



Socio Demographic Profile & Correlates of Substance Abuse Among IDU's Attending an OST Centre in Allahabad

KEYWORDS

IDU, OST, HIV

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ABSTRACT Title- Socio demographic profile & correlates of substance abuse among IDUs attending OST centre in Allahabad

Background- Prevention and control of HIV among IDU, through OST should minimize the transmission of HIV into the general population.

Aims- To study the socio-demographic profile of Inject able Drug Users (IDU) attending an Opioid Substitution Therapy (OST) centre and their correlates and to explore the pattern of their substance use along with assessment of their high risk sexual behaviours.

Method – A total of 195 IDU patients were assessed and information regarding their socio demographic profile, pattern of substance abuse, high risk sexual behaviour, knowledge about HIV transmission and prevention was obtained by structured interview.

Result- Majority of clients were male, married, literate and employed. The most common injectable drug abused was buprenorphine. Majority of clients were taking drugs daily via intravenous route in groups. Majority of them had heard about HIV, its mode of transmission but not aware about ways to prevent HIV.

BACKGROUND

India has made significant achievements in restricting Human Immunodeficiency Virus (HIV) infection by bringing reduction in the incidence of HIV. While there is much to celebrate, certain high risk groups continue to show high prevalence of HIV. Injecting Drug Users (IDUs) is one such group that has more than 5% HIV prevalence consistently across various rounds of sentinel surveillance. Efforts have been made in the third phase of the National AIDS Control Programme (NACP) to scale up HIV prevention services for IDUs, mainly with respect to needle syringe programmes. Clinical management of IDUs is a cause of concern in the field of substance use prevention and treatment and has implications for the human resource development initiatives of many Asian countries including India^[1]. Prevention and control of HIV among IDU, through decreasing injecting drug use, reducing sharing of injecting equipment and promoting safe sex, are essential transmission control strategies for IDU and should minimize the transmission of HIV into the general population^[2-4]. Harm reduction strategies and programmes carried out since the early 1990s, including ensuring a supply of clean needles, syringes and condoms, detoxification, substitution therapy, healthcare and peer-led outreach services, have been shown to reduce the risk of HIV^[5-7]. Opioid substitution therapy (OST) is an evidence-based intervention for opiate dependant persons that replaces illicit drug use with medically prescribed, orally administered opiates such as buprenorphine and methadone. OST reduces HIV risk behaviours and harms associated with injecting (such as abscesses, septicaemia and endocarditis), overdose and participation in criminal activity, thereby improving the quality

of life and health of injecting drug users (IDUs)^[8-13]. There are an estimated 106,000-223,000 IDUs in India, of whom only 5% are currently receiving OST, which is mostly delivered by community-based services^[14, 15]. There is a real need for evidence regarding outcomes of OST provision in India in order to strengthen the case for scaling up of services. Opioid Substitution Therapy (OST) is an important element of HIV prevention among IDUs. The process of initiating OST within the HIV programme began during national AIDS control program-III (NACP III). There are currently about 150 OST centers in the country catering to about 15000 IDUs. OST remains an important intervention strategy in the national AIDS control program-IV (NACP IV).

IDUs are one of the high risk groups (HRG) population considered to be the drivers of concentrated HIV epidemic in India. Among the identified HRG in India, HIV Sentinel Surveillance (HSS) 2010-11 estimates HIV prevalence among IDU at 7.14%, in comparison to 2.67% among female sex workers (FSW) and 4.43% among men having sex with men (MSM). As epidemic continues to be concentrated, prevention through targeted interventions among IDU is core component of controlling HIV epidemic in India. These targeted interventions provide HRGs with the information, means and skills needed to prevent HIV transmission and improve their access to care, support and treatment services. This programme also focuses on improving sexual and general health of high-risk population. With an estimated population of 1.77 lakhs, IDUs are third largest HRG in India, after FSW (8.68 lakhs) & MSM (3.13 lakhs), covered under NACP. Specifically, IDUs interventions fo-

cuses on distribution of clean needles & syringes, abscess prevention & management, counselling, Opioid Substitution Therapy, linkages with detoxification/ rehabilitation services, referral to other services like integrated counselling and training centres(ICTC), anti retroviral therapy(ART) centres, social protection schemes^[16]. This paper reports on outcomes of an OST program in Allahabad providing buprenorphine to opiate dependent IDUs, at Moti Lal Nehru Medical College Allahabad.

NACP IV Prevention Services :

1. Targeted Interventions for High Risk Groups and Bridge Population Female Sex Workers (FSW), Men who have Sex with Men (MSM), Transgenders/Hijras, Injecting Drug Users (IDU), Truckers &Migrants.
2. Needle-Syringe Exchange Programme (NSEP) and Opioid Substitution Therapy (OST) for IDUs.

