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**"PREVALENCE OF SUBSTANCE USE AMONG  
ADOLESCENTS RESIDING IN URBAN SLUMS -  
A CROSS SECTIONAL STUDY"**

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**Submitted by  
(REG.NO.BD0114006)**

**DISSERTATION**

**Submitted to the  
KLE University, Belagavi, Karnataka**

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**APRIL 2017**

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**KLE UNIVERSITY, BELAGAVI,  
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ADOLESCENTS RESIDING IN URBAN SLUMS – A CROSS  
SECTIONAL STUDY**” is a bonafide research work done by  
**(REG.NO.BD0114006)**.

**Dr. P.R.Walvekar** MD. Ph.D  
Professor and Head,  
Department of Community Medicine,  
J.N.Medical College,  
Nehru Nagar, Belagavi – 10  
Karnataka. India

**Dr. N. S. Mahantshetti** MD  
Principal,  
J.N.Medical College,  
Nehru Nagar, Belagavi – 10  
Karnataka. India

Date:  
Place: Belagavi

Date:  
Place: Belagavi

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## LIST OF ABBREVIATIONS USED

$\chi^2$	-	Chi – square test
<b>DF</b>	-	Degree of freedom
<b>HIV</b>	-	Human Immuno deficiency Virus
<b>AIDS</b>	-	Acquired Immuno Deficiency Syndrome
<b>B.C</b>	-	Before Christ
<b>BAC</b>	-	Blood Alcohol Concentration
<b>GYTS</b>	-	Global Youth Tobacco Survey
<b>OR</b>	-	Odds Ratio
<b>WHO</b>	-	World Health Organization
<b>STD</b>	-	Sexually Transmitted Disease
<b>UNDCP</b>	-	United Nations International Drug Control Program
<b>NFHS</b>	-	National Family Health Survey
<b>ADH</b>	-	Alcohol Dehydrogenase
<b>DSM</b>	-	Diagnostic and Statistical Manual

## **ABSTRACT**

### **BACKGROUND AND OBJECTIVES**

Substance use has become a problem both among developed and developing countries. Substances which are included are alcohol, tobacco (smoke and smoke less), Ganja, Charas, Brown Sugar, Opium, etc. Prevalence of smoking among women and young children has increased many folds. Global youth Tobacco survey in 2006 showed that 3.8% of students smoke and 11.9 % currently used smokeless tobacco. Among the adolescents, students are particularly involved due to increasing academic pressures, encouragement by peers, lure of popularity and easy availability of many such substances like alcohol, tobacco (cigarettes and gutka) and other drugs. Family composition, family intactness, family income, and family violence are some of the issues that have been related to tension, stress and to encourage a number of problem behavior including drug use, rapid industrialization, urbanization and changing life styles have left children struggling for their survival, forcing many to take refuge in the dark world of substance abuse. Its use poses a significant threat to the health, social and economic fabric of families, communities and nation.

### **METHODOLOGY:**

A community based cross sectional study, conducted from January to December 2015 in urban slums of Ramnagar and Rukimni Nagar, Belagavi among adolescents aged between 10 – 19 years. Total 600 participants were included in study.

After obtaining the ethical clearance, pilot study was conducted. Written informed consent and assent in adolescents less than 18 years was obtained. Data was collected using a predesigned questionnaire, which included socio-demographic variables, prevalence of substance use among family members and adolescents and factors affecting it, common substance used and knowledge regarding adverse effects.

Statistical analysis was done using chi square test and P value less than 0.05 was considered significant.

## **RESULTS:**

In the present study 33.8% were in the age group of 10 – 13 years, 25% were in 14 - 15 years age group and 41.2% were in 16-19 years age group. The overall prevalence of substance use was 11.8% with females having more prevalence (17.9%) than males (10.7%). This difference was found to be statistically significant,  $p < 0.001$ . Prevalence of substance use in illiterate was found to be 94.7% and prevalence reduced with increase in education. Highest prevalence of substance use (81%) was seen in adolescents with school dropouts. Low SES and family history of substance use was significantly associated with prevalence of substance use with  $p < 0.001$ .

Smokeless form of tobacco (78.87%) was found to be most commonly consumed substance and least (2.82%) was seen with alcohol and ganja. Fun/Adventure (71.85%) was the main reason for initiation of substance use among adolescents, followed by 22.53% because of friends, 4.22% was because of peer pressure and 1.4% started it as a habit.

## **CONCLUSION AND INTERPRETATION**

The present community based study, reported a higher prevalence of substance use among females than males. Prevalence was more common in adolescents with low SES, illiterates, family history of substance use and school dropouts.

**KEY WORDS:** Adolescents, Substance Use, Tobacco, illiterate

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## INTRODUCTION

Substance use has become a problem both among developed and developing countries. Today there is no part in the world that is free from drug use or drug trafficking. India too is being caught in this vicious circle of drug use and there is increase in number day by day.<sup>1</sup>

Consumption of different substance has been in India for many centuries, earliest being traced to alcohol (Somras & Sura) way back in the year 2000 B.C Alcohol has been consumed for its pleasurable effects as far back as the early human settlements; cannabis, khat, coca leaves and opium poppy have been consumed in different societies for centuries.<sup>2</sup>

According to the World Health Organization (WHO) **Substance abuse** is persistent or sporadic drug use inconsistent with or unrelated to acceptable medical practice.<sup>3</sup> Substances which are included are alcohol, Tobacco (smoke and smoke less), Ganja, Charas, Brown Sugar, Opium etc.

Adolescence is the critical period when the first initiation of substance use takes place. In India, approximately 5500 adolescents practice substance use daily, some as early as when they are ten years old.<sup>4</sup> Higher risk of misuse is being associated with male, and from upper to middle socioeconomic status. Adolescent drug use is one of the major areas of concern.

Youth, living in cities that underwent a rapid process of urbanization are more at risk of drug use and abuse, it seems reasonable to expect that the degree of risk and

of protection will vary across social economic groups and that groups that are subjected to more stressful circumstances will have greater risks.

Urban settings seem to be more attractive settings for drug dealers: illegal substances having higher costs, as result of their illegality, demand larger and more economically capable markets. Hence substance abuse has been increasing among adolescents as sizeable proportions of adolescents in many states of India experiment with drugs quite early in life.<sup>5</sup>

Families play a key role in a number of problem behaviors: substance use/abuse, aggression and violence, delinquency, family composition, family intactness, family income, and family violence are some of the issues that have been related to tension, stress and to encourage a number of problem behavior including drug use.<sup>6</sup>

Among the adolescents, students are particularly involved due to increasing academic pressures, encouragement by peers, lure of popularity and easy availability of many such substances like alcohol, tobacco (cigarettes and gutka) and other drugs. Alcohol and tobacco are the most frequently used substances.

Smoking of cigarette particularly beedis and chewing tobacco (smokeless use) is an age-old practice in India. However, according to anecdotal evidence with the changes in the dynamics of societies, the prevalence of smoking among women and young children has increased many folds. Global Youth Tobacco Survey (GYTS) in 2009 showed, 14.6% of students currently use any form of tobacco, 4.4% currently smoke cigarettes, and 12.5% currently use some other form of tobacco.<sup>7</sup>

Different forms of tobacco habits and products include Beedi, cigarette, hookah, chillum, ganja, charas, gutkha.<sup>8</sup>

According to a UN report, One million heroin addicts are registered in India, and unofficially there are as many as five million. Cannabis, heroin, and Indian-produced pharmaceutical drugs are the most frequently abused drugs in India. The International Narcotics Control Board in its 2002 report released in Vienna pointed out that in India persons addicted to opiates are shifting their drug of choice from opium to heroin.<sup>1</sup>

Substance Abuse, although often regarded as a personality disorder, may also be seen as a worldwide epidemic with evolutionary genetic, physiological and environmental influences controlling this behaviour.<sup>9</sup>

Rapid industrialization, urbanization and changing life styles have left children struggling for their survival, forcing many to take refuge in the dark world of substance abuse. Its use poses a significant threat to the health, social and economic fabric of families, communities and nation.<sup>10</sup>

Earlier use of alcohol and drugs is more likely to result in substance use disorders in adulthood. Substance use before age 18 is associated with an eightfold greater likelihood of developing substance dependence in adulthood<sup>6</sup>. Substance use before age 18 is associated with an eightfold greater likelihood of developing substance dependence in adulthood.<sup>11</sup>

The presence of substance use may promote criminal offences, in particular robberies as drug dealers often carry cash. Areas in which drugs are traded and used in the open concentrate potential victims of robberies, as some of them may be

engaged in illegal activities (drug selling, prostitution). Substance use is also associated with increased incidence of infections like HIV, Hepatitis, STD, etc.

Various National studies have been done on substance use in India. Most common of them are National Household Survey, National Family Health Survey.

Very few community based studies have been conducted regarding substance use. Hence the present study was undertaken to know the prevalence of substance use among adolescents in urban slums.

## **OBJECTIVES**

- To know the prevalence of substance use among adolescents in urban slums.
- To study the factors associated with substance use.

## **REVIEW OF LITERATURE**

The term adolescents derived from Latin word “to grow to mature”<sup>12</sup>.The term adolescents became popularized about 100 years ago when Stanley Hall described adolescents as 2nd decade of life, since then adolescents has been considered has a very turbulent period. WHO defines adolescents as a period between 10-19 years.<sup>13</sup> During this period there is shift from childhood to adulthood, where maximum amount of physical, psychological and behavioral changes takes place during this period. In India adolescents represent a fifth population.

Special characters are marked during this period which includes<sup>14</sup>

- Rapid physical growth and development
- Physical, social and psychological maturity
- Sexual maturity and onset of sexual activity
- Development of adult mental processes and adult identity
- Beginning of menstrual cycle in girls and onset of reproductive cycle
- Under served group
- Shift from total socioeconomic dependence to partial dependence

Demographic Trend:

Adolescent population varies from country to country. Most of adolescent population, (84%) live in developing countries and about 16% are in developed countries <sup>15</sup>.

**India:**

As per to 2011 Census, about 21 % of total population belong to adolescent age group between 10-19 years. Females almost comprise 47% and males 53% of the total population. There are approximately 230 million adolescents in the age group of 10-19 years as per 2001 census in India <sup>14</sup>.

Adolescent period is divided into 3 stages <sup>16</sup>

1. Early adolescent (10 – 14 years) characterized by rapid growth and development of secondary sexual characters.
2. Middle adolescent (15-17 years) characterized by striving for independence and identity and relationship with peers, opposite sex and experimentation.
3. Late adolescent (18-19 years) almost an adult.

This period is considered as the healthiest period of one's life period. During this period adolescents gain up to 50% of their adult weight and 50% of their adult skeletal mass. Also morbidity and mortality during this period is least.

Major problems of adolescents

- Early pregnancy and childbirth: 11% of all births worldwide are to girls aged 15 to 19 years, and the vast majority are in low- and middle-income countries. The 2014 World Health Statistics put the global adolescent birth rate at 49 per 1000 girls this age. In India 45-50% of girls (NFHS 3,4) get married below 18 years of age.
- HIV/AIDS: More than 2 million adolescents are living with HIV which is due to unsafe sex and early sexual initiation and premarital sexual

relationships. Sexual abuse of boys and girls like rape, trafficking for prostitution and homosexualities are quite common.

- **Mental health:** Depression is the top cause of illness and disability among adolescents and suicide is the third cause of death. Violence, poverty, humiliation and feeling devalued can increase the risk of developing mental health problems
- **Violence:** Violence is a leading cause of death. About 180 adolescents die every day as a result of interpersonal violence.. Globally, some 30% of girls aged 15 to 19 experience violence by a partner.
- **Alcohol and drugs:** Harmful drinking among adolescents is a major concern in many countries. It reduces self-control and increases risky behaviours, such as unsafe sex or risky driving. It is a primary cause of injuries (including those due to road traffic accidents), violence (especially by a partner) and premature deaths. It also can lead to health problems in later life and affect life expectancy.
- **Tobacco use:** The vast majority of people using tobacco today began doing so when they were adolescents. Globally, at least 1 in 10 younger adolescents (aged 13 to 15) uses tobacco
- **Malnutrition, Anemia and Obesity:** Over 89% of girls tend to become anaemic and 1/3rd of boys and girls have chronic malnutrition. Problem of obesity is emerging in urban adolescents because of unhealthy eating and physical inactivity.
- **School dropouts:** Many of girls and boys are school dropout because of their financial or house conditions. Only 1/3<sup>rd</sup> continue up to tenth and above.

- Lack of support: Broken families, one parent family, lack of support of parents, family, unfavorable environments in school/colleges and peer/social pressure expose them to high risk behavior and unhealthy life style.

Knowledge and information of adolescents tends to be poor on several issues<sup>17</sup>.

## **SUBSTANCE USE**

Definition of Substance Use<sup>18</sup>:

Substance use disorder is defined as “patterns of symptoms resulting from use of a substance which the individual continues to take, despite experiencing problems as a result”

### **Historical perspective of Substance Use**

Humans have used drugs of one sort or another for thousands of years. Wine was used at least from the time of the early Egyptian, narcotics from 4000 B.C, and medicinal use of marijuana has been dated to 2737 B.C. in China. Consumption of different **substances** has been in existence in India for many centuries, earliest referred to alcohol (Somras and Sura) traced to year 2000 B.C. Indian religious texts such as Vedas mentions somras and considered cannabis as sacred plant and referred it as “source of happiness”, “joy giver”, and “liberator”. Historically, Indian farmers gave their oxens to provide them strength to plough the fields. Many sadhus still use this drug to experience hallucination and a sense of timelessness and bhang drinking is a well established social custom in east and north India. The use of cannibas also appears to be linked with religious festivals like Holi<sup>2</sup>.

## **Factors contributing to substance use adventure <sup>19</sup>**

**Familial:** This could be an important cause as individuals from families with a history of any kind of addiction are more likely to develop addiction.

Eg - History of alcoholism in the parents may become an important cause.

**Surroundings:** As the Children are brought up by alcoholic or drug addicted parents, family environment becomes a causative factor.

**Exploitation:** Individuals who experience - sexually, psychological, emotional or physical exploitation are more likely to become addicts. The addiction becomes a coping mechanism in them.

**High Emotions:** Emotional disorders such as anxiety, depression, bipolar disorder or post-traumatic stress disorder often increase the risk of substance abuse.

**Low Frustration Tolerance:** One common factor found among addicts of all types is a low frustration tolerance. Addicts are highly susceptible to the negative effects of stress, having a low threshold of facing the disturbances. They become easily upset over everyday stress factors, creating a need for escape. They find this escape in their addiction.

**Changes in behavior:** Teenagers enjoy privacy, but exaggerated efforts to bar family members from entering their rooms or knowing where they go with their friends might indicate drug use. Also, drastic changes in behavior and in relationships with family and friends may be linked to drug use.

**Sudden Expenditure:** Sudden requests for money without a reasonable explanation for its use may be a sign of drug use. You may also discover money

stolen from previously safe places at home. Items may disappear from your home all of a sudden. Most of these are costly items which are not of frequent daily use but disappear suddenly.

### **Biology of addiction** <sup>20</sup>

One of the potential consequences of adolescent substance use is addiction.

Addiction, whether to nicotine, alcohol or other drugs, is a complex brain disease. Recent studies in brain research have confirmed a dangerous link between adolescence and substance use, clarifying the fact that adolescence is the critical period of risk for both substance use and its consequences.

During adolescence, the part of the brain associated with higher level cognitive functions such as judgment, decision making, emotions and impulse control--the prefrontal cortex and limbic system are not fully developed and not completely interconnected. Also at neurological level, it is dopamine responsible for signaling pleasure and reward. During early adolescence dopamine receptors in various sections of the brain increase and then decrease in adults.

All addictive substances increase dopamine levels in the reward circuitry of the brain and the corresponding sensations of pleasure in a more intense and often longer lasting manner

### **Different types of substance used** <sup>21</sup>

Two types - **legal** and **illegal** substances.

**Legal substances** are psychoactive substances and include over the counter and prescription medicines, such as tranquilizers including benzodiazepines, cough

mixtures containing codeine and slimming tablets. In addition, there are other agents such as solvents in glue, alcohol/ alcoholic beverages, tobacco (nicotine and inhalants), nail polish and petrol.

**Illegal substances** are prohibited and the use, possession or trading of these substances constitute a criminal offence. These substances include cocaine powder, crack cocaine, heroin, cannabis, ecstasy, fentanyl, morphine, methaqualone (Mandrax), opium, methamphetamine and ketamin.

### **Legal substances-**

#### **Alcohol**

Alcohol consumption has numerous health and social consequences and is an important contributor to death and disability. Alcohol is estimated to cause about 20-30% of esophageal cancer, liver cancer, and cirrhosis of the liver, homicide, epilepsy, and motor vehicle accidents. Alcohol causes 1.8 million deaths each year worldwide.

Globally alcohol consumption has increased in recent decades, with all or most of that increase being in developing countries

Ethyl alcohol (ethanol) is the active ingredient. Concentration of ethyl alcohol differs across preparations:

Drinks prepared by using yeast to ferment various sugar containing plant products have a low concentration as yeast ceases to grow when the concentration of ethanol reaches about 15%. However, stronger alcoholic beverages have become available in modern times through distillation. Whisky, brandy, and rum contain 35%

to 50% alcohol whereas beers ordinarily contain 4 to 5%. Wines contain approximately 12% alcohol.

Alcohol is rapidly absorbed from upper gastrointestinal tract. Peak blood alcohol concentration (BAC) is reached in 30 to 60 minutes after consuming alcohol on an empty stomach. A number of variables influence the BAC attained.

It rises slowly if the drink is sipped over a period but rapidly if it is gulped. The larger the quantity of absolute alcohol, the higher the peak BAC. Carbonated beverages (e.g. soda) increase the rate of absorption of alcohol. Conversely, food in the stomach, especially carbohydrates, delays the absorption. There is no sex difference in the time to reach peak BAC though in women the peak BAC is 20% higher than in men since body water is only 50% of body weight compared to 60% in men.

### **Metabolism**

Alcohol is eliminated from body at a rate of 7-10 gm an hour. Hence, BAC may remain elevated for considerable periods following ingestion. If an individual drinks 60 ml of alcohol during an evening, then alcohol will still be present in his blood at noon the following day.

Most of the alcohol in blood is metabolized in liver by oxidation. Small amounts of alcohol (2-4% of the total dose) are lost into the urine and into the alveolar air by diffusion. The alcohol in alveolar air is in equilibrium with the alcohol in the blood passing through the lungs

Hence, determination of alcohol concentration in respiratory air by a breath analyzer can therefore be used to estimate blood concentration of alcohol for medico-legal purposes.

Alcohol is converted by the activity of enzyme Alcohol dehydrogenase (ADH) to acetaldehyde, which is oxidized to acetate by the enzyme Aldehyde Dehydrogenase (ALDH). Acetate thus produced is rapidly converted to carbon dioxide and water. A variant of enzyme Aldehyde Dehydrogenase is found in some 40% of people. The individuals carrying this variant have a remarkably reduced capacity to metabolize acetaldehyde and thus increase in circulating acetaldehyde which produces general vasodilatation with distinctive flushing response.

**Acute effects of alcohol**

**Mental & Behavioral Effects**

Drowsiness

Impaired attention

Impaired memory

Impaired judgment

Impulsive behavior

Inappropriate sexual behavior

Aggressive behavior

Impaired occupational performance

Mood liability (rapid changes)

Stupor/Coma Respiratory Depression

Organ System Disease

**Physical Effects**

Flushed face

Rapid pulse

Headache

Stomach ache

Diarrhoea

Sweating

Slurred speech

unsteady gait

Nystagmus

Gastrointestinal Fatty liver, Alcoholic Hepatitis, Cirrhosis, Esophagitis, Acute gastritis, Pancreatitis, Malabsorption

Nutritional deficiencies - Thiamine, Pyridoxine, Vitamin A, Folic acid, Ascorbic acid

Hematological disorders- Anemia, Leucopenia, Thrombocytopenia

Cardiovascular system- Cardiomyopathy, Hypertension

Central nervous system- Wernicke- Korsakoffs syndrome, Dementia, Cerebellar degeneration,

Peripheral neuropathy, Myopathy, Head injury

Metabolic disorders- Ketoacidosis, Hypoglycaemia, Hypocalcemia, Hypomagnesemia

Miscellaneous- Fetal alcohol syndrome, Osteoporosis, Tuberculosis, Psoriasis,

Domestic & traffic accidents

Cancers - Oral, Esophagus, Colon, Hepatocellular, Breast (women)

### **Tobacco**

Tobacco continues to be the substance causing the maximum health damage globally. According to WHO estimates, there are around 1.1 thousand million smokers in the world; about one-third of the population aged 15 and over. Among industrialized countries where smoking has been common, smoking is estimated to cause over 90% of lung cancer in men and about 70% of lung cancer among women. In addition, in these countries, about 56-80% have chronic respiratory disease and 22% for cardiovascular disease. Worldwide, it is estimated that tobacco cause about 4.9 million deaths each year and unless current trends are reversed, that figure is expected to rise to 10 million deaths per year in another 20 years and 70% of those deaths are occurring in developing countries.

Definitions of various tobacco habits and products <sup>8</sup>

**Beedi** - Cheap smoking stick, handmade by rolling a dried, rectangular piece of temburni leaf (*Diospyros melanaxylon*) with 0.15-0.25 g of sun-dried, flaked tobacco filled into a conical shape and the roll is secured with a thread. The length of a beedi varies from 4.0-7.5 cm. Beedis are commercially available in small packets.

**Cigarette** - is the second most popular smoking form of tobacco used in India. The prevalence varies greatly among different geographic areas and subgroups such as rural-urban.

**Hookah** - (a hubble bubble Indian pipe) an indigenous device, made out of wooden and metallic pipes, used for smoking tobacco. The tobacco smoke passes through water kept in a spherical receptacle, in which some aromatic substances may also be added. Hookah smoking is a common method of socializing among the village folk, especially in the northern and eastern parts of India.

**Pipe** - a tube with a hollow bowl at one end used for smoking tobacco

**Chillum** - Conical clay-pipe of about 10 cm long. The narrow end is put inside the mouth, often wrapped in a wet cloth that acts as a filter. This is used to smoke tobacco alone or tobacco mixed with ganja (marijuana) in northern parts of the country.

