Medical Sciences, Kerman, Iran (reference number: IR.KMU.REC.1396.1835).

## Results

Table 1 shows a descriptive statistics of the data. According to the inclusion criteria, 625 prostitute women were entered in the study. 20% (95% CI: 12-29) of these prostitute women reported drug use always before or during sexual relationship in the past month, 36% (95% CI: 26-47) of them reported drug use often before or during sexual relationship in the past month, and the rest reported no drug use before or during sexual relationship in the past month. In people over the age of 25, 21% (95% CI: 13-29) reported drug use always before or during sexual relationship in the past month, which is higher than those under the age of 25. In those with academic education, 21% (95% CI: 4-60) reported drug use always before or during sexual relationship in the past month, which is higher than other education groups. In those who had guardianship, 22% (95% CI: 15-32) reported drug use always before or during sexual relationship in the past month, which is higher than those who did not have guardianship. In people with abortions, 19% (95% CI: 11-28) reported drug use always before or during sexual relationship in the past month, which is lower than those who did not have abortions. In those who used condom in their last relationship with their customers, 18% (95% CI: 10-27) reported drug use always before or during sexual relationship in the past month, which is lower than those who did not use condom in their last relationship. In people who heard something about AIDS, 19% (95.2% CI: 12-29) reported drug use always before or during sexual relationship in the past month, which was

almost the same as those who had heard nothing about AIDS. In those who got tested for AIDS, 17% (95% CI: 10-25) reported drug use always before or during sexual relationship in the past

month, which was lower than those who did not get tested. The prevalence level of drug use, separated by other variables, is presented in table 1.

**Table 1.** Distribution of drug abuse before or during sex in vulnerable women in Iran, in 2010

Variables	Use of drugs before or during sex			n
	Never	Mostly	Always	
	Weighted prevalence (95% CI)			
Age (year)				
≤ 25	41 (21-63)	40 (25-58)	19 (7-38)	146
> 25	45 (35-56)	34 (25-43)	21 (13-29)	441
Level of education				
Elementary and less	43 (26-52)	39 (26-52)	18 (1-28)	254
Middle-diploma	45 (35-55)	33 (23-45)	22 (13-31)	315
Academic	44 (26-62)	35 (13-66)	21 (4-60)	18
Marital status				
Single	36 (21-54)	50 (29-70)	14 (4-34)	104
Married	46 (31-60)	32 (22-43)	22 (12-34)	287
Divorced	51 (32-68)	35 (18-56)	14 (8-23)	126
Widow	39 (23-57)	32 (23-40)	29 (18-41)	70
Monetization by any way other than sex				
No	47 (34-58)	35 (27-49)	18 (9-26)	396
Yes	41 (25-58)	33 (22-45)	26 (15-39)	218
Having a guardianship				
No	42 (29-55)	40 (28-52)	18 (9-30)	370
Yes	48 (3-64)	30 (19-42)	22 (15-32)	217
Age of first sex (year)				
≤ 16	44 (3-59)	36 (25-48)	20 (12-28)	364
> 16	43 (31-55)	35 (23-49)	22 (12-32)	223
Experience of working in team houses to find a customer or having sexual relationship				
No	49 (36-62)	32 (22-42)	19 (1-30)	377
Yes	35 (23-49)	44 (29-58)	21 (12-32)	210
Finding a customer in a team house				
No	47 (34-6)	34 (25-44)	19 (1-30)	445
Yes	36 (2-55)	42 (24-61)	22 (12-36)	142
Finding a customer in public places				
No	37 (25-52)	43 (29-55)	20 (10-34)	233
Yes	47 (35-60)	33 (23-43)	20 (12-28)	354
Finding a customer through a mobile phone				
No	44 (3-58)	33 (24-44)	23 (13-33)	467
Yes	45 (29-61)	44 (29-60)	11 (6-15)	120
Finding a customer over the internet				
No	44 (32-56)	36 (25-47)	20 (12-29)	583
Yes	33 (3-87)	67 (12-96)	0	4
Having fixed customers				
No	45 (33-57)	34 (24-45)	21 (12-31)	448
Yes	41 (26-57)	42 (26-59)	17 (8-28)	139
Finding a customer by the introduction of previous customers or friends				
No	48 (37-59)	34 (22-46)	18 (11-26)	358
Yes	36 (23-51)	41 (29-52)	23 (12-39)	229
History of abortion				
No	45 (29-6)	34 (24-46)	21 (12-32)	365
Yes	43 (32-55)	38 (26-51)	19 (11-28)	222