New Initiatives under NACP-IV:

1. Differential strategies for districts based on data triangulation with due weight age to vulnerabilities.
2. Scale up of programmes to target key vulnerabilities.
3. Scale up of Opioid Substitution Therapy (OST) for IDUs Strengthening needle exchange Programme, drug substitution programme and providing Opioid Substitution Therapy (OST) ^[17].

Objectives

1. To study the socio-demographic profile of Injectable Drug Users (IDU) attending an Opioid Substitution Therapy (OST) centre and their correlates.
2. To explore the pattern of their substance use.
3. To assess their high risk sexual behaviours.

Methodology

The OST is an important element of HIV prevention among IDUs under National AIDS Control Programme. This study involves analysis of the data that were routinely collected from all clients i.e. the injectable drug users enrolled in an OST program at Moti Lal Nehru Medical College, Allahabad, Uttar Pradesh, between December 2012 and December 2015. The OST centre is under the supervision of Psychiatry unit of our College, due permission was taken in this regard from the unit Head. The ethical clearance was also obtained from the Institutional ethical committee.

The data was collected using structured questionnaires by interviewing the clients at the time of enrolment by trained investigators. The information was sought regarding their socio demographic profile, their pattern of substance abuse, their high risk sexual behaviour and knowledge about HIV transmission and prevention. The analysis was done using Epi-info available as a free ware for statistical analysis by CDC, Atlanta, USA. Standard descriptive statistics were used and other inferential statistical tests were applied based on the objectives.

Results & Discussion

The final sample studied in this study was 195. The socio-demographic profile of the clients is presented in table number 1.

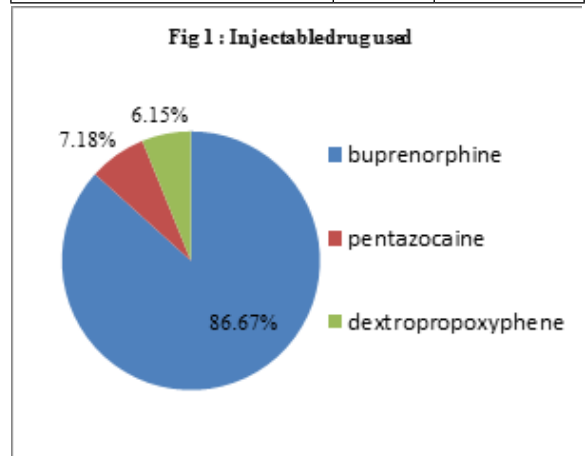
Age-groups (years)	Number (%)
≤ 24	50 (24.64)
25 – 34	87 (44.62)
≥ 35	58 (29.74)

Sex	
Male	193 (98.97)
Female	2 (1.03)
Marital status	
Single	87 (44.62)
Married	108 (55.38)
Education	
Illiterate	42 (21.54)
Primary education	43 (22.05)
Middle school	29 (14.87)
Matriculation	70 (35.9)
Graduation and above	11 (5.64)
Employment status	
Unemployed	31 (15.9)
Employed or Self-employed	164 (84.1)
Monthly income (in Rupees)	
< 1500	17 (8.72)
1500 – 3000	24 (12.31)
3000 – 4500	46 (23.59)
4500 – 6000	56 (28.72)
6000 – 10000	24 (12.31)
> 10000	28 (14.36)

The mean age of clients was found out to be 30 ± 7.5 years and most of them (44.62%) were in 25-34 years group. The minimum and maximum ages were 18 &

55 years respectively. Most of them were male (98.97%) and majority of them were married (55.38%).The analysis of their education level showed that 42(21.5%) were illiterate. About 70(35.9%) had done matriculation whereas only 11(5.64 %) had completed graduation which shows the effect of higher education in preventing such practices.

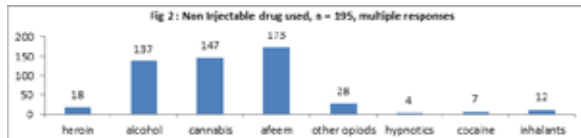
Inject able drug	Number of Clients (%)	
Buprenorphine	169	(86.67)
Pentazocaine	14	(7.18)
Dextropropoxyphene	12	(6.15)
Non - inject able substances		
Heroin	18	(9.2)
Alcohol	137	(70.3)
Cannabis	147	(75.4)
Opium (Afeem)	173	(88.7)
Other opioids	28	(14.4)
Hypnotics	4	(2.1)
Cocaine	7	(3.6)
Inhalants	12	(6.1)



Very few clients, about 31(15.9%) were unemployed and

among those employed anywhere, majority of the IDU's i.e. 109(55.9%) were self-employed showing the economic factors involved in it. The income data revealed that most of them, i.e. 56(28.72%) were earning between 4500-6000 monthly. Only 17(8.72%) were earning below 1500 while about 28(14.36%) had income above 10000 per month.