**Cigars** - Made of air cured, fermented tobacco, usually in factories, and are generally expensive. Cigar smoking is predominately an urban practice

**Marijuana** - Most commonly used illicit drug; considered a soft drug prepared from the flowering tops and leaves of the hemp plant; smoked or chewed for euphoric effect

**Charas** - name given to hand-made hashish in Afghanistan, Pakistan, Nepal and India. It is made from the extract of the cannabis plant (*Cannabis sativa*).

**Gutka** - Manufactured Smokeless Tobacco Product (MSTP), a mixture of areca nut, tobacco and some condiments, marketed in different flavors in colourful pouches

**Khaini** - Consists of roasted tobacco flakes mixed with slaked lime. This mixture is prepared by the user keeping the ingredients on the left palm and rubbing it with the right. The prepared pinch is kept in the lower labial or buccal sulcus. It is commonly used in eastern India

**Zarda** - hygienically processed & packed chewing tobacco

### **Chemicals in Tobacco**

In addition to nicotine, cigarette smoke contains over 4,000 different chemicals. The vast majority of these chemicals are *added* to the tobacco to add to its addictiveness, improve its flavour and/or to increase burn rate, which increases sales.

Ammonia (one of the 4,000 chemicals placed in cigarettes) is added solely for the purpose of enhancing the effects of nicotine. Ammonia added to commercially made cigarettes can boost the impact of nicotine 100 times.

Following are some of the categories of chemicals found in cigarette:

<b>CancerCausingAgents</b>	<b>Metals</b>
Nitrosamines	Aluminium
Chrysene	Zinc
Cadmium	Magnesium
Benzopyrene	Mercury
Polonium210	Gold
Nickel	Silicon
P.A.H.s	Silver
DibenzAcidine	Titanium
B-Naphthylamine	Lead
Urethane	Copper
N.Nitrosornicotine	
Toluidine	

Tobacco products vary mostly in the way they are used and consequently the way they injure users. Cigarettes are the commonest form of tobacco used, but cigars and smokeless tobacco are equally dangerous. All types of tobacco cause cancer; cigars and cigarettes most commonly cause lung cancer, but they can lead to a variety of other cancers, as well. Smokeless tobacco, on the other hand, mostly causes cancer of the mouth, throat, and stomach. All types of tobacco use leads to heart disease.

Tobacco contains nicotine, which is a highly fanatic drug, but the different products have altered amounts. For example, one cigar has as much nicotine as almost

three *packs* of cigarettes. A cigar can contain up to 444 mg of nicotine, while a cigarette can contain up to 11 mg of nicotine. A pocket-size packet of smokeless tobacco contains as much nicotine as three packs of cigarettes.

Tobacco also contains a variety of toxic chemicals. Cigar smoke has the same poisons and chemicals that cause cancer as cigarette smoke and contains higher levels of some of those chemicals. Smokeless tobacco contains formaldehyde, which is embalming fluid, nitrosamine and benzopyrene, which are known carcinogens, and Uranium 235 and Polonium 210, both of which are nuclear products. In all, chewing tobacco (or spit tobacco) contains at least 28 cancer-causing chemicals.

#### **Short-term effects of smoking**

- Bad breath.
- Bad taste in mouth.
- Smelly hair and clothes.
- Yellow and brown stains on teeth.
- Lost athletic ability.
- Damage to the respiratory system.
- Risk of other drug use.
- Decreased lung capacity.
- Limited lung growth and function if used in youth.
- Elevated heart rate.
- Chronic cough.
- Increased incidence of bronchitis.
- Increased incidence of asthma and more severe asthma.

**Short-term effects of smokeless form of tobacco-**

- Bad breath.
- Bad taste in mouth.
- Excess saliva production – drooling.
- Stained teeth.
- Stains on clothes.
- Receding gums (gums pull away from teeth.)
- Sensitive teeth.
- Increased risk of tooth decay.
- Sores, white and red patches and lumps in mouth.

**Long-term Effects-**

- Mortality
- Heart Disease
- Cancer
- Lung Disease
- Reproductive Damage
- Birth Defects
- Other Damage

**Illegal substances**

**Opiates–**

Reports by the UNDCP have shown that there has been a global increase in the production, transportation and consumption of opioids, mainly heroin. The worldwide production of heroin has almost tripled since 1985. Globally, it is estimated that 13.5 million people take opioids, including 9.2 million who use heroin.

Although in recent time the production of heroin in 2002 was more or less at the same level as in 1998, regional shift has markedly reshaped the patterns of heroin abuse in the world. The rapid growth of opium production in Afghanistan has fuelled the development of a large heroin market in the region and, further, in Central Asia, the Russian Federation and East Europe.

Opium and morphine occur naturally are the principal constituents of the poppy plant (*Papaver somniferum*). An **opioid** is any drug that activates the opioid receptors found in the brain, spinal cord and gut.

There are three broad classes of opioids:

1. Naturally occurring opium alkaloids, such as morphine and codeine;
2. Semi-synthetics such as heroin, oxycodone and hydrocodone that are produced by modifying natural opium alkaloids.
3. Pure synthetics such as fentanyl and methadone that are not produced from opium and may have very different chemical structures than the opium alkaloids.

All these drugs produce a similar profile of acute effects and carry the risk of addiction. Morphine, pethidine, codeine and pentazocine are in medical use whereas methadone is used for maintenance of opioid addicts. The highly potent heroin has largely replaced morphine among illicit users in most countries. The term opiate is limited to the natural opium alkaloids and the semi-synthetics derived from them.

In India, apart from heroin, several opioids that are used as medications are also abused. Common among these are codeine cough syrups, morphine and pentazocine injections, dextropropoxyphene capsules and buprenorphine tablets.

Several abusers use them to tide over periods of non availability of heroin, but many individuals use them as primary substance of abuse.

### **Route of administration**

Heroin may be smoked, chased (inhaled) or injected (intramuscular or intravenous) and morphine is usually injected intravenously. When suitable vessels become unavailable, subcutaneous administration or “skin-popping” may be substitutes. Oral ingestion of opiumas well as smoking through a special wooden pipe has been the traditional Indian method. Buprenorphine is either taken sublingually or dissolved in water and injected.

### **Absorption and metabolism**

Opioids are less potent when taken by mouth than when injected, as they are readily metabolised in liver (first-pass metabolism).Opioids display “multi-compartmental” distribution: redistribution occurs firstly into muscle, and then into poorly perfused tissues(e.g. fat). Their accumulation in body and saturation of tissue binding leads to prolonged effects with chronic use. They generally have low plasma protein binding (e.g. Morphine 20-30%, Methadone 60-90%)

### **Psychological effects:**

Due to marked tolerance, the acute effects differ widely between naive and chronic users. In all there is state of profound euphoria. There is also pain relief due to analgesia and a dreamlike state characterized by decreased responsiveness to the environment. These analgesic and sedative effects usually persist for hours outlasting the initial intense euphoria.

Sedation is due to action in the brain stem. Reduced pain perception, is due to suppression of the spinal cord, mid brain and thalamus whereas euphoria is due to limbic system stimulation. Excitation with convulsions may occur at higher doses.

Gastrointestinal effects: Nausea and vomiting (stimulation of the chemoreceptor zone in the medulla), anorexia and constipation (decreased gastrointestinal motility).

Respiratory and cardiovascular effects: Respiratory depression and suppression of cough reflex. At higher doses, bradycardia and postural hypotension may occur.

Pulmonary oedema (with intravenous use) cyanosis and hypothermia are also seen. Skin may be warm and flushed due to peripheral vasodilatation.

Itching may occur due to histamine release.

Users experience a delay in ejaculation (and may take it to treat premature ejaculation) but prolonged use may lead to impotence

**Acute effects of opiates -**

**Mental & Behavioural Effects**

Drowsiness Initial euphoria

Apathy or dysphoria

Impaired judgement

Impaired performance

Psychomotor agitation or retardation

Illusions or Hallucinations with insight

**Physical Effects**

Pupillary constriction

Slurred speech

Slow respiration

Slow pulse

Stupor/coma

***Cannabis –***

Cannabis is by far the most widely cultivated, trafficked and abused illicit drug. Half of all drug seizures worldwide are cannabis seizures. The geographical spread of those seizures is also global, covering practically every country of the world. About 147 million people, 2.5% of the world population, consume cannabis (annual prevalence) compared with 0.2% consuming cocaine and 0.2% consuming opiates. In the present decade, cannabis abuse has grown more rapidly than cocaine and opiate abuse. Cannabis has become more closely linked to youth culture

Youth culture and the age of initiation is usually lower than for other drugs. Cannabis is derived from the plant *cannabissativa*, which grows in the wild all around the world.

**It is used in various forms such as**

Bhang- paste of leaves of the plant or dried leaves

Ganja – dried flowering stem of the plant

Charas or hashish is extracted from the resin covering the plant.

Hash oil is made by extracting Cannabinoids from the resin by using organic solvents. The active compounds in cannabis products are called Cannabinoids. Most potent among them is tetrahydrocannabinol (THC). The concentration of THC varies in different forms of cannabis products. Wild cannabis product has lower concentration whereas commercially produced cannabis products have higher concentration of THC.

Marijuana cigarette is a relatively mild preparation from various parts of uncultivated plants and delivers, on an average, 2 to 5 mg of THC. Other preparations used for smoking are ganja, which is approximately three times more potent than marijuana, and charas, the pure resin (ten times stronger than marijuana). Liquid cannabis (hashish oil) is syrup extracted from cannabis resin with a non-aqueous solvent and is five times stronger than charas.

Cannabis is used in several ways

**1. Orally as:**

- a) Milk based drink called Thandai is commonly used in North India especially on ceremonial occasions (Holi & Shivratri).
- b) Sweets
- c) Manoka - dry slightly sweetish preparation consisting of bhang paste and other materials. This is also sold as Ayurvedic medicinal preparation in certain parts of North India.
- d) Bhang is also mixed with flour to make 'pakodas' or 'bhajji cakes and biscuits etc.

**2. Smoking:**

- a) In cigarettes: Dried bhang leaves, ganja or charas can be mixed with tobacco in cigarettes and smoked.
- b) Clay pipes: Ganja is filled in clay pipes and smoked. This is the most common method in religious settings and rural areas.
- c) Water pipes: Traditional hookah or modern 'bong'. In this, smoke passes through water before being inhaled.

Cannabis is unsuitable for intravenous use as it is relatively water insoluble and can lead to anaphylaxis due to undissolved particulate matter.

Cannabis is smoked in rural India, with social sanction, often in a group for relaxation and fellow feeling. Some smoke it in a religious context whereas others use it as an aphrodisiac. Like alcohol, cannabis too reduces inhibition and increases desire but does not enhance performance. Some users, nevertheless, claim to use it for the enhancement of sexual pleasure.

### *Amphetamine-type stimulants (ATS)-*

Amphetamine-type stimulants (ATS) refer to a group of drugs whose principal members include amphetamine and methamphetamine. However, a range of other substances also fall into this group, such as methcathinone, fenetylline, ephedrine, pseudoephedrine, methylphenidate and MDMA or 'Ecstasy' – an amphetamine-type derivative with hallucinogenic properties.

The use of ATS is a global and growing phenomenon and in recent years, there has been large increase in the production and use of ATS worldwide. Over the past decade, abuse of amphetamine-type stimulants (ATS) has infiltrated its way into the mainstream culture in certain countries. Younger people in particular seem to possess a skewed sense of safety about the substances believing rather erroneously that the substances are safe and benign.

For many countries, the problem of ATS is relatively new, but is rapidly growing and unlikely to go away. The geographical spread is widening, but awareness is limited and responses are neither integrated nor consistent. Recent data has shown a decline in ATS use in the regions of the Americas and Europe, while the highest

levels of abuse worldwide have emerged in East Asia and Oceania. According to a review of ATS by UNDCP in 1996, there are about 20 countries in which the abuse of ATS is more wide-spread than that of heroin and cocaine combined. Japan, Korea and the Philippines all register 5-7 times the rate of ATS use compared with heroin and cocaine use.

Smoking, sniffing and inhaling are the most popular methods of ATS use, but ways to take the drug vary widely across the region.

In 2002, the use of Alcohol and Illicit drugs was estimated to contribute 4% of the disease burden in the 15-29 years age group in low and middle income countries by the WHO.<sup>22</sup>

- A nationwide study conducted for epidemiology of licit and illicit substance use among 11,058 high school students in Greece aged between 14-18 years showed 70% of students having experimented at least once with tobacco smoking and 22% claimed to be regularly smoking in the past month. The prevalence was much higher in the technical-vocational schools (41.9% vs 18.4% in public and 16.1% in private), in urban areas (23.7% vs 15.1 % in semi-urban and rural areas), and lower in the higher socioeconomic level (19.4% vs 21.7% in the lower and 23% in the middle level). The prevalence of alcohol use was found to be 94.8% for past year and 82.4% for past month, 15.4% of students were reported frequent alcohol use (10 or more times) in the last month. Rates of frequent alcohol use were twice as high in males as in females. Residence and socioeconomic level were not important determinants for frequency of alcohol use. Use of illicit drugs at any time was reported by 6% of students, with a ratio of two to one between boys and girls.

Approximately half of the users reported use more than twice. Nearly one-third (30.3%) of the student had reported that they had used unprescribed pain relievers or codeine-containing syrups more than five times or another licit psychotropic drug at least once.<sup>23</sup>

- In a study conducted among child laborers in Surat to know prevalence of substance use and identifying the microsocial and macrosocial stressors which initiate and perpetuate their substance use, it was observed that 135 (45%) of the child laborers had used some substance with a mean of 1.5 substances used per child. Tobacco smoking was the most common form of substance abuse followed by tobacco chewing, snuff, cannabis and opium.<sup>24</sup>
- In a cross sectional study conducted in Noida, Uttar Pradesh to study age of initiation and prevalence of tobacco on students aged 11 to 19 years, it was found that tobacco use was found in 11.2% students with mean age of initiation of tobacco use being 12.4 years. About 8.8% were ever smokers (including current smokers), 4.6% were 'ever tobacco chewers (including current chewers), 3.7% were 'exclusive smokers' and 2.5% were 'exclusive tobacco chewers'. Nearly 70 per cent of boys and 80 per cent of girls  $\leq$  15 years initiated the use of tobacco before the age of 11 years.<sup>8</sup>
- In a study conducted to assess prevalence and awareness of risks of tobacco use in Jaipur, among students aged 13-18 years it was observed that 59 boys (2.1%) and 16 girls (1.7%) were current tobacco users. Smoking cigarettes or bidi was most commonly used form of tobacco with prevalence of 72.8% among boys and 50% among girls. Smoking or tobacco use was present in immediate family of 42.1% boys and 32.4% girls but was significantly more in the family of children who used tobacco. Also more than 90% students were

aware of its importance in causing respiratory diseases and the majority of boys and girls respectively, knew of its potential to cause general debility (55.7% 54.1%), heart disease (56.8%, 58.3%), cancer (64.6%, 64.6%), impotence (40.9%, 23.2%), ulcer of stomach (48.1%, 46.4%) and death (68.2%, 68.1%). 76.4% boys and 75.7% girls considered quitting to smoke beneficial and 77.1% boys and 75.8% girls knew that passive smoking is bad. 75.7% boys and 75% girls would insist that no-one smokes in their presence. 1592 boys (55.5%) and 507 girls (54%) remembered seeing tobacco related advertisement in news-paper and could recall name of the brand. 57.2% boys and 62.4% girls agreed to participate in a tobacco-awareness and cessation program.<sup>25</sup>

- A intercollege based cross sectional study conducted in Dehradun to study substance use (tobacco, alcohol, cannabis, arecanut / panmasala, opium, sedatives and hard drugs) among inter college students, showed that 58.7% students were found to be ever users while 31.3% were regular users of any form of substance. The prevalence of regular use of substances was significantly higher among urban students (37.9%), as compared to rural students (24.4%). Also abuse of substances was significantly higher in male students (45.8%) as compared to female students (7.3%). Prevalence of substance abuse among various socioeconomic classes was found to be highest in the middle class. Substance use was maximum among Hindus (32%), followed by Muslims (25%) and Sikhs (21%). Higher prevalence (38.5%) of substance use was found among non vegetarian students as compared to vegetarian students (24.1%).<sup>26</sup>

- In a study conducted among 1255 school students in Chennai to study prevalence, advocacy of tobacco control, showed that 37.6% of the students (41.6 males and 30.2% females) used tobacco. Current users of tobacco (any forms) were reported by 41.1% of the students. Prevalence was more among male students (46.3%) when compared to that of female students (31.6%). Among the use of tobacco, cigarette was commonly used by both boy and girl students. Among the smokeless tobacco, gutka and pan masala were most commonly preferred. Tobacco user's prevalence was found to be more in corporation schools when compared to that of private schools. Parental and friends tobacco use was reported more often by tobacco users compared to those who never used. Purchasing tobacco products in a store was reported by 82.5% and almost no one was refused of age. Almost everyone reported watching a lot of cigarette advertisements on TV, whereas about half of them reported watching advertisements on other medias like outdoor hoardings (45.7%), newspapers (65.3%) and social events (67.4%).<sup>27</sup>
- A cross sectional study conducted among 502 adolescents residing in slums of Sambalapur Orissa, showed prevalence of 218 (43.4%) for substance use with overall males abusing more (49.5%) than females (34.6%). The median age of substance abuse for males was 15.09 years and for females 15.29 years. The proportion of substance abuse was found to increase significantly with age in both sexes, the highest being in the 16.19 year (55.2%). The most common substances being used were Gutkha (91.7%), powdered tobacco (71.1%), tobacco toothpaste (Gudakhu) (63.8%), smoking (26.6%), and alcohol (14.7%). The substance abusers used multiple substances (3.34 substances abused per adolescent). Synthetic narcotics and LSD were not used by any of

the abusers. Adolescents in joint families were consuming significantly higher amounts (47.3%) as compared with their counterparts in nuclear families (38.1%).<sup>28</sup>

- A community based cross sectional study conducted among 400 male secondary school students in Mumbai to determine the prevalence of gutkha chewing among male secondary school students and correlate gutkha chewing habit with socio-economic status, friends and family influence, stress, academic grading and peer pressure showed the overall prevalence of gutkha consumption to be 10%. Most of students consumed more than one brand with the commonest brand being 'Sikaander'. Average duration of consumption of gutkha was found to be 9 months. 70% of students quoted peer pressure as the reason for initiation of gutkha chewing. The average number of gutkha sachets consumed by student was 3 sachets per day.<sup>29</sup>
- A cross sectional study conducted at an observational home in Delhi at the time of admission of 115 male street children aged 6 to 16 years showed that more than half (57.4%) of the subjects had indulged in substance use before coming to the observation home. Nicotine (44.5%) was the commonest substance followed by inhalants (24.3%) such as adhesive glu, petrol, etc, followed by alcohol (21.8%) and cannabis (26.4%) respectively. Also it was found that maltreatment of the child by family members was found to be significant predictor of substance use by adolescents.<sup>30</sup>
- A study conducted to know substance abuse among male adolescents in Aligarh district of Uttar Pradesh showed prevalence of 13.3% of which 8.2% were occasional and 5.1% were regular users. 96.1% were using various forms of tobacco and 3.8% were consuming alcohol respectively. About 1.4% of

adolescents had experimented with tobacco at the age of ten. 47.2% stated that they use the substances for fun whereas 40.3% used it when they were in company of their peers. However in this study, type of family, was not associated as a risk factor for substance use.<sup>31</sup>

- A self reported study among 2219 eighth-grade students in elementary schools in Primorsko-goranska County, showed a significant association between perceived exposure to substance use and self-reported consumption of cigarettes, alcohol, inhalants, and marihuana in both sexes ( $P < 0.001$ ). Students whose parents, siblings, and peers used substances significantly more often developed the same behavioral patterns. Level of exposure to substance use in the immediate social environment had the strongest effect on experimenting with smoking among girls (from 26.6% in low exposure to 76.2% in high exposure group) and among boys (from 15.8% in low exposure to 69.4% in high exposure). Everyday regular smoking among girls (from 4.4% in low exposure to 45% in high exposure) and among boys (from 2.7% in low exposure to 36.7% in high exposure), hard liquor consumption among girls (from 25.1% in low exposure to 79.5% in high exposure group) and among boys (from 28.1% in low exposure to 78.4% in high exposure group), as well as on binge drinking among girls (from 10.9% in low exposure to 56.6% in high exposure group) and among boys (from 15.5% in low exposure to 62.4% in high exposure group). Girls and boys who were exposed to substance use were more often engaged in risk-taking and potentially delinquent behaviors.<sup>32</sup>
- A cross sectional study conducted in 511 male adolescents, i.e students from class 10th to 12th of Doiwala Block Dehra Dun, showed that 46.9% students

accepted substance abuse and 55.3% of the adolescents started with substance abuse around 14-15 years of age. In 75.5%, friends/peer groups were substance provider for them. Supari/gutka/pan was the most common (57.2%) substance of abuse followed by Cigarette and tobacco (33.1%). It was also found in the study, that 58.3% of the substance abusers had one of the family members also indulged in substance abuse. 80.2% substance abusers expressed their desire to quit the habit.<sup>33</sup>

- A clinic based study conducted at a De-addiction and treatment centre of Postgraduate Institute of Medical Education and Research, Chandigarh on 83 adolescents of age group 10-19 years, found that opioids (76.2%) was most the commonly used primary class of substance and most commonly use opioid was heroin (36.5%). It was also found that common reason for initiation was curiosity and 40.2% had positive family history of substance use.<sup>34</sup>
- A study conducted in two schools of West Bengal to know the prevalence and determinants of substance use among 416 students, showed prevalence rate of 6.14% and 0.6% among rural and urban students. 8.6% and 11.04% were found to be tobacco users, and 7.37% and 5.23% were consuming alcohol. Over all prevalence of substance use was associated more with male students (45.8%) than females (7.3%). It was also reported that the use of substance by family members had a significant impact on their children. Also it was found that male students living in urban area were involved in substance abuse significantly more than the rural male students. It was also observed that, the prevalence of substance use was found to be significantly more in the students who were living away from their homes<sup>35</sup>

- A cross-sectional field study conducted through door to door visit of individuals of either sex aged 15 and above in Mumbai showed that 49.7% were positive for any type of either single or multiple drug abuse habit. 59.8% drug abusers were in the age group of 15 to 34 yrs. 72.1% of drug abusers were found to be either illiterate or educated upto primary or middle school . 53.1% drug abusers belonged to semiskilled group while 27.2% belonged to Unemployed group respectively. 65.2% males were having age of starting any drug in the age group 15-24 yrs. It was found that, most common reason (81%) for starting a particular drug was due to peer pressure <sup>36</sup>
- In a study done in Imphal, among 1020 students of higher secondary school, 54% of them reported prior substance use. Prevalence of recent and current user was 35% and 22%, respectively. Tobacco (46%) was used most common, followed by alcohol (29%), cannabis (14%) and opiates (12%). Substance use was significantly higher among boys (AOR 2.6), whose father (AOR 2.0) or sibling (AOR 2.1) used substance. It was significantly lower among children of Hindu/Jain religion (AOR 0.5).<sup>37</sup>
- A community-based, cross-sectional study carried out in urban slum of Karimnagar District among 260 male adolescents showed overall prevalence of substance use to be 32.7%.Prevalence of substance use increased with increase in age. About 31% initiated substance use at 13 – 15 years of age, and the reason for initiation was peer pressure in about 52.9%. Prevalence of substance use (51.3%) was significantly more in the age group of 18 – 19 years. The most commonly used substance was tobacco (60%), followed by alcohol (12.9%), and only one admitted the use of ganja, that is, cannabis. 22 adolescents (25.9%) used two or more than two substances Education of the

study subject, education of parents, and substance use by parents and by peers were significantly associated with substance use.<sup>38</sup>

- A cross-sectional study done among street children of Mumbai to study the demographic profile and substance use it was observed that the prevalence of substance use was 44.2 % with overall male abusers (63.5%) more than females (36.4%). The most common substances used by males were smoking (59%), tobacco (49.2%), Gutkha (47.54 %), Ganja (39.34 %), and alcohol (37.7 %). Among females, pan (54.3%) tobacco (37.1%), Gutkha (37.1%) were found to be the common substances abused respectively. Peer pressure was the main reason to initiate substance use in both males and females respectively<sup>39</sup>
- A study to see prevalence of alcohol consumption, tobacco use and Sexual Behavior among adolescents in Udupi, Karnataka showed that the prevalence of alcohol consumption was 5.7%, tobacco use was 7.2% and sexual activity was 5.5% respectively. The mean age of the participant's first sexual activity, consumption of alcohol and tobacco use was reported to be approximately 16.8 years<sup>40</sup>
- A cross sectional study conducted on 226 adolescent students in the age group of 15 to 18 years belonging to senior secondary schools in Tadong area of East Sikkim using CAGE questionnaire to assess alcohol abuse showed 69.9% of adolescent student population had adequate knowledge regarding various alcoholic beverages. Stress reduction, relaxing effect & mere pleasure were considered to be the major reasons for alcohol consumption. Poverty, marital disharmony, antisocial activities and sex crimes were considered as major social problems related to alcohol consumption. It was found that 85% of respondents were willing to encourage others to stop alcohol consumption.

