Research Article

Identifying the Pattern- Type, Rate and Mode of Drug Abuse among Youth in Haridwar District, Uttarakhand, India

Ashruti Bhatt[1]*, Akanksha Singh[1], Sonam Bhatia[2] and Piyush Ranjan Singh[3]

[1]*Department of Public Health, Shalom Institute of Health and Allied Sciences, SHUATS, Prayagraj, Uttar Pradesh, India*

[2]*Department of Pharmaceutical Sciences, Shalom Institute of Health and Allied Sciences, SHUATS, Prayagraj, Uttar Pradesh, India*

[3]*State Bank of India, Uttar Pradesh, India*

*Corresponding Author: Ashruti Bhatt, Department of Public Health, Shalom Institute of Health and Allied Sciences, SHUATS, Prayagraj, Uttar Pradesh, India.

Abstract

Introduction: This is preliminary study to identify the pattern of type, rate and mode of drug abuse among youths in the holy city of Haridwar in northern India.

Objective: To identify the pattern of type, rate and mode of drug abuse.

Material and Methodology: Clinico-statistical examination of 296 drug users was conducted among various respondents in Haridwar district from 1st January to 31st March 2019 in an O.S.T (Opium Substitution therapy) Center. It was conducted based on predesigned- pretested and structured interview schedule for data collection.

Results: In present study, it was observed that majority 35.10% of drug abusers started taking drugs before the age of 15, 50.70% respondents reported friends to be the first-time companion while abusing drugs, 45.90% of the abusers consumed drugs more than once a day with the maximum 59.50% of rate between 1- 10gm; 35% of the respondents consumed drugs via injectable increasing the exposure towards the infectious surrounding. Among abusers population alcohol was maximum rated in terms of knowledge with 16.3% and in terms of drug consumption with 20.5%.

Conclusion: The study crucially denoted that the drug use consumption among the respondents starts from a young age.

Recommendations: Creating knowledge and awareness about the harmful effects of drugs among the youth is important. Sanitizing is the key to problem not stigmatization.

Keywords: Rate; Type; Mode; Drug Abuse; Opium Substitution Treatment

Introduction

The association of the drugs with mankind has been known since ages. June 26 has been celebrated as International Day against Drug Abuse every year. According to a report, about 190 million people consume one drug or the other all over the world [1]. India, too, is caught in this vicious circle of drug abuse and the numbers of drug addicts are increasing day by day. According to a

UN report, one million heroin addicts are registered in India and unofficially there are as many as five million started off as casual party element between elite classes now transmitted to all the sections of the society [2]. Intake of these dangerous drugs affects brain circuit in a huge amount. Cannabis, heroin, and Indian-produced pharmaceutical drugs are the most frequently abused drugs in India. Drug abuse since young age can have a wide range of effects on be it

short- or long-term effects or direct and indirect effects. The effects of these substances depends upon the person's health, the quantity of drug taken, how it is taken, how many times a day it is taken and other factors too. Short-term effects from Drug abuse can range from frequent mood swings, anxiety, loss of appetite, changes in blood pressure, heart rate, and overdose can even lead to death. Sometimes, a single use of drugs is enough to cause these effects. Longer-term effects from drugs include several diseases with severe complications sometimes such as HIV/AIDS, hepatitis, heart or lung diseases, different cancers, mental illness and many others. Long term drug use is often the cause of addiction. However, Drug abuse is often described as a brain disorder. Not every Individual who uses drugs regularly will become addicted to it, but for some people, continuous drug use flips to its abuse and changes the actual functioning of the brain circuit. These changes in the brain interfere with how people interpret work and experience normal day to day function. The alteration in the brain circuit is so strong that the person's ability of interpreting pain, pleasure is greatly alerted. These changes make it even more difficult for a person to quit even when he wants too [3].

Types of drugs: Smoking drugs

Smoking encapsulates all including cocaine, tobacco, weed, marijuana and any other substances that can be drawn into a cigarette and smoked. The smoke goes directly to the lungs and gets absorbed rapidly by the bloodstream causing the instant desired effects.

