



A STUDY ON SUBSTANCE ABUSE OF ADOLSCENTS IN THE SOUTH ZONE OF DELHI

Kashipa Harit, Assistant Director, NABH Secretariat, New Delhi.

Dr. Poonam Khattar, Professor at National Institute of Health and Family Welfare, New Delhi.

Anil Kumar Chillimuntha, Professor & Head, Department of Management, Metas Adventist College of Management Studies, Surat, Gujarat.

Abstract

Adolescence is a transitional stage of the human physical and psychological development. At this stage it offers opportunities for autonomy, intimacy, self esteem and competition. Adolescence is a period for experimentation and stating something new. This leads to a greater risk of this age group to substance abuse. It's a world issue. They undergo a lot of peer pressure. There's a Lack of social bonding, lack of low economic and social factors and family bonding with lesser parental and guidance.

Adolescent boys are recognized as a vulnerable group to substance abuse. The present study has the objective to study the type of substance abuse in adolescents. The study was conducted on 410 male and female adolescents, students of 10th to 12th class from the four intermediate schools of south delhi is taken. The highest use of Smoking (88.1) is prevalent, followed by the Alcohol (75.6) and tobacco chewing (61.4). The least use is mostly cocaine, morphine, cough syrup and depressants. There are many who are subject to substance use. However 16 percent of them have tried once and majority of around 43 percent of them are the present users of one of these substances. The study is indicative of need for working closely with the law enforcing personnel to stop the free supply of these substances at school and developing a supportive environment involving both parents and teachers so that adolescents can decide and sustain with the right choices for healthy life.

Contributors: Kashipa Harit conceived the idea, supervised the data collection. She will act as guarantor for the paper. She has helped in analysis and prepared the initial draft of the paper. Prof. Poonam Khattar provided support and encouragement to carry out this study. Anil Kumar Chillimuntha has helped in analysis and drafting the article manuscript.

Keywords:

Adolescent, Substance Abuse, Depressants, Drug Abuse, Habits, School going Children

Introduction

Half of the world's people are under the age of 25. This includes the largest-ever generation of adolescents who are approaching adulthood in a rapidly changing world. One in every five people in the world is an adolescent – defined by WHO as a person between 10 and 19 years of age. Out of 1.2 billion adolescents worldwide, about 85% live in developing countries and the remainder live in the industrialized world.

In India, the adolescents account for 22.8% of the population (as on 1st March 2000, according to the Planning Commission's Population projections). This implies that about 230 million Indians are adolescents in the age group of 10 to 19 years.

Adolescents are resilient and resourceful individuals, with their own views and evolving decision-making capacities. It is a time of learning and exploring, and can be a good time to establish healthy attitudes and behaviors for life.

Of the various stages of life, adolescence is probably the most intriguing and adventurous. Experimentation during this phase of life is a natural phenomenon. The transition from childhood to adulthood brings with it its own share of problems, with the body and mind trying to adapt to a whole range of transitions. Experiencing a transition is likely to disrupt one's sense of balance and well being. Such disruption is particularly likely to occur when one experiences multiple and simultaneous changes, which is typical for most adolescents.

Adolescents and youth with their penchant for experimentation and exploration of new ideas and activities are especially vulnerable to drug abuse and form the majority of drug users worldwide. Further, the nature of drugs of addictive value varies greatly based on the origin, inherent chemicals and mechanism of action generated in the brain cells. These fall into categories like narcotics, inhalers, antidepressants, cannabis etc. In recent times, the problem of drug abuse has acquired alarming proportions with extensive social, legal, medical, moral, ethical and even political ramifications many studies reveal shocking aspects related to fact that even school children are taking the road to 'hard-drugs'. There are now millions of people addicted to alcohol, barbiturates and tranquilizers. According to a report by Paul (2003), there are roughly 7,00,000 smack addicts in the country. Bombay and Delhi have 1,00,000 each and even more. Five deaths are reported everyday in the country because of drug addiction. Research studies indicate that students and youth are particularly prone to this malady and it is more prevalent among students from urban backgrounds and upper income groups. Of late the incidents are, growing from a problem generally associated with members of the upper-end of socio-economic ladder to one that cuts across all social and ethnic classes of society. A majority of them take drugs in an experimental manner, which often leads, to regular use and later to addiction in some cases. In fact, a variety of psychological, physical and social factors are found associated with drug-abuse.