Though 66.4% of respondents had reported to consume alcohol regularly, 33.3% of them wanted to give up the habit. Among the regular consumers of alcohol, there were 70.3% males and 29.7% females. Among the regular alcohol consumers who had developed abuse (68%) on alcohol, 65.3% of them felt the need to cut down on drinking while 58.7% felt guilty about drinking. Here, 85.8% of respondents gave their personal opinion that alcohol consumption increases crime rate while 81.4% recommended that government should take strict measures to ban alcohol.<sup>41</sup>

- A study conducted in Meerut, among 230 medical college students showed, prevalence of substance abuse to be 20.43 % (47/230) among medical students. An increase in substance abuse was observed in the latter years of medical education. A total of 43 of 47 (91.7%) students using these substances were aware of the ill effects. The most common reasons for substance use were relief from psychological stress (34/47, 72.4%) and occasional celebration (34/47, 72.4%). Of the 47 substance users, 28 (59.6%) were with past attempts to quit the substance abuse.<sup>42</sup>
- A study conducted in Kottayam district showed that 16% adolescents ever tried smoking, 19.1% ever tried alcohol and 2.8% ever tried other drugs. Also 10.7% and 10.8% were found to be current smokers and current alcoholic. The protective factors were other students behavior being helpful (OR-0.45), parental understanding (OR-0.41), parental checking (OR-0.68.)<sup>43</sup>
- In a cross sectional study conducted among 1285 school going adolescent boys and girls in an industrial town of Assam, showed that 36% students had tasted/used homemade alcoholic drinks (HADs) and 12.3% used commercially available alcoholic drinks (Commercially available alcoholic drinks ).

Significantly higher numbers of adolescents aged 15 years and above used CAD in comparison to children less than 15 years. However, the number of younger students was higher in using HAD. Minimum age at first experience of CAD was 7 years and that of HAD was 4 years; the duration varied from 1 to 8 years and 1–15 years, respectively. Parent's behavior of consuming tobacco and alcohol influenced the habit of their children. Father's habit was found to be associated with male offspring's habit of taking CAD. About 16% of the students used one or more substances along with alcohol.<sup>44</sup>

- A study was carried out in the slum areas of Gorakhpur city, covering a population of 10,187 in the four colleges of Gorakhpur. Five hundred and eighty children and adolescents in urban slums, and 750 college students between 10-18 years were studied for detection, prevalence rate and various other correlates of abuse of psychoactive substances. Overall, prevalence of abuse of psychoactive substances was 25% in slum areas and 18% in college students. More abusers were from Hindu families with low educational status and low family income.<sup>45</sup>

## **MATERIALS AND METHODS**

The present study was conducted at the Slums of Urban Health Centre's, Ram Nagar and Rukimini Nagar, Belagavi which is an urban field practice area of Department of Community Medicine, Jawaharlal Nehru Medical College, Belagavi. The UHC's are situated at about 1.5 and 3.5 km from J. N. Medical College and caters to a total population of 76,415.

### **Design**

The study design was community based cross-sectional study.

### **Duration**

The study was conducted for one year from 1<sup>st</sup> January 2015 to 31<sup>st</sup> December 2015.

### **Participants**

Adolescents (boys & girls) aged between 10 - 19 years residing in slum areas under Urban Health Centre's of Ram Nagar and Rukimini Nagar , Belagavi which is an urban field practice area of Department of Community Medicine, Jawaharlal Nehru Medical College, Belagavi.

### **Selection criteria**

### **Inclusion**

All adolescents aged between 10 – 19 years who were residing in that area for past 1 year and who gave informed consent were included.

**Sample size:**

Based on prevalence of previous study [Indian Journal Community Medicine Oct 2008; 33(4): p 265-267], prevalence of substance use in among men in urban slum was 43%.

Using the formula,

$$N = \frac{Z_{\alpha}^2 \times pq}{D}$$
$$= \frac{1.96^2 \times pq (\alpha = 0.01)}{d^2}$$

$$p = \text{prevalence} = 43\%$$

$$q = 100 - p = 100 - 43 = 57$$

$$d = \text{relative error} = 10\% \text{ of } p = 10 \times 43 / 100 = 4$$

$$Z = 1.96 \text{ (Area under normal curve with 99\% confidence interval)}$$

Substituting the values,

$$\text{Sample size } n = \frac{1.96 \times 1.96 \times 43 \times 57}{4 \times 4} = \mathbf{588}$$

Therefore, **600 adolescents between 10 – 19 years** will be included in the study.

**Sampling method**

Simple random sampling

**Sampling procedure**

Population covered by **UHC, Ram Nagar- 32,815**

According to CNA survey, adolescents aged between 10- 19 years- 1725

Total slums covered under UHC Ram Nagar: **5**

Ramnagar, Gangwadi, Waddar Chhavani, Verrabhadranagar, Kali Ambrai

Population covered by **UHC, Rukimini Nagar- 43,600**

According to CNA survey, adolescents aged between 10- 19 years- 8237

Total slums covered under UHC Rukimini Nagar: **4**

New Gandhi Nagar, Old Gandhi Nagar, Gokul galli, Rukimini Nagar

Sampling frame of all the adolescents of these areas was made and simple random sampling method was used to select 600 adolescents who were included in the study.

Random number table was used.

Proportionate number of samples was selected from each of the area proportionate to the population size of that area.

### **Ethical Clearance**

The study was approved from Institutional Ethics Committee for Human Subject's Research, Jawaharlal Nehru Medical College, Belagavi.

### **Data collection procedure**

A questionnaire was designed and a pilot study was conducted using the predesigned questionnaire and required modifications were made.

Data was collected from the participants through face to face interview. Data regarding socio demographic variables like age, sex, religion, working status, education, working status, socio-economic status were collected.

All the subjects in the sample were informed about the purpose of the study and after obtaining informed consent and assent from adolescents less than 18 years they were interviewed separately using pre-structured and pretested proforma.

The Performa included the following:

First part consists of questions related to socio-demographic profile of adolescents

It included information on Name, age, sex, religion, education, family type, family members, socio-economic status.

**Age:** Age in years was considered for the study and was divided into

10-13 years (Early Adolescents), 14-15 years (Mid Adolescents), 16-19 years (Late Adolescents)

**Religion:** Hindu, Muslim, Christian, Others (Jains/ Sikhs)

**Education:** Every study subject was asked about the highest educational attainment and then they were grouped as follows:-

- a. **Illiterate:** A person who cannot read and write any language.
- b. **Primary:** A person who has studied from first to fifth standard.
- c. **Secondary school :** A person who has studied from sixth to eight standard
- d. **High school:** The person who has studied eighth to tenth standard.
- e. **College:** The person who has studied up to Pre-University College second year (PUC) or a diploma course or more

**School dropout:** Each study subject was asked about his/her school dropout. The information was collected and grouped as follows: - **Yes / No**

**Type of family:**

- a. **Joint family:** It consists of number of married couples and their children who live in the same household.
- b. **Three generation family:** It consists of three generations related to each other by direct descent and living together.
- c. **Nuclear family:** The family consisting of married couple along with their dependent children.

d. **Others** : consisting of adolescents living with relatives or in hostel

**Socio-Economic status (SES) class:**<sup>46</sup>

Modified BG Prasad SES classification was used. This was obtained by multiplying per capita monthly income of 1961, (as suggested by BG Prasad) with the Multiplication factor.

Multiplication factor =  $\frac{\text{Mean Consumer Price Index (2015)} \times 4.93}{100}$

100

Consumer Price Index of 2015 was Rs. 1210.

Substituting in the formula,

Multiplication factor=  $1210 \times 4.93 / 100 = 59.65$

<b>Socio Economic Status: Class</b>	<b>BG Prasad's Classification of 1961</b>	<b>Modified BG Prasad's Classification for 2015</b>
I	Rs 100 and above	Rs 5965 and above
II	Rs 50-99	Rs 2983- 5964
III	Rs 30-49	Rs 1789-2982
IV	Rs 15-29	Rs 895- 1788
V	Below Rs 15	Below Rs 895

**Family History: i) Yes    ii) No**

**Data Collection:**

The data collection was done using predesigned and pretested questionnaire.

Data was collected regarding socio-demographic variables and prevalence of substance use.

Pilot study was conducted to know the feasibility.

**Analysis:**

- Was done using SPSS, version 21.0.
- Was done using percentages and chi-square tests.

## **RESULTS**

The present study was conducted in Urban Health Centre, Ram Nagar and Rukimini Nagar, Belagavi which is the field practice area of Department of Community Medicine, Jawaharlal Nehru Medical College Belagavi.

The data obtained was tabulated and analyzed under the following headings:

- 1. SOCIO DEMOGRAPHIC PROFILE OF STUDY PARTICIPANTS.**
- 2. PREVALENCE OF SUBSTANCE USE AMONG ADOLESCENTS IN URBAN SLUM.**
- 3. ASSOCIATION OF SUBSTANCE USE WITH SOCIO-DEMOGRAPHIC FACTORS**

**Table 1: AGE WISE DISTRIBUTION OF THE STUDY PARTICIPANTS  
(N=600)**

Age (Years)	Number	Percentage
10 – 13	203	33.8
14 – 15	150	25
16 – 19	247	41.2
<b>Total</b>	<b>600</b>	<b>100</b>

In the present study, out of 600 participants maximum 247(41.2%) participants were in the age group of 16 - 19 years, 203(33.8%) were in the age group of 10-13 years and 150(25%) were in the group of 14-15 years .

**Table 2: DISTRIBUTION OF PARTICIPANTS ACCORDING TO SEX  
(N=600)**

Gender	Number	Percentage
Male	505	84.16
Female	95	15.84
<b>Total</b>	<b>600</b>	<b>100</b>

In our study, out of 600 participants, 505 (84.16%) were boys and 95 (15.84%) were girls.

**Table 3: DISTRIBUTION OF STUDY PARTICIPANTS ACCORDING TO THE RELIGION (N=600)**

<b>Religion</b>	<b>Number</b>	<b>Percentage</b>
Hindu	457	76.2
Muslim	84	14
Christian	22	3.6
Others	37	6.2
<b>Total</b>	<b>600</b>	<b>100</b>

Out of 600 participants, it was found 457 (76.2%) were Hindus, 84 (14%) were Muslims, 22 (3.6%) were Christians and 37 (6.2%) belonged to other religion (Jains/Sikhs).

**Table 4: DISTRIBUTION OF STUDY PARTICIPANTS ACCORDING TO THEIR EDUCATION STATUS (N=600)**

<b>Education</b>	<b>Number</b>	<b>Percentage</b>
Illiterate	19	3.2
Primary	33	5.5
Secondary	105	17.5
High school	257	42.8
PUC	186	31
<b>Total</b>	<b>600</b>	<b>100</b>

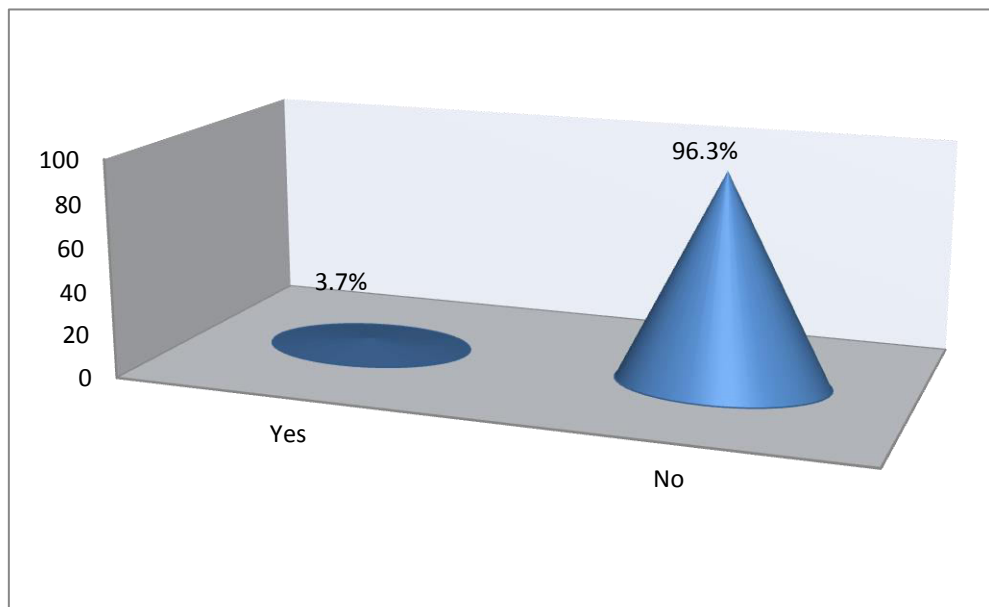
In the present study 257(42.8%) adolescents were found to be studying in high school, 186(31%) were in PUC, 105 (17.5%) were in secondary school, 33(5.5%) were in Primary and 19(3.2%) were found to be illiterate.

**Table 5: DISTRIBUTION OF STUDY PARTICIPANTS ACCORDING TO THEIR SCHOOLING (N=600)**

School dropout	Number	Percentage
Yes	22	3.7
No	578	96.3
<b>Total</b>	<b>600</b>	<b>100</b>

In our study 22(3.7%) of 600 adolescents were found to be school dropout and 578 (96.3%) were not.

**GRAPH 1: Distribution of study participants according to their schooling**

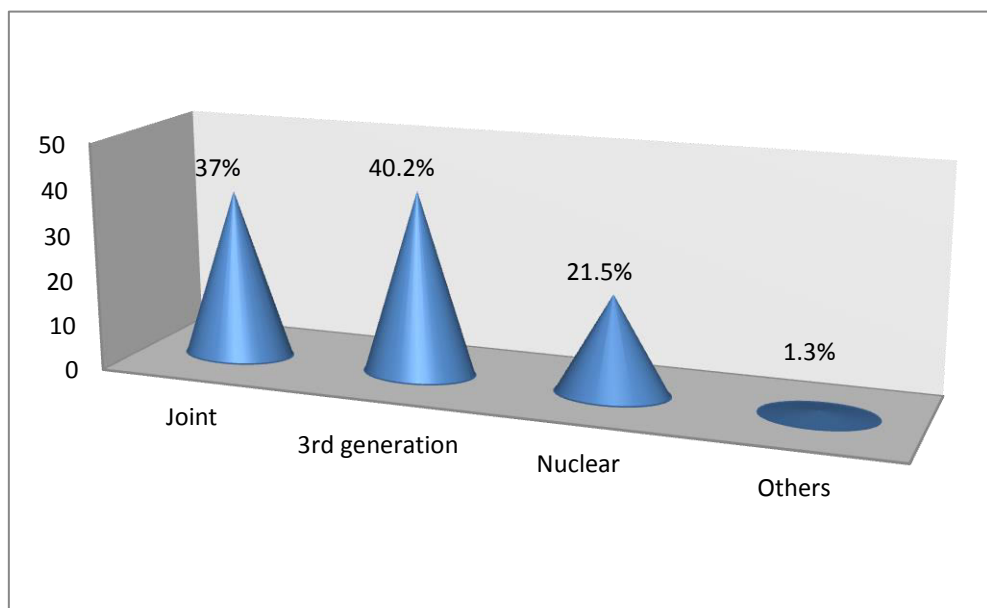


**Table 6: DISTRIBUTION OF STUDY PARTICIPANTS ACCORDING TO THE TYPE OF FAMILY (N=600)**

Type of family	Number	Percentage
Joint	222	37
3 <sup>rd</sup> generation	241	40.2
Nuclear	129	21.5
Others	08	1.3
<b>Total</b>	<b>600</b>	<b>100</b>

In the present study, 241(40.2%) participants were living in three generation family, 222 (37%) belonged to joint family, 129 (21.5%) belonged to nuclear family and 0.8(1.3%) were staying with others (relatives house or hostel).

**GRAPH 2: Distribution of study participants according to type of Family**

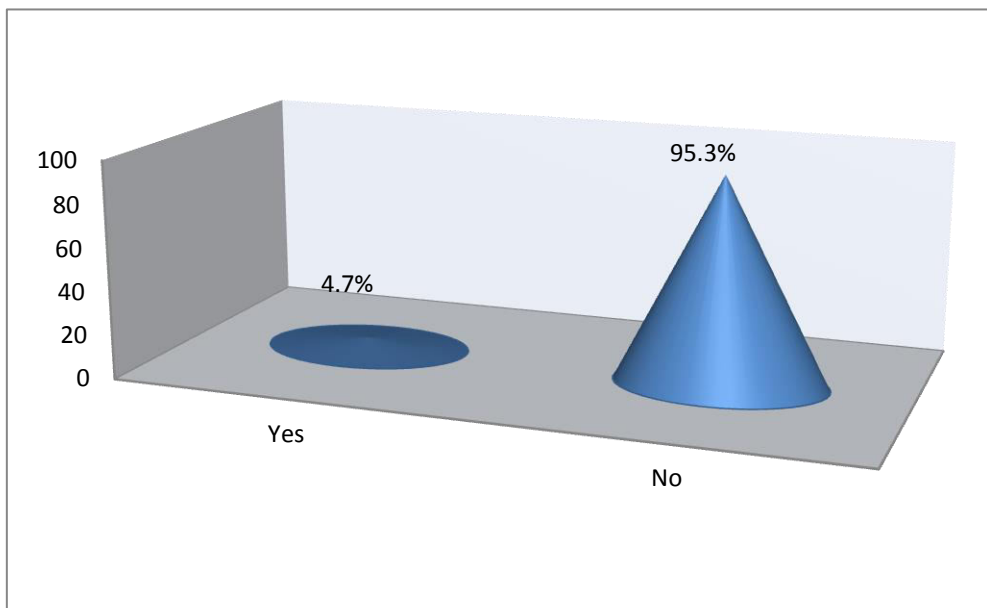


**Table 7: DISTRIBUTION OF STUDY PARTICIPANTS ACCORDING TO WORKING STATUS (N=600)**

Working status	Number	Percentage
Yes	28	4.7
No	572	95.3
<b>Total</b>	<b>600</b>	<b>100</b>

Out of 600 participants in our study, 28(4.7%) were found to be working while 572(95.3%) were not working.

