

Drug abuse in slum population

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ABSTRACT

Substance abuse is an important health problem throughout the world including India, but prevalence and pattern of abuse varies from country to country and in different types of population. Slums have their own social and economic problems so that substance abuse may be different in this population and might be related with these problems. The aim of the present study was to study the prevalence and pattern substances in slum population. Prakash Chandra Sethi Nagar slum area of Indore district was selected for the purpose of this study. In first phase of the study, first a camp was organized to sensitize local leaders, key persons, and local inhabitants about drug abuse at Chandra Prakash Sethi Nagar. After that basic information was gathered with the key persons in Chandra Prakash Sethi Nagar. In second phase by house-to-house survey, all members of the family were interviewed in detail and information was recorded on semi-structured proforma. We observed prevalence rate of 560/1000 populations, 78.2% were males, 28.2% were females, and two-third abusers were laborers (72%). In order of frequency, tobacco was the most common substance abused in 53.9% population followed by *gutka* (nontobacco pan masala). Other drugs in order of frequency were alcohol 46.5%, cannabis 8.9%, opiates 4.9%, sedative and hypnotic 2.0%, solvents 1.0%, and cocaine in 0.1%. Slum population has higher prevalence rates than general population.

Key words: Patterns, prevalence, psychosocial factors, slums, substance abuse

INTRODUCTION

A slum is consequence of fast development. Slum is defined as “a cluster inside urban areas without having water and sanitation access.” India is urbanizing very fast and along with this, the slum population is also increasing. It has doubled in the past two decades. India’s slum-dwelling population rose from 27.9 million in 1981 to over 40 million in 2001. Among the urban poor, the slum dwellers are the poorest.

Sociocultural environment of slums is different than other inhabitants in the city so that this study was carried out to study prevalence and pattern of drug abused in the slum population of Indore district in Madhya Pradesh.

Drug abuse is prevalent in India since recorded history. Drug abuse affects not only physical and mental health of people but also has social and economic consequences. Drug abuse is a growing concern. In India, most of the studies have been carried out in the last four decades.^[1-15]

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From Northern part of India (Lucknow) Dube and Handa^[16] observed 22.8 per one thousand prevalence rate of

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alcohol and drug abuse whereas Thacore^[17] reported that 18.55/1000 were dependent on alcohol and drugs. Important finding of these studies reveals that alcohol was the most common substance used (60–98%) followed by cannabis use (4–20%). Epidemiological surveys also revealed that 20–40% of subjects above 15 years were current users of alcohol and 10% of them are regular or excessive users.^[18-20] Deb and Jindal^[20] in a survey of four villages in Punjab found that 78.28% of the population used alcohol whereas in the same state, Lal and Singh^[10] reported it to be 9.13% of total population surveyed. Varma *et al.*^[21] found that rates of current use of alcohol in Punjab were 45.9% in Jalandhar and 27.7% in Chandigarh whereas it was 28.1% in rural areas of Punjab. Shukla^[22] reported that 38.3% of the rural population in Uttar Pradesh were habitual users. In a study conducted in a rural community in Bihar, prevalence of alcohol/drug use was found to be 28.8% of the study population. Meena *et al.*^[23] in an urban population in Rohtak District of Haryana revealed a prevalence rate of 19.78% of the study population. In a meta-analysis of 13 psychiatric epidemiological studies, it was found that the prevalence rate of alcohol/drug use was 6.9/1000 population. A National Household Survey (2001) observed that the current prevalence of alcohol was 21.4%, cannabis 3.0%, heroin 0.2%, opium 0.4%, and other opiates 0.1%. There is only one study from Chandigarh in which Chavan *et al.*^[14] have studied the prevalence of alcohol and substance abuse in slum population and rural population.^[14]

MATERIALS AND METHODS

Total population of Indore is 3,272,335 (2011 census); out of them 35% are living in the slums. First, a camp was organized to sensitize local leaders, key persons, and local inhabitants about drug abuse at Chandra Prakash Sethi Nagar. This slum was selected for this study because it is centrally located and easy to approach. It was very difficult to assess where one house ends and other starts and there was no proper household number. At first, each household was numbered for the purpose of our study.

Inclusion criteria

All inhabitants above 10 years in Prakash Chandra Sethi Nagar slum area who gave consent were included in the study.

Exclusion criteria

Those who were critically ill, had cognitive impairment, and did not give consent were excluded from study.

Current users – defined as a person who had used substance in the last 1 year.

Never users – who had never used any drug in the past in their life.

Phase I

This survey work was started in November 2013 and completed in March 2014. Survey was carried out with the assistance of four postgraduate students of Master of Social Work from Indore School of Social Work and Indore Mahavidyalaya and Sri Aurobindo Institute of Medical Sciences, Indore, who volunteered to participate in this study. These participants were first trained how to conduct survey, interviewing keeping unbiased, nonjudgmental attitude toward individual using drugs and record finding by principal investigator. International Classification of Diseases (ICD) Xth revision criteria was applied to classify drug users. First, influential persons and local leaders were contacted and their approval was taken to carry out the work. Then, key informant and head of family were approached to gather the information.