The socio-demographic variables were further analysed to study the correlation and influence of these on substance abuse practices and patterns, these will be discussed in detail subsequently.



The pattern of substance abuse was analysed using multiple response question to find out the prevalence of different types of substances used by clients, shown in table number 2.

Variable	Number of clients (%)
Duration of use	
< 1 year	4 (2.05)
> 1 year	191(97.95)
Frequency of injecting drugs	
Daily	159 (81.54)
3-4 times / week	8 (4.1)
1- 2 times / week	24 (12.3)
Less than once / week	4 (2.05)
Route of administration	
Intravenous	156 (80)
Intramuscular	39 (20)
Usual injecting practice setting	
Alone	78 (40.21)
Groups	116 (59.79)
Needle / syringe sharing practice	
Yes	27 (13.85)
No	168 (86.15)
Frequency of sharing of syringe / needle	
Never	168 (86.15)
Rare	22 (11.28)
Sometimes (1-2 time in 10)	2 (1.03)
Often (> 2 time in 10)	2 (1.03)
Every time	1 (0.51)
Sharing of paraphernalia	
Yes	23 (11.79)
No	172 (88.21)
Frequency sharing of paraphernalia	
Never	172 (88.21)
Rare	13 (6.67)
Sometimes (1-2 time in 10)	7 (3.59)

The practices used by the clients in taking injectable drugs were explored and is shown in table number 3. These are very important when it comes to the actual risk of contracting HIV or the intensity of other effects related to use of such drugs. Among the clients about 159 (81.54%) were taking drugs daily while only 8 (4.1%) were taking it 3-4 times in a week. Majority used the intravenous route, 156 (81.54%) while the rest i.e. 39 (20%) preferred intramuscular. These practices are generally done in groups and the same is reflected as about 116 (59.79%) clients took it in group setting while the rest 40% were taking it alone.

The sharing practices of IDU are a major concern and in our study about 27 (13.85%) clients shared needle with the other IDU's while the sharing of paraphernalia was done by 23 (11.79%). This sharing was most often done in groups of 2 by 4.10% followed by group of 3 by 3.59%. The high risk sexual behaviour of the clients was also studied and the findings showed that the mean age at sexual debut was 16.94 ± 7.9 years, given in table number 4. The group setting of taking drugs further promotes high risk behaviour and we found out that 33 (16.92%) clients were having homosexual intercourse. While only 4 (2.05%) responded affirmatively for having paid sex, just 2 (1.03%) clients had sex in exchange of money or drugs.

Often (> 2 time in 10)	2 (1.03)
Every time	1 (0.51)
Number of people shared with	
2	8 (4.10)
3	7 (3.59)
4	3 (1.54)
5	5 (2.56)
Nil	172 (88.21)

Variable	Number of clients (%)
Heterosexual inter course	
Yes	162 (83.08)
No	33 (16.92)
Paid sex	
Yes	4 (2.05)
No	191 (97.95)
Had sex in exchange of money / drugs	
Yes	2 (1.03)
No	193 (98.97)
Condom usage	
Yes	44 (22.56)
No	151 (77.44)
Condom use during last sexual act	
Yes	46 (23.59)
No	149 (76.41)

For the inject-able drugs the one taken most frequently by the client was accounted. The most common inject able drug abused was buprenorphine almost 86.67% i.e. 169 clients were taking it followed by pentazocaine 14 (7.8%) and dextropropoxyphene 12 (6.15%). Among other non-inject able substances used the most common were afeem 173 (88.7%) followed by cannabis 147(75.4%) and alcohol 37(70.3%). Heroin & cocaine were also being used by few clients, 8 (9.2%) and 7 (3.6%) respectively. The findings are graphically depicted in Fig 1 & 2.

Variable	Number of clients (%)
Have you heard about STI	
Yes	29 (14.87)
No	166 (85.13)
Have you ever been to a STI clinic	
Yes	21 (10.77)
No	174 (89.23)
Have you ever heard about HIV / AIDS	
Yes	143 (73.33)
No	52 (26.67)
Knowledge about HIV transmission	
By unsafe sexual contacts only	11 (5.64)
By sharing contaminated needle/ syringes or unsafe sex	151 (77.44)
Don't know	33 (16.92)
Are you aware of ways to prevent transmission of HIV	
Yes	83 (42.56)
No	112 (57.44)

Table 6: Socio-demographic variables and practise of substance abuse, n = 195 (%)