**GRAPH 3: Distribution of study participants according to working status**



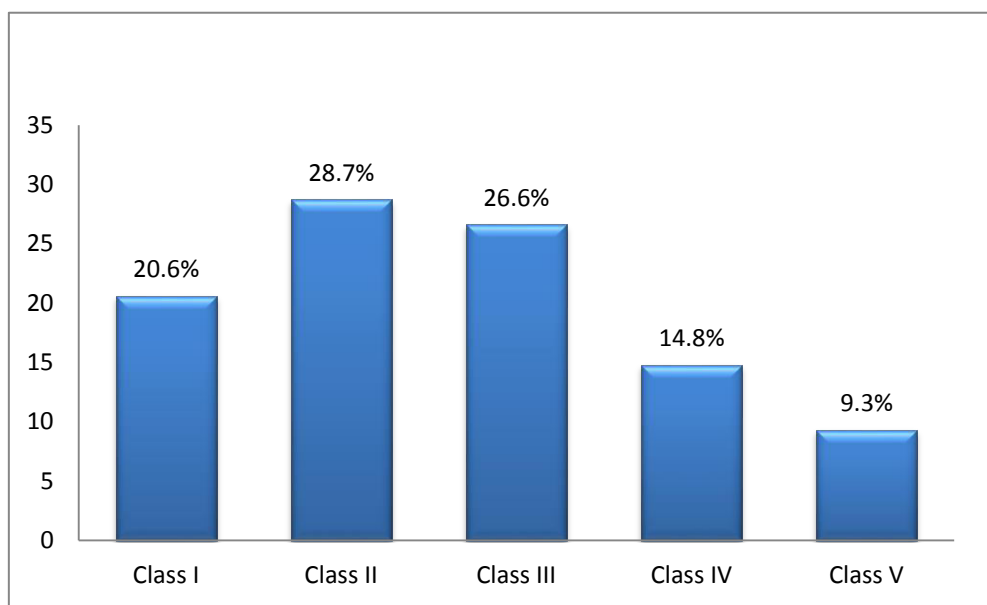
**Table 8: DISTRIBUTION OF STUDY PARTICIPANTS ACCORDING TO SOCIO ECONOMIC STATUS (ACC. TO MODIFIED B.G. PRASAD CLASSIFICATION, 2015) (N=593)**

Socio Economic status	Number	Percentage
Class I	122	20.6
Class II	170	28.7
Class III	158	26.6
Class IV	88	14.8
Class V	55	9.3
<b>Total</b>	<b>593*</b>	<b>100</b>

\*7 participants did not give history of family income and were excluded.

In our study majority of adolescents, 170 (28.7%) belonged to class II SES, 158 (26.6%) belonged to class III, 122 (20.6%) belonged to class I, 88 (14.8%) belonged to class IV and 55 (9.3%) belonged to class V SES.

**GRAPH 4: Distribution of study participants according to SES**



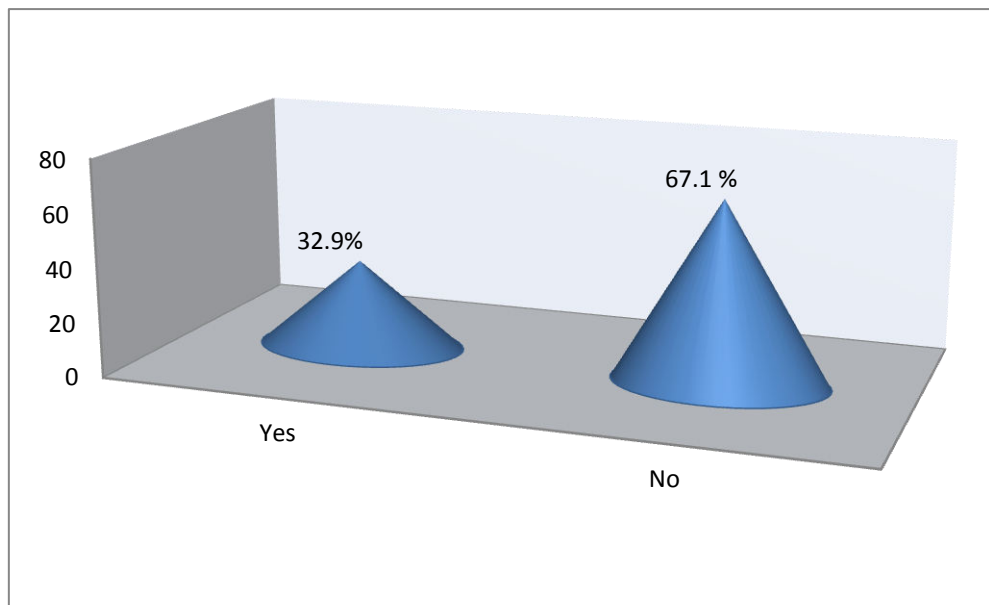
**Table 9: DISTRIBUTION OF STUDY PARTICIPANTS ACCORDING TO FAMILY HISTORY OF SUBSTANCE USE (N= 587)**

<b>Family History</b>	<b>Number</b>	<b>Percentage</b>
Yes	193	32.9
No	394	67.1
<b>Total</b>	<b>587*</b>	<b>100</b>

**\*13 participants did not give family history of substance use and were excluded**

In the present study it was observed that, 193 (32.9%) had family history of substance use while 394 (67.1) had no history of substance use in family.

**GRAPH 5: Distribution of study participants according to family history of substance use**

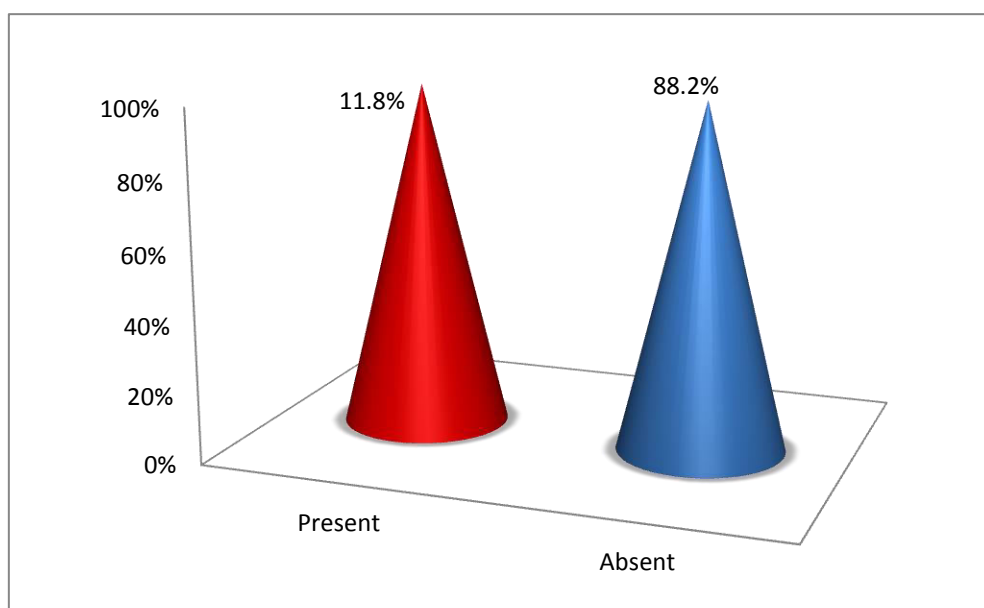


**Table 10: PREVALENCE OF SUBSTANCE USE AMONG ADOLESCENTS IN URBAN SLUM**

Substance use	Number	Percentage
Present	71	11.8
Absent	529	88.2
<b>Total</b>	<b>600</b>	<b>100</b>

In the present study prevalence of Substance use among adolescents in urban slums of was found to be 11.8%.

**GRAPH 6: Prevalence of substance use among adolescents in urban slum**

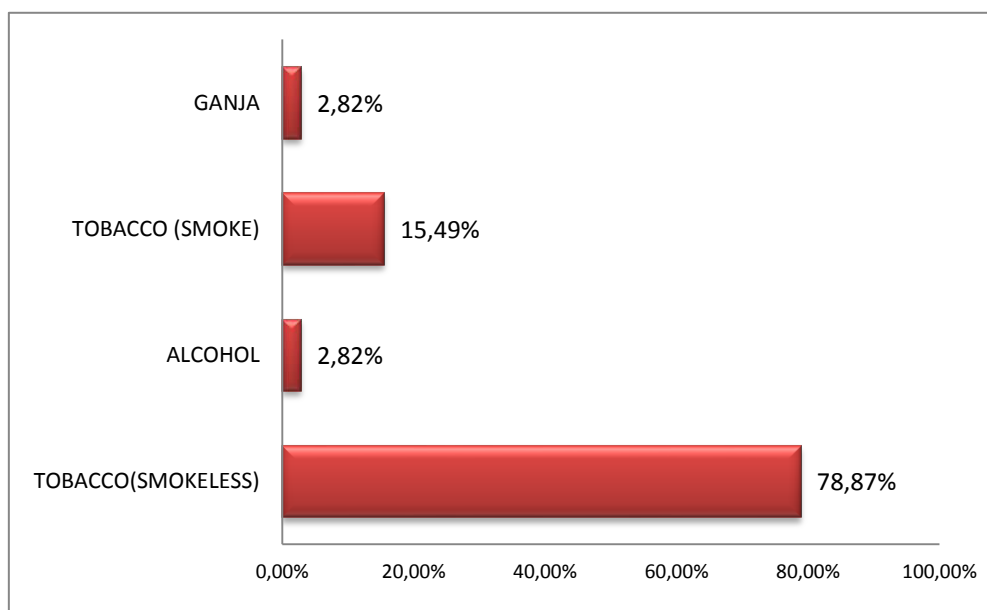


**Table 11: DISTRIBUTION OF ADOLESCENTS ACCORDING TO MOST COMMON SUBSTANCE USE**

SUBSTANCE	NUMBER	PERCENTAGE
TOBACCO(SMOKELESS)	56	78.87%
ALCOHOL	02	2.82 %
TOBACCO (SMOKE)	11	15.49 %
GANJA	02	2.82%
<b>TOTAL</b>	<b>71</b>	<b>100 %</b>

In this study, use of smokeless form of tobacco was highest (78.87%), followed by smoke form of tobacco (15.49%) and least (2.82%) use was seen with alcohol and ganja.

**GRAPH 7: Distribution of adolescents according to most common substance use**

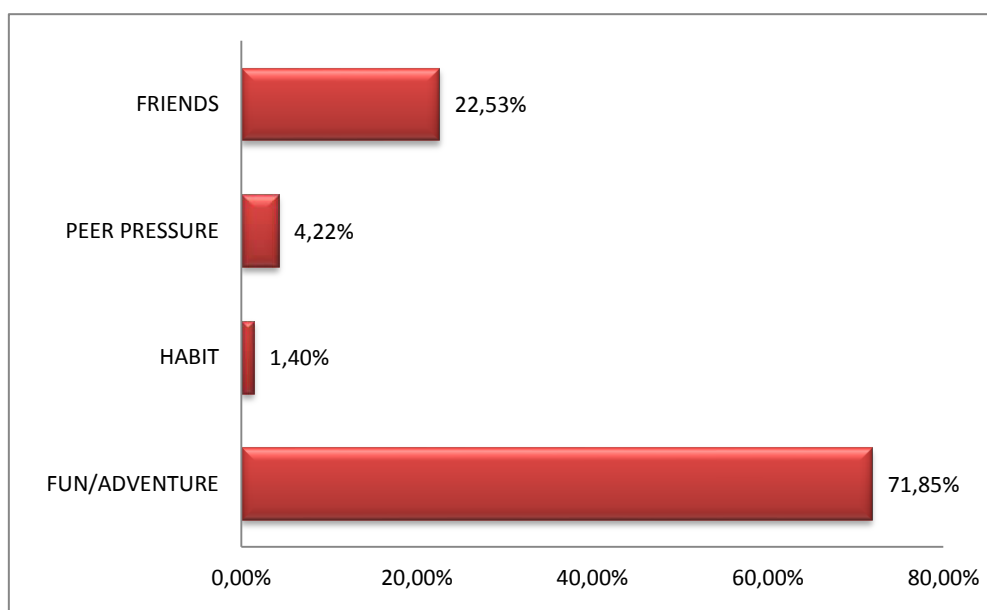


**Table 12: DISTRIBUTION OF ADOLESCENTS ACCORDING TO REASONS FOR INITIATION OF SUBSTANCE USE**

REASON	NUMBER	PERCENTAGE
FUN/ADVENTURE	51	71.85 %
HABIT	01	1.40 %
PEER PRESSURE	03	4.22 %
FRIENDS	16	22.53 %
<b>TOTAL</b>	<b>71</b>	<b>100 %</b>

In our study 71.85% of adolescents started substance use for fun, 22.53% was because of friends, 4.22% was because of peer pressure and 1.40% started it as a habit.

**GRAPH 8: Distribution of adolescents according to reasons for initiation of substance use**

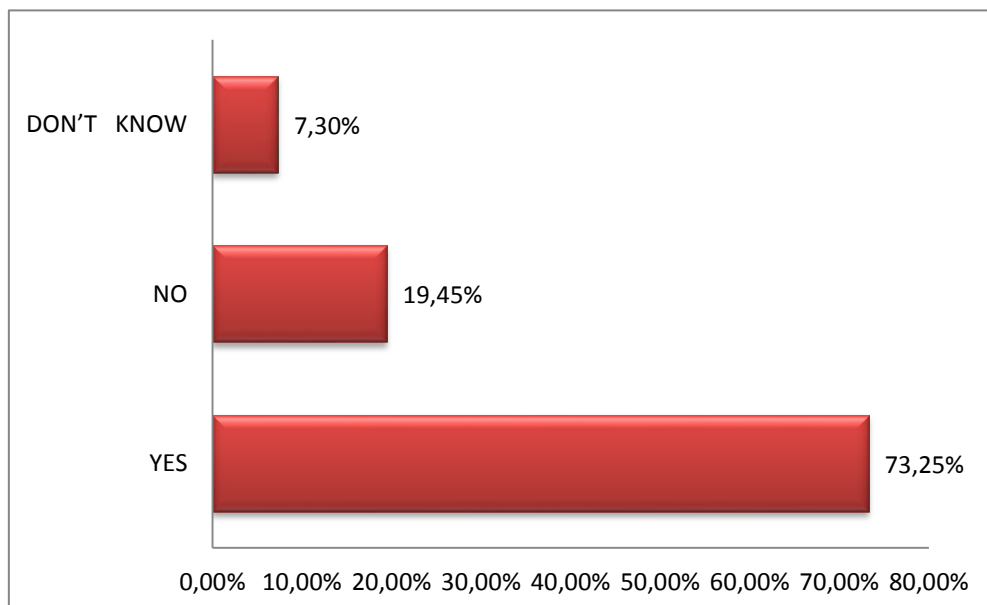


**Table 13: DISTRIBUTION OF ADOLESCENTS ACCORDING TO KNOWLEDGE OF ADVERSE EFFECTS OF SUBSTANCE USE**

	<b>NUMBER</b>	<b>PERCENTAGE</b>
<b>YES</b>	52	73.25 %
<b>NO</b>	14	19.45 %
<b>DON'T KNOW</b>	05	7.30 %
<b>TOTAL</b>	<b>71</b>	<b>100 %</b>

It was observed in our study that, 73.25% of adolescents using substance had knowledge about adverse effects of substance use whereas 19.45% said it has no adverse effects and 7.30% did not know regarding the adverse effects.

**GRAPH 9: Distribution of adolescents according to knowledge of adverse effects of substance use**



**Table 14: DISTRIBUTION OF ADOLESCENTS ACCORDING TO REASONS FOR SUBSTANCE USE**

REASON	NUMBER	PERCENTAGE
EASILY AVAILABLE	33	46.5%
VERY CHEAP	03	4.2 %
OTHERS	05	7.0 %
EASILY AVAILABLE + CHEAP	30	42.3 %
<b>TOTAL</b>	<b>71</b>	<b>100 %</b>

In our study it was observed that 46.5% of adolescents started using substance because of easy availability followed by 42.3% who said they used it because it was easily available and cheap, 7.0% for other reasons (free availability from friends/family members) and 4.2% said they started using it as it was cheap.

**GRAPH 10: Distribution of adolescents according to reasons for substance use**

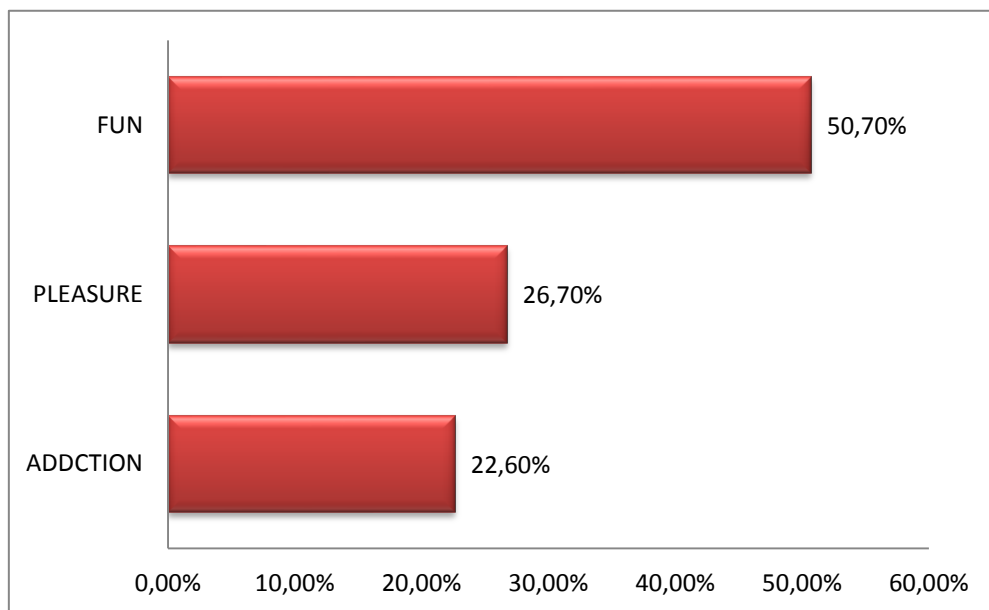


**Table 15: DISTRIBUTION OF ADOLESCENTS ACCORDING TO REASONS FOR CONTINUING A PARTICULAR DRUG/ SUBSTANCE**

REASON	NUMBER	PERCENTAGE
ADDCTION	16	22.6 %
PLEASURE	19	26.7 %
FUN	36	50.7 %
<b>TOTAL</b>	<b>71</b>	<b>100 %</b>

In the present study majority (50.7%) continued a particular substance for fun, 26.7% for pleasure and least 22.6% continued substance use because of addiction.

**GRAPH 11: Distribution of adolescents according to reasons for continuing a particular drug/substance**

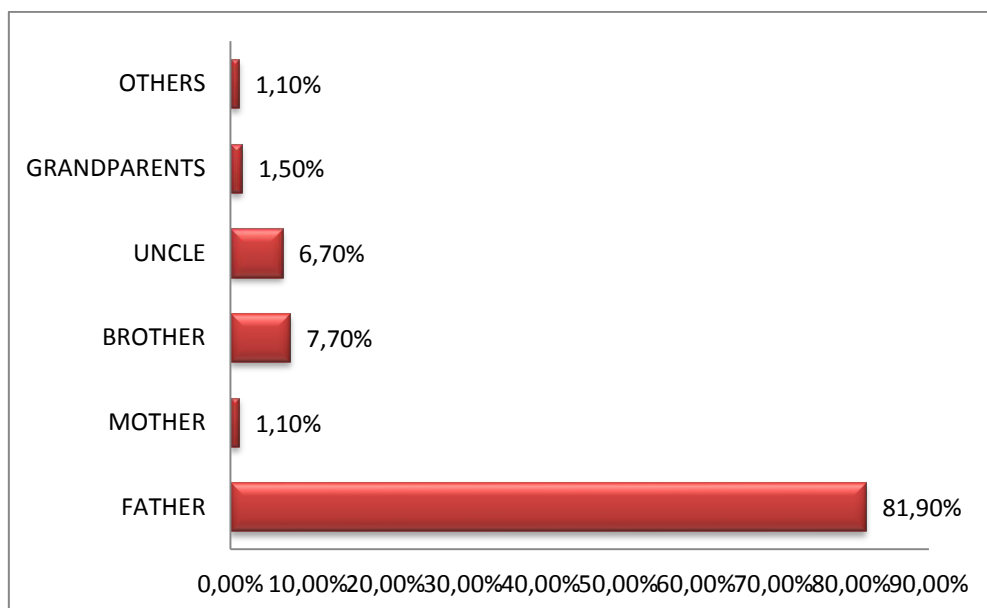


**Table 16: DISTRIBUTION OF ADOLESCENTS ACCORDING TO USE OF SUBSTANCE AMONG FAMILY MEMBERS**

Family member	Substance use	
	NUMBER	PERCENTAGE
FATHER	158	81.9 %
MOTHER	02	1.1 %
BROTHER	15	7.7 %
UNCLE	13	6.7 %
GRANDPARENTS	03	1.5 %
OTHERS	02	1.1 %
<b>TOTAL</b>	<b>193</b>	<b>100 %</b>

In our study highest prevalence of substance use (81.9%) was seen in fathers, followed by 7.7% and 6.7% in brothers and uncles, 1.5% with grandparents and 1.1% with mothers and other (friends and neighbors).

**GRAPH 12: Distribution of adolescents according to use of substance among family members**

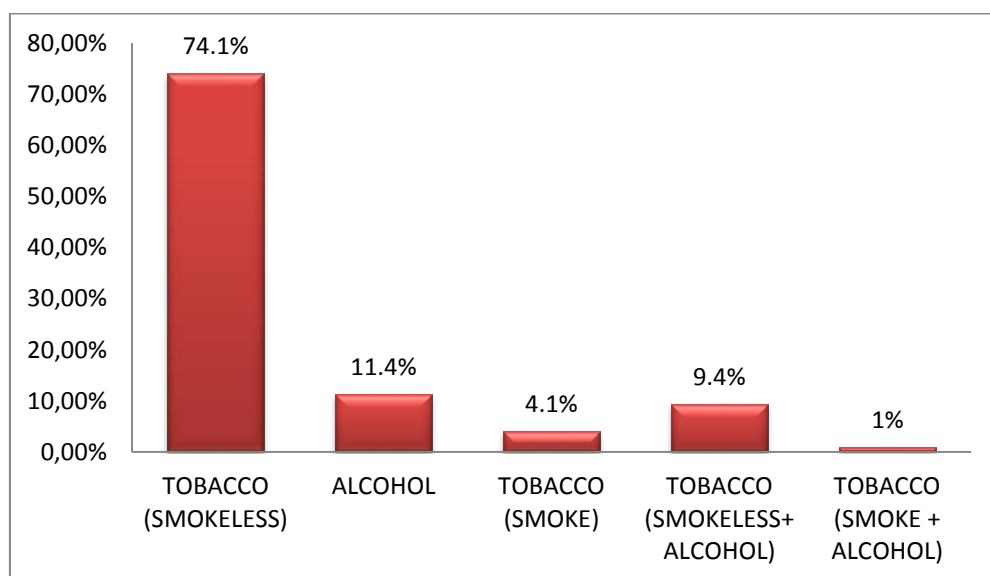


**Table 17: DISTRIBUTION OF MOST COMMON SUBSTANCE USE AMONG FAMILY MEMBERS**

SUBSTANCE	NUMBER	PERCENTAGE
TOBACCO (SMOKELESS)	143	74.1%
ALCOHOL	22	11.4 %
TOBACCO (SMOKE)	08	4.1%
TOBACCO (SMOKELESS+ ALCOHOL)	18	9.4 %
TOBACCO (SMOKE + ALCOHOL)	02	1 %
<b>TOTAL</b>	<b>193</b>	<b>100 %</b>

In our study smokeless form of tobacco was the commonly used substance 75% among family members, followed by alcohol (11.4%), smokeless form of tobacco and alcohol 9.4%, smoke form of tobacco 4.1% and least was smoke form of tobacco and alcohol (1%).

