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(RESEARCH ARTICLE)



## Substance abuse in Bhopal: An epidemiological survey

Amrita Vijayan\*, Ritika Pradhan and Kajal Tekam

Department of Forensic Science, School of Sciences, Sage University, Bhopal, India.

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#### **Abstract**

**Background:** Substance abuse has become a significant problem worldwide, affecting both developed and developing countries. In India, the situation is particularly concerning, with a likelihood of further increase in drug abuse and substitution of more potent drugs due to rapid industrialization and urbanization.

**Methods:** Descriptive Survey Research was carried out among Seventy males of different De-addiction and Rehabilitation centers in Bhopal during the period of 19 November to 18 December 2022. A Predesigned and Pretested questionnaire was used to collect information from the Respondents.

**Results:** Majority of the Respondents come from a background where the family or friends were into Drugs. Most of the Substance Users exist between the age group of 21-30 years. The major reason for the initiation of Drug according to the study was Curiosity and Enjoyment, and the major Source for initiation of Drugs were Friends (accounting to 86%) and Families (7%) respectively. Large number of the Respondents were Multi addicts followed by Alcohol, Ganja/Weed, Opioid and Cocaine Users.

**Conclusion:** The study emphasizes the need for comprehensive approaches to address the underlying reasons of substance abuse, including community and family engagement. This study highlights the complexity of substance abuse, with multiple factors driving drug initiation, including curiosity, external persuasion, and psychological stress.

Keywords: Substance Abuse; Epidemiology; General trends; Prevalence

#### 1. Introduction

Substance abuse can be defined as the harmful or hazardous use of psychoactive substances<sup>[1,2]</sup>. According to the World Health Organization's 1992 definition, drug addiction involves behaviours characterized by excessive fixation on drug use, obsessive seeking of drugs, and a high likelihood of relapse after discontinuation<sup>[3]</sup>.

In recent times, the issue of drug abuse and dependence has been on the rise, showing its complex nature with dimensions including social, cultural, biological, geographical, historical, and economic factors<sup>[4]</sup>. This trend has particularly affected young men in India, where drug abuse is a leading cause of mortality, impacting social and familial dynamics within communities<sup>[5]</sup>. Furthermore, a family member's substance dependence significantly affects various aspects of family life, including interpersonal and social relationships, leisure activities, and financial matters<sup>[6]</sup>. Additionally, alcohol consumption in countries like India has become a significant public health concern<sup>[7]</sup>, with worrying drinking patterns among those who do consume<sup>[8]</sup>. The impact of drug abuse extends beyond physical and mental well-being to significant social and economic repercussions<sup>[9]</sup>.

<sup>\*</sup> Corresponding author: Amrita Vijayan

The use of psychoactive substances can lead to dependence syndrome, encompassing various manifestations such as an intense urge for the drug, difficulties controlling its use, continued use despite harm, prioritizing drug use over other obligations, increased tolerance, and occasionally physical withdrawal symptoms<sup>[10]</sup>. Additionally, studies have suggested a correlation between the geographical distribution of drug abuse and the availability of drugs<sup>[11]</sup>, with differences in educational attainment and employment reported between urban populations and urban slums or rural areas<sup>[12]</sup>.

There is a likelihood of further increase in drug abuse and substitution of more potent drugs in India in future due to unavoidable situations like rapid industrialisation and urbanisation. Problems with impulse control and impulsive behaviour also comes under the category of Drug Abuse<sup>[13]</sup>.

#### 1.1. Need for Research

Although there were other surveys, but were all limited to certain segments of the society such as university students, patients, labors, etc.

This survey was conducted as there are very limited studies about the Substance Abuse in Bhopal (Madhya Pradesh).

Objective and motivation of the study

- To understand the general pattern and prevalence of Substance Use in Bhopal (Madhya Pradesh).
- To study the reasons for initiation of Drugs.

## 2. Methodology

This was a Descriptive Survey Research, conducted to understand the pattern, prevalence and reasons for the initiation of Drugs in Bhopal (Madhya Pradesh). The survey was carried out after receiving permissions from the higher authority, by contacting them through phone and/or by paying more than one visit to the Rehabilitation center while trying to build rapport with the Respondents. Only the Subjects who gave their consent were included in the Survey.

#### 2.1. Sample Selection

Random Sampling has been used for the sample selection. Arduous efforts were made to include De-addiction from different places in Bhopal for equal representation. A total of 70 males between 18-55 years of age, from different de-addiction centers, were interviewed during the period of 19 November to 18 December 2022.

#### 2.2. Area of Study

Capital of Madhya Pradesh, Bhopal with geocoordinates of North latitude 23°16′ and East longitude 77°36′ was chosen as the area of study. Six de-addiction centers from different parts of Bhopal were selected for this study which included – Prayas Psychiatric Care Hospital and Rehabilitation Center (Kolar Road), Nidan De-addiction Center (Neelbad), Pahal De-addiction and Rehabilitation Center (Bawadiya Kalan), Shri Shuddhi De-addiction Center (Sarvadharm c Sector), Umang De-addiction and Rehabilitation Center (Gulmohar Tilanaga), and Shri GKS De-addiction Center (Kal Khedi).

## 2.3. Research Instrument

Structured, bilingual, Predesigned and Pretested questionnaire, containing twenty-nine closed ended questions with multiple options, was devised to collect data from the respondents at De-addiction centers. The questionnaires were filled by the Respondents. The collected data was processed and then analyzed which helped in understanding the pattern, averages, trends, and generalize wider population.

## 3. Results and discussions

#### 3.1. Background

Majority of the respondents, around 67 % of the respondents were from urban background, 21 % from semi-urban (Sub urban) region and only 11 % were from rural areas.

