Sexual Risk Behaviors and Addiction Levels of Imprisonment Heroin Users in Colombo, Sri Lanka

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Abstract

Background: There were many risk factors mentioned among substances users, specially HIV/ AIDS, Hepatitis C and other transmission of infectious disease which impact on health and social complications are not known. Heroin user's sexual risk behaviors and addiction levels can cause adverse results for users as well as society. The purpose of this study is to assess the sexual risk behaviors of heroin used in prisoners, Colombo, Sri Lanka. Further, this study allows us to identify the severity of drug addiction levels.

Methods: The cross sectional study was conducted in Welikada prison, Colombo, Sri Lanka among 334 heroin used prisoners. Purposive sampling method was used as sampling technique. It was consisted of all the heroin users who age group more than 18 years. Administrated questionnaire was used for face to face interview.

Results: The age range of participants was 22-58 years and average of age was 37.85 ± 6.1 years. The age was divided into two groups (young adult (22-40) and middle age adults (41-58). The most of heroin users were 22-40 years of age (73. 1%). Most of them were received grade 5 to 10 of education (70%). 99% of heroin users were not done in permanent occupation (labors) and 55.7% of their income in between 20000 to 30000 Sri Lankan rupees (1 rupee=154 USD). Majority of two age groups consisted in Sinhalese (79.6%), Buddhist (50.3%) and from Colombo district (59.3%). Both age group had experienced of sexual activities their lifetime (93.9% and 94.4% respectively). Out of 78.2% young adults were had experienced of multiple partners and comparing middle age adult group, 75.3% had same experienced. 98.5% were severely addictive personals. Among young adults 98.4% and 98.9% of middle age adults were affected severely.

Conclusion: However, the high prevalence risk-taking sexual behavior and severely addiction is a concern. There is an urgent need to develop effective laws and policies, treatment strategies and to control and eliminate threat in Sri Lanka.

Keywords: Heroin; Sexual risk behavior; Multiple partners; Level of addiction

Introduction

It was estimated about 5% of people utilized illicit drugs in the world wide. Most of them were in between 15 to 64 years aged group in 2013. Prevalence of drug addict's men were three times higher than women. In 2013, there were 187,100 million of drug related deaths were reported as well as remained same results relatively in 2014[1]. Further heroin and cocaine users are with high risk of HIV and HCV [2].

The annual prevalence of heroin use remained at 0.2% of the population age 14 and above since 2001 [3]. Heroin users in prison were more common than other subttance use such as cocaine, amphetamines or ecstasy [1]. Further, among heroin use prisoners most of heroin users were injecting heroin use [1].

Out of injecting drug users, 1.65 million of people living with HIV [1]. There were many risk factors mentioned among substances users, specially HIV/AIDS, Hepatitis C and other transmission of infectious disease [1]. It was indicated that the risk of above mentioned diseases 15 times higher than in the rest of population [1]. There was high damaging threat of HIV/AIDS with injecting heroin users [4]. In Sri Lanka, there are nearly 240,000 opiate users [5]. It estimates that there are about 45,000 heroin users and 20,000 cannabis users in Sri Lanka [6]. However, it is slightly number of HIV/AIDS increased by using injecting drug users [7]. In 2015 there were 4200 living with HIV/AIDS. Majority of HIV cases (50%) were indicated history of male to male sexual contacts [8]. Apart from, most of the people who affected the in HIV/AIDS are heroin users [9]. In 2009, prevalence of HIV was 0.15% in STD clinic among sex workers, drug users and tuberculosis patients [10]. Although, the knowledge of HIV transmission and that condom use were low (36.8%) among drug users [11]. The world Bank: HIV/AIDS in Sri Lanka 2012, mentioned, men who sex with men, commercial sex workers, injecting drug users and law condom use is the high risk factors for transmission.

There was no notable difference in between males and females in the diagnosis of mild, moderate and severe stages of heroin addiction [12]. HIV infection addiction severity depends on gender and other socio economic background. Family problems, social problems and law quality life associated with heroin and other drug addiction severity [13].