**GRAPH 13: Distribution of most common substance use among family members**



**Table 18: ASSOCIATION OF SUBSTANCE USE WITH AGE OF THE ADOLESCENTS**

AGE IN YEARS	SUBSTANCE USE				TOTAL
	YES PERCENTAGE		NO PERCENTAGE		
10 – 13 YEARS	28	13.8 %	175	86.2 %	203
14-15 YEARS	18	12.1%	132	87.9 %	150
16-19 YEARS	25	10.1 %	222	89.9 %	247
<b>TOTAL</b>	<b>71</b>	<b>11.8 %</b>	<b>529</b>	<b>88.2 %</b>	<b>600</b>
<b><math>X^2 = 1.486</math>      Df = 2      p = 0.476</b>					

It was seen in our study that, prevalence of substance use was highest (13.8%) in the age group of 10-13 years followed by 12.9% in 14-15 years age group and 10.1% in 16-19 years of age. This difference was not found to be statistically significant.

**Table 19: ASSOCIATION OF SUBSTANCE USE WITH SEX OF THE ADOLESCENTS**

SEX	SUBSTANCE USE				TOTAL
	YES	PERCENTAGE	NO	PERCENTAGE	
MALE	54	10.7 %	451	89.3 %	505
FEMALE	17	17.9 %	78	82.1 %	95
TOTAL	71		529		600
$X^2 = 3.975$					$P = 0.046$
					Df = 1

In the present study females (17.9%) had highest prevalence of substance use than male 10.7% and difference was found to be statistically significant.

**Table 20: ASSOCIATION OF SUBSTANCE USE WITH RELIGION OF THE ADOLESCENTS**

RELIGION	SUBSTANCE USE				TOTAL
	YES	PERCENTAGE	NO	PERCENTAGE	
HINDU	58	12.7 %	399	87.3%	457
MUSLIMS	09	10.4 %	75	89.3%	84
CHRISTANS	01	4.5%	21	95.5 %	22
OTHERS	03	8.1 %	34	91.9 %	37
<b>TOTAL</b>	<b>71</b>		<b>529</b>		<b>600</b>
<b>X<sup>2</sup> = 2.036</b>		<b>Df = 3</b>		<b>p = 0.585</b>	

In our study it was observed that, prevalence of substance use was 12.7% in Hindus, followed by 10.4% in Muslims, 4.5% and 8.1% by Christians and other religions (Jains/Sikhs). This difference was not statistically significant.

**Table 21: ASSOCIATION OF SUBSTANCE USE WITH EDUCATION OF THE ADOLESCENTS**

EDUCATION	SUBSTANCE USE				TOTAL
	YES	PERCENTAGE	NO	PERCENTAGE	
ILLETRATE	18	94.7%	1	5.3 %	19
PRIMARY	04	12.1 %	29	87.9 %	33
SECONDARY	13	12.4 %	92	87.6 %	105
HIGH SCHOOL	22	8.6 %	235	91.4 %	257
PUC	14	7.5%	172	92.5 %	186
<b>TOTAL</b>	<b>71</b>		<b>529</b>		<b>600</b>
<b>X<sup>2</sup>for trend = 86.403</b>		<b>Df = 4</b>		<b>p &lt; 0.001</b>	

In our study, highest prevalence of substance use (94.7%) was seen in adolescents who were illiterate, followed by 12.4% in adolescents studied up to secondary, 12.1%, 8.6% and 7.6% in adolescents studied up to primary, high school and PUC. Prevalence of substance use reduced as the education increased. This trend was found to be statistically significant, X<sup>2</sup>for trend 86.403, p<0.001.

**Table 22: ASSOCIATION OF SUBSTANCE USE WITH SCHOOLING OF THE ADOLESCENTS**

SCHOOL DROP OUT	SUBSTANCE USE				TOTAL
	YES	PERCENTAGE	NO	PERCENTAGE	
YES	17	81 %	4	19 %	21
NO	54	9.3 %	525	90.7 %	579
<b>TOTAL</b>	<b>71</b>		<b>529</b>		<b>600</b>
<b>X<sup>2</sup>with Yates correction = 92.903</b>					<b>Df = 1</b>
					<b>p &lt; 0.001</b>

In the present study highest (81%) use of substance was seen in adolescents with school dropout. This difference was found to be statistically significant, X<sup>2</sup> with Yates correction 92.903 and p<0.001.

**TABLE 23: ASSOCIATION OF SUBSTANCE USE AMONG ADOLESCENTS BASED ON WORKING STATUS**

WORKING STATUS	SUBSTANCE USE				TOTAL
	YES	PERCENTAGE	NO	PERCENTAGE	
YES	18	64.3 %	10	37.5%	28
NO	53	9.3 %	519	90.7 %	572
<b>TOTAL</b>	<b>71</b>		<b>529</b>		<b>600</b>
<b>X<sup>2</sup>with Yates correction = 72.268</b>					<b>Df = 1</b>
					<b>p = &lt; 0.001</b>

We observed in the present study that highest number of adolescents 64.3% using substance were found to be working when compared to 9.3% in those not working. This difference was found to be statistically significant i.e X<sup>2</sup> with Yates correction 72.268 and p<0.001.

**TABLE 24: ASSOCIATION OF SUBSTANCE USE AMONG ADOLESCENTS WITH TYPE OF FAMILY**

TYPE OF FAMILY	SUBSTANCE USE				TOTAL
	YES	PERCENTAGE	NO	PERCENTAGE	
JOINT FAMILY	30	13.5 %	192	86.5 %	222
3 <sup>RD</sup> GENERATION	27	11.2%	214	88.8 %	241
NUCLEAR	14	10.9 %	115	89.1 %	129
OTHERS	0	–	08	100 %	08
<b>TOTAL</b>	<b>71</b>		<b>529</b>		<b>600</b>
<b>X<sup>2</sup> = 1.885</b>		<b>Df = 3</b>		<b>p = 0.597</b>	

It was observed in the present study that adolescents from joint family had highest prevalence (13.5%) of substance use followed by 11.2% in three generation family and 10.9% in Nuclear family. This difference was not found to be statistically significant  $X^2 = 1.885$  and  $p = 0.597$ .

**TABLE 25: ASSOCIATION OF SUBSTANCE USE AMONG ADOLESCENTS  
BASED ON SES**

INCOME	SUBSTANCE USE				TOTAL
	YES	PERCENTAGE	NO	PERCENTAGE	
<b>I</b>	12	9.8 %	110	90.2 %	<b>122</b>
<b>II</b>	10	5.9 %	160	94.1 %	<b>170</b>
<b>III</b>	08	5.1 %	150	94.9 %	<b>158</b>
<b>IV</b>	20	22.7 %	68	77.3 %	<b>88</b>
<b>V</b>	21	38.7 %	34	61.8 %	<b>55</b>
<b>TOTAL</b>	<b>71</b>		<b>522</b>		<b>593 *</b>
$X^2 = 59.1$ <span style="margin-left: 150px;"><math>Df = 4</math></span> <span style="float: right;"><math>p = &lt; 0.001</math></span>					

**\*7 participants did not give history. Hence were not included.**

In our study we observed, highest prevalence of substance use (38.7%) was seen in class V SES followed by 22.7% in class IV, 9.8% in class I, 5.9% in class II and least prevalence of 5.1% in class III SES. With increase in SES the prevalence of substance use reduced. This difference was found to be statistically significant,  $X^2=59.1$ ,  $p<0.001$ .

**TABLE 26: ASSOCIATION OF SUBSTANCE USE AMONG ADOLESCENTS WITH FAMILY HISTORY OF SUBSTANCE USE**

FAMILY H/O SUBSTANCE USE	SUBSTANCE USE				TOTAL
	YES	PERCENTAGE	NO	PERCENTAGE	
YES	14	7.2 %	179	92.8 %	193
NO	27	6.8%	367	93.2 %	394
TOTAL	41		546		587*
$X^2 = 33.952$		Df = 1		p < 0.001	

**\*13 PARTICIPANTS DID NOT GIVE FAMILY HISTORY OF SUBSTANCE USE.**

In the present study, prevalence of 7.21% was seen in adolescents with family history of substance use while 6.8% with no history of substance use. This difference was found to be statistically significant,  $X^2 = 33.952$ ,  $p < 0.001$ .

## DISCUSSION

The present study was conducted among adolescents residing in urban slums of Ram Nagar and Rukimini Nagar which are the field practice areas of Department of Community Medicine, Jawaharlal Nehru Medical College, Belagavi from January 2015 to December 2015.

### 1. PROFILE OF STUDY PARTICIPANTS

#### TABLE 1 and 2

In the present study, 33.8% were in the age group of 10-13, 25% were in the group of 14-15 years and 41.2% participants were in the age group of 16 - 19 years. A study conducted among school students in urban areas of Aligarh, constituted 42.4% between age group of 10-13, 35.6% in age group of 14-15 and 22% between 16-19 years.<sup>31</sup>

Maximum number (84.16%) were boys and 95 (15.84%) were girls. In a study conducted in two high schools of West Bengal, 82% were males and 18% females.<sup>35</sup> Another study conducted among street children in Jaipur showed that 71% were males and 29% were females<sup>25</sup>. These studies showed similar proportion of males and females to that of our study.

#### TABLE 3

In our study majority (76.2%) of the adolescents belonged to Hindu religion, followed by 14% Muslims, 3.6% Christians and 6.2% who belonged other religions. A study among street children from Mumbai, constituted 66.3% Hindus, 32.7% Muslims and 1% christian.<sup>39</sup> and another study conducted in Dehradun of Uttarakand

showed that 90.1% were Hindus and Muslims 2% which is similar to that of our study  
26 .

**TABLE 4 AND 5**

In the present study 42.8% adolescents were found to be studying in high school, 31% were in PUC, 17.5% were in secondary school, 5.5% were in Primary, 3.2% were found to be illiterate and in our study 3.7% of 600 adolescents were found to be school dropouts .A study conducted in urban slums of Sambalpur showed 51.7 % were school dropouts <sup>28</sup> and also in urban slums of Mumbai<sup>39</sup>, 44.2 % were school dropouts. This difference could be because of successful implementation of compulsory high school education in south India.

**TABLE 6**

In our study, majority (40.2%) & (37%) participants were living in three generation family and joint family, 21.5% belonged to nuclear family and 1.3% were staying with others (relative's house or hostel)

**TABLE 7**

Out of 600 participants in our study, 28(4.7%) were found to be working while 572(95.3%) were not working

A study conducted in Sambalapur<sup>28</sup> showed that 34.8% of children were working which is more than our study because Sambalpur is a industrial town when compared to ours.

**TABLE 8**

In our study majority of adolescents, 170 (28.7%) belonged to class II SES, 158 (26.6%) belonged to class III, 122 (20.6%) belonged to class I, 88 (14.8%) belonged to class IV and 55 (9.3%) belonged to class V SES (according to modified B.G Prasad classification.)

**TABLE 9**

In the present study it was observed that, 193 (32.9%) had family history of substance use while 394 (67.1) had no history of substance use in family

A study conducted in Dehradun<sup>33</sup> showed prevalence of 46.6% for family history of substance use. Another study conducted in Mumbai<sup>39</sup> showed prevalence of 13.5% for family history of substance use.

**PREVALENCE OF SUBSTANCE USE AND ASSOCIATION WITH SOCIODEMOGRAPHIC VARIABLES****TABLE 10**

In our study prevalence of Substance use among adolescents in urban slums of was found to be 11.8%.

Prevalence of 57.4% was seen in a study conducted in Delhi, among street children of 6-16 years.<sup>30</sup> Another study conducted among urban male adolescents in Aligarh<sup>31</sup> Uttar- Pradesh showed 13.3% prevalence of substance use which is similar to our study

A study conducted in Surat, Gujarat showed prevalence of 45% among street children's with increased prevalence (50.9%) among males than females (30.7%).<sup>24</sup> A study done in Mumbai, among street children showed prevalence of substance use to be 44.23%<sup>39</sup>. Another study conducted in Karimnagar, Andhra Pradesh showed prevalence of 32.7% among adolescent boys.<sup>38</sup> On contrary in our study prevalence of substance use was 11.8%, the difference in the prevalence may be due to different study areas and different age group which included 5-19 years.

**TABLE 11**

In the present study, use of smokeless form of tobacco was highest (78.87%), followed by smoke form of tobacco (15.49%) and least (2.82%) use was seen with alcohol and ganja

A study conducted among higher secondary school students in Imphal, Manipur, showed prevalence of tobacco use to be highest (46%), and followed by Alcohol (29%) respectively<sup>37</sup>.

A study conducted in Doiwala Block, Dehradun district Uttarkand in school going male adolescents showed that smokeless form of tobacco use (Supari/gutkha/pan) was highest (56.2%), followed by smoke form of tobacco (beedi/cigarette) 33.1% and 8.7% were taking alcohol.<sup>26</sup> A study conducted in Delhi among street children showed 44.5% prevalence for smokeless form of tobacco, followed by 24.3% for smoke form (inhalants) of tobacco and 21.8% for alcohol.<sup>30</sup> Similarly a study conducted among male adolescents in Aligarh, Uttar Pradesh showed that 96.1% were taking various form of tobacco (71.1% smokeless and 25% smoke) and 3.8% were using alcohol.<sup>31</sup> which is similar to our study.

A clinical Based observational study conducted in Chandigarh<sup>34</sup>, North India showed most commonly used primary class of substance was opioids (76.2%) and the commonest used opioid was Heroin (36.5%), smoking/chewing tobacco was 6% and least addiction was seen with Alcohol (2.4%) which is in contrast to our study findings.

#### **TABLE 12**

In our study, 71.85% of adolescents started substance use for fun, 22.53% was because of friends, 4.22% was because of peer pressure and 1.4 % started it as a habit.

In a study conducted in Impal, Manipur it was observed that enjoyment (41%) was the most common reason for first substance use.<sup>37</sup> A study from Aligarh, Uttar Pradesh showed that 47.2% started using substance for fun followed by 40.3% as company of their friends and 1.4% as a habit<sup>31</sup>. This finding is similar to the reason for initiation of substance use in our study.

A study conducted in Meerut among medical students showed that psychological stress and occasional celebration (72.4%) was the most common cause for initiation of substance use.<sup>42</sup> A study done among secondary school students in Mumbai, showed peer pressure (83.6%) as the main reason for initiation of substance<sup>29</sup>. A clinical based observational study conducted in Chandigarh, India showed curiosity (78.8%) as most common reason for initiation of substance use<sup>34</sup>. On contrary in our study most common cause for initiation was fun (8.5%), this difference could be due to different study setting and different social environment.

**TABLE 13**

In the present study it was observed that, 73.25% of adolescents using substance had knowledge about adverse effects of substance use whereas 19.45% said it has no adverse effects and 7.3% did not know regarding the adverse effects

A study among school children from Jaipur showed that 99.8% males and 99.5% females had knowledge about adverse effects of substance use<sup>25</sup>. These findings are in contrast to our findings because school children are more exposed to sources like TV, textbooks, etc when compared to children residing in the slums.

**TABLE 14**

In our study it was observed that 46.5% of adolescents started using substance because of easy availability followed by 42.3% who said they used it because it was easily available and cheap, 7% for other reasons (free availability from friends/family members) and 4.2% said they started using it as it was cheap

A study conducted in Aligarh, Uttar Pradesh showed that the reason for higher consumption of Gutkha was its low and effortless availability at roadside stands, tea stalls, etc<sup>31</sup>

**TABLE 15**

In the present study majority (50.7%) continued a particular substance for fun, 26.7% for pleasure and least 22.6% continued substance use because of addiction

A study conducted in DehraDun showed 26% of adolescents reported craving for substance which indicates addiction<sup>33</sup>. This study finding is different from our

study finding and the reason could be due to difference in substance use and age of participants.

**TABLE 16**

In our study highest prevalence of substance use (81.9%) was seen in fathers, followed by 7.7% and 6.7% in brothers and uncles, 1.5% with grandparents and 1.1% with mothers and other (friends and neighbors).

A comparative study conducted in urban and rural areas of West Bengal, showed significant relationship of substance use among the children since the proportion of users with family members using substances was 35% among urban students and 28.94% among the rural students.<sup>35</sup> Another study conducted in Imphal, Manipur<sup>37</sup> and Delhi<sup>30</sup> showed (68.2% and 86%) prevalence of substance use by their father. These findings are similar to that of our study findings.

A study conducted in Aligarh among male adolescents showed 68.1% were influenced by peers, followed by parents (22.2%) and teachers (6.9%)<sup>31</sup>.

A study conducted in Kerala, showed smoking parents ( $p=0.001$ , OR- 2.08, CI 1.49-2.91), use of tobacco products by parent ( $p=0.001$  OR- 2.49, 95% CI- 1.76-3.52), alcoholic parents ( $p=0.001$ , OR-5.82, 95% CI-1.76-3.52), close friend's habit of using tobacco ( $p=0.001$ , OR-5.86, 95% CI- 4.07-8.43), close friends habit of smoking ( $p=0.001$ , OR-8.6, 95% CI, 5.91-12.54). as significant risk factors for involvement in one or more risk behaviors by the study group<sup>43</sup>

A study conducted in urban slums of Sambalapur, UP showed that 46.7 % who used substances had parents who both use substances followed by 43.5% of adolescents who have mothers who exclusively used substances<sup>28</sup>.

**TABLE 17**

In our study smokeless form of tobacco was the commonly used substance (75%) among family members, followed by alcohol (11.4%), smokeless form of tobacco and alcohol 9.4%, smoke form of tobacco (4.1%) and least was smoke form of tobacco and alcohol (1%).

A study conducted among child labours in Surat, Gujarat it was observed that 64.7% of parents used smokeless form of tobacco followed by alcohol (18%).<sup>24</sup> which is similar to our study.

**TABLE 18**

It was observed in our study that, prevalence of substance use was highest (13.8%) in the age group of 10-13 years followed by 12.9% in 14-15 years age group and 10.1% in 16-19 years of age. This difference was not found to be statistically significant. Prevalence of substance use decreased as the age group increased. This may be because of the knowledge and the ability of thinking which increases as the age increases.

In a study conducted in urban slums of Sambalapur, proportion of substance abuse was found to increase significantly with age in both sexes, the highest being in the 16.19 year old group (55.2%)<sup>28</sup>. Another study conducted in KarimNagar AndraPradesh showed prevalence of 51.3% was seen which was significantly more in the age group of 18 – 19 years<sup>38</sup>, which is different from findings in our study because majority of participants were school children and very less of them were school dropout.

**TABLE 19**

In the present study females (17.9%) had highest prevalence of substance use than male (10.7%) and difference was found to be statistically significant. The reason could be most females who are using substance were found to be living in the house whose parents were using substance and also lack of education and knowledge was seen among these females.

**TABLE 20**

In our study it was observed that, prevalence of substance use was 12.7% in Hindus, followed by 10.4% in Muslims, 4.5% and 8.1% by Christians and other religions (Jains/Sikhs). This difference was not statistically significant.

A study done in Dehra Dun, Uttarkand revealed that the substance use was maximum among Hindus (32.0%), followed by Muslims (25.0%)<sup>26</sup>. In contrast to a study done in Aligarh Uttarpradesh showed highest prevalence (19.5%) among muslims than Hindus(10.9%).<sup>31</sup>

**TABLE 21 and 22**

In our study, highest prevalence of substance use (94.7%) was seen in adolescents who were illiterate, followed by 12.4% in adolescents who studied up to secondary, 12.1%, 8.6% and 7.6% in adolescents who studied up to primary, high school and PUC. Prevalence of substance use reduced as the education increased. This trend was found to be statistically significant. Lack of knowledge regarding substance use, its adverse effects and less awareness among illiterate makes them more vulnerable for substance use.

In the present study highest (81%) use of substance was seen in adolescents with school dropout. This difference was found to be statistically significant, ( $X^2$  with Yates correction 92.903 and  $p < 0.001$ ).

A study conducted in Mumbai<sup>36</sup>, showed similar findings to that of our study. (40.6%) adolescents using substance were illiterate (never enrolled to school) and (5.2%) were continuing education. As level of education improved, prevalence decreased. A study conducted in Sambalapur, Uttarpradesh<sup>28</sup> showed significant association of substance use with literacy status.

**TABLE 23**

In the present study it was noted that highest number of adolescents (64.3%) using substance were found to be working when compared to 9.3% who were not working. This difference was found to be statistically significant i.e ( $X^2$  with Yates correction 72.268 and  $p < 0.001$ ).

A study conducted in Sambalapur,<sup>28</sup> showed increased prevalence of substance use with working status of adolescents. This could be because working environment creates an atmosphere such as stressful environment, no proper sleep or food which can result in substance use.

**TABLE NO 24**

It was observed in the present study that adolescents from joint family had highest prevalence (13.5%) of substance use followed by 11.2% in three generation family and 10.9% in adolescents living with others (relative's house or hostel). This difference was not found to be statistically significant  $X^2 = 1.885$  and  $p = 0.597$ .

