Pharmacology Section

Knowledge Towards ATOD (Alcohol, Tobacco and Other Drugs): A Study

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ABSTRACT

Aim: Drug abuse has led to a detrimental impact on the society worldwide. In India, drug use and related problems are of major interest and concern, but research on awareness has received less attention. The present study was conducted to assess the knowledge of students towards ATOD.

Materials and Methods: A cross sectional, observational study was conducted on 300 students in 3 different colleges in Bangalore. The survey module was developed using an anonymous self administered questionnaire.

Results: Out of 293 subjects assessed 159 were males and 134 were females. Males had better knowledge about the risks involved in alcohol and tobacco consumption where as in other drugs females had better knowledge. Students from rural background had less knowledge towards alcohol and tobacco's harmful effects, in other drugs they had better knowledge.

Conclusions: Knowledge about the risk involved in using ATOD is inadequate and if knowledge is inculcated among youths about the risk involved in drug abuse it will go a long way towards winning the battle against drug abuse.

Key Words: ATOD, Knowledge, Rural, Urban

INTRODUCTION

The use of drugs dates back to thousands of years. Drugs have been used for a variety of reasons in different cultures; for religious purposes, for recreational purposes, for altering the states of consciousness and for obtaining relief from pain and distress [1]. Drugs which are used as medicine are meant to help sick people, but in drug abuse, people use drugs to change their brain function in an unhealthy way.

In India, drug use and related problems are of major interest and concern, but the research on the awareness, interest and concern with respect to drug use has received less attention. The younger generation is being targeted by advertisements which depict the usage of ATOD as attractive and funny. A WHO study report on youth and drugs stated that, young people who first try drugs on an experimental basis often get motivated largely by curiosity and peer pressure [2].

Thus, the present study was done to assess the knowledge of students, who had just entered colleges after their pre-university education in and around Bangalore, towards ATOD (Alcohol, Tobacco and other drugs like cocaine, marijuana, heroin, Club drugs, LSD).

MATERIALS AND METHODS

This was a population based, cross sectional and observational study which was conducted on 300 students who had completed their pre-university education and had entered the graduation course in 3 different colleges in and around Bangalore. Students of both sexes of the age group of 17 to 21 years from city/town/village backgrounds were included. The survey module was developed by using an anonymous, self administered questionnaire which was adopted from an evaluation instrument which was created by CSR [3].

The proforma covered demographic variables such as the student's age, gender, education, socio-economic status (based on the per

capita income of the parents) and region (city, town, village) and the student's knowledge about ATOD (alcohol, tobacco and other drugs like cocaine, marijuana, cocaine, heroin, club drugs, LSD).

The student's knowledge about ATOD was evaluated by checking as to what they thought about people who risked themselves physically or mentally by smoking one or more packs of cigarettes, chewing tobacco leaves, drinking alcoholic beverages, using marijuana, cocaine, heroin and other drugs like LSD and club drugs regularly.

All the participants were explained the purpose of the study and they were ensured strict confidentiality. An informed consent was taken. The ethical principles were adhered to.

Adequate time was given to each respondent for filling the questionnaire. The queries were clarified when they were asked by the students. The participants were given the choice of not participating in the study if they didn't want to.

A total of 293 valid questionnaires were received, assimilated, entered into Microsoft spread sheets and analyzed to derive at the results. The P value was calculated.

RESULTS

[Table/Fig-1] provides the knowledge of the participants towards ATOD. Out of 293 subjects who were assessed, 159 were males and 134 were females.

43.4% males and 69.4% females were unaware of the negative effects of alcohol consumption. 17.6% males and 3.7% females were of the opinion that alcohol consumption involved great risk. The 'p'-value was found to be less than 0.001.

58.5% males and 60.4% females were of the opinion that smoking or chewing tobacco did not have any risk. 11.9% males and 6% females were of the opinion that tobacco consumption carried great risk. The 'p'-value was found to be 0.039.