Phase II

After pilot phase, data were collected by house-to-house survey. Details about family were recorded by family folder including which drug (in local names) is taken by the member. Subsequently, information about persons with substance abuse was recorded in detail on semi-structured proforma. Interview about drugs was taken in Hindi and local language.

Tools used

Household schedule

This schedule was used to record baseline data of families and demographic variables.

Drug abuse proforma

A semi-structured proforma - On the basis of core data for epidemiological studies of nonmedical drug use developed by the WHO (1980) was used to find out details of drugs used on the basic data.

The data were analyzed using frequency distribution to ascertain the proportion of those who were current users of substances as standard deviation was calculated.

Abusers were advised to attend Outpatient Department, Department of Psychiatry, MGM Medical College, Indore.

RESULTS

Prevalence of substance abuse

Table 1 shows that out of 6758 surveyed total population, 1242 were below 12 years of age so that they were excluded from this study. In the remaining 5516 sample, a total of 3089 (current users) were taking drugs or had taken drug in last one month and the rest of 2427 cases (never users) had never taken drug in the past in their life.

The prevalence rate for current users was 560/1000 population (56%).

Pattern of substance abused

Tobacco was the most common substance abused in 53.9% population followed by nontobacco pan masala/*gutka* (pan parag, rajshree, and pan bahar) that contains catechu, cardamom, fine cut coconut shell, and betel nuts (41.4%). Other drugs in order of frequency were alcohol 46.5%, cannabis 8.9%, opiates 4.9%, sedative and hypnotic 2.0%, solvents 1.0%, and cocaine in 0.1% [Table 2].

DISCUSSION

Indore is the financial capital of Madhya Pradesh and large number of population from the neighboring states of Madhya Pradesh, for example, Maharashtra, Uttar Pradesh, Bihar, and Gujarat are settled here in search of employment. Indore has a large population of slum area (35%). The survey reveals the prevalence rate of 560/1000 populations. Only one study has been reported in slum population. Chavan *et al.*^[14] from Chandigarh studied drug dependence based on ICD-10 criteria. He observed the prevalence rate of 68/1000 population. Other studies by Ghulam *et al.*^[11] Dubé and Handa,^[16] Thacore^[17] and Varma *et al.*^[21] in general population have observed prevalence rates of 387, 228, 185, and 190/1000 population, respectively. Compared to these studies, prevalence rate in this study is much higher.

Tobacco was found to be the most common drug abused. Lal and Singh^[10] also reported same in urban population of Punjab. Most of the researchers did not include tobacco in their study along with other drugs. Nontobacco pan masala was the second most common drug abused. According to Lal and Singh,^[10] Sethi and Trivedi,^[9] and Mohan *et al.*^[4] alcohol was the third most common drug abused. According to Lal and Singh and Mohan, opium was the most common drug abused after alcohol whereas according to Sethi and

Trivedi, cannabis was the most common drug abused second to alcohol as observed in the present study. This difference could be attributed to more illicit trafficking in affluent in Punjab.

Sedatives and hypnotics, cocaine and solvent abuse has also been found although less than tobacco, alcohol, and cannabis. These drugs have not been included in the list of studied drugs by the past researchers. Sedatives and hypnotics are readily available over the counter so easy to start and fall in dependence. There were two cocaine users and frequent travelers to Mumbai from there they are procuring it.

Solvents (nail polish remover and thinner to paints) are cheap and readily available in this area usually for youngsters to get abuse. Its abuse is alarming in this study.

We realize some limitations in this survey including operational criteria abuse of any time use of drug in last 1 month has been used which has been used by previous investigators also. We can suspect that there could be under-reporting by the abusers. However, it gives some definitive clues. More multicenter studies in larger sample size in slums are required to compare data and to generalize for the whole country.

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Conflicts of interest

There are no conflicts of interest.

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**Table 1: Prevalence rates profile
(surveyed population - 5516)**

Drug status	n (%)	Rate per 1000 population
Current users	3089 (56)	560
Never users	2427 (44)	440

**Table 2: Pattern of substance abused
(total current users - 3089)**

Drugs used	Current users of specific drug n (%)	Dependent users of specific drug n (%)
Alcohol	1436 (46.5)	39 (12.5)
Opiate (diacetylmorphine)	152 (4.9)	152 (4.9)
Cannabis	275 (8.9)	64 (2.1)
Sedative and hypnotic	65 (2.0)	47 (1.5)
Cocaine	2 (0.1)	2 (0.1)
Solvents	31 (1.0)	20 (0.6)
Nicotine	1665 (53.9)	1428 (46.3)
Non nicotine containing pan masala (<i>gutka</i>)	1791 (58.0)	1275 (41.4)

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