# DRUG ABUSE PATTERN IN YOUTH: AN OBSERVATIONAL STUDY

Kalpana .L¹, Kavya H.G²

#### **ABSTRACT**

Objective: Drug abuse is use of drugs that causes physical, psychological, legal or social harm to the individual user or to others affected by the drug user's behavior. Youth substance use and the resulting damage are recognized as significant global public health issues in society today and the loss in terms of human potential is incalculable. There is a need to stem the tide of drug abuse. Hence this study was done to evaluate the drug abuse pattern in youth.

Materials & Methods: A population based cross sectional observational study was conducted. Participants were from three different colleges in Bangalore. Study was conducted on 300 participants during the month of August 2011. A standard questionnaire was adopted from CSR.

Result: This paper evaluated the drug abuse pattern in both the sexes of age group 17-21 years. Only 293 questionnaires were valid. The present study showed that tobacco abuse was high among both sexes of urban background when compared to alcohol and other drugs. Descriptive statistics were used to analyse and to conclude the results.

Conclusion: Substance use and abuse wear out individuals, families and communities. Progress should be made in identifying precursors to use, understanding the developmental progress of alcohol and drug use disorders, and designing prevention programs that successfully avert substance use and abuse.

Key words: drug abuse, youth, tobacco, alcohol

### **INTRODUCTION**

World Health Organization defines substance abuse as "persistent or sporadic drug use inconsistent with or unrelated to acceptable medical practice" (1).

Drug abuse risk can be conceptualized by the "Modified Social Stress Model". The model proposes that an increased risk for drug use stems from

distress + the normalization of drug use + the effect of drugs and risk of drug abuse due to decreased social attachments + coping strategies + resources for their development<sup>(2)</sup>.

Substance use patterns are notorious for their ability to change over time. Both licit and illicit substance use cause serious public health problems and evidence for the same is now available in our country. National level prevalence has been calculated for many substances of abuse, but regional variations are quite evident. Rapid assessment surveys have facilitated the understanding of the patterns of use <sup>(3)</sup>.

The number of youths continuing to abuse drugs remains a major public health problem worldwide and there is a need to stem the tide of drug abuse. Hence, this study was conducted to evaluate substance use among youth in three different colleges around Bangalore.

### **MATERIALS AND METHODS**

A cross sectional, observational study was conducted on 300 students, who have entered the graduation course in 3 different colleges in Bangalore. Both females and males of age group 17-21 years from rural and urban background were included. The study was conducted in the month of August, 2011. An anonymous self administered questionnaire was adopted from Evaluation instrument by CSR <sup>(4)</sup>.

All the participants were explained the purpose of the study, were ensured strict confidentiality and informed consent was taken. The participants were given the choice of not participating in the study if they weren't interested. Participants were selected by a simple random sampling technique.

The proforma covered demographic variables such as age, gender, education, socioeconomic status (based on per capita income of the parents) and location. The questionnaire contained questions regarding the usage of tobacco, alcohol and other



drugs like cocaine, marijuana, heroin, club drugs and LSD in a month.

Each participant was given sufficient time and their doubts were clarified pertaining to the questionnaire. Questionnaires were collected. Out of 300, only 293 were valid. Data was assimilated, entered into Microsoft spread sheets and analyzed to derive at the results. P value was calculated.

#### **RESULTS**

Table 1 depicts drug behavior pattern in the study population in general.

Figure 1 shows the gender difference in the drug behavior. 62males (39%) didn't smoke, 97males smoked once or more than once and among the female population, 82(61.2%) of them didn't smoke, 52 of them smoked. P value was < 0.001. Out of 293 students surveyed,(159 males and 134 females), 84males( 52.8%) didn't consume alcohol,5males (3.1%) consumed alcohol once. 7males (4.4%) consumed 2-3 times, and 63males (39.6%) consumed more than 3 times a month. Among the female population, 98(73.1%) didn't consume alcohol, 26(19.4%) consumed once, 6(4.5%) consumed 2-3 times and rest of them more than 3 times. p value was found to be < 0.001. Among the students surveyed, 96males (60.4%), 113 females (84.3%) didn't use other drugs, rest of them used. p value was < 0.001.

