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Original Research Article

# A Study of Socio-Demographic Profile of Substance Abusers Attending De-Addiction Centres in Kolkata City

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## ABSTRACT

**Background:** Drug dependence is still to be recognized in developing countries as a significant public health problem and literature on the magnitude of this problem is limited. Increasing substance abuse and its impact on physical and psychosocial health is a worldwide public health concern affecting the early youth and subsequently the whole life of the individuals. To plan effective interventions, it is essential to have information on the extent and type of substance abuse among substance abusers and their attitude towards its control.

#### **Objectives:**

- 1. To identify the socio-demographic characteristics of the substance abusers.
- 2. To identify the drugs commonly used.
- 3. To find out different triggers leading to addiction in the study population.

**Materials and Methods:** In this cross-sectional study, all the patients admitted at the six Deaddiction centres of Kolkata during the study period were interviewed. The data was tabulated & analyzed using SPSS version 20.0 and the results obtained were expressed in proportions.

**Results:** A total of 295 patients were included in the study, majority (92.2%) of patients were males. Majority of them were in the age group between 19-30 years (45%). 52.8% of the patients had started taking the drugs before the age of 20 years. The most common substance used was alcohol (49.6%). Most of the addicts are introduced to their substance of abuse by their friends (89.15%).

**Conclusions:** Our study point towards the vulnerability of younger age towards substance use and hence, it is proposed that the preventive health policies in this regard should be targeted specifically during teenage years.

Key Words: Substance Abuse, Age, De-addiction centre, Peer, teenage

## **INTRODUCTION**

The World Health Organization (WHO) defines Substance abuse as "Harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs". Repeated use of these substances can lead to dependence syndrome-a cluster of behavioral, cognitive, and physiological phenomena which involves a strong desire to take the drug, and difficulties in controlling its use.<sup>[1]</sup>

Abuse of Alcohol, Cannabis, opiates and illicit drugs is the major public health problem in India, placing an enormous

economic burden on the country. It strains the resources of our health system and leads to the death & ill health of millions of people every year. Understanding the sociodemographic characteristics on the inmates of various de-addiction and rehabilitation centres was a steady approach to find out the root of problem.

Adolescent drug abuse is one of the major areas of concern in adolescent and young people's behavior. <sup>[2]</sup> The Abuse of substances among adolescents is associated with a broad range of high-risk behavior. This type of behaviour can have profound health, economic and social consequences, for example, some adolescents participate in deviant peer groups, unprotected sexual intercourse, interpersonal violence, destruction of property and perform poorly in their studies.

According to the United Nations Office on drugs and crime (2008), substance abuse is worsened by complex socioeconomic challenges such as unemployment, poverty and crime in general. These social ills are devastating many families and communities.<sup>[3]</sup>

Drug dependence is still to be recognized as a significant public health problem in India. Though it is a preventable and treatable disease with effective prevention and treatment interventions, people suffering from it are stigmatized and many a times have no access to treatment and rehabilitation.

The situation is compounded by the rapidly changing social and sexual mores leading to wide permissiveness in society in the last few decades. The urgency of the problems associated with adolescents' substance abuse and misuse of substances impels lawmakers, educators, parents and communities to take actions.

Thus, there is a need to develop more effective evidence based prevention methods. In public health practice, the saying goes: prevention is better than cure. It would be much more cost-effective and socially beneficial if the epidemic of substance/ drug abuse in India could be managed by preventive interventions specifically targeted at the adolescents, based on their knowledge base and mindset.

Though the problem of substance abuse has been prevailing in our country for quite some time, the magnitude of the problem is never reflected or highlighted in the official survey data or statistics.<sup>[4]</sup> The data on the problem status of substance use in the study region itself is limited. The present research is an attempt to study the socio-demographic profile of patients attending De-addiction centres in Kolkata to find the various substances commonly used by them along with the reasons for driving them to resort to the substance use and falling prey to this serious public health problem.

## **MATERIALS & METHODS**

Ethics Committee approval was obtained from the Institutional Ethics Committee of All India Institute of Hygiene and Public Health, Kolkata, India prior to the commencement of the study.

In Kolkata, there are 22 registered de-addiction centres. (Source: Kolkata Narcotics bureau). Permissions were sought from the authorities in charge of the individual De-addiction centres and subsequently six De-addiction centres were included in the study.