64.2% males and 59.7% females were of the opinion that drugs other than alcohol or tobacco did not have any risks which were related to their use. 9.4% males and 3.7% females were of the opinion that the use of other drugs carried great risk. The 'p'-value was found to be less than 0.001.

[Table/Fig-2] depicts the % knowledge of the participants about ATOD in the study population. 55.3% were of the opinion that alcohol consumption didn't carry any risk and only 11.3% were of the opinion that it had great risk. 59.4% were unaware of the risks which were involved with tobacco consumption and 9.2% were of the opinion that it carried great risk. 62.1% had less knowledge about the risks which were involved with other drugs and 6.8% were fully aware of the great risks which were related to them.

[Table/Fig-3] depicts the percent knowledge by location in the study population. In 64.4% from the rural background were of the opinion that alcohol consumption had no risk and 13.3% were aware of its risks. 60.7% from the town and 50% from the city were of the opinion that alcohol consumption did not have any risk and 9.5% from the town and 11.6% from the city were aware of the great risks which were involved with alcohol intake. The 'p'value was found to be 0.010. 71.1% from the rural background, 58.3% from the town and 56.7% from the city had no idea about the risks which were related to tobacco consumption, whereas 8.9% from the village, 10.7% from the town and 8.5% from the city were of the opinion that tobacco consumption led to great risk. The 'p'-value was found to be 0.665. 33.3% from the rural background, 71.4% from the town and 65.2% from the city were of the opinion that the consumption of other drugs did not have any risk, contradicting the opinions of 4.4% from the village, 16.7% from the town and 2.4% from the city who thought that the usage of these drugs would harm them. The 'p'-value was

found to be < 0.001.

DISCUSSION

Drug abuse is defined as any use of drugs that causes physical, psychological, legal or social harm to the individual user or to others who are affected by the drug user's behaviour. People have experienced the positive consequences of ATOD. They have also experienced the negative consequences of ATOD, which the definition of drug abuse has captured [4].

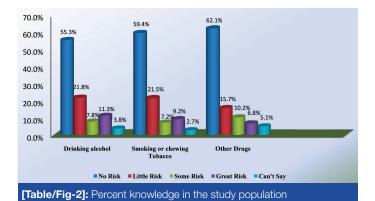
Drug abuse is a complex phenomenon which has various social, cultural, biological, geographical, historical and economic aspects. The disintegration of the old joint family system, the absence of parental care in modern families where both the parents are working and the decline of old religious and moral values, have led to a rise in the number of drug addicts who have taken to drugs to escape the hard realities of life. This has also led to an increase in the crime rate. The drug addicts resort to crime to pay for their drugs. The early initiation of substance use is usually associated with a poor prognosis and a lifelong pattern of deceit and irresponsible behaviour [5].

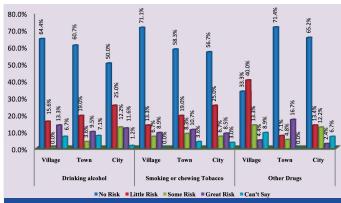
With most of the drug users being in the productive age group of 18 to 35 years, the loss in terms of human potential is incalculable. Adolescent drug abuse is one of the major concerns in young people's behaviour. Increase in the incidences of HIV, hepatitis B and C and tuberculosis due to drug addiction adds to the reservoir of infection in the community, burdening the health system further. The consequences of drug abuse include domestic violence and financial burden. At the national level, drug abuse is intrinsically linked with racketeering, conspiracy, corruption, illegal money transfers, terrorism and violence, threatening the very stability of the governments [5].