Snorting drugs

Snorting is popular mostly among users of heroin, cocaine, ketamine, rohypnol, amphetamines, opioids such as percocet, oxycontin etc. These Drugs are either snorted directly or through rolled up banknotes or straw. It is then absorbed by the mucosal membrane in the nose and directly reaches the brain and provides instant effects mostly within a period of 3 - 4 minutes.

Oral drugs

Drugs consumed orally include alcohol, amphetamines, ecstasy, LSD, marijuana, opium and many others. It is one of the simplest and the oldest way of consuming drugs. Drugs are consumed through the mouth and are allowed to move to the stomach where the stomach lining absorbs it and from there it enters into the bloodstream.

Suppositories drugs

Drugs such as cocaine and ecstasy which are water soluble have been known to be consumed in this way. In this method the substance is absorbed in the rectum through the mucus membrane.

Drug menace amongst youth

The youth of today, is the most susceptible to drug abuse. Often peer pressure and other circumstances expose the young generation to the dangerous world of drugs. Once in, there is hardly a way out of it. De-addiction centres which have been set up to deal with drug addiction have also been rather ineffective. Whereas, the consequences of drug abuse is very wide ranging from poor mental health and loss of cognitive ability to life threatening diseases such as AIDS. Apart from the above-mentioned problems, the young generation has to deal with an array of problems due to drug abuse. These include difficulties in academics and high rates of absenteeism from school [4-7]. Depression, apathy, developmental lags, withdrawal and other such problems are also result of substance abuse among youth. The youth indulging in drug abuse are also subjected to social boycott and stigmatization among peers. Improper use of drug injecting instruments (needle, syringes) and unsterile and infected equipment's can also transmit very dangerous disease like HIV/AIDS. Delinquency is also attributed to drug abuse. Although there is no direct relationship between drug abuse and delinquency, the two behaviours are closely correlated and often bring about problems in school and family life and increases indulgence with negative peer groups.

Cannabis is the most prevalent drug consumed by young people in most of the countries. Infact, it is the most widely used drug both among the general population and among young people. A global estimate, reckoned for the first time by UNODC, based on available data from 130 countries, suggests that, in 2016, 13.8 million young people (mostly students) aged 15 - 16 years, equivalent to 5.6 per cent of the population in that age range, used cannabis at least once in the previous 12 months. High prevalence of cannabis use was reported in North America (18%) and in West and Central Europe (20%), two sub regions in which past-year cannabis use among young people was higher than in the general population in 2016. In some other sub-regions, estimates suggest that cannabis use among young people may be lower than among the general population [2].

Methods of consumption of drugs involves

The route of drug administration can be splitted into three categories:

- **Parenatal routes:** This route directly makes use of internal pathways such as blood vessels.

- **Internal routes of drug administration:** It involves digestive tract and involve orally taking the drugs.

- **Topical administration:** It is a local effect method where the drug is applied. Among illicit drugs it includes smoking and snorting.

- **Injections and drugs:** It involves injecting the illicit substance directly into the blood stream.

Materials and Methods

A descriptive study was conducted in O.S.T center, Haridwar, Uttarakhand where all the patients getting treated from the Opium Substitution therapy (O.S.T) during the prescribed period (1st January to 31st March 2019) were studied.

$Z^2*P*(1-P)/d^2$ was used to calculate the sample size, taking a proportion of prevalence as adults suffering from a substance use disorder in 2017 as 74%.

Sample size

According to a study, 74% of adults suffering from a substance use disorder in 2017 struggled with an alcohol use disorder (Alcohol and Drug Abuse Statistics, 2019).

Sample size is selected using the following formula:

N = z^2pq/e^2

Where n = Desired sample

Z = Standard normal deviate usually set at 1.96 which corresponds to a confidence interval of 95%

Permissible error (e) = 0.05

p = 74% or 0.74, q = 1-p = 1-0.74 = 0.26

Confidence level (z) = 1.96%

According to formula

Sample size (N) = z^2pq/e^2

N = 1.96* 1.96*0.74*0.26/ 0.0025

N = 295.65

Therefore, sample size (no. of respondent) studied during the course of period is 296.

Data collection tools and techniques

A pre-designed, pretested interview schedule was used for the collection of data.

Data analysis

The collected data was compiled, coded and analyzed by IBM SPSS (Version 22; SPSS Inc., Chicago).