These centres have both inpatient and out-patient programs. However, the present study was conducted on the inpatients only. The purposive sampling method was used, those who were interested, co-operate, agreed to conduct the study were selected. Total 295 samples taken from all 6 study centers present at that moment of time.

The present cross-sectional study was conducted in Kolkata, a coastal city in South India during April 2012.

Information pertaining to the study variables was collected using a semistructured questionnaire, which was divided into three sections. The schedule was prepared in English and then translated to Bengali and other languages. Section A

collected information on socio-demographic variables, Section B on the type of substances used, duration of use, and reasons for its use, reason for admission in addiction centre starting age of addiction, routes of addiction, frequency of addiction creating day to day life any problem use, and Section C on the treatment details & their rehabilitation (duration of undergoing treatment, what type of treatment protocol practiced etc.)

A written informed consent was taken from the patients who were willing to participate in the study. The participants were briefed about the purpose & method of the survey as well as the content of the self administered questionnaire prior to the start of the study.

During the interview, the participants were asked to respond to the questions and all their responses were marked by the interviewer.

The data thus, collected was tabulated & analyzed using SPSS (Statistical Package for Social Sciences) version 20 and the results obtained were expressed in proportions.

## RESULT

A total of 295 patients were interviewed in the De-addiction Centres during the study. 272 (92.2%) patients admitted at the de-addiction centres were males

Socio-demographic information of the patients is detailed in Table 1. Most of the substance addicts admitted in different de-addiction centres belong to age group 19-30 yrs (45%), followed by age group of 31-45(38%). Majority of addicts (73.2%) belong to the productive age group of 19-45 yrs. More than 95% of females admitted belong to this age group only. An alarming 7.4% of male and 4.3% of female substance addicts fall to the age group of below 18 yrs.

Religion wise, most of the substance addicts are Hindu (88.2% of male and 91.3% of female). There is no Muslim female is admitted in any of the centers and Muslim men contribute 8.08%. Christian population is less (3.30% of male and 8.69% of female).

When the educational status of the substance addicts was analyzed, a whopping 37.6% of the addicts are graduate, where as 5.8% are post-graduate. So, 43.4% of them are graduate or above. 43.5% and 13% of females have educational qualification of graduation and post- graduation respectively, which is more than their male counterpart.

45.6% of male are married compared to 47.8% of females. Unmarried substance addicts are more among male (47.4%) than their female counterpart (34.7%). A good proportion of female substance addicts (17.39%) are separated or divorced compared to their male counterpart (6.25%).

55.8% of male and 78.3% of female substance addicts belong to the nuclear family. Addicts belonging to the joint family are much lower (42.7% of male and 21.7% of female). Only 1.34% of all addicts belong to extended nuclear or three generation families. No significant association is found between family pattern and family history of addiction.

It was seen that most of the addicts do jobs in private sectors (28.7% of male and 47.8% of females). A good number of them are running their own business (M=24.63% and F=17.39%). Only 6.2% of male and none of the females are doing Govt. jobs. So, the stress factor may be related to the substance abuse. 16.54% of the male and 21.74% of female addicts is students. Proportions of addicts are very low among retired professionals or homemakers.

Substance addicts mostly belong to the income group of Rs. 1000-Rs. 5000 with a median income of Rs. 8000. A good number of them fall to higher income group of Rs. 10000 or more (37.4%).

Information on the age of initiation, duration of exposure and types of substances used are shown in Table 2. Most of the addicts are admitted to the deaddiction centers for consuming alcohol (49.6%, M=47% and F=69%). All the heroin addicts are male. Except alcohol, the

other substances abused by females are cannabis and dendrite (chiefly by homeless adolescents).

Table 1. Socio-demographic information of the patients (n=295)

-	
	7.1%
	45.1%
	39.0%
24	8.1%
02	0.7%
07	2.4%
11	3.7%
33	11.2%
45	15.2%
71	24.1%
111	37.6%
17	5.8%
137	46.4%
135	45.8%
02	0.7%
21	7.1%
	•
170	57.6%
121	41.0%
04	1.4%
	•
18	6.1%
90	30.4%
50	16.8%
73	24.7%
24	8.1%
03	1.0%
17	5.8%
02	0.7%
04	1.3%
15	5.1%
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Although most of the substance addicts are alcoholic, almost all of them (95%) have other addictions like smoking and chewing tobacco (59%) and cannabis (11%).