The International Day against Drug Abuse and Illicit Trafficking is

	No		No Risk		Little Risk		Some Risk		Great Risk		Can't Say		ʻp' value
Drinking Alcohol	Male	69	43.4%	38	23.9%	20	12.6%	28	17.6	4	2.5%	159	<0.001
	Female	93	69.4%	26	19.4%	3	2.2%	5	3.7%	7	5.2%	134	
	Total	162	55.3%	64	21.8%	23	7.8%	33	11.3%	11	3.8%	293	
	Village	29	64.4%	7	15.6%	0	0.0%	6	13.3%	3	6.7%	45	0.665
	Town	51	60.7%	16	19.0%	3	3.6%	8	9.5%	6	7.1%	84	
	City	82	50.0%	41	25.0%	20	12.2%	19	11.6%	2	1.2%	164	
	Total	162	55.3%	64	21.8%	23	7.8%	33	11.3%	11	3.8%	293	
Smoking or Chewing Tobacco	Male	93	58.5%	37	23.3%	9	5.7%	19	11.9%	1	0.6%	159	0.039
	Female	81	60.4%	26	19.4%	12	9.0%	8	6.0%	7	5.2%	134	
	Total	174	59.4%	63	21.5%	21	7.2%	27	9.2%	8	2.7%	293	
	Village	32	71.1%	6	13.3%	3	6.7%	4	8.9%	0	0.0%	45	0.665
	Town	49	58.3%	16	19.0%	7	8.3%	9	10.7%	3	3.6%	84	
	City	93	56.7%	41	25.0%	11	6.7%	14	8.5%	5	3.0%	164	
	Total	174	59.4%	63	21.5%	21	7.2%	27	9.2%	8	2.7%	293	
Other Drugs	Male	102	64.2%	10	6.3%	26	16.4%	15	9.4%	6	3.8%	159	<0.001
	Female	80	59.7%	36	26.9%	4	3.0%	5	3.7%	9	6.7%	134	
	Total	182	62.1%	46	15.7%	30	10.2%	20	6.8%	15	5.1%	293	
	Village	15	33.3%	18	40.0%	6	13.3%	2	4.4%	4	8.9%	45	<0.00
	Town	60	71.4%	6	7.1%	4	4.8%	14	16.7%	0	0.0%	84	7
	City	107	65.2%	22	13.4%	20	12.2%	4	2.4%	11	6.7%	164	
	Total	182	62.1%	46	15.7%	30	10.2%	20	6.8%	15	5.1%	293	

[Table/Fig-1]: Knowledge towards ATOD





[Table/Fig-3]: Percent knowledge by location in the study population

celebrated on June 26th every year. It is an exercise which has been undertaken by the world community to sensitize the people in general and the youth in particular, to the menace of drugs. About 190 million people all over the world consume one drug or the other. Drug addiction causes human distress and it has spawned crime and violence worldwide. Today, there is no part of the world that is free from the curse of drug trafficking and drug addiction. India too has been caught in this vicious circle of drug abuse, and the numbers of the drug addicts are increasing day by day [5].

A Narcotic Drugs and Psychotropic Substances (NDPS) Act was passed in 1985 and it was amended in 1989. In 1999–2000, the Ministry of Social Justice and Empowerment, along with the United Nations Office for Drugs and Crime, undertook for the first time, a major national study on the extent, patterns and the trends of substance abuse in the country, a major component of which was a national household survey [6].

In a recent survey which was conducted by the Associated Chambers of Commerce and the Industry of India revealed that a majority of the pub customers were in the age group 20-45 years and that they spent an average of 500 to 1000 rupees per person [7]. 73.5% of the total youth of Punjab alone is addicted to drugs [8].

Alcohol, Tobacco and Other Drugs which include club drugs, marijuana, cocaine, and heroin are the most commonly abused drugs. Throughout the 1990s and 2000s, the popularity of a group of substances which were collectively referred to as "club drugs", has been steadily growing. This term describes the drugs which are used by young adults at all night dance parties such as "raves" and "trances" and at dance clubs and dance bars. These drugs can cause serious health problems and in some cases, even death. Some of the club drugs are Methylepedoxymethamphetamine [street name is Ecstasy, Adam lover's Speed], Gamma hydroxybutyrate [Liquid Ecstasy], Ketamine [Special K, Vitamin K], Flunitrazepam [Forget -Me Pill], Methamphetamine [Speed, Ice, Chalk] and Lysergic acid

diethylamide [Boomers, Purple Haze] [9].