As problem of adolescent substance abuse has grown, so the ways of understanding and treating of this problem. With an increasing incidence of drug taking by the younger generation, there is a growing worldwide awareness of the adverse effects of drug taking people of all age groups more so with the new patterns of use are emerging in contemporary age.

Materials and Methods

Study Design: Cross sectional study

Objective: To find out the substances of abuse by adolescents.

Sample Size: A sample size of 380 was worked out, based on the prevalence from previous study of substance abuse among the students of Delhi University by Rukmini and Agnimitra. The prevalence of substance abuse in this study was 57%.

The formula of sample size determination is $N=Z^2pq/d^2$.

Taking the values of each as below:

$$Z = 1.96,$$

$$p = 0.57$$

$$d = 0.05$$

$$q = 1-p=0.43$$

Sample size came out to be 380. Keeping in mind defaulters, sample size of 410 was taken. All the students in the selected schools, studying in 10th to 12th classes were eligible for the study so as to get the desired sample size.

Study Population: The present study was conducted in four schools in south zone of Delhi. These included

1. Public school
2. Aided school
3. Government school
4. Kendriya Vidyalaya
5. Present study included adolescents in the age group of 14 to 18 years studying in senior secondary classes X, XI XII in these schools.

Data Collection methods:

The information collected using interview technique facilitated by the guidelines (questionnaire) prepare for asking questions. The information noted in the questionnaire form.

Data Management and Analysis:

After the completion of data collection, data entry was done into Excel data file. The basic statistical calculations were worked out performed using SPSS version 15.

Results

Most respondents belonged to the age group of 14-16 years (72%, n=295), of which most were around 16 years old (N=181,44%). Most of them were boys in this age group (n=172). Out of the total number of girls, most of them belonged the age group of 14-16 years (n=123,84.2%). Two of the respondents did not give this information hence total percentage not coming to 100.

Table 1: Age/sex/class wise distribution of respondents

		Male		Female		Total	
		N	Col%	N	Col %	N	Col %
Age Group	14-16	172	65.6	123	84.2	295	72
	17-19	90	34.4	23	15.8	113	27.6
	Total	262	100	146	100	408	99.6
Class							
Class	X	50	19.1%	36	24.7%	86	21
	XI	27	10.3	19	13	46	11.2
	XII	185	70.6	91	62.3	276	67.3
	Total	262	100	146	100	408	99.6

Most students were from 12th standard (67.3%, n=276) out of which 185 (70.6%) were males and 91(62.3%) were females. Class tenth formed the next major group (21%, n = 86) in which 50 were boys (58.1%)and 36 were girls (41.8%). Two respondents did not give information related to this question.

Table 2: Socio-demographic profile of the respondents

		Male		Female		Total	
		N	Row %	N	Row %	N	Col %
Type of family	Joint	75	63.6	43	36.4	118	29.0
	Nuclear	186	64.2	103	35.8	289	71.0
	Total	261		146		407	
	3 respondents did not provide information						
Father's education	Illiterate	5	100.0			5	1.2
	Tenth pass	30	68.2	15	32	45	10.9
	Higher secondary	38	69.1	17	30.9	55	13.6



	Graduate	107	66.5	54	33.5	161	39.9
	Post graduate	78	56.5	60	43.5	138	34.2
	Total	258		146		404	
	6 respondents did not provide information						
Mothers education	Illiterate	22	78.6	6	21.4	28	6.9
	Tenth pass	46	71.9	18	28.1	64	15.9
	Higher secondary	38	60.3	25	39.7	63	15.6
	Graduate	101	67.3	49	32.7	150	37.2
	Post graduate	52	53.1	46	46.9	98	24.3
	Total	259		144		403	
	7 respondents did not provide information						
Fathers occupation	Businessman	99	63.5	57	36.5	156	39.8
	Professional	14	48.3	15	51.7	29	7.4
	Govt servant	113	66.9	56	33.1	169	43.1
	Private service	9	60.0	6	40.0	15	3.8
	Skilled labor	11	68.8	5	31.3	16	4.1
	Unskilled labor	1	50.0	1	50.0	2	.5
	Retired	4	80.0	1	20.0	5	1.3
	Total	251		143		392	
	18 respondents did not provide information						
Mothers Occupation	Businessman	6	35.3	11	64.7	17	4.3
	Professional	13	56.5	10	43.5	23	5.8
	Govt servant	29	70.7	12	29.3	41	10.4
	Private service			1	100.0	1	.3
	Skilled labour	1	100.0			1	.3
	Housewife	200	64.3	111	35.7	311	78.9

	Total	249	285	394
16respondents did not provide information				

Out of the total respondent, 289 respondents were from nuclear family (71%) and 118 (29%) were from joint family. Three of the total 410 respondents did not answer this question.