Figure 2 provides percent behavior in the study population by location. Among 45 rural students surveyed, 32(71.1%) were non smokers and rest of the students smoked either once or more than once. 66(40.2%) from the city didn't smoke and 98 of them smoked. p value was < 0.001. Out of 45 rural students assessed, 35(77.8%) were non alcoholics and 10 students consumed alcohol either once or more than once and among 164 from city background, 88(53.7%) were non alcoholics and rest of the students consumed alcohol once or more than once. P value was found to be 0.005. Out of 45 rural students, 26(57.8%) didn't use other drugs, rest of them used. Out of 164 from city background, 128(78%) didn't use other drugs, rest of them used. p value was found to be < 0.001.

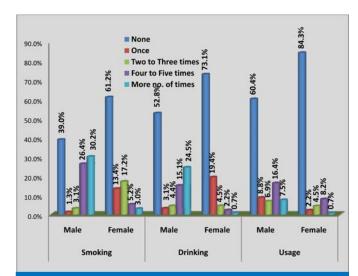


Fig1: Percent Behaviour by Gender in the Study Population

Smoking: smoking tobacco, Drinking: drinking alcohol, Usage: usage of other drugs

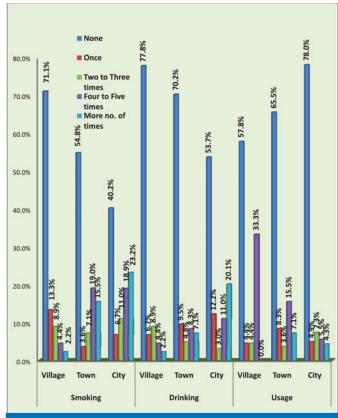


Fig 2: Percent Behaviour by Location in the Study Population

Smoking: smoking tobacco, Drinking: drinking alcohol, Usage: usage of other drugs.

		None		Once		Two to Three times		Four to Five times		More no. of times		Total	'P' Value
Smoking	Male	62	39.0%	2	1.3%	5	3.1%	42	26.4%	48	30.2%	159	<0.001
	Female	82	61.2%	18	13.4%	23	17.2%	7	5.2%	4	3.0%	134	
	Total	144	49.1%	20	6.8%	28	9.6%	49	16.7%	52	17.7%	293	
	Village	32	71.1%	6	13.3%	4	8.9%	2	4.4%	1	2.2%	45	<0.001
	Town	46	54.8%	3	3.6%	6	7.1%	16	19.0%	13	15.5%	84	
	City	66	40.2%	11	6.7%	18	11.0%	31	18.9%	38	23.2%	164	
	Total	144	49.1%	20	6.8%	28	9.6%	49	16.7%	52	17.7%	293	
Drinking	Male	84	52.8%	5	3.1%	7	4.4%	24	15.1%	39	24.5%	159	<0.001
	Female	98	73.1%	26	19.4%	6	4.5%	3	2.2%	1	0.7%	134	
	Total	182	62.1%	31	10.6%	13	4.4%	27	9.2%	40	13.7%	293	
	Village	35	77.8%	3	6.7%	4	8.9%	2	4.4%	1	2.2%	45	0.005
	Town	59	70.2%	8	9.5%	4	4.8%	7	8.3%	6	7.1%	84	
	City	88	53.7%	20	12.2%	5	3.0%	18	11.0%	33	20.1%	164	
	Total	182	62.1%	31	10.6%	13	4.4%	27	9.2%	40	13.7%	293	
Usage (Other drugs)	Male	96	60.4%	14	8.8%	11	6.9%	26	16.4%	12	7.5%	159	<0.001
	Female	113	84.3%	3	2.2%	6	4.5%	11	8.2%	1	0.7%	134	
	Total	209	71.3%	17	5.8%	17	5.8%	37	12.6%	13	4.4%	293	
	Village	26	57.8%	2	4.4%	2	4.4%	15	33.3%	0	0.0%	45	<0.001
	Town	55	65.5%	7	8.3%	3	3.6%	13	15.5%	6	7.1%	84	
	City	128	78.0%	8	4.9%	12	7.3%	9	5.5%	7	4.3%	164	
	Total	209	71.3%	17	5.8%	17	5.8%	37	12.6%	13	4.4%	293	