	Inject able drug used	Frequency of injecting	Route of adm.	Use Setting	Needle	Paraphernalia	Total
	Buprenorphine	Daily	IV	Group	Sharing	Sharing	
Age							
Up-to 24 years	29 (58)	50 (100)	43 (86)	34 (69.39)	9 (18)	8 (16)	50 (25.64)
25 or above	140 (96.55)	109 (75.17)	113 (77.93)	82 (56.55)	18 (12.41)	15 (10.34)	145 (74.36)
	P=0.0001	P = 0.0001	P = 0.218	P = 0.113	P = 0.324	P = 0.285	
Marital status							
Single	70(80.46)	68(78.16)	67(77.01)	58(67.44)	13(14.9)	10(11.49)	87 (44.62)
Married	99(91.67)	91(84.26)	89(82.41)	58(53.7)	14(12.96)	13(12.04)	108 (55.38)
	P = 0.02	P = 0.275	P = 0.35	P = 0.05	P = 0.69	P = 0.556	
Education							
Illiterate	37(88.1)	34(80.95)	34(80.95)	24(57.14)	7(16.67)	5(11.9)	42 (21.54)
Up-to middle school	62(86.11)	62(86.11)	57(79.17)	46(64.79)	9(12.5)	6(8.33)	72 (36.92)
Matriculation & above	70(86.42)	63(77.78)	65(80.25)	46(56.79)	11(13.58)	12(14.81)	81 (41.54)
	P = 0.95	P = 0.41	P = 0.971	P = 0.557	P = 0.821	P = 0.4361	
Employment status							
Unemployed	22(70.97)	25 (80.65)	28(90.32)	19(61.29)	5(16.13)	5 (16.13)	31(15.9)
Employed (Govt. / pvt.) & Self-employed	147(89.63)	134(81.71)	128(78.05)	97(59.51)	22(13.41)	18(10.98)	164(84.1)
Total	169(86.67)	159(81.54)	156(80)	116(59.79)	27(13.85)	23(11.79)	195
	P = 0.005	P = 0.888	P = 0.117	P = 0.852	P = 0.688	P = 0.414	

Table number 5 shows client knowledge about HIV transmission & prevention. It was found out that only 29 (14.87%) had heard about STI and only 21 (10.77%) had ever visited a STI Clinic. On the contrary the number of clients who had heard about HIV was quite high about 143 (73.33%). This might be attributed to increased awareness & ongoing campaigns for HIV as compared to the STI group. The knowledge about HIV transmission was analyzed and about 151 (77.44%) clients considered both unsafe sex & needle exchange to be responsible while 11(5.64%) supported only unsafe sex. A large number of people 33(16.9%) were unaware about mode of transmission. Majority of clients 112 (57.44%) were not aware about ways to prevent HIV, now, considering them as a recognized high risk group the impact becomes much more hence this component should be strengthened further to address the gap. The socio-demographic variables were analyzed to find out any correlation with current practice and to look for the possible factors supporting such behaviour shown in Table number 6. For the application of appropriate statistical tests some variable categories were merged. Chi-square test was applied to find out the association between variables and a P value of < 0.05 was considered to be statistically significant. The effect of age was analyzed and showed that among youth population 58% were taking buprenorphine while the rest preferred pentazocaine or dextropropoxyphene. Among the ages > 25 the most common was buprenorphine, being taken by 96.5%. This difference was also statistically significant. Similarly the younger population was more commonly injecting the drugs on daily basis, 100%, while about 75% of the clients aged 25 and above were taking daily. This shows a decrease in the frequency of injecting with increase in age and results were highly significant with a p value of 0.0001. The preferred route for 86% youth was IV and 69.3% of them used drugs in groups, while only 56.5% of clients aged > 25 used it in group. The needle and paraphernalia sharing was also high among the youth as compared to the other group. 18% shared needle & 16% shared paraphernalia both these were lower in the higher age group; this clearly indicates that for targeted behaviour change, communication is essential. The corresponding P value is mentioned in the table number 6. The association of marital status was found out to be statistically significant with the choice of drug and setting of use i.e. in groups. About 92% married clients took buprenorphine as compared to

80% among single clients with a P value of 0.02. Similarly 67.4% single clients used group setting as against 53.7% married ones. P value was 0.05 for this association. The effect of educational level on such practices was analyzed and we found a mixed pattern and no significant difference due to high or low education level, this is an important aspect ignored and has to be taken proper care by improving the quality of our education system so that in effects the behaviour of the individual. Some categories were clubbed together to apply the Chi-square statistics (refer table 6). Employment status is an important factor as far as the money to buy drugs is concerned. More of the employed were taking buprenorphine (89.6%), as compared to unemployed (70.9%) and this was significant with a p value of 0.005. The needle and paraphernalia sharing was more in the unemployed group, about 16% as compared to those employed (11%); however P value was not significant.

CONCLUSION

The findings from this operational research indicate that the provision of OST centres in the context of Allahabad achieved outcomes that are internationally comparable, and highlights strategies for strengthening similar programs in this and other resource-poor settings. Grassroots level efforts need to be improved to decrease the prevalence of HIV in high risk groups like IDUs.

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