The 2009/10 estimate of England showed that 40.7% of young adults who were aged 16-24 years used illicit drugs. One in five young people had used one or more illicit drugs in the previous year (20.0%) and around one in nine had used drugs in the previous month (11.6%). In the same study, it was found that less than 10% of the pupils thought that it was 'OK' to try illicit drugs once a week [10].

Studies which were conducted in different parts, showed that the knowledge regarding the harmful effects of substances was high, particularly about illicit ones such as tobacco, alcohol and other drugs [11-16]. But the present study revealed that the study population had less knowledge about ATOD.

A low prevalence rate of tobacco use was observed in one study [13], whereas in few other studies, the prevalence rates were higher [17]. In studies which were conducted by other authors [18,19,20], males were found to be more likely than females to use all types of tobacco products. Our study revealed that females had less knowledge about the risks which were involved with respect to smoking and drinking, while they had better knowledge about the risks which were involved with other drugs.

A survey on the knowledge, attitude and opinion on substance use revealed that the knowledge on this was more among the rural students [17], but contradictory results were found in a study which was conducted in Kenya [21]. In our study, students from the rural background were found to have less knowledge towards alcohol and tobacco but better knowledge about other drugs and this finding was comparable to the findings of the studies which were done by other authors [22].

Drug abuse prevention should be made a high priority and the efforts on drug abuse prevention must be an important component of any comprehensive approach which has been undertaken to treat substance abuse. Adolescents and young adults are the more visible groups who are at risk for substance abuse. Efforts should be made to improve their knowledge about ATOD by providing adequate education to them. Shaping the attitude of the youth and the promotion of a healthy lifestyle is essential. Thus, the primary prevention of drug abuse has a key role, which pertains to the avoidance of substance abuse before it has a chance to occur [23].

CONCLUSION

To summarize, the current study suggests that the knowledge about ATOD is inadequate and if the knowledge about the risks which are involved in drug abuse is inculcated among youths, it will go a long way towards winning the battle against drug use. Efforts which are being made to control this problem by arranging substance use prevention programs should not be limited only to the youth, but it should also target their parents and other family members.

However in this study, the sample size was small and it was conducted in a specified geographic area. So it has described the knowledge of only a specified population group. Thus, it requires an epidemiological survey to test the generalization of this conclusion.

QUESTIONNAIRE**

We are interested in what you know about alcohol, tobacco and other drugs and how you feel about using ATOD. Your answers to these questions will be kept confidential. Do not reveal your identity.

Please circle the number or fill out the blank space that most closely corresponds to your answer.

You have to circle only one for each item or question asked.

Thank you for your participation.

1. Back ground information

(a) Age - 17, 18, 19, 20, 21 yearsplease circle you age

(b) Sex - Male / Female

(c) Education

(d) Socio economic status - (Income of parents per year)

(e) Place - City / Town / Village

Knowledge about the effects of Alcohol, Tobacco and other drugs

How much do you think people risk harming themselves physically or mentall if they

		No risk	Little risk	Some risk	Great risk	Can't say
(a)	Smoke one or more packs of cigarettes everyday	1	2	3	4	5
(b)	Chew tobacco leaves everyday	1	2	3	4	5
(c)	Take four or five drinks of an alcoholic beverage	1	2	3	4	5
(d)	Use marijuana regularly	1	2	3	4	5
(e)	Use cocaine regularly	1	2	3	4	5
(f)	Use heroin regularly	1	2	3	4	5
(g)	Use other drugs regularly (Club drugs, LSD)	1	2	3	4	5

^{**}Questionnaire adopted from Evaluation instrument by CSR3.