## TABLE 1: DRUG BEHAVIOUR PATTERN IN THE STUDY POPULATION

### **DISCUSSION**

Drug abuse and addiction is on the rise throughout India. According to recent surveys, India has at least seventy million drug addicts. In India, the cultural values are slowly changing, the poorer class is suffering with economic hardship while at the same time there is a massive rise in the upper class, all of this combined with the dwindling support of family (due to increase work and western life) is leading to drug abuse and addiction (5).

Results from 2010 Monitoring the future survey, a nationwide study on rates of substance use in the United States, showed that 48.2% of youth used an illicit drug at some point in their lives<sup>(6)</sup>. And earlier in 2002, the World Health Organization estimated that around 140 million people were alcohol dependent and another 400 million suffered alcohol-related problems<sup>(7)</sup>.

The picture is grim if the world statistics on the drug scenario is taken into account. With a turnover of



around \$ 500 billion, it is the third largest business in the world, next to petroleum and arms trade. About 190million people all over the world consume one drug or the other <sup>(B)</sup>.

The social and economic costs related to drug abuse among youth are high. They result from the financial losses and distress suffered by alcohol and drug related crime victims, increased burdens for the support of adolescents and young adults who are not able to become self-supporting, and greater demands for medical and other treatment services for these youth <sup>(8)</sup>.

The epidemic of substance abuse in younger generation has assumed alarming dimensions. In India, most boys by the time they reach the ninth grade, 50 percent of them have tried at least one of the substances of abuse nature. In last three decades, many epidemiological surveys have been carried out in India to assess the prevalence of substances abuse <sup>(8)</sup>.

The youths are topping the charts for the wrong reasons like drug abuse in rave parties. The alarming rate of drug abuse has always been a problem and especially the increase of drug abuse among youngsters has had detrimental effects on the society<sup>(9)</sup>.

Boosting performance is the key issue for a growing crowd of younger, well-off, educated urban men and women, inclined to try a range of drugs. Average age of initiation is at 17. Party drugs, designer drugs, metro drugs, synthetic chemicals and mind-altering amphetamines are the new rage in Asia with India being a major contributor. Drugs via Internet and couriers are in and India is now a hub of drugs sold through illegal Internet pharmacies and courier companies<sup>(10)</sup>. Cognitive and behavioral problems experienced by alcohol and drug using youth may interfere with their academic performance and also present obstacles to learning for their classmates<sup>(11)</sup>.

Statistics have shown that drug barons prefer recruiting their traffickers from the ages of 15 to 35 years (12). Making up one-fifth of the population, 15-24 year olds carry with them India's future. The youth of our nation will eventually determine the country's moral, political, and social persuasions. Bearing the burden of a densely populated country like India is no

small task and drug abuse does nothing to lighten the load  $^{\mbox{\scriptsize (13)}}$ .

Gender difference in alcohol use is well documented. Almost all studies (14, 15, 16, 17, 18) have reported higher use rates among men. Similar gender difference with higher use rates among men was observed in our study.

Several studies have also reported geographic differences in alcohol consumption with rural and urban areas. The huge variations can be attributed to the different types of instruments used, methodologies adopted and the different definitions of alcohol use and interestingly, very few have been done in different populations using similar methodology. Notwithstanding these limitations, using the meta-analysis study observed a greater prevalence in rural areas in comparison to urban areas against the overall prevalence of alcoholism in the country (19). Our findings contradicted the above.

Tobacco use prevalence among students was high and such high prevalence has been reported from a few places in the world. Tobacco use in various studies in Bihar across the years has been shown to be high. High prevalence of tobacco use among students therefore is attributed to high rates of tobacco use in the community. Gender gap in tobacco use is narrowing globally. High prevalence of smoking use among girls in Bihar may be attributed to globalisation and tobacco industry's advertisement impact in glamorising tobacco as a tool of women emancipation <sup>(20)</sup>. However in our study ,we found that high rates of tobacco use among males.