A study conducted in Dehradun<sup>26</sup> showed 48.8% of adolescents belonging to Nuclear family were using substance in comparison to 42.6% belonged to Joint family. Another study conducted in Aligarh<sup>31</sup> showed 14% prevalence of substance use in unitary family and 11.5% in joint family. This difference could be because of higher prevalence of joint family than nuclear family in South India and also in Joint family there is lack of attention for children which could also predispose for substance use.

**TABLE 25**

In our study it was observed that , highest prevalence of substance use 38.7%) was seen in class V SES followed by 22.7% in class IV, 9.8% in class I, 5.9% in class II and least prevalence of 5.1% in class III SES. With increase in SES the prevalence of substance use reduced. This difference was found to be statistically significant. Prevalence of substance use increased as the SES decreased, this trend was found to be statistically significant ( $X^2=59.1$ ,  $p<0.001$ )

A study conducted in Dehradun<sup>26</sup> showed that the prevalence of substance abuse among various socioeconomic classes was found to be maximum in the middle slab i.e. social classes II, III and IV. The overall difference in the prevalence rate of substance abuse among various socioeconomic classes was found to be statistically significant ( $p<0.01$ ).

**TABLE 26**

In the present study, prevalence of 7.21% was seen in adolescents with family history of substance use while 6.8% with no history of substance use. This difference was found to be statistically significant, ( $X^2 = 33.952$ ,  $p<0.001$ ). Prevalence of

substance use among adolescents was more with family history of substance use because adolescents try to experiment looking at the parents or others users in the family.

A comparison study done in Gangtok, Sikkim among rural and urban students showed prevalence of 35.2% vs 29% in adolescents who had family history of substance use with and of 13.3% vs 8.8% with no family history of substance use.<sup>41</sup>

## **CONCLUSION**

The present community based study, reported a higher prevalence of substance use among females compared to males.

Tobacco smokeless form and smoke and have been found to be the most commonly used.

It is also evident that substance use starts at a relatively at early age, before 13 years. It also concluded that easy availability of substances and low cost are not only associated factors but other demographic and family factors such as age, sex, educational status, working history, type of family and parental history of substance use were also associated.

Also, it was evident from our study that most of adolescents had knowledge regarding adverse effects of substance use.

## **LIMITATIONS**

The limitations of the study were:

- Only two urban slums were included in the study
- Factors such as source of money for substance, place of availability, desire to quit substance were not assessed.
- Prevalence of substance use might be low in our study as some of adolescents might have not given h/o substance use even though they were users.

## **RECOMMENDATIONS**

Based on the findings of our study, following recommendations are being suggested for decreasing the prevalence of substance use

- Establishment of awareness programs and Information, Education and Communication (IEC) activities on substance use in slum areas by Govt. agencies or NGO's.
- Effective implementation of laws on substance use - Price controls, minimum age limits for sale, limiting the hours and days of sale, regulations and policies on substance use - display of warning statements on health hazards on the packages, controls on advertisements of alcohol and tobacco in media.
- Educational programs for high risk adolescents in the community because peers have very high influence on adolescents substance use and adding substance use chapter in school syllabus to address problems and protecting adolescents from substance use.
- Parental programs that enhances development of parental skills in addressing the problem of substance use at family itself.
- Establishment of counseling and deaddiction centers in urban slums.

## **SUMMARY**

The present study was a community based cross sectional study undertaken to assess the prevalence of substance use and factors associated with substance use.

The study was conducted in urban slums areas of Rukimini Nagar and Ram Nagar which are field practice areas of department of Community Medicine Jawaharlal Nehru Medical College, Belagavi on 600 students during period from January 2015 to December 2015.

The prevalence of substance use among adolescents was 11.8%. Prevalence was highest (13.8%) in the age group of 10-13 years followed by 12.9% in 14-15 years age group and 10.1% in 16-19 years of age. Prevalence was more among females (17.9%) than males (10.7%).

Prevalence of substance use was 12.7% in Hindus, 10.4% in Muslims, 4.5% and 8.1% in Christians and other religions (Jains/Sikhs). Prevalence of (94.7%) was seen in adolescents who were illiterate, followed by 12.4% in adolescents studied up to secondary, 12.1%, 8.6% and 7.6% in adolescents studied up to primary, high school and PUC.

Prevalence of 81% was seen with adolescents with school dropout. Prevalence of substance use was more (64.3%) among working adolescents when compared to 9.3% in those not working. It was seen that 7.21% adolescents had family history of substance use while 6.8% had no family history of substance use.

Prevalence of substance use among adolescents was more in joint family (13.5%) than that of nuclear family (10.9%). Prevalence of substance use was highest

(38.7%) among Class V SES followed by prevalence of (22.7%) in class IV and least prevalence (5.1%) was seen in class I SES.

It was seen that, 71.85% of adolescents started substance use for fun, 22.53% was because of friends, 4.22% was because of peer pressure and 1.4% started it as a habit. Smokeless form of tobacco was highest (78.87%), followed by smoked form of tobacco (15.49%) and least (2.82%) use was seen with alcohol and ganja.

46.5% of adolescents started using substance because of easy availability followed by 42.3% who said they used it because it was easily available and cheap, 7.0% for other reasons (free availability from friends/family members) and 4.2% said they started using it as it was cheap. 73.25% of adolescents using substance had knowledge about adverse effects of substance use whereas 19.45% said it has no adverse effects and 7.3% did not know regarding the adverse effects.

It was seen that 50.7% continued a particular substance for fun, 26.7% for pleasure and least (22.6%) continued substance use because of addiction.

## **BIBLIOGRAPHY**

- 1) Ahmad Nadem, Bano Rubeena, Agarwal V.K, Kalakoti Piyush. Substance Abuse in India. Pravara Medical Review.2009; 1(4): pg 4-6.
- 2) Vinay Kumar, Dharmendar Kumar Nehra, Pradeep Kumar, Sunila, Ragiv Gupta. Prevalence and pattern of substance Abuse: A study from deaddiction center. Delhi Psychiatry Journal. 2013; 16 (1):p 110-114
- 3) WHO. Lexicon of Alcohol and drug terms. Geneva: World Health Organization; 1994.
- 4) Patel DR, Greydanus D E. Substance Abuse A Pediatric Concern. Indian Journal of Pediatrics. 1999; 66(55): p 7-67.
- 5) Resnik MD. Protecting Adolescents from Harm: Findings from longitudinal study on adolescents Health. Journal of American Association.1997;66(2):172-188.
- 6) Jason B Fields, Scott A. The Physicians Approach to Substance Use in Adolescents. Northwest Florida Medicine.2012; 63(1) :p 22-27
- 7) India (ages 13 - 15). Global youth Tobacco Survey (GYTS) Fact sheet 2009.
- 8) Raj Narain, Sarita Sardana, Sanjay Gupta and Ashok Sehgal. Age at initiation and prevalence of Tobacco Use among School Children in Nodia- A cross sectional questionnaire based study. Indian Journal of Medical Research.2011; 133:p300-307.
- 9) Saah T. The evolutionary origins and significance of Drug Addiction. Harm Reduction Journal.2005;2 :p 8-12.
- 10) Sayed Qadri, RKD Goel, Jagjeet Singh, Surendra Abluwalia. Prevalence and Pattern of Substance Abuse among school children in North India- A Rapid

- assessment study. International journal of Medical Science and Public Health, 2013;2(2):p 273-282.
- 11) Griswold KS, Aronoff H, Kernan JB. Adolescent Substance and Abuse: Recognition and Management. American Family Physician 2008;77(3):p 331-336
  - 12) Bansal RD, Mehra M. Adolescent Girls in Emergency priority. Indian Journal of Public Health .1998;22(1):p 1-2
  - 13) Adolescents. The critical Phase, the Challenges and Potential. WHO. New Delhi: 1997.
  - 14) Sunderlal, Adarsh, Pankaj. Text of Community Medicine. 3<sup>rd</sup> edition. New Delhi. CBS Publisher and Distributaries Pvt Ltd; 2011. Adolescent Health; p 154-160.
  - 15) Gupta P. Ghai O P. Text book of Preventive and Social Medicine 2<sup>nd</sup> edition. New Delhi. CBS Publisher and Distributaries Pvt Ltd ; 2007; p 147 -148.
  - 16) Adolescents in India – A profile .New Delhi India : UNFPA for UN System in India .Sept 2000.
  - 17) WHO Adolescents Health risk and solution fact sheet 2010.
  - 18) DSM 5  
<http://www.dsm5.org/documents/substance%20use%20disorder%20fact%20sheet.pdf>, accessed on 20/09/2015
  - 19) Anil Batta. Addiction in Adolescents- A current trend. International Journal of Current Biomedical and Pharmaceutical Research. 2011;1(3):p 130-133
  - 20) National Center on Addiction and Substance Abuse- Columbia University. Adolescent Substance Use: Americas #1 Public Health Problem. Accessed on January 2016.

- 21) Substance Use Disorder – Manual for Physicians AIIMS. New Delhi.  
[http://www.antoniocasella.eu/archila/Lal\\_Manual\\_2005.pdf](http://www.antoniocasella.eu/archila/Lal_Manual_2005.pdf), accessed on 30/06/2015
- 22) Revised Global Burden Of Diseases (GBD) estimates, WHO Geneva 2002.
- 23) Anna Kokkeri, Costas Stenfanis. Epidemiology of licit and illicit Substance Use among High school students in Greece. American Journal of Public Health. 1991;81(1):p 48-52
- 24) Rajkumar Bansal, Sanjay banarjee. Substance use by Child Labourers. Indian Journal Of Psychiatry. 1993;35(3):p 159-161
- 25) Virendra Singh, Rajeev Gupta. Prevalence of Tobacco Use and Awareness of Risks among School Children's in Jaipur. Journal of the Association of Physicians of India.2006; 54:p609-612.
- 26) Ruchi Juyal, Rahul Bansal, Surekha Kishore, K.S Negi. Socio-Demographic Characteristics of Substance Abusers among Intercollege Students in a district of Uttarakhand. Indian Journal of Public Health .2008; 10(3): p 116-119.
- 27) Madan Kumar PD, Poorni S, Ramchandran S. Tobacco use among school children in Chennai City, India. Indian Journal of Cancer. 2006; 43(3): p 127 – 131.
- 28) Lisa Sarangi, Himanshu P Acharya, Om Pangrahi. Substance Abuse Among Adolescents In certain slums of Sambalpur. Indian Journal of Community Medicine.2008;33(4):p 265-267.
- 29) K. Mukherjee, R.S. Hadge. Gupta Consumption and its Determinants among Secondary School Male Students. Indian Journal of Community Medicine.2006;31(3):p 177

- 30) Deepti Pagare, G.S meena, M.M.Singh, Renuks. Risk factors of substance use among street children from Delhi. *Indian Journal of Pediatrics*. 2004;41: p 221-225.
- 31) Anees Ahmad, Najam Khaligur, Zufliya Khan. Analysis of Substance Abuse in Male Adolescents. *Iran Journal of Pediatrics*.2009; 19(4):p399-403.
- 32) Peter Bezinovic, Dulija Malatestinic. Perceived Exposure to substance use and risk taking behavior in Early adolescents-Cross Sectional Study. *Croat Medical Journal*. 2009; 50:p157-164.
- 33) Vartika Saxena , Yogesh Saxena, Gaurav Kishore, Pratap Kumar. A Study on Substance Abuse among School Going Male Adolescents of Doiwala Block, District Dehradun.*Indian journal of Public Health* 2010;54(4):p 197-200
- 34) Baljeet Singh, Sandeep Grover, Anand Trapti, Surendra Kumar and Deebasish Basu. Drug Dependence in Adolescents 1978-2003:A clinical based observational from north India. *Indian Journal of Pediatrics*. 2007;74(5):p 455-458
- 35) Dechenla Tsering, Ranabir Pal, Aparajite Dasgupta. Licit and illicit substances use by adolescent students in Eastern India- prevalence and association risk factors. *Journal of Neuroscience in Rural Practice*.2010;1(2):p 76-81
- 36) Din Prakash Ranjan, Namita, R.M Chaturvesi. A study of prevalence of Drug Abuse in Aged 15 years and above in the urban slum of Mumbai . *Indian Journal of Preventive and Social Medicine*.2010;41(1):p 118-126
- 37) Samorjit Ningombam, Yvam Hutin, Manoj. Prevalence and pattern of substance use among the higher secondary school student of Imphal. Manipur, India. *National Medical Journal of India* 2011;24:p11-15

- 38) Prashanth R Kokiwar, Gopal rao Jogdand. Prevalence of Substance use among male adolescents in an Urban Slum Area of Karim Nagar District AP Iran Journal of Peadritics .2011;55(1):p 42-47
- 39) Poonam R Naik, Seema S.Ratnendra R.Abhay S . Street children of Mumbai: Demographic profile and substance abuse. Journal of Biomedicl Research 2011;22(4):p495-498
- 40) Padma Mohanan, Subhashia Swain, Noore Sanah. A study on prevalence of Alcohol Consumption, Tobacco Use and Sexual Behaviour among Adolescents in Urban Areas of Udupi Dist. Karnataka. Sultan Qaboos University Med J, February 2014;14(1):p 104-112.
- 41) Ankur Barua, Shuva Dasgupta, Bani Mitra. Alcoholism among adolescent student of Tadong in East Sikkim. Journal of Asian scientific Research 2013; 3(11):p1105-1108.
- 42) A. Arora, S. Kannan, S. Gowri, S. Choudhary, S. Sudarasanan & P.P. Khosla. Substance abuse amongst the medical graduate students in a developing country .Indian jouran of medical Research 2016;143:p101-103
- 43) Geethadevi M, Elsheba Mathew, Manjula V. D, Sobha A, Anita Bhaskar, Bindu Vasudevan, Ajith R. Prevalence and determinants of tobacco, alcohol and drug use among adolescent high school students in an urban area of Kottayam district, Kerala. Journal of Evolution of Medical and Dental Sciences 2014; 36(3): p 9456-9464.
- 44) Beauty Mahanta, P. K. Mohapatra, N. Phukan, J. Mahanta. Alcohol use among school going adolescent boys and girls in an industrial town of Assam, India. Indian Journal of Psychiatry.2016; 58:p157-163.

- 45) Kushwaha KP, Singh YD, Rathi AK, Singh KP, Rastogi CK. Prevalence and abuse of psychoactive substances in children and adolescents. Indian Journal of Pediatrics.1992 ; 59(2):p 261-268
- 46) Dudala SR, Reddy KAK, Prabhu GR. Prasad's socio-economic status classification- An update for 2014. International Journal Res. Health Science 2014 31;2(3): p 875-8

**ANNEXURE III – PROFORMA**

**K.L.E. UNIVERSITY’S**

**J.N.MEDICAL COLLEGE, BELAGAVI**

**DEPARTMENT OF COMMUNITY MEDICINE**

**RESEARCH QUESTIONNAIRE**

**“PREVALENCE OF SUBSTANCE USE AMONG ADOLESCENTS RESIDING  
IN URBAN SLUMS - A CROSS SECTIONAL STUDY”**

**PART - I SOCIO DEMOGRAPHIC DATA**

**SOCIO DEMOGRAPHIC DATA**

1] Name: -----

2] Age:            I] 10- 13(Early adolescent)

                      II] 14-15(Mid adolescent)

                      III] 16-19(late adolescent)

3] Sex:            I] male

                      II] Female

4] Education:

                      I] Illiterate

                      II] Literate

                      III] Primary

                      IV] Secondary

                      V] High school

5] Religion: I] Hindu

II] Christian

III] Muslim

IV] Others (Jains, SC/ST)

6] School Drop Out: I] Yes II] No

7] Working: I] Yes II] No

If yes, then age of onset of work I] 10-13yrs II] 14-15yrs III] 16-19 yrs

8] Type of Family: I] Joint II] 3<sup>rd</sup> generation III] Nuclear IV] others (Specify)

9] Family Income: \_\_\_\_\_

According to Modified B. G Prasad

I] \_\_\_\_\_ II] \_\_\_\_\_ III] \_\_\_\_\_ IV] \_\_\_\_\_ V] \_\_\_\_\_

10] No of Family members:

11] Family History of substance use: I] yes II] No

If yes, then I] Father V] Others

II] Mother

III] Brother

IV] Uncle

V] Grandparents

12] Most common substance use among family members

I] Tobacco (Smokeless)

II] Alcohol

III] Tobacco (Smoke)

IV] Ganja

V] Charas

VI] Brown Sugar

VII] Opium

VIII] Others

13] Duration of use of substance in family:

I] < 1 year

II] 1-2 years

III] 3-6 years

IV] 6-12 years

V] >12 years

14] History of substance use            I) Yes            II) No

15] Age of initiation of substance:    I] 10-13 years

II] 14-15 years

III] 16-19 years

16] Most common substance use

I] Tobacco (Smokeless)

II] Alcohol

III] Tobacco (Smoke)

IV] Ganja

V] Charas

VI] Brown Sugar

VII] Opium

VIII] Others

17] Reasons for initiation: I] for Fun II] Habit III] Family History IV] Peer pressure V] Friends VII] Life Event VIII] Tooth ache IX] to relive stress X] Others

18] Are u aware of the adverse effects of substance use?

I] Yes

II] No

III] don't know

19] Reason for starting a particular drug (substance)

I] easily Available

II] Very cheap

III] others

19] Reason for continuation of substance use: I] Addiction II] Pleasure III] Fun IV] Others

20] How often do you use substance:

I] Occasional

II] Regular

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	16	1	5	1	2	2	0	1	3	5	2	0	0	0	2	0	0	0	0	0	0	0
2	16	1	5	1	2	2	0	1	1	6	2	0	0	0	2	0	0	0	0	0	0	0
3	12	1	4	1	2	2	0	1	1	5	2	0	0	0	2	0	0	0	0	0	0	0
4	15	1	5	1	2	2	0	2	1	4	1	1	1	3	2	0	0	0	0	0	0	0
5	17	1	6	1	2	2	0	1	4	7	1	1	1	3	1	15	1	1	1	4	2	2
6	11	1	4	2	2	2	0	1	1	4	2	0	0	0	2	0	0	0	0	0	0	0
7	12	1	4	1	2	2	0	2	1	3	2	0	0	0	2	0	0	0	0	0	0	0
8	14	1	5	2	2	2	0	1	2	9	2	0	0	0	2	0	0	0	0	0	0	0
9	11	1	4	1	2	2	0	1	4	5	2	0	0	0	1	11	1	1	1	1	3	2
10	10	1	3	1	2	2	0	3	3	3	2	0	0	0	2	0	0	0	0	0	0	0
11	17	2	6	1	2	1	15	1	4	6	2	0	0	0	1	13	1	1	1	1	3	2
12	17	1	5	1	2	2	0	1	5	5	2	0	0	0	2	0	0	0	0	0	0	0
13	12	2	4	1	2	2	0	3	5	4	1	1	2	3	2	0	0	0	0	0	0	0
14	13	1	4	1	2	2	0	1	3	5	1	4	3	2	2	0	0	0	0	0	0	0
15	12	1	4	1	2	2	0	1	5	7	1	1	1	2	2	0	0	0	0	0	0	0
16	15	1	4	1	2	2	0	2	2	4	2	0	0	0	2	0	0	0	0	0	0	0
17	17	1	5	1	2	2	0	2	3	3	2	0	0	0	2	0	0	0	0	0	0	0
18	12	1	4	1	2	2	0	1	3	6	1	5	3	4	1	11	1	1	2	1	2	2
19	14	1	5	3	2	2	0	3	1	4	1	1	1	3	2	0	0	0	0	0	0	0
20	11	1	4	3	2	2	0	1	2	10	2	0	0	0	2	0	0	0	0	0	0	0
21	10	1	2	1	2	2	0	1	3	6	2	0	0	0	2	0	0	0	0	0	0	0
22	14	1	5	1	2	2	0	3	4	4	2	0	0	0	2	0	0	0	0	0	0	0
23	17	1	6	1	2	2	0	1	5	5	2	0	0	0	2	0	0	0	0	0	0	0
24	11	2	3	1	2	2	0	1	2	4	2	0	0	0	2	0	0	0	0	0	0	0
25	14	1	3	3	2	2	0	1	2	7	1	1	9	2	1	13	1	1	1	1	2	2
26	12	1	5	1	2	2	0	3	4	3	1	1	1	2	2	0	0	0	0	0	0	0
27	16	1	3	1	2	2	0	1	4	6	1	1	2	3	2	0	0	0	0	0	0	0
28	16	1	5	3	2	2	0	3	1	4	1	1	1	2	2	0	0	0	0	0	0	0
29	12	1	4	1	2	2	0	2	2	3	2	0	0	0	2	0	0	0	0	0	0	0
30	12	1	4	1	2	2	0	1	1	6	1	1	1	2	2	0	0	0	0	0	0	0
31	13	1	4	1	2	2	0	1	3	9	1	4	1	3	2	0	0	0	0	0	0	0
32	12	2	4	1	2	2	0	1	3	4	2	0	0	0	2	0	0	0	0	0	0	0
33	10	1	4	1	2	2	0	2	1	4	1	1	1	2	2	0	0	0	0	0	0	0
34	11	1	4	1	2	2	0	1	4	6	1	1	1	1	2	0	0	0	0	0	0	0
35	15	1	5	1	2	2	0	1	5	5	2	0	0	0	2	0	0	0	0	0	0	0
36	14	1	1	1	1	1	12	3	3	4	2	0	0	0	1	12	1	5	1	4	1	1
37	14	1	5	1	2	2	0	3	5	5	1	1	2	3	2	0	0	0	0	0	0	0
38	16	1	6	1	2	2	0	3	1	3	2	0	0	0	2	0	0	0	0	0	0	0
39	17	1	6	2	2	2	0	2	2	2	1	1	1	5	2	0	0	0	0	0	0	0
40	16	1	6	1	2	2	0	2	1	3	1	5	1	3	2	0	0	0	0	0	0	0
41	12	1	5	2	2	2	0	1	1	7	2	0	0	0	2	0	0	0	0	0	0	0
42	11	1	4	3	2	2	0	1	2	6	1	1	1	2	2	0	0	0	0	0	0	0
43	11	1	4	1	2	2	0	2	2	4	1	1	9	2	2	0	0	0	0	0	0	0
44	10	1	3	1	2	2	0	2	5	3	2	0	0	0	2	0	0	0	0	0	0	0
45	12	2	4	1	2	2	0	2	4	3	2	0	0	0	2	0	0	0	0	0	0	0
46	14	1	5	1	2	1	12	1	4	5	2	0	0	0	2	0	0	0	0	0	0	0
47	15	1	5	1	2	2	0	1	5	4	2	0	0	0	1	14	3	1	1	1	3	2
48	11	2	1	1	1	1	11	1	4	7	1	4	1	3	1	11	1	1	1	2	3	2
49	18	1	6	1	2	1	0	3	2	4	1	1	9	3	2	0	0	0	0	0	0	0
50	18	2	6	1	2	2	0	1	1	6	1	1	1	5	1	14	1	1	1	1	3	1
51	18	1	1	1	2	2	0	3	3	3	1	1	2	4	1	13	1	1	1	1	3	2
52	18	1	6	1	2	2	0	3	2	6	2	0	0	0	2	0	0	0	0	0	0	0
53	12	1	4	1	2	2	0	2	2	4	1	3	1	2	2	0	0	0	0	0	0	0
54	13	1	5	1	2	2	0	3	1	4	1	1	9	2	2	0	0	0	0	0	0	0
55	13	1	5	1	2	2	0	1	2	6	2	0	0	0	2	0	0	0	0	0	0	0
56	14	1	5	1	2	2	0	3	1	5	1	1	2	2	1	13	1	1	1	1	1	2
57	10	2	3	1	2	2	0	1	1	5	1	1	1	2	2	0	0	0	0	0	0	0
58	15	1	6	1	2	2	0	1	1	7	1	4	1	3	2	0	0	0	0	0	0	0
59	12	2	4	1	2	2	0	3	2	3	2	0	0	0	2	0	0	0	0	0	0	0
60	11	1	4	3	2	2	0	2	2	5	1	1	1	2	2	0	0	0	0	0	0	0
61	10	1	3	1	2	2	0	1	2	5	1	1	1	1	2	0	0	0	0	0	0	0
62	12	1	4	3	2	2	0	3	2	2	1	1	2	2	1	12	1	1	3	4	2	2
63	11	1	4	1	2	1	11	3	4	4	1	1	9	2	1	10	1	5	1	4	3	2