Ethical considerations

All the respondents have been informed and were well aware about the purpose of the study and verbal consent was taken into consideration before starting the interview.

Results

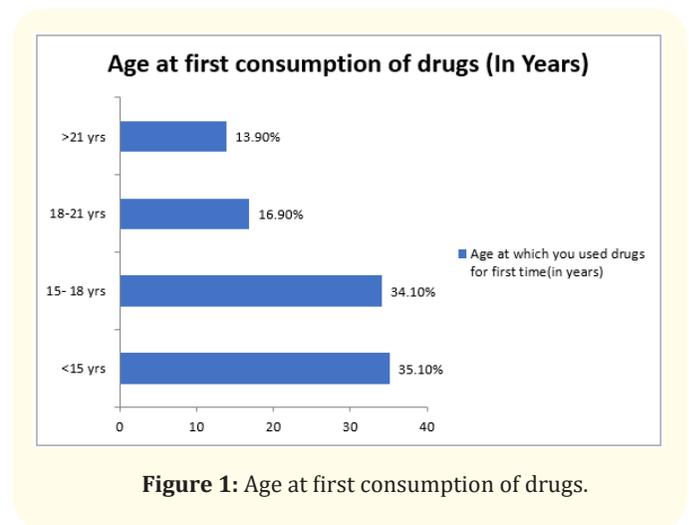Figure 1 shows age at which drug was consumed for the very first time.

Figure 1: Age at first consumption of drugs.

The above table shows that maximum 35.1 per cent of the respondents were below 15 years when they first started consuming drug while minimum 13.9 per cent of the respondents were above 21years.

Figure 2 shows with whom the drugs were consumed for the first time by the respondents.

The above table shows that maximum 50.7 per cent of the respondents first started consuming drugs with friends and minimum 12.8 per cent of the respondents had with their siblings.
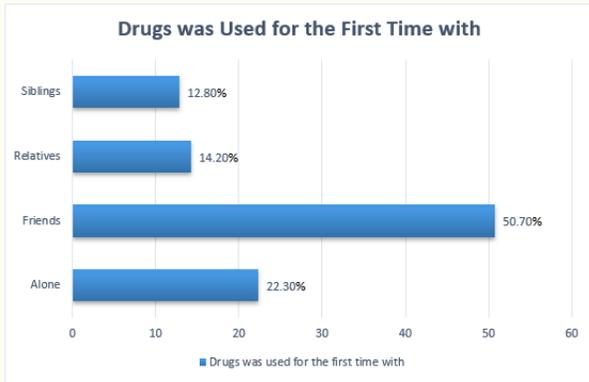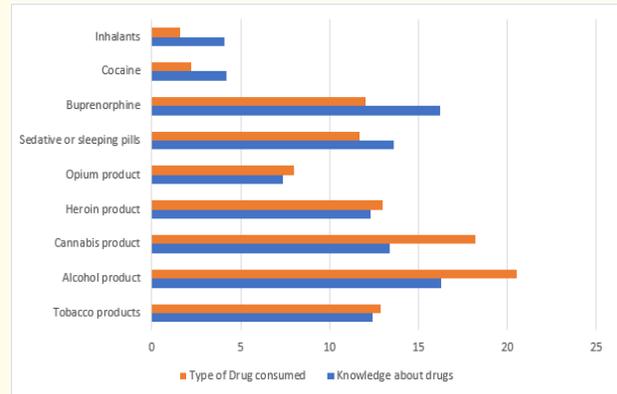
Figure 2: Drugs used for the first time.

Figure 3: Knowledge about type of drugs and type of drugs consumed.

Types of drugs	Knowledge about drugs	
	Frequency	Percentage (%)
Tobacco products	158	12.40
Alcohol products	208	16.30
Cannabis products (Charas, ganja, bhang etc.)	171	13.40
Heroin products (Chitta, brown sugar, smack etc.)	157	12.30
Opium products (Afeem etc.)	94	7.40
Sedatives or sleeping pills	173	13.60
Buprenorphine (Injectable)	206	16.20
Cocaine	54	4.20
Inhalants (polish, glue, spray paint, correction fluids etc.)	52	4.10

Table 1: Knowledge of the respondents regarding type of drugs [1].

