

Original Article

# Substance abuse and practices and their consequences among adolescents and young adults in Mangalore

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## Abstract

**Introduction:** Substance abuse is the recent trend among college students. Studies conducted in India shows clear indications of increasing prevalence of substance abuse among adolescents.

**Aims and Objectives:** To assess the practice prevalence and consequences of drug abuse among adolescent students.

**Materials and Method:** This Institution based cross-sectional study conducted in different schools and colleges of Mangalore. Institutions were randomly picked with pen drop method and 5 institution students were selected as study subjects. Totally 487 students between institutions were selected, the age group of 15-25 years were included in the study. The data was collected by means of answering a pretested validated questionnaire with anonymity.

**Results:** According to our study the results showed that 8.60% have tried some substance of abuse such as marijuana (5.51%), LSD (1.10%), cocaine (1.32%) and others (1.76%). Among the Substance users, 1.54% used it regularly, 1.76% occasionally and 2.20% only once. 33.03% said it has affected their daily activities and academics 21.05% had picked up a quarrel with friends, family or detained by police.

**Conclusion:** Caffeine consumption in the form coffee is quite common amongst the students as a habit. Marijuana is the most popular drug among the small fraction of students who have tried drugs. Most of them tried it first in college, mainly being influenced by peers.

**Keywords:** Substance abuse, adolescents, caffeine use

## Introduction

The abuse of alcohol and illicit and prescription drugs continues to be a major health problem internationally. The United Nations Office on Drugs and Crime (UNODC) reports that approximately 5 per cent of the world's population used an illicit drug in 2010 and 27 million people, or 0.6 per cent of the world's adult population, can be classified as problem drug users. It is estimated that

heroin, cocaine and other drugs are responsible for 0.1 to 0.2 million deaths per year. In addition to causing death, substance abuse is also responsible for significant morbidity and the treatment of drug

addiction creates a tremendous burden on society.<sup>1</sup>

Existing studies have found a high correlation between adolescent abuse and becoming a problem drug user in adulthood;<sup>1</sup> therefore, it can be inferred that many problem drug users start abusing drugs at an early age. Additionally, accidental and intentional fatalities that are associated with drug and alcohol use represent one of the leading preventable causes of death for the 15 to 24-year-old population. Alcohol and other drug use in the adolescent population carries a high risk for school underachievement, delinquency teenage pregnancy, and depression.<sup>1</sup> Drug dependence is described as a state, psychic and sometimes also physical, resulting from the interaction between a living organism and a drug, characterize by behavioral n other responses that always include a compulsion to take a drug on a continuous or

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periodic basis.<sup>2</sup>

The intention of this study was to estimate the prevalence of the problem status among the college going young adults and the knowledge about the de-addiction. The study was conducted with the objective to study the practices and consequences of substance abuse among adolescents and young adults.

Material Methods

The research approach adopted for the study was a simple descriptive design to assess the practice and consequences among adolescent with regards to substance abuse. The substance abuse definition of WHO includes hazardous use of psychoactive substances, including alcohol and illicit drugs<sup>2</sup>- various drugs including illicit drugs, alcohol, tobacco, caffeine come under this category. We in this study have not considered alcohol and tobacco as they were part of other study. So we included all drugs including illicit drugs and caffeine use and abuse in our study. Institution based cross-sectional study conducted in different colleges of Mangalore. Institutions were randomly picked with pen drop method and 5 institution students were selected as study subjects. Taking 20% practice (by pilot study) as baseline the sample size was calculated with 80% power of the study and 95% confidence interval, the sample size was calculated to be 400 with relative precision being 20% (power of study 80%). Considering 20% non-response, we considered to interview 480 students. Universal sampling method was for the selection of students. Our total sample was 487. A questionnaire with questions on the practices and consequences of drug abuse was prepared. Face validation and linguistic validation of the questionnaire was done. Reliability was checked for the questionnaire. The questionnaire was to be filled anonymously after getting an informed verbal consent. The students were allowed to give back the questionnaire empty, or they could half fill it. The questionnaire was asked to take home get parents consent and fill it. Institutional ethical clearance was obtained. Sufficient time was given to the students to complete the questionnaire. Only students willing to

participate with consent given were included. The data obtained were compiled in Microsoft excel and the results were tabulated.

Results

Among the students included in our study 67.55% consumed tea, 39.42% consumed coffee, 29.77% consumed aerated drinks. When we asked about reason for consuming caffeine 45.58% said because of habit and 12.73% due to stress (table: 1).40.02% of students intended to reduce consumption of caffeine. But 36.75% refused to reduce the consumption of caffeine. Proportion of adolescent students intending to reduce caffeine consumption was different in different institutions in Mangalore. (Shown in Fig 2).

Among our subjects 8.41% have tried some substance of abuse such as marijuana (12.19%),LSD (2.43%),cocaine (12.19%) and others (48.78% (Fig no: 1). When asked about the age at which they had first tried, 48.78% said in college ( after 18 years) but 12.19% in secondary schools (09-12years) (Table no :3). Of the above 7.31% of subjects were influenced by friends and 9.75% used it to try something new and 7.31% was due to stress.

Among the users, 21.95% use it regularly. Majority of the users afford these by means of their pocket money (56.09%), loans from others (12.19%) and few of them also resorted to stealing (14.63%).

Among the sample 31.7% said it had affected their daily activities and academics. 12.19% had picked up a quarrel with friends, family or detained by police.

The students answered saying 55.44% knowing about addiction therapy and 11.29% not answering and 33.26% do not know there is a addiction therapy.