64	13	1	4	1	2	2	0	1	2	6	2	0	0	0	2	0	0	0	0	0	0	0
65	12	1	4	1	2	1	12	3	5	4	1	1	1	3	2	0	0	0	0	0	0	0
66	13	1	4	1	2	1	11	1	4	6	1	5	1	2	2	0	0	0	0	0	0	0
67	12	1	1	1	1	2	0	1	2	9	1	3	1	3	1	10	3	1	1	1	3	1
68	16	1	6	1	2	2	0	3	2	6	2	0	0	0	2	0	0	0	0	0	0	0
69	14	1	5	1	2	2	0	1	2	5	1	1	2	2	2	0	0	0	0	0	0	0
70	16	2	1	1	1	2	0	1	2	7	1	1	1	3	1	14	2	1	1	3	3	2
71	14	1	5	1	2	2	0	3	3	4	1	1	1	3	2	0	0	0	0	0	0	0
72	12	1	4	1	2	2	0	3	5	3	1	1	9	2	1	10	1	1	1	4	3	2
73	15	2	1	1	1	1	11	3	4	6	2	0	0	0	1	13	1	1	1	1	2	2
74	11	1	4	1	2	2	0	1	3	5	2	0	0	0	2	0	0	0	0	0	0	0
75	12	2	4	1	2	2	0	1	3	7	2	0	0	0	2	0	0	0	0	0	0	0
76	13	1	4	1	2	2	0	1	1	6	1	3	1	3	2	0	0	0	0	0	0	0
77	17	1	6	1	2	2	0	2	1	4	2	0	0	0	2	0	0	0	0	0	0	0
78	16	1	6	1	2	2	0	1	3	4	2	0	0	0	2	0	0	0	0	0	0	0
79	18	1	6	1	2	2	0	1	3	7	2	0	0	0	2	0	0	0	0	0	0	0
80	19	1	6	1	2	2	0	1	2	5	0	0	0	0	2	0	0	0	0	0	0	0
81	12	1	4	1	2	2	0	2	1	3	2	0	0	0	2	0	0	0	0	0	0	0
82	13	1	4	1	2	2	0	1	2	4	1	4	2	4	2	0	0	0	0	0	0	0
83	14	2	4	1	2	2	0	1	3	9	1	1	1	3	2	0	0	0	0	0	0	0
84	12	1	4	1	2	2	0	1	3	6	1	1	1	3	2	0	0	0	0	0	0	0
85	14	1	5	1	2	2	0	1	1	5	1	1	1	3	1	12	1	5	1	1	3	2
86	13	1	5	1	2	2	0	2	2	5	2	0	0	0	2	0	0	0	0	0	0	0
87	14	1	4	1	2	2	0	2	3	4	2	0	0	0	2	0	0	0	0	0	0	0
88	15	2	4	1	2	2	0	1	5	4	1	1	9	5	1	15	4	5	1	3	3	2
89	12	1	4	3	2	2	0	1	2	6	2	0	0	0	2	0	0	0	0	0	0	0
90	13	1	4	1	2	2	0	1	3	5	2	0	0	0	2	0	0	0	0	0	0	0
91	13	1	4	1	2	2	0	1	3	5	2	0	0	0	2	0	0	0	0	0	0	0
92	13	1	4	1	2	2	0	1	3	6	1	4	1	3	2	0	0	0	0	0	0	0
93	19	1	6	1	2	2	0	2	3	6	1	1	1	4	2	0	0	0	0	0	0	0
94	12	2	4	3	2	2	0	1	2	8	1	1	1	3	2	0	0	0	0	0	0	0
95	11	1	4	1	2	2	0	1	4	6	2	0	0	0	2	0	0	0	0	0	0	0
96	14	1	5	1	2	2	0	1	3	9	1	1	9	3	2	0	0	0	0	0	0	0
97	17	1	6	3	2	2	0	3	3	5	2	0	0	0	2	0	0	0	0	0	0	0
98	12	1	4	1	2	2	0	1	3	5	2	0	0	0	2	0	0	0	0	0	0	0
99	17	1	6	3	2	2	0	3	2	5	1	1	1	4	2	0	0	0	0	0	0	0
100	14	1	5	3	2	2	0	1	3	6	2	0	0	0	2	0	0	0	0	0	0	0
101	16	1	5	1	2	2	0	2	2	4	2	0	0	0	2	0	0	0	0	0	0	0
102	15	1	5	1	2	2	0	1	2	5	1	3	1	3	2	0	0	0	0	0	0	0
103	15	1	5	1	2	2	0	1	3	3	2	0	0	0	2	0	0	0	0	0	0	0
104	14	1	5	1	2	2	0	1	1	7	1	1	1	4	2	0	0	0	0	0	0	0
105	15	1	4	1	2	2	0	1	3	7	1	1	1	3	2	0	0	0	0	0	0	0
106	13	1	4	1	2	2	0	2	2	3	1	2	1	3	1	12	1	1	2	2	2	1
107	13	1	4	3	2	2	0	1	3	5	1	1	9	3	2	0	0	0	0	0	0	0
108	15	2	5	1	2	1	14	2	4	6	1	1	1	3	1	13	1	1	1	1	2	2
109	14	1	4	3	2	2	0	1	2	5	2	0	0	0	2	0	0	0	0	0	0	0
110	12	1	4	3	2	2	0	1	5	6	2	0	0	0	1	12	3	1	3	1	2	2
111	17	1	6	1	2	2	0	2	2	3	1	3	3	5	2	0	0	0	0	0	0	0
112	17	1	6	1	2	2	0	1	1	6	2	0	0	0	2	0	0	0	0	0	0	0
113	17	1	6	1	2	2	0	2	2	3	2	0	0	0	2	0	0	0	0	0	0	0
114	12	1	4	1	2	2	0	1	4	5	2	0	0	0	2	0	0	0	0	0	0	0
115	14	2	4	1	2	2	0	2	4	5	1	1	1	3	2	0	0	0	0	0	0	0
116	13	1	5	2	2	2	0	2	4	4	2	0	0	0	2	0	0	0	0	0	0	0
117	15	1	5	1	2	2	0	1	3	4	2	0	0	0	2	0	0	0	0	0	0	0
118	12	2	4	1	2	2	0	2	2	3	2	0	0	0	2	0	0	0	0	0	0	0
119	12	1	4	1	2	2	0	2	3	4	2	0	0	0	2	0	0	0	0	0	0	0
120	13	1	4	1	2	2	0	1	5	5	1	1	1	0	1	12	1	1	2	1	2	2
121	12	1	5	3	2	2	0	2	5	4	2	0	0	0	2	0	0	0	0	0	0	0
122	14	2	5	1	2	2	0	1	2	6	1	1	1	3	2	0	0	0	0	0	0	0
123	15	1	5	1	2	2	0	3	5	5	2	0	0	0	2	0	0	0	0	0	0	0
124	15	2	1	1	1	1	14	1	5	5	2	0	0	0	1	13	1	1	1	1	1	1
125	12	1	4	1	2	2	0	1	2	4	2	0	0	0	2	0	0	0	0	0	0	0
126	12	1	5	3	2	2	0	1	1	5	1	1	1	3	1	11	1	1	1	1	1	2
127	13	1	5	1	2	2	0	3	2	4	2	0	0	0	2	0	0	0	0	0	0	0

128	15	2	6	1	2	2	0	3	5	6	2	0	0	0	2	0	0	0	0	0	0	0
129	12	1	5	3	2	2	0	1	2	6	1	3	1	2	2	0	0	0	0	0	0	0
130	15	1	5	1	2	2	0	4	4	1	2	0	0	0	2	0	0	0	0	0	0	0
131	15	2	5	1	2	2	0	1	2	6	2	0	0	0	2	0	0	0	0	0	0	0
132	14	1	5	3	2	2	0	4	4	1	1	1	1	5	2	0	0	0	0	0	0	0
133	12	1	4	1	2	2	0	2	2	4	1	1	1	3	2	0	0	0	0	0	0	0
134	16	1	5	1	2	2	0	1	3	7	1	1	1	2	2	0	0	0	0	0	0	0
135	16	1	5	1	2	1	13	1	4	6	1	4	9	4	1	13	3	5	1	4	3	2
136	12	2	3	1	2	2	0	1	1	4	1	1	1	3	2	0	0	0	0	0	0	0
137	12	1	1	1	1	2	0	2	2	2	2	0	0	0	1	11	2	1	1	3	3	2
138	19	2	6	3	2	2	0	2	2	3	1	4	1	3	2	0	0	0	0	0	0	0
139	17	2	6	3	2	2	0	1	1	6	2	0	0	0	2	0	0	0	0	0	0	0
140	19	1	6	1	2	2	0	3	5	5	2	0	0	0	2	0	0	0	0	0	0	0
141	16	2	6	1	2	2	0	1	5	5	2	0	0	0	1	13	1	1	2	4	3	2
142	18	1	6	1	2	2	0	2	3	4	2	0	0	0	2	0	0	0	0	0	0	0
143	11	1	1	1	2	2	0	1	4	6	1	1	1	2	1	11	1	1	1	4	3	1
144	15	1	5	1	2	2	0	3	3	6	2	0	0	0	2	0	0	0	0	0	0	0
145	12	1	5	3	2	2	0	1	2	7	1	1	1	1	2	0	0	0	0	0	0	0
146	17	1	5	1	2	2	0	2	3	4	2	0	0	0	2	0	0	0	0	0	0	0
147	14	1	5	1	2	2	0	1	4	5	1	1	1	2	2	0	0	0	0	0	0	0
148	18	2	6	1	2	2	0	1	3	4	2	0	0	0	2	0	0	0	0	0	0	0
149	14	1	5	1	2	2	0	3	3	6	1	1	1	1	2	0	0	0	0	0	0	0
150	18	1	6	3	2	2	0	1	2	6	1	1	1	3	2	0	0	0	0	0	0	0
151	10	2	3	1	2	2	0	3	3	6	2	0	0	0	2	0	0	0	0	0	0	0
152	16	1	6	1	2	2	0	3	3	7	1	1	1	1	2	0	0	0	0	0	0	0
153	14	1	6	4	2	2	0	1	2	7	1	1	1	1	2	0	0	0	0	0	0	0
154	11	1	4	1	2	2	0	1	3	4	1	1	1	1	2	0	0	0	0	0	0	0
155	17	2	6	4	2	2	0	1	3	7	1	1	10	4	2	0	0	0	0	0	0	0
156	14	1	5	1	2	2	0	1	2	4	2	0	0	0	2	0	0	0	0	0	0	0
157	15	1	5	1	2	2	0	3	3	4	1	3	2	1	2	0	0	0	0	0	0	0
158	16	1	5	1	2	2	0	1	3	5	2	0	0	0	2	0	0	0	0	0	0	0
159	16	1	5	1	2	2	0	3	1	2	1	1	1	3	1	13	1	1	1	4	3	2
160	12	1	4	3	2	2	0	1	3	5	2	0	0	0	2	0	0	0	0	0	0	0
161	15	2	4	1	2	2	0	3	3	6	2	0	0	0	2	0	0	0	0	0	0	0
162	16	1	6	1	2	2	0	1	3	5	2	0	0	0	2	0	0	0	0	0	0	0
163	17	1	6	1	2	2	0	1	3	4	2	0	0	0	2	0	0	0	0	0	0	0
164	18	2	6	4	2	2	0	2	2	4	2	0	0	0	2	0	0	0	0	0	0	0
165	14	2	6	4	2	2	0	3	1	5	2	0	0	0	2	0	0	0	0	0	0	0
166	18	1	6	1	2	2	0	1	3	6	2	0	0	0	2	0	0	0	0	0	0	0
167	13	1	5	1	2	2	0	1	3	6	1	1	1	3	2	0	0	0	0	0	0	0
168	18	1	3	1	1	1	16	3	4	2	1	1	1	5	2	0	0	0	0	0	0	0
169	17	1	6	1	2	2	0	1	3	5	1	2	1	3	2	0	0	0	0	0	0	0
170	17	2	6	4	2	2	0	3	3	5	2	0	0	0	2	0	0	0	0	0	0	0
171	16	1	5	1	2	2	0	1	3	4	2	0	0	0	2	0	0	0	0	0	0	0
172	16	2	6	1	2	2	0	3	2	3	1	1	1	1	2	0	0	0	0	0	0	0
173	19	2	6	1	2	2	0	3	2	5	2	0	0	0	2	0	0	0	0	0	0	0
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238	16	2	6	3	2	2	0	4	1	5	2	0	0	0	2	0	0	0	0	0	0	0
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316	13	1	5	4	2	2	0	1	1	7	2	0	0	0	2	0	0	0	0	0	0
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532	19	1	5	1	2	2	0	2	3	5	2	0	0	0	2	0	0	0	0	0	0	
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574	15	1	5	1	2	2	0	2	4	4	2	0	0	0	2	0	0	0	0	0	0	
575	17	1	6	1	2	2	0	2	3	5	2	0	0	0	2	0	0	0	0	0	0	

576	18	2	5	4	2	2	0	1	3	7	2	0	0	0	2	0	0	0	0	0	0	0
577	17	1	6	1	2	2	0	1	2	6	2	0	0	0	2	0	0	0	0	0	0	0
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582	14	2	4	1	2	2	0	3	1	4	2	0	0	0	2	0	0	0	0	0	0	0
583	19	1	6	1	2	2	0	2	1	4	2	0	0	0	2	0	0	0	0	0	0	0
584	10	1	3	4	2	2	0	2	1	3	1	3	9	1	2	0	0	0	0	0	0	0
585	12	1	4	1	2	2	0	1	4	6	2	0	0	0	2	0	0	0	0	0	0	0
586	14	1	5	1	2	2	0	2	5	5	2	0	0	0	1	12	1	1	2	4	3	1
587	16	1	5	3	2	2	0	3	1	4	2	0	0	0	2	0	0	0	0	0	0	0
588	17	1	5	1	2	2	0	3	4	7	2	0	0	0	2	0	0	0	0	0	0	0
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591	18	1	5	1	2	2	0	3	3	4	1	1	1	3	2	0	0	0	0	0	0	0
592	19	1	5	1	2	2	0	3	3	4	2	0	0	0	2	0	0	0	0	0	0	0
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594	17	1	6	1	2	2	0	3	3	5	2	0	0	0	2	0	0	0	0	0	0	0
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596	13	1	5	1	2	2	0	3	5	6	1	1	3	2	2	0	0	0	0	0	0	0
597	16	1	6	1	2	2	0	2	2	5	2	0	0	0	2	0	0	0	0	0	0	0
598	18	2	6	1	2	2	0	3	2	4	2	0	0	0	2	0	0	0	0	0	0	0
599	17	1	6	1	2	2	0	2	2	6	2	0	0	0	2	0	0	0	0	0	0	0
600	12	1	5	1	2	2	0	3	3	6	2	0	0	0	2	0	0	0	0	0	0	0

MASTER CHART

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
1	16	1	5	1	2	2	0	1	3	5	2	0	0	0	2	0	0	0	0	0	0	0
2	16	1	5	1	2	2	0	1	1	6	2	0	0	0	2	0	0	0	0	0	0	0
3	12	1	4	1	2	2	0	1	1	5	2	0	0	0	2	0	0	0	0	0	0	0
4	15	1	5	1	2	2	0	2	1	4	1	1	1	3	2	0	0	0	0	0	0	0
5	17	1	6	1	2	2	0	1	4	7	1	1	1	3	1	15	1	1	1	4	2	2
6	11	1	4	2	2	2	0	1	1	4	2	0	0	0	2	0	0	0	0	0	0	0
7	12	1	4	1	2	2	0	2	1	3	2	0	0	0	2	0	0	0	0	0	0	0
8	14	1	5	2	2	2	0	1	2	9	2	0	0	0	2	0	0	0	0	0	0	0
9	11	1	4	1	2	2	0	1	4	5	2	0	0	0	1	11	1	1	1	1	3	2
10	10	1	3	1	2	2	0	3	3	3	2	0	0	0	2	0	0	0	0	0	0	0
11	17	2	6	1	2	1	15	1	4	6	2	0	0	0	1	13	1	1	1	1	3	2
12	17	1	5	1	2	2	0	1	5	5	2	0	0	0	2	0	0	0	0	0	0	0
13	12	2	4	1	2	2	0	3	5	4	1	1	2	3	2	0	0	0	0	0	0	0
14	13	1	4	1	2	2	0	1	3	5	1	4	3	2	2	0	0	0	0	0	0	0
15	12	1	4	1	2	2	0	1	5	7	1	1	1	2	2	0	0	0	0	0	0	0
16	15	1	4	1	2	2	0	2	2	4	2	0	0	0	2	0	0	0	0	0	0	0
17	17	1	5	1	2	2	0	2	3	3	2	0	0	0	2	0	0	0	0	0	0	0
18	12	1	4	1	2	2	0	1	3	6	1	5	3	4	1	11	1	1	2	1	2	2
19	14	1	5	3	2	2	0	3	1	4	1	1	1	3	2	0	0	0	0	0	0	0
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21	10	1	2	1	2	2	0	1	3	6	2	0	0	0	2	0	0	0	0	0	0	0
22	14	1	5	1	2	2	0	3	4	4	2	0	0	0	2	0	0	0	0	0	0	0
23	17	1	6	1	2	2	0	1	5	5	2	0	0	0	2	0	0	0	0	0	0	0
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25	14	1	3	3	2	2	0	1	2	7	1	1	9	2	1	13	1	1	1	1	2	2
26	12	1	5	1	2	2	0	3	4	3	1	1	1	2	2	0	0	0	0	0	0	0
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31	13	1	4	1	2	2	0	1	3	9	1	4	1	3	2	0	0	0	0	0	0	0
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37	14	1	5	1	2	2	0	3	5	5	1	1	2	3	2	0	0	0	0	0	0	0
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68	16	1	6	1	2	2	0	3	2	6	2	0	0	0	2	0	0	0	0	0	0	0
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272	10	1	4	3	2	2	0	1	3	5	2	0	0	0	2	0	0	0	0	0	0	0
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446	15	1	5	1	2	2	0	2	1	3	1	1	1	3	2	0	0	0	0	0	0	0
447	16	1	5	2	2	2	0	3	2	3	2	0	0	0	2	0	0	0	0	0	0	0
448	16	1	5	1	2	1	13	2	4	4	2	0	0	0	2	0	0	0	0	0	0	0
449	12	1	5	1	2	2	0	2	2	4	1	1	1	3	2	0	0	0	0	0	0	0
450	13	1	5	1	2	2	0	2	4	4	2	0	0	0	2	0	0	0	0	0	0	0
451	15	1	5	1	2	2	0	3	3	5	2	0	0	0	2	0	0	0	0	0	0	0
452	13	1	5	1	2	2	0	2	5	5	2	0	0	0	1	12	1	4	1	4	1	2
453	12	1	5	1	2	2	0	2	3	5	2	0	0	0	2	0	0	0	0	0	0	0
454	14	1	5	1	2	2	0	3	1	3	2	0	0	0	2	0	0	0	0	0	0	0
455	10	1	3	1	2	2	0	2	2	4	2	0	0	0	2	0	0	0	0	0	0	0
456	13	1	4	3	2	2	0	3	3	5	2	0	0	0	2	0	0	0	0	0	0	0
457	13	1	4	1	2	2	0	2	1	5	2	0	0	0	2	0	0	0	0	0	0	0
458	12	1	4	1	2	2	0	3	2	6	0	0	0	0	2	0	0	0	0	0	0	0
459	16	1	6	1	2	2	0	1	1	6	2	0	0	0	2	0	0	0	0	0	0	0
460	13	1	5	1	2	2	0	2	2	3	2	0	0	0	2	0	0	0	0	0	0	0
461	13	1	5	3	2	2	0	2	1	3	2	0	0	0	2	0	0	0	0	0	0	0
462	14	1	5	3	2	2	0	2	2	5	2	0	0	0	2	0	0	0	0	0	0	0
463	19	1	6	1	2	2	0	1	2	4	2	0	0	0	2	0	0	0	0	0	0	0
464	13	1	4	4	2	2	0	1	1	6	2	0	0	0	2	0	0	0	0	0	0	0
465	15	1	5	4	2	2	0	1	0	6	0	0	0	0	2	0	0	0	0	0	0	0
466	15	1	5	1	2	2	0	1	2	6	2	0	0	0	2	0	0	0	0	0	0	0
467	12	1	4	1	2	2	0	2	4	3	2	0	0	0	2	0	0	0	0	0	0	0
468	10	2	3	1	2	2	0	2	4	4	2	0	0	0	2	0	0	0	0	0	0	0
469	18	1	6	4	2	2	0	3	1	3	0	0	0	0	2	0	0	0	0	0	0	0
470	14	2	5	1	2	2	0	3	1	4	2	0	0	0	2	0	0	0	0	0	0	0
471	13	1	5	1	2	2	0	3	3	4	2	0	0	0	2	0	0	0	0	0	0	0
472	16	1	5	1	2	2	0	3	0	4	2	0	0	0	2	0	0	0	0	0	0	0
473	18	1	6	1	2	2	0	1	1	6	1	4	2	3	1	14	1	1	1	1	1	1
474	15	1	5	1	2	2	0	1	2	6	2	0	0	0	2	0	0	0	0	0	0	0
475	13	2	4	1	2	2	0	2	2	3	2	0	0	0	2	0	0	0	0	0	0	0
476	19	1	6	4	2	2	0	2	2	4	2	0	0	0	2	0	0	0	0	0	0	0
477	17	1	6	1	2	2	0	3	4	2	0	0	0	0	2	0	0	0	0	0	0	0
478	12	1	3	3	2	2	0	3	1	4	0	0	0	0	2	0	0	0	0	0	0	0
479	12	1	4	1	2	2	0	2	4	4	2	0	0	0	2	0	0	0	0	0	0	0
480	16	1	5	1	2	2	0	1	1	6	2	0	0	0	2	0	0	0	0	0	0	0
481	13	1	5	1	2	2	0	2	3	5	2	0	0	0	2	0	0	0	0	0	0	0
482	16	1	6	1	2	2	0	1	1	6	2	0	0	0	2	0	0	0	0	0	0	0
483	15	1	5	3	2	2	0	1	0	6	2	0	0	0	2	0	0	0	0	0	0	0
484	16	1	6	1	2	2	0	1	1	5	2	0	0	0	2	0	0	0	0	0	0	0
485	17	1	6	1	2	2	0	2	2	4	0	0	0	0	2	0	0	0	0	0	0	0
486	12	1	4	1	2	2	0	2	4	4	1	1	1	2	1	12	1	4	1	4	1	1
487	14	1	5	4	2	2	0	2	4	3	2	0	0	0	2	0	0	0	0	0	0	0
488	15	2	6	1	2	2	0	3	2	4	2	0	0	0	2	0	0	0	0	0	0	0
489	11	1	4	1	2	2	0	2	1	5	2	0	0	0	2	0	0	0	0	0	0	0
490	12	1	4	1	2	2	0	3	2	4	1	1	1	3	2	0	0	0	0	0	0	0
491	11	2	1	1	1	1	10	1	4	6	2	0	0	0	1	11	1	1	2	4	3	2