Although tobacco deaths rarely make headlines, tobacco kills one person every six seconds. Tobacco kills a third to half of all people who use it, on average 15 years prematurely .Tobacco epidemic death toll reached 100 million in the 20th century. Currently, it causes 5.4 million deaths every year. In India, over half of men (57.0 %) in the age group of 15-49 years use tobacco in some form and over one tenth (10.9 %) of women in this age group also use tobacco (21). In the present study too, tobacco abuse in both males and females was high when compared to alcohol and other drugs.

According to a study, smoking is the most prevalent form of tobacco use in both urban and rural areas (21). There is a marked urban-rural variation evident from



the present study. Youth from the urban background (city / town) abused tobacco more than alcohol and other drugs.

The substance use was found to be significantly more among male students as compared to female students at Haryana and at Goa (22) .The present study also showed that the substance abuse was high in males. Similar findings were found in a study, but there are a small percentage of women in India who abuse them; the number is rising slowly each year. The women and their children are facing problems as well. Many women who are married to drug abusers and addicts are subjected to domestic violence, infectious diseases, and financial problems. Eighty seven percent of users who were in a Rehabilitation center claimed that they were violent to their wife, children, and other family members while using drugs. Most domestic violence comes as a result of the addict needing money to buy more drugs (5).

In our study substance abuse was more prevalent in urban students as compared to rural students. However this observation differs from the other studies (23, 24); who found no rural urban difference for substance abuse in their respective studies.

Many opportunities in drug abuse prevention have been identified. Core strategies for preventing drug abuse among youth include raising awareness, educating and training parents and others, strengthening families, providing alternative activities, building skills and confidence, mobilizing and empowering communities and employing environmental approaches. Studies indicate that making youth and others aware of the health, social, and legal consequences associated with drug abuse has a beneficial impact on use [25].

There are specific conclusions that have been generated about effective programs. First, programs that allow the students to be interactive and learn skills such as how to refuse drugs are more effective than strictly educational or non-interactive ones. When direct influences (e.g., peers) and indirect influences (e.g., media influence) are addressed the program is better able to cover broad social influences that most programs do not consider. Programs that encourage a social commitment to abstaining from drugs show lower rates of drug use.

Teaching youth and adolescents skills that increase resistance skills in social situations may increase protective factors in that population [26].

### CONCLUSION

Substance use and abuse wear out individuals, families, and communities. Prevention is the most important component of the "war on drugs" which is fulfilled by qualitative scientific research on those areas crucial to the advancement of prevention science. Progress should be made in identifying precursors to use, understanding the developmental progress of alcohol and drug use disorders, and designing prevention programs that successfully avert substance use and abuse.

However, this study evaluated substance abuse in a small group and in a specified geographic area. To generalize this conclusion it requires an epidemiological survey.

### **REFERENCES**

- 1. WHO. Lexicon of alcohol and drug terms. Geneva: World Health Organization; 1994.
- 2. WHO. Techn Res Ser No. 886. 1999. p. 48.
- Murthy P, Manjunatha N, Subodh BN, Chand PK, Benegal V. Substance use and addiction research in India. Indian J Psychiatry . 2010 :52:189-99.
- Richard Wilson, Cheryl Kolander. Selected evaluation instrument. Drug abuse prevention. 2nd edition. Jones and Bort let, USA, 200;309.
- 5. Stu Elmes .Drug Abuse and Addiction in India. Addiction. 2010.
- Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. Monitoring the future national results on adolescent drug use: overview of key findings 2010. Ann Arbor: Institute for Social Research, the University of Michigan. 2011.
- Barker, P. ed. Psychiatric and mental health nursing: the craft and caring. London: Arnold. 2003; 297.
- 8. Ahmad nadeem, Bano Rubeena, Agarwal V. K, Kalakoti Piyush. Substance abuse in India. Pravara Med Rev. 2009; 4(4): 4-6.