The major route of substance abuse is oral (81.3%). Inhalational route is taken by 48.1% of addicts. Sniffing and injection are less common

The starting age of substance abuse is mostly 15-19 yrs (38.0%,M=37.8% and F=39%). An alarming 15% of male and 8% of female addicts start abusing substances even before the tender age of 14.

Most of the addicts are introduced to their substance of abuse by their friends (89.15%). No of males who are introduced to their substance of abuse by their friends are significantly higher (91.2%) than their female counterpart (60.87%). On the contrary, the percentages of female who are introduced to their substance of abuse from family members or relatives are more (F=4.45% vs. M=2.57%). A good no. of females are introduced to their substance of abuse from other sources (34.68%)compared to males (6.23%).

77.6% addicts consume their substance at least once in a day, 10.17% of them take it more than 6 times in a day and 19.66% of them take at least two to three times in a week. Only 2.71% of the addicts have a consumption rate lower than the abovementioned two.

Almost 72% are brought to the centres by their family members, whereas friends have done that favour in 6.78% cases. A good no. of them (15.25%) came themselves, whereas, other sources, chiefly some non govt. organizations helped them to bring there in 6.11% of cases.

Table 2: Age of initiation, route and types of substances used (n = 295).

ype of addiction*		
Characteristics	No.	%
Alcohol	146	49.6%
Cannabis	73	24.7%
Heroin	33	11.2%
Fevi/den	24	8.1%
Opium	09	3.1%
Cocaine	02	0.7%
Drugs	09	3.1%
Others	14	4.8%
Starting age of add	liction	
)-9	04	1.3%
0-14	40	13.5%
5-19	112	38.0%
20-25	98	33.2%
26-30	25	8.7%
31& above	16	5.3%
Route of addiction	*	•
Dral	240	81.4%
nhalation	142	48.1%
njectable	13	4.4%
Sniffing	30	10.1%
Others	03	1.1%
ntroduction to dr	ugs by	
Friends (Peer)	263	89.1%
Family	08	2.7%
Others	24	8.2%
Brought here by		•
No answer	03	1.1%
Self	45	15.3%
Family	212	71.8%
Friends	19	6.5%
others	16	5.3%

Regarding symptoms faced by the substance addicts, it is seen that depression and irritation are the most common symptoms faced (53.5%) and 47.9% respectively). Whereas symptoms like euphoria, elated mood, insomnia and drowsiness are faced by 20-30% of substance addicts.

85% of substance addicts admit that drug is easily available in their locality, whereas, 15% having some difficulty to procure them.

Almost 41.36% of addicts themselves admit they have taken some illegal means sometimes to have the substance of abuse.

Most of the addicts are having treatment and rehabilitation for 30-90 days (55%). Counseling (95%) and Meditation (84%) are the two most common methods undertaken in the rehabilitation centres, followed by group discussion (67%) and medication forms a part of treatment plan for only 45%. Music therapy and sports activity are other two popular rehabilitative methods.

94.2% of the substance addicts admit that it is a problem to them and it disrupts their day to day life. 5.76% are yet to understand the magnitude of problem associated with substance abuse

Among the 295 substance addicts studied, 106 are relapse cases (35.9%). Among those having relapse of substance abuse after undergoing rehabilitation previously, peer pressure (22%) and lack of self confidence (27%) are the two most important cause of relapse. Financial and family crisis and discontinuation of treatment are other major causes of seeking substances of abuse repeatedly.

Interestingly, more than 70% of substance addicts feel that legal action is not strict enough in their locality. Most of the addicts wanted to come back to normal life to regain the respect from the society and to serve their duty to their near ones. When they were asked about what can be done to make them a part of the broader society, they wished that the law regarding drug peddlers should be strict and there should be family support. According to them, finding a proper job with a better lifestyle, self-guilt and self-motivation are very important factors for returning to normal life.

## DISCUSSION

Today drug abuse is epidemic diseases, the effects of which are not in any way limited to just one individual but extends to his or her family and whole society at large. Substance abuse has become an increasingly major socio-medical problem throughout the world.

The use of tobacco, alcohol, and illicit substance continues to result in substantial morbidity and mortality and significant societal economic costs despite considerable efforts to prevent use of illicit substances. Studies have been carried out in different parts of the world to examine socio-demographic characteristics of the abusers belonging to different strata of the society. However these studies indicate the local variation and point out local factors which affect the growing problem of substance abuse, hence necessitating the conduct of socio- demographic study of the local population to understand substance abuse.