492	11	1	4	1	2	2	0	2	3	4	2	0	0	0	2	0	0	0	0	0	0
493	15	2	5	1	2	2	0	1	2	6	2	0	0	0	2	0	0	0	0	0	0
494	14	1	5	1	2	2	0	2	2	5	2	0	0	0	2	0	0	0	0	0	0
495	14	1	5	1	2	2	0	1	2	5	2	0	0	0	2	0	0	0	0	0	0
496	11	1	3	2	2	2	0	2	2	4	2	0	0	0	2	0	0	0	0	0	0
497	16	1	5	2	2	2	0	1	1	6	2	0	0	0	2	0	0	0	0	0	0
498	11	2	4	1	2	2	0	3	0	5	2	0	0	0	2	0	0	0	0	0	0
499	13	1	4	4	2	2	0	2	4	4	1	1	1	0	2	0	0	0	0	0	0
500	12	1	3	1	2	2	0	2	2	5	1	1	1	3	2	0	0	0	0	0	0
501	15	2	5	3	2	2	0	1	3	6	2	0	0	0	2	0	0	0	0	0	0
502	19	1	6	3	2	2	0	2	2	6	1	1	2	1	2	0	0	0	0	0	0
503	10	1	3	1	2	2	0	1	2	7	2	0	0	0	2	0	0	0	0	0	0
504	10	1	3	1	2	2	0	1	4	6	2	0	0	0	2	0	0	0	0	0	0
505	14	1	4	1	2	2	0	1	1	5	2	0	0	0	2	0	0	0	0	0	0
506	16	1	5	1	2	2	0	2	5	3	2	0	0	0	1	15	1	5	1	1	3
507	16	1	5	1	2	2	0	2	4	4	2	0	0	0	2	0	0	0	0	0	0
508	13	1	4	1	2	2	0	1	4	6	2	0	0	0	2	0	0	0	0	0	0
509	14	1	5	1	2	2	0	3	4	3	2	0	0	0	2	0	0	0	0	0	0
510	16	1	4	1	2	2	0	3	4	5	2	0	0	0	2	0	0	0	0	0	0
511	17	1	6	3	2	2	0	3	2	4	2	0	0	0	2	0	0	0	0	0	0
512	17	1	6	1	2	2	0	2	1	4	2	0	0	0	2	0	0	0	0	0	0
513	14	1	5	4	2	2	0	2	0	4	2	0	0	0	2	0	0	0	0	0	0
514	16	1	5	1	1	2	0	2	3	4	2	0	0	0	2	0	0	0	0	0	0
515	17	1	5	1	2	2	0	2	2	5	2	0	0	0	2	0	0	0	0	0	0
516	18	1	5	1	2	2	0	2	2	4	2	0	0	0	2	0	0	0	0	0	0
517	13	1	5	1	2	2	0	1	1	6	0	0	0	0	2	0	0	0	0	0	0
518	17	1	6	1	2	2	0	1	3	6	2	0	0	0	2	0	0	0	0	0	0
519	17	1	6	1	2	2	0	2	3	4	2	0	0	0	2	0	0	0	0	0	0
520	15	1	6	1	2	2	0	2	2	5	2	0	0	0	2	0	0	0	0	0	0
521	15	1	6	1	2	2	0	3	2	3	2	0	0	0	2	0	0	0	0	0	0
522	12	1	5	1	2	2	0	2	3	4	1	1	9	3	1	12	1	1	3	1	3
523	10	1	3	3	2	2	0	2	4	3	2	0	0	0	2	0	0	0	0	0	0
524	16	1	5	1	2	2	0	1	4	6	2	0	0	0	2	0	0	0	0	0	0
525	10	1	3	3	2	2	0	2	4	3	2	0	0	0	2	0	0	0	0	0	0
526	15	1	5	3	2	2	0	2	1	4	2	0	0	0	2	0	0	0	0	0	0
527	17	2	5	1	2	2	0	2	1	4	2	0	0	0	2	0	0	0	0	0	0
528	18	1	6	1	2	2	0	3	5	2	1	1	2	5	2	0	0	0	0	0	0
529	15	2	5	1	2	2	0	3	2	3	1	1	1	4	2	0	0	0	0	0	0
530	15	1	5	1	2	2	0	2	2	3	1	1	1	3	2	0	0	0	0	0	0
531	18	1	5	1	2	2	0	2	1	4	1	1	1	2	1	16	1	1	3	1	3
532	19	1	5	1	2	2	0	2	3	5	2	0	0	0	2	0	0	0	0	0	0
533	15	1	6	1	2	2	0	2	4	3	2	0	0	0	2	0	0	0	0	0	0
534	14	1	6	1	2	2	0	1	5	6	2	0	0	0	2	0	0	0	0	0	0
535	14	1	5	1	2	2	0	2	3	6	2	0	0	0	2	0	0	0	0	0	0
536	14	1	5	1	2	2	0	1	3	8	2	0	0	0	2	0	0	0	0	0	0
537	16	1	5	1	2	2	0	2	3	5	2	0	0	0	2	0	0	0	0	0	0
538	17	1	5	1	2	2	0	3	0	7	2	0	0	0	2	0	0	0	0	0	0
539	19	1	6	1	2	2	0	3	1	2	2	0	0	0	2	0	0	0	0	0	0
540	16	1	5	1	2	2	0	3	2	3	2	0	0	0	2	0	0	0	0	0	0
541	15	1	5	1	2	2	0	2	1	5	2	0	0	0	2	0	0	0	0	0	0
542	14	1	5	4	2	2	0	4	2	1	1	6	1	1	2	0	0	0	0	0	0
543	17	1	5	3	2	2	0	2	2	4	1	1	1	3	2	0	0	0	0	0	0
544	18	1	6	3	2	2	0	3	2	4	2	0	0	0	2	0	0	0	0	0	0
545	15	1	5	3	2	2	0	1	2	6	2	0	0	0	2	0	0	0	0	0	0
546	14	1	5	1	2	2	0	2	2	5	2	0	0	0	2	0	0	0	0	0	0

547	17	1	6	3	2	2	0	3	3	4	2	0	0	0	2	0	0	0	0	0	0
548	18	2	5	1	2	2	0	3	3	3	2	0	0	0	2	0	0	0	0	0	0
549	16	2	5	1	2	2	0	3	3	4	1	1	0	4	2	0	0	0	0	0	0
550	17	1	6	1	2	2	0	3	5	4	2	0	0	0	1	16	1	1	1	4	3
551	18	1	5	4	2	2	0	2	4	5	2	0	0	0	2	0	0	0	0	0	0
552	12	1	5	1	2	2	0	1	4	8	2	0	0	0	2	0	0	0	0	0	0
553	16	1	6	1	2	2	0	2	2	7	2	0	0	0	2	0	0	0	0	0	0
554	18	1	5	1	2	2	0	2	1	4	2	0	0	0	2	0	0	0	0	0	0
555	17	1	6	1	2	2	0	1	4	5	2	0	0	0	2	0	0	0	0	0	0
556	10	1	3	1	2	2	0	2	4	5	2	0	0	0	2	0	0	0	0	0	0
557	10	1	3	1	2	2	0	1	3	7	2	0	0	0	2	0	0	0	0	0	0
558	13	1	3	4	2	2	0	2	3	5	2	0	0	0	2	0	0	0	0	0	0
559	11	1	3	1	2	2	0	2	3	6	1	1	1	2	1	11	1	4	2	4	3
560	18	2	6	1	2	1	16	1	1	4	2	0	0	0	2	0	0	0	0	0	0
561	18	2	6	1	2	2	0	2	0	4	2	0	0	0	2	0	0	0	0	0	0
562	19	1	6	1	2	2	0	2	3	4	1	3	1	4	2	0	0	0	0	0	0
563	16	1	6	1	2	2	0	3	3	5	1	1	1	4	2	0	0	0	0	0	0
564	15	1	5	1	2	2	0	2	4	4	2	0	0	0	2	0	0	0	0	0	0
565	10	1	3	1	2	2	0	2	4	6	2	0	0	0	2	0	0	0	0	0	0
566	14	1	3	1	1	1	13	2	4	5	1	1	1	0	2	0	0	0	0	0	0
567	17	1	6	3	2	2	0	1	2	5	2	0	0	0	2	0	0	0	0	0	0
568	19	1	6	1	2	2	0	1	2	7	1	1	2	3	2	0	0	0	0	0	0
569	17	1	6	1	2	2	0	2	3	3	2	0	0	0	2	0	0	0	0	0	0
570	15	1	5	1	2	2	0	2	3	5	2	0	0	0	2	0	0	0	0	0	0
571	16	1	5	1	2	2	0	3	3	4	2	0	0	0	2	0	0	0	0	0	0
572	15	1	6	1	2	2	0	2	2	3	2	0	0	0	2	0	0	0	0	0	0
573	17	1	5	1	2	2	0	2	1	5	1	1	2	3	1	16	1	1	2	4	3
574	15	1	5	1	2	2	0	2	4	4	2	0	0	0	2	0	0	0	0	0	0
575	17	1	6	1	2	2	0	2	3	5	2	0	0	0	2	0	0	0	0	0	0
576	18	2	5	4	2	2	0	1	3	7	2	0	0	0	2	0	0	0	0	0	0
577	17	1	6	1	2	2	0	1	2	6	2	0	0	0	2	0	0	0	0	0	0
578	15	1	6	1	2	2	0	2	2	6	2	0	0	0	2	0	0	0	0	0	0
579	16	2	6	1	2	2	0	2	2	5	1	1	2	3	2	0	0	0	0	0	0
580	13	1	5	1	2	2	0	2	2	5	2	0	0	0	2	0	0	0	0	0	0
581	17	2	6	1	2	2	0	2	2	3	2	0	0	0	2	0	0	0	0	0	0
582	14	2	4	1	2	2	0	3	1	4	2	0	0	0	2	0	0	0	0	0	0
583	19	1	6	1	2	2	0	2	1	4	2	0	0	0	2	0	0	0	0	0	0
584	10	1	3	4	2	2	0	2	1	3	1	3	9	1	2	0	0	0	0	0	0
585	12	1	4	1	2	2	0	1	4	6	2	0	0	0	2	0	0	0	0	0	0
586	14	1	5	1	2	2	0	2	5	5	2	0	0	0	1	12	1	1	2	4	3
587	16	1	5	3	2	2	0	3	1	4	2	0	0	0	2	0	0	0	0	0	0
588	17	1	5	1	2	2	0	3	4	7	2	0	0	0	2	0	0	0	0	0	0
589	19	1	6	1	2	2	0	2	4	3	2	0	0	0	2	0	0	0	0	0	0
590	16	1	6	1	2	2	0	2	3	5	1	1	2	3	2	0	0	0	0	0	0
591	18	1	5	1	2	2	0	3	3	4	1	1	1	3	2	0	0	0	0	0	0
592	19	1	5	1	2	2	0	3	3	4	2	0	0	0	2	0	0	0	0	0	0
593	16	1	5	1	2	2	0	2	4	4	1	1	1	2	2	0	0	0	0	0	0
594	17	1	6	1	2	2	0	3	3	5	2	0	0	0	2	0	0	0	0	0	0
595	17	1	6	1	2	2	0	3	4	4	2	0	0	0	2	0	0	0	0	0	0
596	13	1	5	1	2	2	0	3	5	6	1	1	3	2	2	0	0	0	0	0	0
597	16	1	6	1	2	2	0	2	2	5	2	0	0	0	2	0	0	0	0	0	0
598	18	2	6	1	2	2	0	3	2	4	2	0	0	0	2	0	0	0	0	0	0
599	17	1	6	1	2	2	0	2	2	6	2	0	0	0	2	0	0	0	0	0	0
600	12	1	5	1	2	2	0	3	3	6	2	0	0	0	2	0	0	0	0	0	0

## **KEY TO MASTER CHART**

- A) Age
- 1) 10-13 years (Early Adolescent)
  - 2) 14-15 years (Mid Adolescent)
  - 3) 10-13 years (Late Adolescent)

B) Sex

- 1) Male
- 2) Female

C) Religion

- 1) Hindu
- 2) Christian
- 3) Muslim
- 4) Others(Jains/ Sikhs)

D) Education

- 1) Illiterate
- 2) Primary
- 3) Secondary
- 4) High School
- 5) PUC

E) School Drop out

- 1) Yes
- 2) No

F) Working

- 1) Yes
- 2) No

G) If yes to F , then age of onset of work

- 1) 10-13yrs
- 2) 14-15
- 3) 16-19 yrs

H) Type of Family:

- 1) Joint
- 2) 3<sup>rd</sup> generation
- 3) Nuclear
- 4) Others (Specify)

I) Socio Economic Status

- 1) Class I
- 2) Class II
- 3) Class III
- 4) Class IV
- 5) Class V

J) No of Family Members

K) Family History of Substance Use.

- 1) Yes
- 2) No

L) If yes to K, then

- 1) Father
- 2) Mother
- 3) Brother

4) Uncle

5) Grandparents

6) Others

M) Most common substance use among family members

1) Tobacco (Smokeless)

6) Brown Sugar

2) Alcohol

7) Opium

3) Tobacco (Smoke)

8) Others

4) Ganja

9) Tobacco and Alcohol

5) Charas

10) Tobacco (Smoke) and Alcohol

N) Duration of use of substance in family:

1) < 1 year

2) 1-2 years

3) 3-6 years

4) 6-12 years

5) >12 years

O) History of substance use 1) Yes 2) No

P) If O is Yes, then Age of initiation of substance: 1)10-13 years

2)14-15 years

3) 16-19 years

Q) Most common substance use

- 1) Tobacco (Smokeless)
- 2) Alcohol
- 3) Tobacco (Smoke)
- 4) Ganja
- 5) Charas
- 6) Brown Sugar
- 7) Opium
- 8) Others

R) Reasons for initiation:

- 1) for Fun
- 2) Habit
- 3) Family History
- 4) Peer pressure
- 5) Friends 6) Life Event
- 7) Tooth ache
- 8) To relive stress
- 9) Others

S) Are u aware of the adverse effects of substance use?

- 1) Yes
- 2) No
- 3) don't know

T) Reason for starting a particular drug (substance)

- 1) Easily Available
- 2) Very cheap
- 3) Others
- 4) Easily available and Cheap

U) Reason for continuation of substance use:

- 1) Addiction
- 2) Pleasure
- 3) Fun
- 4) Others

V) How often do you use substance:

- 1) Occasional
- 2) Regular

ANNEXURE – I – ETHICAL CLEARANCE LETTER



K.L.E.UNIVERSITY'S  
**JAWAHARLAL NEHRU MEDICAL COLLEGE,**  
NEHRU NAGAR, BELAGAVI-590010 (KARNATAKA-INDIA)  
(Accredited 'A' Grade by NAAC)

Website: <http://www.jnmc.edu>  
E-Mail : [dome@jnmc.edu](mailto:dome@jnmc.edu)

Phone: (+ 91-(0)831 Office : 2471350  
Principal: 2471701  
Fax No. +91 (0)831 – 2470759

Ref: MDC/DOME/182

Date: 13/11/2014

To,

BELAGAVI.

Sub: Institutional Ethical Clearance for the study.

With reference to the above, we wish to inform you that your proposed research project titled "PREVALENCE OF SUBSTANCE USE AMONG ADOLESCENTS RESIDING IN URBAN SLUMS", is ethical and justifiable. The proposed research project has been cleared by the JNMC Institutional Ethics Committee on Human Subjects Research.

**(Dr.Hema Dhumale)**  
Member Secretary  
JNMC Institutional Ethics Committee  
on Human Subjects Research,  
J.N.Medical College, Belagavi.

**(Dr.Ganga Pilli)**  
Chairman,  
JNMC Institutional Ethics Committee  
on Human Subjects Research,  
J.N.Medical College, Belagavi.

**ANNEXURE II**

**INFORMED CONSENT**

**TITLE OF THE STUDY: PREVALENCE OF SUBSTANCE USE AMONG  
ADOLESCENTS RESIDING IN URBAN SLUMS**

**PRINCIPAL INVESTIGATOR:** \_\_\_\_\_

**GUIDE :** \_\_\_\_\_

**INTRODUCTION AND PURPOSE:**

You are invited to participate in this study to find the prevalence of substance use among adolescents in urban slums of Ram and Rukmini Nagar. Substance use is one of the most common social and public health problem worldwide both in developing and developed countries. Adolescents, who form vulnerable group, are more prone for substance use which can result in high morbidity and mortality rates among them.

**PROCEDURE:**

In this study, you will have to answer few questions and the whole procedure will take 15-20 minutes.

**POSSIBLE BENEFIT:** The investigator does not promise that you will receive direct benefit from this study; it will benefit the community and policy makers.

**RISKS:** There is no risk involved in participation in this study.

**CONFIDENTIALITY:**

All information collected during the course of the study will be kept confidential. Information from this study may be published but my identity will be confidential in any publication.

**VOLUNTARY PARTICIPATION/WITHDRAWAL:**

Taking part in this study is voluntary. I may choose not to take part in this study, or if I decide to take part I can later change my mind and withdraw from the study. My decision will not change the present or future health care or other services that I receive. The study doctor or the sponsor may stop my participation in this study. I will tell of any important new findings that may change my willingness to continue to take part. If I choose not to take part in the study I will receive the standard treatment for patients with my condition.

**COMPENSATION:**

In the event that I become injured as a result of taking part in this study, treatment will be offered to me, No reimbursement, compensation or free medical care is given.

**QUESTION:** If any enquiries in the future or in case of research related injury illness, you may contact following person.

**Dr. Ganga Pilli**

Professor and Head

Of Pathology

Chairman,

J.N. Medical College

Institutional Ethical

Committee for Human

Subjects Research

Ph. No: 0831-2473777,

Ext. 1529

Mob- 9448863866

**CONSENT TO PARTICIPATE IN RESEARCH STUDY:**

I voluntarily agree to take part in this study by signing on the line below. I may withdraw at any time. I am not giving up any of my legal rights by signing this form. My signature below indicated that I have read this entire consent form or it has been read to me, and has been explained to me in my vernacular language and had all my questions answered. I will be given a copy of this consent form.

**Signature / Left Thumb print of the Participant or legally authorized representative.**

Participant's Name : .....

Signature/ Left Thumb Impression. : .....

Name of the legally authorized representative : .....

Signature/ Left Thumb impression. : .....

Witness's Name : .....

Signature/ Left Thumb impression. : .....

Investigators name and Signature : .....

Date and Place : .....

**ANNEXURE III – ASSENT FORM**

I have read the information in this form. After understanding all details about the study, I agree to give assent to be included as a volunteer in the study titled **“PREVALENCE OF SUBSTANCE USE AMONG ADOLESCENTS RESIDING IN URBAN SLUMS – A CROSS SECTIONAL STUDY ”**

Participant’s Name : .....

Signature/ Left Thumb Impression. : .....

Name of the person obtaining consent

Signature of person obtaining consent

Witness’s Name : .....

Signature/ Left Thumb impression of witness : .....

Investigators name and Signature : .....

Date and Place :