The table above shows that maximum 16.3 per cent of the respondents had most knowledge about alcohol consumption and minimum 4.1 per cent respondents had least knowledge about inhalants.

The table above shows that maximum 20.5 per cent of the respondents consumed more alcohol and minimum 1.6 per cent respondents had less consumption of inhalants.

Figure 4 shows frequency of consuming drugs by the respondents.

Types of drugs	Drug consumption	
	Frequency	Percentage (%)
Tobacco products	87	12.90
Alcohol products	139	20.50
Cannabis products (Charas, ganja, bhang etc.)	123	18.20
Heroin products (Chitta, brown sugar, smack etc.)	88	13.00
Opium products (Afeem etc.)	54	8.00
Sedatives or sleeping pills	79	11.70
Buprenorphine (Injectable)	81	12.00
Cocaine	15	2.20
Inhalants (polish, glue, spray paint, correction fluids etc.)	11	1.60

Table 2: Type of drug consumed by the respondents [1].

The table above shows that maximum 45.9 per cent of the respondents used drugs more than once a day and minimum 9.5 per cent of the respondents consumed several times a day.

Figure 5 shows rate at which drugs (Tobacco, cannabis, heroin, opium, cocaine) is being consumed in a day.

The table above shows that maximum 59.5 per cent of the respondent's consumed drugs at a rate between 1 - 10 gm while minimum 11.1 per cent of the respondent's consumed above 20 gm.

1More than one response can be selected
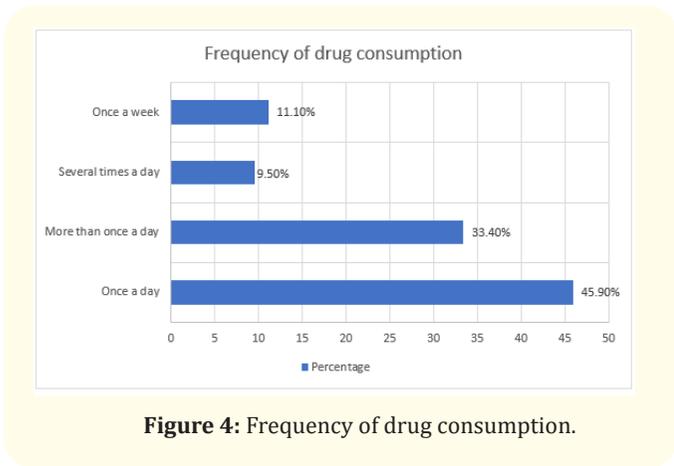1More than one response can be selected

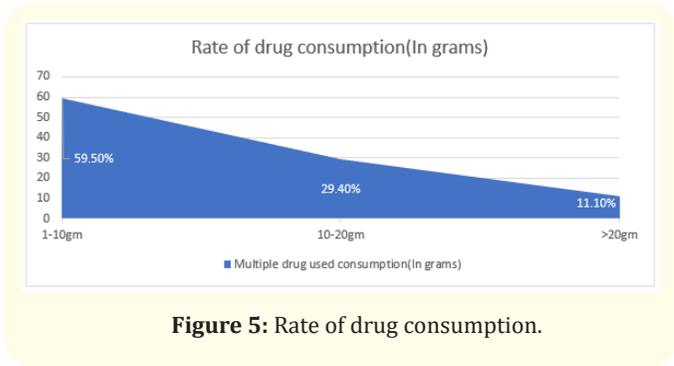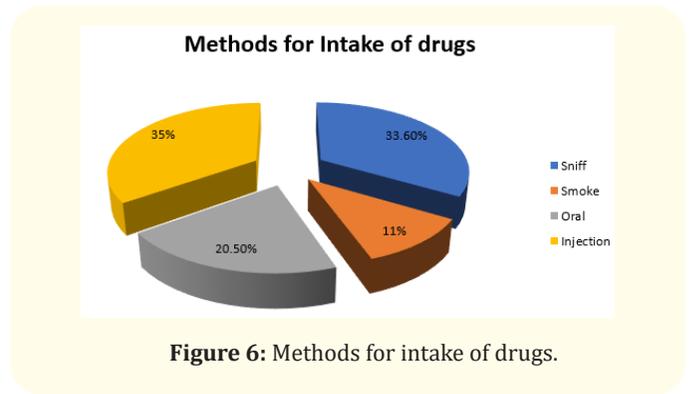**Figure 4:** Frequency of drug consumption.