In Sri Lanka, cannabis and heroin are the most preferred drugs in prison population (61.3% and 37.4% respectively). Apart from heroin was the most desire drug of subsequent regular use [14]. According to Handbook of drug abuse information in NDDCB, Sri Lanka 2016, there were 8570 of people arrested for drug related offences in first six months of 2015. Heroin related arrested were increased by 14% in 2015 by compare with 2014. Major problem is most of countries use Sri Lanka as a transit point of drug trafficking.

However, there were very few researches done in Sri Lanka, regarding heroin use. Although it was not particular evidence of recently done researches about heroin. Among those, there is not sufficient data on research regarding heroin users as well as not enough information about heroin user's sexual risk behaviors, addictive level and infectious diseases threats for them. Therefore, the purpose of this study is to assess the patterns of heroin use and heroin user's, sexual risk behaviors and level of addiction in prisoners, Colombo, Sri Lanka. Further, this study allows us to identify the severity of drug abuse problem.

Methods

The cross sectional study was conducted in Welikada prison, Colombo, Sri Lanka among 334 heroin used prisoners. Purposive sampling method was used as sampling technique. It was consisted of all the heroin users who age group more than 18 years. Inclusion criteria were, heroin users, and age group 18 years old and above. Exclusion criteria were, Severe depressive people, deaf people, dumb people and those who were not willing to participate. Data was collected by using face to face interview. Administrated questionnaire was used and it consist of three parts. The first part consists of sociodemographic characteristics. The second part includes sexual risk behaviors. Questionnaire content validity was 0.7-0.1 and reliability of Cronbach's alpha was 0.618. (Moderate correlation range, 0.54-0.79 were considered and acceptable) [15]. The last part was WHO standard questionnaire about level of addiction. Independent variables were age gender, marital status, ethnicity, religion, educational status, area of residence, occupation, living status, economic status, early arrested status. Dependent variables were sexual risk behaviors and level of addiction. Descriptive analysis of the study population prevalence rates of heroin use were summarized and described by sample characteristics. The Pearson's Chi-square test was used to identify the relationship between dependent and independent variables. Each variables of heroin use sexual risk behaviors and level of addictionwere assessing independent of the other. The analysis was performed by SPSS. Written consent was obtained from participants before start of the data collection. Ethical consideration was obtained from the ethic review committee, University of Colombo, Sri Lanka.

Results

Demographics

The research sample consisted of 334 heroin used prisoners. The age range of participants was 22-58 years and average of age was 37.85 ± 6.1 years. The most of heroin users were 22-40 years of age (73.1%).

The majority of heroin users interviewed were Sinhalese from Colombo and their main religion Buddhism. Out of heroin used prisoners 84.4% married. 70.4% of them were law educated people which were participated at grade 5 to 10 only. There were 72.2% of them their education was given up due to reluctant to go to school and 46% were less economic issues. Majority of heroin users were not done a permanent profession as well as their income in between 130 to 195 USD (55.7%).

Sexual risk behaviors

Most of young adults and middle age adults had experienced of sexual activities their lifetime (93.9% and 94.4% respectively) (Table 1). Out of 78.2% young adults were had experienced of multiple partners and comparing middle age adult group, 75.3% had same experienced. Both young and middle adult age groups were preferred to women (76.4%, 75.2% respectively). Very less prevalence of heroin users (both age groups) had sexual activities with only wives (18.1). Among young adults 58.5% were condom used. Out of 61.1% middle age adults also used condoms. Among condom used heroin users, 49.5% not used regularly. Considering both age groups, 44% and 63.5% were respectively not used regular condoms (young adults and middle age adults). Majority of young adults and middle age adults were done STD test before arrested in their life (76.6%, 77.8% respectively). All STD results were negative. From heroin used prisoners 20.7% were not done the test during their life time before arrested.

Level of addiction

Level of addiction was assessed past twelve months before arrested. The heroin addiction levels were interpreting as mild moderate and severe. According to Table 2, 98.5% were severely addictive personals. Among young adults 98.4% and 98.9% of middle age adults were affected severely. There were no any mild addictive heroin users in prison.There were association between an addiction levels with residence place and age.