**Table 1.** Distribution of drug abuse before or during sex in vulnerable women in Iran, in 2010 (continue)

Variables	Use of drugs before or during sex			n
	Never	Mostly	Always	
	Weighted prevalence (95% CI)			
The use of condom in sexual relationships with a monetary or non-monetary partner				
No	43 (28-58)	34 (25-44)	23 (13-36)	117
Yes	45 (32-57)	36 (25-49)	19 (12-28)	470
Number of customers at the last working day				
$1 \geq$	51 (38-62)	31 (22-41)	18 (11-27)	379
$1 <$	31 (19-45)	46 (32-59)	23 (13-35)	208
The use of condom in the last relationship with a monetary customer				
No	44 (28-60)	32 (23-42)	24 (14-35)	229
Yes	44 (32-56)	38 (25-53)	18 (10-27)	358
Having a relationship with a monetary customer during the past month				
No	70 (55-81)	22 (12-35)	8 (3-17)	172
Yes	34 (22-47)	42 (29-54)	24 (16-34)	415
Having a non-monetary partner				
No	40 (25-54)	35 (25-46)	25 (17-36)	245
Yes	47 (35-60)	37 (25-48)	16 (8-26)	342
Sexual persecution and violence during the past month				
No	46 (32-61)	35 (25-45)	19 (11-29)	458
Yes	36 (22-54)	39 (23-57)	25 (1-45)	129
Having forced sexual relationship during the past month				
No	49 (35-63)	30 (21-39)	21 (12-31)	403
Yes	32 (21-46)	49 (34-64)	19 (1-3)	184
Having abnormal secretion of the genital area during the last year				
No	52 (40-63)	31 (22-41)	17 (8-29)	293
Yes	37 (22-54)	40 (26-54)	23 (15-32)	294
Having genital ulcers during the past year				
No	48 (36-58)	32 (24-42)	20 (11-29)	487
Yes	28 (13-50)	50 (26-73)	22 (12-34)	100
Having alcohol drink experience ever				
No	52 (31-73)	30 (16-47)	18 (9-30)	207
Yes	41 (29-51)	37 (27-52)	22 (13-3)	380
History of the consumption of injective drug				
No	45 (29-59)	36 (25-46)	19 (1-28)	469
Yes	32 (23-41)	39 (26-52)	29 (16-41)	118
Receiving a free condom during the past year				
No	43 (28-59)	31 (19-46)	26 (12-44)	217
Yes	44 (31-59)	39 (26-53)	17 (9-25)	370
Receiving a new syringe in the past year				
No	45 (32-59)	35 (24-45)	20 (11-31)	459
Yes	37 (24-52)	42 (30-54)	21 (12-32)	128
Having heard about AIDS				
No	50 (22-78)	30 (9-62)	20 (12-28)	30
Yes	44 (32-55)	37 (27-46)	19 (12-29)	557
Seeing oneself at the risk of AIDS				
No	55 (41-67)	30 (24-37)	15 (6-28)	224
Yes	37 (25-50)	39 (27-53)	24 (15-32)	363
Knowledge of AIDS				
Weak	20 (1-83)	71 (15-97)	9 (0.5-53)	4
Medium	47 (32-62)	33 (22-45)	20 (11-31)	230
Strong	44 (30-55)	34 (23-42)	22 (13-29)	230
Doing an AIDS test				
No	41 (23-61)	36 (23-52)	23 (11-39)	307
Yes	47 (30-55)	36 (26-49)	17 (10-25)	353

CI: Confidence interval; AIDS: Acquired immune deficiency syndrome

Based on the findings of the multiple analysis, the odds that a person has consumed drugs always before or during sexual relationship in the past month than those who consumed drugs often or never before or during sexual relationship in people who had more than one monetary customer on their last working day was 1.87 (95% CI: 1.50-2.32) times as those with one or less monetary customers. The odds that a person has consumed drugs always before or during sexual

relationship in the past month than those who consumed drugs often or never before or during sexual relationship in people who had sexual relationship with monetary customers during the past month was 4.77 (95% CI: 2.61-8.70) times as those with no sexual relationship with monetary customers during the past month. Other variables did not have a significant relationship with the level of drug use before or during sexual relationship. The results are presented in table 2.