In India currently the use of alcohol and locally manufactured tobacco products like Beedi (coarse tobacco rolled in leaves), smokeless tobacco like Keman (flavored tobacco paste), Gutkha (mixture of tobacco and betel nut), Gul (tobacco tooth powder), Pan Zarda (mixture of betel nut, tobacco leaves and lime) and Khaini (mixture of tobacco leaves and lime) have been noted. <sup>[5]</sup> It is believed that like any other developing country, the most susceptible age for initiating tobacco use in India is during adolescence and early adulthood (ages 15-24).<sup>[6]</sup>

In the present study alcohol is found as the most prevalent substance used by the addicts of Kolkata, followed by cannabis & tobacco & the most susceptible age for initiating alcohol use in India is during

adolescence and early adulthood (ages 10-18).<sup>[6]</sup>

In a study from Ahmadabad, <sup>[7]</sup> 70.2% of the patients were addicted to alcohol which is similar to our study findings. The global burden of disease attributable to alcohol and illicit drug use amounts to 5.4% of the total burden of disease. <sup>[1]</sup> The National Family Health Survey 3 (NFHS-3) data from India showed that in the age group of 15-24 years, the prevalence of alcohol consumption was 1% among females and 19% in males.<sup>[8]</sup> As per the World Drug Report, Cannabis is the most widely used illicit drug followed by Amphetamine-type stimulants, opioids and cocaine. However, there is a lack of information regarding use of illicit drugs in countries such as China and India, as well as in emerging regions of consumption.<sup>[9]</sup> In 2002, World Health Organization estimated that around 140 million people were alcohol dependent and another 400 million suffered from alcohol related problems.

Although most of the substance abusers are admitted for drinking alcohol, almost all of them (95%) are poly-addicts i.e. they have abuse other substances also than their chief substance of abuse. Smoking or chewing tobacco is the most common associated addiction (59%).

Most of the substance abusers admitted in different de-addiction centres of Kolkata belong to age group 19-30 yrs, followed by age group of 31-45. 73.16% of addicts belong to the productive age group of 18-45. Studies from Pakistan <sup>[10,11]</sup> and India <sup>[12]</sup> have reported similar observations in this regard. A study from Ahmadabad, India <sup>[7]</sup> observed 46% patients to be below 20 years of age.

The draft India Drug Country Report, 1995 had revealed that most substance abusers were 16-35 years of age although abuse was more predominant in the 18-25 age group. The rate of current abusers is low in early adolescence (12-13 years), rises steeply into the late teenage years and remains high during the early 20s. J.J. Lamptey has conducted study on socio-demographic characteristics of substance abusers admitted to a private specialist clinic in Accra, Ghana. During his study he found that substance abuse is largely a problem of the young/adolescent males and that there are significant differences between male and female substance abusers which is consistent with the results of our study.

In the present study, age of the admitted substance abusers, it can be see that 38.0% patients start abusing substance at the age of 15-19 which is very similar to that reported in a study from Iran. <sup>[13]</sup> A comparatively lower mean age of initiation of substance use was reported in studies from Chennai <sup>[14]</sup> and Faridkot <sup>[15]</sup> in India, where the mean age was 17.7 years and 15.0 years respectively.

37.62% of the abusers are graduates, where as 5.76% have post-graduation level of education. So, 43.38% of them are graduate or above. In Ahmadabad, India <sup>[7]</sup> 39.1% patients had completed their higher secondary education whereas in Ghaziabad, India <sup>[12]</sup> 40.3 patients had completed their primary education only.

When we look at the family pattern of the addicts, an overwhelming 57.6.% of substance abusers belong to the nuclear Whereas, substance family. abusers belonging to the joint family are much lower. Only 1.34% of all addicts belong to extended nuclear or three generation families. No significant association is found between family pattern and family history of addiction. Researchers (50) supported this observation in contrast to others (51), which showed nuclear families to be a greater risk factor. Obviously, more research is needed to arrive at a consistent conclusion.

A very small number of patients in our study (7%) were either divorced or separated which is significantly lower to that reported in a study from Singapore<sup>[7]</sup> where 22.3% patients were divorced or separated.