Discussion

Sociodemographic factors of heroin used prisoners

The research was described of the sexual risk behaviors of incarcerated heroin used population in Sri Lanka. The participant consisted mainly of young (22-40) and middle age (41-58) and male which is the large part of workforce in country. Among young adults between 18-25 age group of heroin use more than doubled in the past decades [16]. Previous study mentioned heroin users had initiated their heroin during late adolescence. Life time drug use was associated with age [17]. This study also revealed life time heroin used and age significantly associated. Majority of heroin users got married. There was an educational factor affected to drug used [18]. This study revealed most heroin users have law educational back ground and not done a permanent job. High prevalence of heroin users indicated poor employment back grounds, such as labors and drivers. Earlier studies mentioned ethnicity also affected to heroin used. Therefore, age, gender ethnicity income and education affected to heroin used [17]. Previous study mentioned majority of heroin users in Colombo district [7], as well as this study remained the same result. Most of them were law income range (20000-30000 rupees/130-195 USD). This study results indicated same sociodemographic characteristics. In Sri Lanka, high percentage of

heroin used to Sinhalese.

Sexual risk behaviors

Majority of drug users have high risk of sexual behaviors such as not regular condom use, men who sex with men (MSM) and use multiple sex partners [19]. Further life time heroin users with high risk of STD [20]. According to this study incarcerated heroin users in Sri Lanka, had high prevalence of sexual activities. Most of them used multiple sex partners as women or men. However, significant amount of heroin users used condoms, although there were few percentage reported regular condom used. Out of greater part of heroin users were done medical investigations with negative results of STD.

Addiction levels

Previous studies revealed mile, moderate and severe stages of heroin addiction levels [12]. Heroin users highly addicted. Notable prevalence of heroin users was severely addicted. There was no any mild heroin adductor in prison.

Conclusion

The study provides incarcerated heroin users sexual risk behaviors and level of addiction. Disrupted education, age, profession and income affected to heron used. There is no any progress of injecting heroin users since 1980s. It is very effective trend because of injecting heroin users with more risk than smoking heroin. Many complications are associated with intravenous drug users especially high susceptibility of STD transmission. However, in Sri Lanka, very low risk regarding disease transmission through injecting heroin users. Thus, there were significant numbers of heroin users associated with multiple sex partners. Further, Man who sex with man (MSM) was indicates notably. Therefore, it is major risk for society. Considering previous studies condoms used were increased and it is positive progression.

Recommendation

It should be need new policies and rules for heroin users. It is essential public education highlighting the sexual transmitted disease associated with engaging multiple partners and MSM. Further, importance of implementing preventive issues targeting risk population. Further researches need among heroin user's addiction and mental illness and biomedical investigations.

Acknowledgement

References

1.   Drugs UNOo, Crime. World Drugs Report 2015. United Nations, 2015.

2.   Harrell PT, Mancha BE, Petras H, Trenz RC, Latimer WW. Latent classes of heroin and cocaine users predict unique HIV/HCV risk factors. Drug and Alcohol Dependence. 2012;122:220-227.

3.   Berry JG, Pidd K, Roche AM, Harrison JE. Prevalence and patterns of alcohol use in the Australian workforce: findings from the 2001 National Drug Strategy Household Survey. Addiction. 2007;102:1399-1410.

4.   Drugs UNOo, Crime. World Drug Report 2010: United Nations Publications, 2010.

5.   WB WB-HIV/AIDS in Sri Lanka www.worldbank.org World Bank, 2012.

6.   NDDCB. Handbook of Drug Abuse Information Sri Lanka National Dangerous Drugs Control Board Publications, 2016.

7.   Senanayake B, Kandiah R, Ratnayake Y. Injecting Drug Users in Sri Lanka, 2005.

8.   Programe NSAC. SRD/AIDS Annual Report Ministry Of Health Sri Lanka, 2015.

9.   Hettige P. Moving Away From Stigma: Understanding HIV/AIDS In Sri Lanka: roar.lk, 2016.

10.   Program NSAC. Report on HIV estimates and 2009, Sri Lanka Ministry of Health Sri Lanka Reports Ministry of Health Sri Lanka, 2010.