Parents of most of the students were graduates (39.9% fathers and 37.3% mothers) followed by post graduates(34.3% fathers and 24.3% mothers) with only 8% students (n=33) having one of the parent with no schooling and seven students did not mention about their parents’ education status.

Most respondents’ fathers were into government service (43% N= 169) followed by business (40%, N=156). Only 8% of the respondents belonged to professional families like medicine, lawyer while 4% (n=16) respondents did not mention about their father’s occupation.

Majority of the respondents mothers’ were housewives (78.9%,N=311) and 22% working. Within the working mothers, most of them were into government service (n=41,10.4%) followed by professionals (n=23,5.8%) and around 17 had their own business. 16 did not give the information.

There was a wide variation of distribution of pocket money amongst the students. Most of them received less than Rs 250 per month (28%, n=115) .Out of the total students 87 (21%) said they did not receive any pocket money, and on the other hand there were those who got above Rs 2000 monthly (9%, n=36).

Table 3: Patterns of “substance abuse”

Variables	No	%
<i>Understanding of term “substance abuse”</i> (n =408)		
Correct	251	87.8
Incorrect	35	12.2
Not answered	122	30.0
<i>No. Of friends known to be indulging in abuse</i> (n =400)		



None	33	8.3
Very few (1-2)	165	41.3
Some (3-5)	119	29.8
Many (>5)	83	20.9
substance use		
Never used	162	40.5
Once tried	64	16.0
User	174	43.5
Total	400	97.6
Missing	10	2.4

Commonly used substances (% Out of the grand total n=400)		
Smoking	354	88.1
Alcohol	304	75.6
Tobacco chewing/khaini	247	61.4
Inhalants	200	49.8
Ganja/marijuana/grass	147	36.6
Pan/beetle chewing	109	27.1
Cocaine/crack	35	8.7
Morphine/cough syrup	22	5.5
Depressants	33	8.2

respondents, 88% had heard of the term 'substance abuse' and 12 % did not have any idea about the term. 122 students (30%) did not answer this

question.

Students were asked if they were aware of their peers/friends taking any of the substances Out of 410 respondents, only 33 students (8%) denied their friends taking any of the substances. Almost all the students (92 %, n=367) knew about their batchmates/peers taking one of the substances. Majority of them knew about one to two of their classmates taking one or other substance (40%, n=165) followed

by those who knew of 3 to 5 friends taking these substances (30%, n=119). Around 83 respondents (20.9%) said that they knew of more than 5 of their friends who were into substance abuse.

In a multiple response question regarding the most common substances being used in the peer group, 354 respondents mentioned smoking as being most common (88%, n=354) followed by alcohol (n=304, 75.6%). Use of smokeless tobacco is also on the rise with the 61.4% (n=247) of respondents mentioning that it is being consumed amongst peers. The analysis reveals pattern of new emerging substances that are being used these days by the youngsters. These are inhalants like whitener (commonly called as fluid), paint etc. As many as 50% of them said that it is highly prevalent in their peer group. Reason for this as mentioned by students was ready availability, cheap, and instant high without any withdrawal symptoms. Also besides alcohol and smoking another new pattern that is seen in school students is the use of marijuana. Known by various names like smoke, pot, marijuana is used by the school going children (37%, n=147) of present study. Use of hard drugs is also mentioned by 9% of the students in the study (n=35).

A total of 410 students studying in classes 10th to 12th were surveyed in this study, out of which 64 (16%) were found to be experimental users, (tried once) while 174 (43.5%) were regular users. Regular users include all who were taking the substances for purpose other than just experimental use or just trying out of curiosity. The percentage of regular users is higher than once tried and never used because here all the substances are taken into consideration. If individual substances are to be considered, the percentage of never used is more than once tried and regular user, which is shown subsequently.