**Table 2.** The relationship between drug abuse before or during sex and variables using weighted multilevel ordinal logistic regression

Variable	Crude OR (95% CI)	P2	Adjusted OR (95% CI)	P
Marital status				
Single	-	-	-	-
Married	0.91 (0.47-1.76)	0.763	-	-
Divorced	0.62 (0.36-1.08)	0.087	-	-
Widow	1.11 (0.60-2.06)	0.706	-	-
Having a guardianship				
No	-	-	-	-
Yes	0.72 (0.45-1.76)	0.149	-	-
Age of first sex (year)				
≤ 16	-	-	-	-
> 16	1.28 (0.92-1.76)	0.121	-	-
Experience of working in team houses to find a customer or having sexual relationship				
No	-	-	-	-
Yes	1.56 (1.06-2.30)	0.026	-	-
Finding a customer through a mobile phone				
No	-	-	-	-
Yes	0.65 (0.33-1.29)	0.199	-	-
Finding a customer by the introduction of previous customers or friends				
No	-	-	-	-
Yes	1.44 (0.91-2.28)	0.101	-	-
Number of customers at the last working day				
1 ≥	-	-	-	-
1 <	1.78 (1.31-2.43)	0.002	1.87 (1.50-2.32)	< 0.001
Having a relationship with a monetary customers during the past month				
No	-	-	-	-
Yes	4.63 (2.51-8.55)	< 0.001	4.77 (2.61-8.70)	< 0.001
Having forced sexual relationship during the past month				
No	-	-	-	-
Yes	0.57 (0.40-0.83)	0.007	-	-
Having alcohol drink experience ever				
No	-	-	-	-
Yes	1.73 (1.20-2.48)	0.168	-	-
Having heard about AIDS				
No	-	-	-	-
Yes	1.51 (0.96-2.37)	0.069	-	-
Seeing oneself at the risk of AIDS				
No	-	-	-	-
Yes	1.73 (1.00-2.99)	0.048	-	-

OR: Odds ratio; CI: Confidence interval; AIDS: Acquired immune deficiency syndrome

## Discussion

In the present study, 28.36% stated that they had never used drugs during their lifetime and 71.64% stated that they had experience of consuming drugs during their lifetime. For example, drug use among prostitute women in Iran has been estimated to be above 55% to 70%.<sup>23</sup> In another study of 22 prostitute women aged 21-49 years who were at risk of AIDS, 54.5% said that they had consumed drugs;<sup>10</sup> and also in a study conducted in Shiraz City on 287 women, 69.9% of women consumed drugs.<sup>23</sup> In another study conducted on the Myanmar-China border, 34% of prostitute women stated that they used drugs.<sup>29</sup> These differences can be attributed to different sampling; because some samples are too small to represent the entire prostitute women community.

The findings we obtained here from the multivariate analysis show that the number of monetary customers at the last working day and having sexual relationship with monetary customers during the past month are significantly related to the use of drugs before or during sexual relationship in the past month. The prevalence of drug use among those with more than one customer on the last working day was significantly higher than those with one or no customer. The prevalence of drug use among those who had sexual relationship during the past month was significantly higher than those who did not have sexual relationship.

Prostitution has a strong relationship with drug use.<sup>30</sup> Based on the studies conducted, many drug addict women participated in various sexual relationships.<sup>31</sup> In a study, 66% of prostitute women stated that they used drugs before committing prostitution.<sup>32</sup> In a study on the use of crack in vulnerable women, the results showed that women with the highest use of crack were highly involved in risky behaviors.<sup>33</sup> In addition, in another study, it was pointed out that the probability of having multiple sexual partners became 5 times more in women who had used crack in the past month.<sup>26</sup> Another study also notes that the use of cocaine in prostitute women is related to the risk of doubling multiple sexual partners and having unprotected sexual relationship.<sup>34</sup> In general, the use of drugs and its derivatives such as syrup and crack, and stimulants such as crystal and ecstasy, disrupts the function of the brain, increases sexual desire,

and promotes risky sexual relationships.<sup>35</sup> In prostitute women, the use of drugs is associated with risky sexual behaviors involving multiple sexual partners and not using condom.<sup>19</sup> What naturally happens every day is that those who commit prostitution seek for having a long-term unprotected sexual relationship with their sexual partners,<sup>9</sup> and a number of prostitute women consume drugs with this thought. Many men related with those women, oppose the use of any kind of condom because of the reduction in sexual pleasure; and, on the other hand, almost all drug-dependent women meet the wishes of their customers because of the lack of the ability to negotiate with sexual partners and also to be able to get the drugs, obtain money to buy it, or to afford basic needs; they commit unprotected sexual relationship and endanger themselves with HIV and STIs. Another reason that prostitute women consume drugs before having sexual relationship is that they know the drug use as an effective factor in reducing depression or obsessive compulsive disorder, and also know that drugs can help eliminate sexual reluctance, increase emotional tendencies, increase pleasure in sexual relationships, and prevent sexual disputes.<sup>36</sup> Hence, they can have more customers every day and get more money.