REFERENCES

- [1] Maisto SA, Galizio M, Connors GJ. Drug use yesterday and today. Drug use and abuse. 4th edition. Thomson learning, inc, USA, 2004; 23.
- [2] WHO Tech Rep Series. Youth and drugs.1969;409:7-27.
- [3] Wilson R, Kolander C. Selected evaluation instrument. *Drug abuse prevention*. 2nd edition. Jones and Bort let, USA, 200;309.
- [4] Rinaldi RC, Steindler EM, Wilboard BB, Goodwin D. Classification and Standardization of substance abuse terminology. *Journal of the*

- American Medical Association. 1988;259:555-57.
- [5] Drug abuse in India: National portal content management. Reviewed on; 12.02.2010. Available from http://www.azadindia.org/social issues/DrugAbuseinIndia.html.
- [6] Narcotic drugs and psychotropic substance Act 1985. Available from http://www.netlawman.co..in /narcoticsdrugspsychotropic substance act1985.php.
- [7] Dev A. Show age proof to enter pubs. The Times of India. 2011; Nov 4, Times City: 4.
- [8] Mishra SS. Will drugs suck the life out of India? Mouth piece for the youth 23rd March 2011. Available from www.youthkiawaaz. com/2011/08/ Drug abuse in India growing.
- [9] Maisto SA, Galizio M, Connors GJ. Drug use yesterday and today. *Drug use and abuse*. 4th edition. Thomson learning, inc, USA, 2004;28.
- [10] The NHS information centre, *Lifestyle statistics*. 27 jan 2011 available at www.ic.nhs.uk.
- [11] Sinha DN, Gupta PC. Pednekar M.Tobacco use among students in Bihar (India). *Indian J Public Health*. 2004;48:11-17.
- [12] Singh V, Gupta R. Prevalence of tobacco use and awareness of risks among school children in Jaipur. *J Assoc Physicians India*. 2006;54:609-12.
- [13] Ljubotina D, Galic J, Jukic V. Prevalence and risk factors of substance use among urban adolescents: questionnaire study. *Croat Med J* 2004;45:88-98.
- [14] Sinha DN, Gupta PC, Pednekar MS. Tobacco use among students in the eight Northeastern states of India. *Indian J Cancer*. 2003;40: 43-59.
- [15] Gajalakshmi V, Asma S, Warren CW. Tobacco survey among youth in South India. *Asian Pac J Cancer Prev.* 2004;5:27-38.
- [16] Wolska A, Latak D. Smoking tobacco among young people in grammarschool, secondaryschool and high school and knowledge of relating wholesome threats. *Przegl Lek*. 2005;62:110-11.
- [17] Dechenla Tsering, Ranabir Pal, and Aparajita Dasgupta. Substance use among adolescent high school students in India: A survey of knowledge, attitude, and opinion. *Journal of Pharmacy and Bioallied Sciences*. 2010;2(2): 137-140.
- [18] Madu SN, Matla MQ. Illicit drug use, cigarette smoking and alcohol drinking behaviour among a sample of high school adolescents in the Pietersburg area of the Northern Province, South Africa. *J Adolesc* 2003;26:121-36.
- [19] Chen KT, Chen CJ, FagotCampagna A, Narayan KM. Tobacco, betel quid, alcohol, and illicit drug use among 13 to 35 year olds in ILan, rural Taiwan: prevalence and risk factors. *Am J Public Health*. 2001;91:11304.
- [20] Sutherland I, Willner P. Patterns of alcohol, cigarette and illicit drug use in English adolescents. *Addiction*.1998;93:119-208.
- [21] Ogwell AE, Astrom AN, Haugejorden O. Sociodemographic factors of pupils who use tobacco in randomlyselected primary schools in Nairobi province, Kenya. *East Afr Med J.* 2003;80:235-41
- [22] Barman Rajdip, Singh Daljit, Sharma Kuldip C, Sidhu Balwant Singh. Comparative Evaluation of Knowledge, Attitude and Prevalence of Substance Abuse in Urban and Rural School Going Children: A Crosssectional Study. *Journal of Research in Medical Education & Ethics*. 2011;1(1):43-49.
- [23] Maisto SA, Galizio M, Connors GJ. Prevention of substance abuse. *Drug use and abuse*. 4th edition. Thomson learning, inc, USA. 2004;392-93.

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