Table 4: Self frequency of use of common drugs (multiple responses)

Frequency of use	Alcohol		Smoking		Tobacco chewing		Marijuana		Inhalants	
	N	%	N	%	N	%	N	%	N	%
Never	241	60.3	221	55.3	313	78.3	341	85.2	324	81.0
Once	65	16.3	73	18.3	13	3.3	26	6.5	40	10.0
Weekly	25	6.3	46	11.5	23	5.8	3	0.8	2	0.5
Once a month	32	8.0	21	5.3	17	4.3	8	2.0	14	3.5
More than once a month	37	9.3	39	9.8	34	8.5	22	5.5	20	5.0
Total	400	100.0	400	100.0	400	100.0	400	100.0	400	100.0

Respondents were asked regarding their ever used or tried drugs and if used then the frequency of consuming those drugs. Smoking is the most common substance used by the students with 18% (n=73) confessing to having tried smoking with 11% (n=46) confessing to smoke weekly.

ALCOHOL

About 6.3% (n=25) of the students confessed of having it at weekly intervals. About 65 respondents (16.3%) reported to having tried it once. There were many respondents who were consuming alcohol

occasionally at monthly (n=69,17.3%). 60% (n=241) respondents said that they had never tried alcohol even once.

SMOKING

Smoking was more common than alcohol consumption amongst the group of respondents. 11.5% of them (n=46) were smoking regularly (weekly). Most of the respondents had never tried smoking (n=221,55.3%). About 60 respondents reported to having smoked occasionally (15.1%). The percentage of 'once tried' smokers was more than weekly/frequent smokers (n=73, 18.3%).

TOBACCO CHEWING-

Use of smokeless tobacco was less in the respondents. Most of them had not tried tobacco chewing (78.3%, n=313) and only 3.3 % of the respondents (n=13) reported of consuming smokeless tobacco only once. The number of respondents confessing to taking smokeless tobacco occasionally was high. (N=51, 12.8%).

MARIJUANA

Out of 400 respondents, 59 agreed to the use of marijuana, in which 6.5 % had tried it only once (n=26). Marijuana users were mostly occasional users taking it at monthly intervals (n=22,5.5%). Most of the students reported that it was 'cool' taking this.

INHALANTS

There was startling revelation of consumption of inhalants. These are whitener/fluid that were tried by 10% of the students and 36 students being regular users. Among the regular users 20 students confessed to consuming at monthly intervals. 40 students confessed to taking inhalants at least once (10%). Reason for this as mentioned by students was ready availability, cheap, and instant high it is slowly becoming popular amongst students.

Discussion

Researchers have shown an increased understanding of the extent and demographic of drug abuse, in general, and common substance abuse among adolescents, in particular. There are many factors which are easily available to the youth which are used by them to abuse their life. The highest use of Smoking (88.1) is prevalent, followed by the Alcohol (75.6) and tobacco chewing (61.4). The least use is mostly cocaine, morphine, cough syrup and depressants. There are many who are subject to substance use. However 16 percent of them have tried once and majority of around 43 percent of them are the present users of one of these substances.

There is need to create awareness among our youths about the side effects and consequences of substance abuse. On the other hand, there is also requirement to open counseling centers and run government and non-government programs to stop over the substance abuse. There were very few studies found on substance abuse among adolescents in India so more studies are needed to be done to know the actual status of the problem in India.

Conclusion

Drug abuse is a very common and major problem related to health and social issues which is associated with co morbidities and complications. The initiation of drug abuse at early adolescence result in continuation of drug to the adulthood. The prevalence of substance abuse is high and causes significant

issues to this population, so therefore a need to have targeted intervention to reduce the huge burden created. Eventhough the adolescents are aware of the harmful effects of substance abuse yet they take up this habit. Therefore, preventive strategies are required to be planned and suggested for drug abuse. More of comprehensive preventive programmes for adolescents by the community will be of greater value. Involving parents and family members will go a long way. Shaping Attitude of adolescents will be an effective measure undertaken. More and more studies are required to be conducted in India targeting various niche groups of adolescents.