Looking after the profession of the substance abusers, we can see most of the

abusers do their job in private sectors .A good number of them are running their own business, whereas only 6.2% of male and none of the females are doing Govt. jobs. So, stress related to the job probably has an impact towards substance abuse. An alarming 16.54% of the male and 21.74% of female abusers is students. Proportions of addicts are very low among retired professionals or homemakers.

8.1% patients in our study were unemployed. In Karachi, Pakistan<sup>[11]</sup> 29.6% patients were unemployed; whereas in Chennai, India <sup>[16]</sup> 31.7% were unemployed. According to the NHSDA (National Household Survey on Drug Abuse)<sup>[12]</sup> 1997 report from United States of America, the rate of illicit drug use was found to be the highest among the unemployed. It showed that 16.5 percent of the unemployed were current illicit drug users in 1997, compared to 9.3 percent among part-time workers and 7.7 percent among full-time workers.

As alcohol is the most common cause of admission of substance abusers to the different de-addiction and rehabilitation centres, we can see most of the abusers consume their substance of abuse through oral route. Inhalational route is taken for abusing substances by 48.1% of abusers.

Findings of the National Behavioral Surveillance Survey (2001) on young IDUs showed that their drug injecting practices start by the age of 16.The use of sterile injecting equipment was significantly lower among younger IDUs.

In our study, majority of the abusers are introduced to their substance of abuse by their friends /peer pressure (89.15%). Peer pressure refers to the influence of peer group on an individual to act and think in certain manner irrespective of individual's personal wishes. <sup>[13]</sup> Peer pressure can lead to a positive or a negative choice and practice. A significant association of peer pressure with use of drugs and alcohol is well established. Borsari and Carey <sup>[17]</sup> peer observed that the environment contributes to high-risk alcohol use by way direct influences, modeling, of and

[18] perceived norms. Kobus. in а comprehensive review observed that adolescent peer relationships contribute to adolescent cigarette smoking. In a study from Chandigarh, <sup>[19]</sup> peer pressure was the single most important cause for initiation of substance use whereas in a study from [20] Kashmir, 44.4% patients were influenced by peer group to use substances. Our findings in this regard are in agreement with that reported in earlier studies.

Easy availability of substances has been a significant factor for continuation of substance abuse, this fact has been supported by the finding in the present study that 85% of substance abusers admit that drug is easily available in their locality, whereas, 15% having some difficulty to procure them.

Multisystemic therapy (MST) has demonstrated a particularly strong record in reducing long-term rates of rearrest and incarceration among chronic and violent juvenile offenders (Randall et al., in press).

Initiation of substance use occurs during late teenage years which points towards the vulnerability of individuals towards substance use and addiction. A considerable number of patients were resorting to poly substance use which can be attributed to the easy accessibility and availability of these substances especially alcohol and tobacco products. Community based studies need to be conducted to estimate the magnitude of this problem and to study the conditional factors influencing the use of substances especially among the adolescents. Health education regarding the harmful effects (physical and psychological) of substance use should be addressed in schools and colleges. Awareness programs and camps need to be conducted at community level to address this major public health problem of substance use.

## CONCLUSION

In spite being a major public health problem, it has been overlooked for generations. The problem originates from various strata of the society with adolescents

being the major target. Poor rehabilitative methods lead to relapses.

Thus, effective measures to be taken to advocate a healthy lifestyle among youth to curb addiction. Proper rehabilitative methods to be adopted to lessen the chances of relapse and give the addicts a fresh new lease of life.

### Recommendations

- 1. To fight against the dreadful affects of substance abuse, the following measures can be taken:
- 2. Awareness among common people against the dangerous affection of abusing substances is needed. To be effective, the awareness generation should be initiated as early in life as possible.
- 3. Legal action against the drug peddlers should be strict. Often there is existing cooperation between law makers & law breakers, which should be breached.
- 4. Job opportunities for the reconciled/ rehabilitated substance addicts should be created. Society at large should accept that abusing substances is a disease and treat them accordingly.
- 5. History of past addiction should not be condemned; rather their desire to come back to normal life should be respected.
- 6. Social support should be initiated for substance addicts so that they can attend meetings & counseling programmes.
- 7. A significant association has been seen between the substance abusers & of their friends. Study recommends a peer approach to counter peer pressure.
- 8. According to substance addicts, family support should be very strong in order to come back to lead a normal healthy life.
- 9. Substance addicts themselves understand the problem of other addicts better than common people. The more these reconciled addicts can be incorporated into the different organizations working for substance addicts, the better.

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