Figure 5: Rate of drug consumption.

Figure 6: Methods for intake of drugs.

which is in accordance with the study Magnitude of Substance use in India (2019) according to which 14.6 per cent respondents were consuming alcohol regularly. Among knowledge about drug abuse alcohol was followed by buprenorphine 16.2 per cent, sedatives and sleeping pills 13.6 per cent, cannabis 13.4 per cent, tobacco product 12.4 per cent, heroin 12.3 per cent, opium 7.4 per cent, cocaine 4.2 per cent, inhalants 4.1 per cent while on the other hand types of drugs consumed was followed by cannabis 18.2 per cent, heroin 13 per cent, tobacco 12.9 per cent, buprenorphine 12 per cent, sedatives or sleeping pills 11.7 per cent, opium 8 per cent, cocaine 2.2 per cent, inhalants 1.6 per cent. In this study, Alcohol beverages was ranked to be the highest among type of drugs consumed and scored 20.5% which is in accordance with the study Magnitude of Substance use in India (2019) according to which 14.6% respondents were consuming alcohol regularly. Among types of drugs consumed alcohol was followed by cannabis 18.2%, heroin 13%, tobacco 12.9%, buprenorphine 12%, sedatives or sleeping pills 11.7%, opium 8%, cocaine 2.2%, inhalants 1.6%.

Figure 6 shows mode for intake of drugs by the respondents.

The table above shows that maximum 35 per cent of the respondents used injectable for intake of drugs and minimum 11 per cent of the respondents used smoking mode for intake of drugs.

Discussion

The study was conducted to have descriptive knowledge regarding "The pattern of type, rate and mode of Drug Abuse among Youths in Haridwar District, Uttarakhand, India". The study stated that drug abuse among majority of the respondents i.e. 35.1 per cent started below 15 years of age and among which majorly was under the influence of friends which was seen to be 50.7 per cent. It was found in the present study that the drug use episodes vary with the amount of knowledge regarding the same. 83.8 per cent of the respondents carried knowledge regarding drug abuse. In this study, Alcohol beverages were ranked to be the highest among knowledge about type of drugs where it scored a percentage of 16.3 per cent while type of drugs consumed scored 20.5 per cent

Conclusion

The present study revealed that the prevalence of consumption of drugs varies with age, surrounding and knowledge about different types of drug between the respondents. It throws light on the fact that majority 50% of the respondents abused drugs daily more than once a day through injectable. Among all drugs, alcohol was most popular drugs and consumption frequency was high. It was observed that the frequency of drug consumption was more and 6.7% because of friends offer. Even it was observed in the study that most of the youngster below 15 years of age was often exposed to different form of drugs just to seek fun with friends which later became habit. The study crucially denoted that the drug use

consumption among the respondents starts from a young age. The study provides a gist about the reasons, rate, type and effects of drug abuse gaining popularity among youth. It shows how rate, type and mode impact the explicit crunch of drug abuse among youth from a very young age. However, our early age awareness might help this stratum of the society in getting away with the menace popular these days.

Bibliography

1. World Drug Report. United Nations Office on Drugs and Crime (UNODC) United Nations Publication Suggested citation (2010).

2. UNODC. United Nations publication Printed in Austria (2004).

3. Annual health report.

4. Bryant AL and Zimmerman MA. "Examining the effects of Academic Beliefs and Behaviours on Changes in Substance Use Among Urban Adolescents". *Journal of Educational Psychology* 94 (2002): 621-637.

5. Chou LC., *et al*. "Truancy and illicit drug use among adolescents surveyed via street outreach". *Addictive Behaviors* 31.1 (2007): 149-154.

6. Vucina T and Becirevic IZ. "Risk factors and protective factors for adolescent substance use". *Review of Psychology* 14 (2017): 59-72.

7. White HR., *et al.* "Adolescent risk factors for late onset smoking among African American young men". *Stouthamer-Loeber M Nicotine Tob Res* 9.1 (2007): 153-161.