11.   Rawstorne P, Worth H. Sri Lanka Behavioural Surveillance Survey: First Round Survey Results 2006-2007. Colombo: National STD/AIDS Control Programme, Ministry of Healthcare and Nutrition, Sri Lanka, 2007.

12.   Clark HW, Masson CL, Delucchi KL, Hall SM, Sees KL. Violent traumatic events and drug abuse severity. J Subst Abuse Treat. 2001;20:121-127.

13.   Wu LT, Ling W, Burchett B, Blazer DG, Shostak J, et al. Gender and racial/ethnic differences in addiction severity, HIV risk, and quality of life among adults in opioid detoxification: results from the National Drug Abuse Treatment Clinical Trials Network. Substance Abuse and Rehabilitation. 2010;2010:13.

14.   Dissabandara LO, Loxton NJ, Dias SR, Dodd PR, Daglish M, et al. Dependent heroin use and associated risky behaviour: The role of rash impulsiveness and reward sensitivity. Addictive Behaviors. 2014;39:71-76.

15.   Chung KC, Pillsbury MS, Walters MR, Hayward R. Reliability and validity testing of the Michigan Hand Outcomes Questionnaire. 1998;23:575-87.

16.   CDC. Today's Heroin Epidemic www.cdc.gov/vitalsigns/heroin/:CDC, 2015.

17.   Lejuez C, Bornovalova MA, Daughters SB, Curtin JJ. Differences in impulsivity and sexual risk behavior among inner-city crack/cocaine users and heroin users. Drug and Alcohol Dependence. 2005;77:169-175.

18.   Shand FL, Degenhardt L, Slade T, Nelson EC. Sex differences amongst dependent heroin users: histories, clinical characteristics and predictors of other substance dependence. Addictive Behaviors. 2011;36:27-36.

19.   Raj A, Saitz R, Cheng DM, Winter M, Samet JH. Associations between alcohol, heroin, and cocaine use and high risk sexual behaviors among detoxification patients. The American Journal of Drug and Alcohol Abuse. 2007;33:169-178.

20.   Beyrer C, Sripaipan T, Tovanabutra S, Jittiwutikarn J, Suriyanon V, et al. High HIV, hepatitis C and sexual risks among drug-using men who have sex with men in northern Thailand. Aids. 2005;19:1535-1540.

Table 1: Baseline characteristics of study participants.

Variables		Gender 22-40 n=244 n(%)	41-58 n=90 n(%)	Total
Had sex	No	15 (6.1)	5(5.6)	20(6.0)
	Yes	229(93.9)	85(94.4)	314(94.0)
Multiple sex partners used	No	40(17.5)	17(20)	57(18.2)
	Yes	179(78.2)	64(75.3)	243(77.4)
	NA	10(4.3)	4(4.7)	14(4.4)
Partner type	All women	175(76.4)	64(75.2)	239(76.2)
	Only Wife	40(17.5)	17(20)	57(18.1)
	All men	8(3.5)	2(2.4)	10(3.2)
	Both men and women	2(0.9)	0	2(0.6)
	NA	4(1.7)	2(2.4)	6(1.9)
Condom used	No	84(36.7)	29(34.1)	113(36.1)
	Yes	134(58.5)	52(61.2)	186(59.2)
	NA	11(4.8)	4(4.7)	15(4.8)
Condom regular use	No	59(44.0)	33(63.5)	92(49.5)
	Yes	52(38.8)	12(23.0)	64(34.4)
	NA	23(17.2)	7(13.5)	30(16.1)
Test STD/HIV	No	49(20.1)	20(22.2)	69(20.7)
	Yes	187(76.6)	70(77.8)	257(77.0)
	NA	8(3.3)	0	8(2.3)
STD/HIV test result	Negative	187	70	257
#NA-Not Answered	Male	Male	Male	Male

Table 2: Level of addiction (n=334).

		Age group 22-40 n=244 n(%)	41-58 n=90 n (%)	Total n=334
Addiction level	Moderate	4(1.6)	1(1.1)	5(1.5)
	Severe	240(98.4)	89(98.9)	329(98.5)