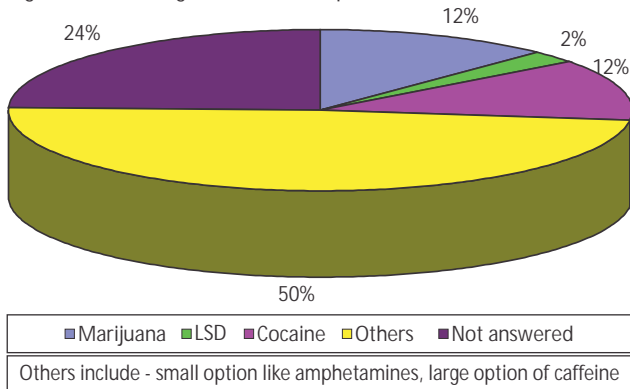
Table 1 : Reason for consuming beverages containing caffeine among adolescents (n=487)

Reasons	No. of students	Percentage
Stress	62	12.73
Habit	226	45.58
Socializing with peers	39	8
Others	32	6.57
Not answered	135	27.72

Table 2 : Showing the regularity in substance of abuse consumption (n= 41)

	NUMBER	PERCENTAGE
REGULARLY	9	21.95 %
OCCASSIONALLY	8	19.51%
RARELY	7	17.07%
ONLY ONCE	8	19.51%
NOT ANSWERED	9	21.95%

Figure 1 : Showing distribution of prevalence of substance abuse



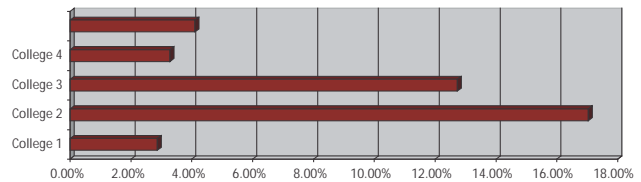
Discussion

Caffeine is a bitter substance found in coffee, tea, soft drinks, cola, nuts, and medicines. It has many effects on the body's metabolism including stimulating central nervous system. This can make you more alert and give you boost of energy. For most people, the amount of caffeine in 2-4 cups of coffee a day is not harmful. However, too much of caffeine can cause problems. According to our study 12.58% consume caffeine due to stress, 44.37% as a habit, 7.50% when socializing with peers and other reasons 3.97%. A research done by the University of Puerto Rico on their students in the year 2013 showed that 54% consumed caffeine to stay awake , 18% as a part of their routine , other reasons – 19% , for concentration 12% and as meal substitutes 8%. The research showed that there was increase in the consumption of aerated drinks (65.4%) and coffee (55%) in account of stress. This tells us that in our study majority of the students consume it as a habit and the association of caffeine consumption and stress is less<sup>3</sup> whereas in University of Puerto Rico, the association of caffeine consumption and stress is of great significance.<sup>2</sup> Whatever the reason maybe, with repetitive use, physical dependence or addiction may occur. As caffeine is a psychoactive drug, it is often regulated. In the United

Table 3 : Showing percentage of adolescents practicing substance of abuse with age of onset (n=41)

	NUMBER	PERCENTAGE
SECONDARY (9-12 years)	5	12.19%
HIGH SCHOOL (13-15 years)	1	2.43%
PUC (16-17 years)	5	12.19%
COLLEGE ( 18-25 years)	20	48.78%
NOT ANSWERED	10	24.39%

Figure 2 : showing the proportion of adolescents wanting to reduce caffeine reduction



States, FDA restricts beverages to containing less than 0.02% caffeine; it would be beneficial if such policies were to be implemented in developing countries as well.

Substance abuse is a patterned use of a substance in which the user consumes the substance in amounts or with methods which are harmful to themselves or others. The exact cause of substance misuse is impossible because there is not just one direct cause. However substance abuse and addiction is known to run in families. In the present study use of substances as well as distribution among the students were comparable to the finding of studies of other authors, where we noted both similar and dissimilar results with that of other studies<sup>3,4</sup>. 0.8% adolescents gave the history of their initiation to abuse substances started during their secondary schooling. Most of them started during their college time that is about 4.8%. 1.10% started from PUC & 0.2% started from high school. Poor decision-making and impulsive behaviour in the teenage years can then have lasting effects. Teens that start abusing alcohol or drugs at an early age are at much greater risk of developing an addiction later in life compared to those who misuse drugs later. In our study 5.51% of students were using marijuana, 1.10% were using

LSD, 1.32% were using cocaine & 1.76% were using other substances. Some people are able to use recreational or prescription drugs without experiencing negative consequences or addiction. For many others, substance use can cause problems at work, home, school & in relationships. Many try drugs for the first time out of curiosity, to have good time, because friends are doing it, an effort to improve athletic performance or ease another problems like stress, anxiety, depression etc. Use does not automatically lead to abuse and there is no specific level at which drug moves from casual to problematic. It varies with individual. Drug abuse & addiction is less about the amount of substance consumed or the frequency and more to do with the consequences of drug use<sup>5</sup>. Parents need to be aware of the increased risk for teens, and the factors that increase risk. Avoidance of drugs and alcohol at an early age, and friends who use them, is crucial to not becoming an addict.

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#### Limitations

This study do not have representative sample from all colleges and all the questions were self administered so final truth being unknown.

#### Conclusion

Caffeine consumption in the form coffee is quite common amongst the students as a habit. Marijuana is the most popular drug among the small fraction of students who have tried drugs. Most of them tried it first in college, mainly being influenced by peers. The study shows that it has some affect on their daily activities and academics mainly because almost all of them have tried it at least once

#### Acknowledgement

We thank the head of the department, Dr. Uday Kiran Nalam and all the staff of Community Medicine for their immense support during the study.