•

- Ankur Shukla .Increasing Drug Abuse Among Youth: Symptoms And Solutions Posted by Youth Ki Awaaz; July 30, 2011. Available at www.youthkiawaaz.com/.../increasing-drugabuse-among-youth-sym.
- Drug addiction and Indian youth: Freshinspirations; 1 Sep,2010. Available at www. freshinspirations. wordpress.com/ .../drug-addiction-and-indian-youth.
- Consequences of youth substance abuse Drug Identification and Testing in the Juvenile Justice System May1998. Available at www.ojjdp.gov/pubs/drugid/ration
- Rotimi Alagbe. Dangers of Drug Abuse Among Youth. Health, Substance Abuse; Aug 28, 2004. Available at www.tigweb.org/youthmedia/panorama/article.
- 13. Drug Abuse In The Indian Youth.October 8, 2 O 1 1 . A v a i I a b I e a t http://www.measuredhs.com/pubs/pdf/OD59/O D59.pdf.
- Dhupdale NY, Motghare DD, Ferreira MA, Prasad YD. Prevalence and pattern of alcohol consumption in Rural Goa. Indian J Community Med 2006; 31:104-5.
- 15. Hazarika NC, Biswas D, Phukan RK, Hazarika D, Mahanta J. Prevalence and pattern of substance abuse at Bandardewa: A border area of Assam and Arunachal. Indian J Psychiatry 2000: 42:262-6.
- 16. Jhingan HP, Shyangwa P, Sharma A, Prasad KM, Khandelwal SK. Prevalence of alcohol dependence in a town in Nepal assessed by the CAGE questionnaire. Addiction 2003; 98:339-43.
- 17. Singh J, Singh G, Mohan V, Padda AS. A comparative study of prevalence of regular alcohol users among the male individuals in an urban and rural area of Dist Amritsar Punjab. Indian J Community Med 2000; 25:73-8.

- Krishnan A, Shah B, Lal V, Shukla DK, Paul E, Kapoor SK. Prevalence of risk factors for noncommunicable disease in a rural area of Faridabad district of Haryana. Indian J Public Health. 2008; 52:117-24.
- 19. N Girish, R Kavita, G Gururaj, Vivek Benegal Alcohol use and implications for public health: Patterns of use in four communities. IJCM.2010:35(2):238-244.
- 20. Dhirendra N. Sinha, Prakash C. Gupta & Mangesh Pednekar. Tobacco use among students in Bihar (India). GYTS Bihar India report. Available at http://www.searo.who.int/link files/GYTS Rep Bihar pdf.
- 21. Pallavi Singh, Taruna Juneja. Patterns of Tobacco Use in Rural and Urban Populations of Jhunjhunu District, Rajasthan. Indian journal of medical specialities. 2010; 1(2):71-74.
- 22. R. Juyal, R. Bansal et al. Substance use among intercollege students in district Dehradun. Indian Journal of Community Medicine. 2006; 31(4).
- 23. Kapoor SK, Anand K, Kumar G. Prevalence of Tobacco Use among School and College Going Adolescents of Haryana. Indian J Paediatr 1995; 62:461-466.
- 24. Naskar NN, Bhattacharya SK. A study on drug abuse among the undergraduate medical students in Calcutta. JIMA 1999; 97:20-21.
- 25. Drug abuse among youth- Drug rehabs.org. December 11, 2007. Available at www.drug-rehabs.org/iarticles/107/drug\_abuse among youth.
- 26. O'Connell, M.E., Boat, T., Warner, K.E. Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities; 2 February 2010. Available at http://www.nap.edu/catalog.php?record\_id=12 480#orgs.

1. Kalpana .I

Professor Department of Pharmacology SIMS & RC, Bangalore-90 Email: Kalpu154@gmail.com

### 2. Kavya. H.G

Assistant Professor
Department of Pharmacology
SIMS & RC, Bangalore-90
Email : Drkavyapreetham@gmail.com