## 3.2. Percentage of Respondents whose family and/or friends were into Drugs

Around 70% of the respondents reported that their family and/or friends were involved in drug abuse, indicating strong influence of environmental factor in Substance Abuse. While the rest, 30% of respondents had no history of substance abuse.

#### 3.2.1. Age of Respodents

According to the Survey majority of the responders, around 27% were between 21-25 years of age followed by 23% between the age group of 26-30, 16% between 31-35, 10% between 36-40 & 41-50 and the least, that is 7% occupied by the two extremes 15-20 & Above 50 age groups.

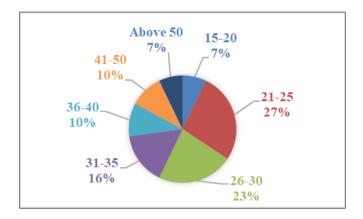


Figure 1 Age of Respondents

## 3.2.2. Reasons for initiation of Drugs

According to the Data collected around 44% of the Respondents started taking/using substances due to curiosity and enjoyment; 17% due to persuation by others; 13% started using Substance due to more than one reason; 8% to be sociable and due to Fatigue and Physical illness respectively; 3% due to psychological stress; and 6% due to other reasons.

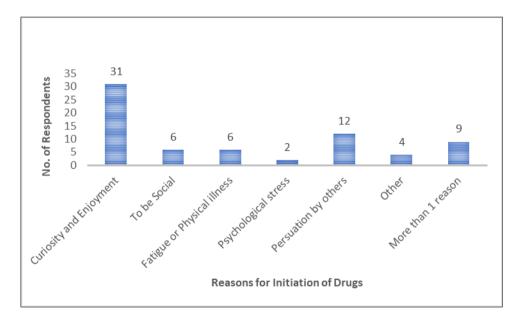


Figure 2 Reasons for intitiation of Drug

## 3.2.3. Sources for initiation of Drugs

For major chunk of respondents the main source of introduction was through Friends which accounted for 86% of the total Respondent population; 7% through Families; 6% of the Respondents were Self-Dependent users; and around 1% of the Users were introduced through other Sources.

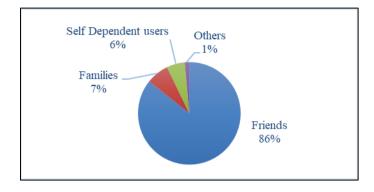


Figure 3 Sources for initiation of Drug

#### 3.2.4. Kinds of Substance Used

Results showed that out of Seventy people interviewed around 41% of the Respondents were Multi-addicts; followed by 30% alochol users; 22% used ganja/weed; nearly 3% used opiods and coccaine respectively.

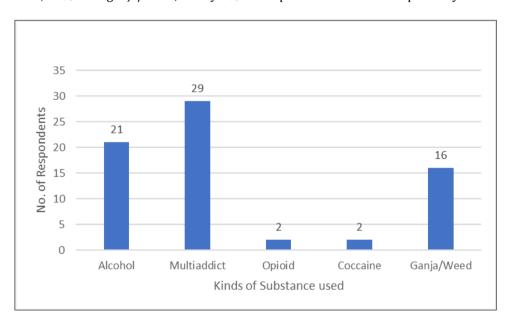


Figure 4 Kinds of Substance Used

## 3.2.5. General Trends

Prevalence of Substance use is mostly seen in Urban areas, which accounts to nearly 67% of the total sample size, with most of them being multiaddicts. There is concern over the Prevalence of Substance Use among the youths of the country, mostly ranging between 21-30 years of age. According to Table 1. Majority (38%) of the respondent's Educational Qualification is Secondary. The Table also reveals General Trend of Substance Abuse which tends to decrease with increasing Educational Qualification. The most unsettling results of the survey is 24% of the Respondents being Students, rest 23% of the respondents are indulged in Bussiness activities, followed by 13% of the respondents who depend on Agriculture as their major source of income, 11% are government servants, and the rest engaged in other sectors for their livlihood. Out of the total respondents only 17% have had any sort of involvement in criminal activity; the rest, 82% have never committed any offense.

**Table 1** Pattern and Prevalence of Substance Use

S.No.	Variables	No. of respondents	Percentage (%)
1	Background		
	Rural	8	11
	Urban	47	67
	Semi-urban	15	21
2.	Educational Qualificaton		
	Secondary	27	38
	Higher Secondary	12	17
	Graduation	19	27
	Post Graduation	7	10
	Other	5	7
3.	Occupation		
	Student	17	24
	Service class	8	11
	Buisness	16	23
	Agriculture	9	13
	Other	20	28
4.	Involvment in any criminal activity		
	Yes	12	17
	No	58	82

## 4. Conclusion

The study's findings reveal a complex and multifaceted picture of substance abuse, with a majority of users exhibiting multi-addictive behaviors. The primary substances of choice are alcohol, ganja/weed, opioids, and cocaine, driven by a range of factors including curiosity, enjoyment, external persuasion, and a desire to be sociable. Fatigue or physical illness and psychological stress also play a role, highlighting the interconnectedness of substance use with other aspects of individuals' lives. The study underscores the limitations of legal and medical approaches in addressing the root causes of substance abuse, emphasizing the need for a more comprehensive and community-based response. Community and family engagement are crucial in providing support and resources to individuals struggling with addiction, acknowledging that substance use is often linked to social and environmental factors. By addressing these underlying issues, it may be possible to prevent initiation and promote recovery from addiction.

## Compliance with ethical standards

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## Disclosure of Conflict of interest

The authors have no conflict of interest to report.

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