One of the most important interventions in this context is trying to improve the understanding of the use of drugs in high-risk sexual behaviors, the creation of drug alternative treatments for the control and treatment of addict women, and awareness of the effect of drug use on their sexual relationship. Drug use before committing the sex depends on the familiarity of people with AIDS. People with good information about AIDS are more likely to use condom in their last sexual relationship. Still, there are people who do not have enough knowledge about AIDS transmission, prevention, and prevalence; although most of the participants who were examined had heard about AIDS, there are still a lot who have no idea about the information mentioned and how to identify risk factors, they lack accurate and sufficient information. For this group of affected women, classes could be held in the area of skills training to increase their awareness about the risk of AIDS and STIs, the use of condoms, and skills in negotiating with a sexual partner.

There were some limitations in this study,



including the fact that a long time has passed since the conduction of this study, because due to the sensitive nature of the topic, we could not obtain the publish permission sooner, and the situation may have changed at this time. The type of study was also a cross-sectional one that could lead to causal inversion; and also some information was not investigated in this study such as the behavior of drug use by the customer or customers, which is one of the important factors that direct women towards drug use.

### Conclusion

The results indicate that prostitute women with higher sexual relationships compared to those with less relationship, use more drugs, whose one

of the main reasons is to obtain drugs or money to buy them. Given the increase in the number of prostitute addict women and risky sexual behaviors, its harmful consequences are also increasing, which is why educational programs regarding the prevention of risky sexual behaviors should be prioritized.

### Conflict of Interests

The Authors have no conflict of interest.

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## رابطه جنسی تحت تأثیر مواد مخدر: مطالعه ملی روی زنان تن فروش

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### مقاله پژوهشی

### چکیده

**مقدمه:** زنان تن فروش، یکی از گروه‌های آسیب دیده در جامعه هستند که به دلیل برخورداری از میزان بالای روابط جنسی، با خطرات زیادی از جمله بیماری‌های ایدز، عفونت‌های منتقله جنسی، مشکلات مربوط به باروری، استفاده از مواد مخدر و... مواجه می‌باشند. در این میان، زنان تن فروش معتاد در معرض خطرات بیشتری قرار دارند؛ چرا که استفاده از مواد به عنوان یک عامل مرتبط با انتقال ایدز و قرار گرفتن در یک رابطه جنسی غیر ایمن تلقی می‌گردد. در این جمعیت، آموزش فوری و برنامه‌هایی برای کاهش خطر لازم است. مطالعه حاضر با هدف بررسی تأثیر متغیرها بر روی میزان استفاده از مواد مخدر قبل یا حین برقراری رابطه جنسی انجام شد.

**روش‌ها:** در سال ۱۳۸۹، ۶۲۵ زن تن فروش به صورت نمونه‌گیری چند مرحله‌ای از ۲۱ مرکز در ۱۲ استان انتخاب شدند. سپس داده‌ها با استفاده از یک پرسش‌نامه استاندارد و یک مصاحبه چهره به چهره جمع‌آوری گردید. در تحلیل داده‌ها از وزن‌دهی استفاده گردید؛ به این صورت که معکوس احتمال انتخاب هر نمونه به عنوان وزن آن نمونه در نظر گرفته شد و از مدل رگرسیون رتبه‌ای چند سطحی وزن داده شده برای یافتن ارتباط متغیرها با مصرف مواد مخدر قبل یا حین برقراری رابطه جنسی استفاده شد.

**یافته‌ها:** تعداد مشتریان پولی در آخرین روز کاری [OR = ۱/۵۰-۲/۳۲] (CI) confidence interval = ۹۵ درصد ۱/۸۷ adjusted odds ratio = (AOR) و داشتن رابطه جنسی در طول ماه گذشته با مشتریان پولی (OR = ۴/۷۷ CI: ۲/۶۱-۸/۷۰) رابطه معنی‌داری را با میزان استفاده از مواد مخدر قبل یا حین برقراری رابطه جنسی در یک ماه گذشته نشان داد.

**نتیجه‌گیری:** زنان تن فروش که از مواد مخدر استفاده می‌کنند، تعداد روابط جنسی بالاتری دارند و به این ترتیب در معرض پیامدهای ناشی از مصرف مواد مخدر قرار دارند. بنابراین، شناسایی وضعیت این گروه از زنان به منظور برنامه‌ریزی جهت کاهش آسیب‌های بعدی اهمیت فراوانی دارد.

**واژگان کلیدی:** مواد مخدر، زنان تن فروش، ایران، وزن‌دهی، لجستیک رتبه‌ای

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