References:

1. A.M. Kadri, A.Bhagyalaxmi, GeetaKedia; (2003);A study of socio-demographic profile of substance abusers attending a de-addiction center in Ahmedabad city; Indian Journal of Community Medicine Vol. XXVIII, No.2, Apr.-June
2. A.S. Pradeepkumar; (2005); Tobacco Use in Kerala: Findings from Three Recent Studies; The National Medical Journal of India 18(3): 148-53.
3. B. S. Saluja, S. Grover, A. S. Irpati, S. K. Mattoo and D. Basu, "Drug Dependence in Adolescents 1978-2003: A clinic-based observation from North India," Indian J Pediatr, vol. 74, 2007, pp. 455-458.
4. Benegal V, Sathyaprakash M, Nagaraja D. (2008). Alcohol misuse in the Andaman and Nicobar Islands. Report on project commissioned by the Indian Council of Medical Research and funded by Action Aid, India.
5. Chaturvedi H.K., Phukan R.K. J.; (1998); Tobacco use survey with socio-demographic analysis; Tobacco use in Mizoram, India: Sociodemographic differences in pattern; Southeast Asian Journal of Tropical Medicine of Public Health Mar; 29(1): 66-70.
6. Chaudhury S, Das SK, Ukil B. (2006). Psychological assessment of alcoholism in males. Indian J Psychiatry.48:114-7.
7. D. N. Sinha, K. S. Reddy, K. Rahman, C. W. Warren, N. R. Jones, and S. Asma, "Linking Global Youth Tobacco Survey (GYTS) data to the WHO framework convention on tobacco control: The case for India," Indian J Public Health, vol. 50, 2006, pp. 76-89. <https://www.drugabuse.gov/publications/media-guide/most-commonly-used-addictive-drugs> retrieved on 08/07/2016.
8. Dhawan A, Jain R, Kumar N.(2004).Proceedings of the workshop on "Assessment of Role of Tobacco as a Gateway Substance and Information available on Evidence relating to tobacco, alcohol and other forms of substance abuse. All India Institute of Medical Sciences and World Health Organization, New Delhi.
9. Dr.SudhaV.Rao; (2000); Drug Abuse; Adolescent education; an awareness training package for secondary teachers; Regional institute of education; Mysore; page no.170.
10. Dutta S, Kar N, Thirthalli J, Nair S. (2007). Prevalence and risk factors of psychiatric disorders in an industrial population in India. Indian J Psychiatry.49:103-8.
11. Grover S, Basu D. (2004).Cannabis and psychopathology: Update 2004. Indian J Psychiatry.46:299-309.



12. Jayant K, Notani PN; (1991); *Tobacco usage in school children in Bombay, India. A study of knowledge, attitude and practice. Indian Journal of Cancer. Sep; 28(3): 139-47.*
13. Kumar R, Dhawan A.(2002). Reasons for transition and reverse transition in patients of heroin dependence. *Indian J Psychiatry.44:19–23.*
14. M Sadiq Salman, ShaikhZafarHasan; (2004);*Changing Behavior Of Smoking Among Resident University Students: Some Issues And Challenges; Research Paper Contest; Faculty of Management Studies and Research, Aligarh Muslim University.*
15. M. Agarwal, A. Nischal, A. Agarwal, J. Verma and S. Dhanasekaran, “Substance Abuse in Children and Adolescents in India,” *J. Indian Assoc. Child Adolesc. Ment. Health*, vol 9(3), 2013, pp.62-79.
16. *Mohfw country report (1998); Report of the Working Group for adolescents: The Tenth Five Year Plan; Planning Commission Government of India.*
17. Nayak RB, Murthy P. (2008). Fetal alcohol spectrum disorder. *Indian Pediatr.* 45:977–83.
18. R. Juyal, R. Bansal(2006); Substance Use Among Intercollege Students in District Dehradun; *Indian Journal of Community Medicine*; October-December Vol. 31, No. 4.
19. R. Juyal, R. Bansal, S. Kishore, K.S. Negi, R. Chandra, and J. Semwal, “Substance use among intercollege students in District Dehradun,” *Indian J Community Med*, vol. 31, 2006, pp. 252-54.
20. U. M. Bhojani, S.J. Chander, and N. Devadasan, “Tobacco use and related factors among pre-university students in a college in Bangalore, India,” *National Medical Journal of India*, Vol.22(6), 2009.
21. V. Benegal, K. Bhushan, S. Seshadri and M. Karott, “Drug Abuse among street children in Bangalore” (Monograph funded by CRY-1998) accessed from: http://www.nimhans.kar.nic.in/deaddiction/lit/Drug%20Abuse%20_Street%20children_Bangalore.pdf. Received on 23/05/2016.
22. WHO, Revised Global Burden of Disease (GBD) Estimates, World Health Organization, Geneva, 2002, www.medicinenet.com