



STUDY TO ASSESS PREVALENCE AND PATTERN OF SUBSTANCE ABUSE AMONG ADOLESCENTS IN LUCKNOW

Medical Science

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ABSTRACT

Background: The epidemic of substance abuse in a young generation has assumed alarming dimensions in India. Substance use in adolescence is commonly associated with unsafe sexual behaviour, school and social misbehaviour, poor academic performance, and may eventually lead to the continuation of drug use in adulthood.

Aim and Objectives: To investigate the prevalence and pattern of substance use and any associated sociodemographic factors for planning and developing effective strategies to reduce substance use among this high-risk population.

Material and Methods: A cross-sectional survey was done to assess the prevalence and pattern of substance use among male adolescents in suburban area of Lucknow. 100 adolescents were conveniently selected from different areas of Lucknow. Adolescents who were aged more than 11 years, able to read and write Hindi or English were included in the study, and persons who are mentally unsound and not willing to participate were excluded from the study. A structured questionnaire for demographic variables was developed by researchers. To assess the prevalence and pattern of substance use, a structured questionnaire was prepared with the reliability coefficient of 0.94 (test-retest reliability) with a content validity index of 0.90 between the experts.

Results: More than half of the subjects (60%) were using any kind of substances presently, of which, 60% were using the substance once or twice in a month. About 45% of the adolescents started to use substances before 13 years of age. Common substances used by the subjects were any kind of tobacco (76%), inhalants (20%), and alcohol (4%). Most of the subjects were getting substances from their friends (85%) and only a few (15%) by themselves.

Conclusion: Early onset of substance use is seen among adolescents. Low educational status and the nuclear family are associated with their substance use. Friends are the key source of substances and their initiation of substance use.

KEYWORDS

Adolescents, Prevalence, Substance Abuse.

BACKGROUND:

Substance use refers to the use of any psychoactive substance or drug, including licit and illicit drugs, other than when medically indicated.[1,2] Psychoactive substance use poses a threat to the health, social and economic fabric of families, communities, and nations. Adolescence is a time of experimentation and risk-taking, and the initiation of substance use often begins during this period. The consequences of drug use are often multifaceted. This habit not only affects health, education, and occupational career but also incurs a huge financial and social burden to the society.[3]

According to the World Health Organization substance abuse is persistent or sporadic drug use inconsistent with or unrelated to acceptable medical practice. Today, there is no part of the world that is free from the curse of drug trafficking and drug addiction. All over the world, millions of people with drug addiction are leading miserable lives between life and death. India too is caught in this vicious circle of drug abuse, and the numbers of drug addicts are increasing day by day.[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 love and care in modern families where both parents are working, decline of old religious, and moral values, etc., lead to a rise in the number of drug addiction cases, who take drugs to escape hard realities of life. Drug use, misuse, or abuse are also primarily due to the nature of the drug abused, the personality of the individual, and the individual's immediate environment.[5]

The epidemic of substance abuse in a young generation has assumed alarming dimensions in India. Changing cultural values, increasing economic stress, and dwindling supportive bonds are leading to initiation into substance use. Substance use in adolescence is commonly associated with unsafe sexual behaviour, school and social misbehaviour, poor academic performance, and may eventually lead to the continuation of drug use in adulthood. Student substance use surveys provide an essential source of information to identify the high-risk group, extent, and pattern of substance use and sociodemographic correlates. Such surveys are also vital for planning and coordination of intervention programs and when repeated periodically, they provide a trend of substance use in a population.[6] The incidence of drug abuse among children and adolescents is higher than the general population.

This is notably because youth is a time for experimentation and identity forming. In developed countries, drug abuse among youth is generally associated with particular youth subcultures and lifestyles.[7]

AIM AND OBJECTIVES:

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MATERIAL AND METHODS:

A cross-sectional survey was done to assess the prevalence and pattern of substance use among male adolescents in suburban area of Lucknow. 100 adolescents were conveniently selected from different areas of Lucknow. Adolescents who were aged more than 11 years, able to read and write Hindi or English were included in the study, and persons who are mentally unsound and not willing to participate were excluded from the study. A structured questionnaire for demographic variables was developed by researchers. To assess the prevalence and pattern of substance use, a structured questionnaire was prepared with the reliability coefficient of 0.94 (test-retest reliability) with a content validity index of 0.90 between the experts. Data were collected from the subjects after getting their written consent. Descriptive statistics (mean, frequency, percentage) and inferential statistics (Chi-square test) were applied to analyse the data using statistical package SPSS 17.0 (SPSS Inc., 233 South Wacker Drive, 11th Floor, Chicago). The level of significance was set as $P < 0.05$.

RESULTS:

As shown in Table 1, all subjects were male and had mean age of 15.05 (standard deviation = 2.65) years. More than half (58%) of the subjects had education below 10th standard, two-third of them were from nuclear family (75%). Most of the subjects (72%) had monthly family income of <Rs. 5000/- and 67% of the subjects had ≤ 2 siblings in the family.

Table 1: Sociodemographic characteristics of subjects

Socio demographic characteristics	Mean $\pm$ SD	N (%)
Age of subjects	15.05 $\pm$ 2.65 (11-19)	-
Sex	Male	95 (95%)
	Female	05 (5%)

Educational status	Below 10th standard	58 (58%)
	10-12th standard	22 (22%)
Type of family	Graduate	10 (10%)
	Joint family	25 (25%)
	Nuclear family	75 (75%)
Monthly family income	Below Rs 5000	72 (72%)
	Above Rs 5000	28 (28%)
No of siblings	≤2	67 (67%)
	≥2	33 (33%)

As shown in Table 2, more than half of the subjects (60%) were using any kind of substances presently, of which, 60% were using the substance once or twice in a month. About 45% of the adolescents started to use substances before 13 years of age. Most common reason specified by the subjects to take substance was to be like by friends (51%), to feel like an adult (27%), and few of them reported like the feeling of substances (12%) as reason for taking substances. Common substances used by the subjects were any kind of tobacco (76%), inhalants (20%), and alcohol (4%). Most of the subjects were getting substances from their friends (85%) and only a few (15%) by themselves.

Table 2: Substance use profile of subjects

Characteristics of substance abuse	Frequency %
Use of any substance	
Yes	60 (60%)
No	40 (40%)
Age of initiation of substance use	
After 15 years	18 (18%)
Between 14-15 years	37 (37%)
Below 13 years	45 (45%)
Frequency of substance use	
Every day	13 (13%)
Several times a week	05 (5%)
Every weekend	22 (22%)
Once or twice in month	60 (60%)
Reason for substance use	
Like the feeling	12 (12%)
To be like by friends	51 (51%)
To feel like an adult	27 (27%)
To reduce tension or problems, full of worries	10 (10%)
Source of substance	
Own	15 (15%)
Friends	85 (85%)
Parents	00 (0%)
Type of substance used (more than 1 choices allowed)	
Tobacco	76 (76%)
Alcohol	04 (4%)
Inhalants	20 (20%)

Association analyses were carried out to see the relationship of substance use with sociodemographic variables. As shown in Table 3, among the sociodemographic variables only educational status of subjects, type of family, monthly income and number of siblings had a significant association with substance use. Adolescents who had education <10th standard reported more usage of any kind of substances than who had education more than 10th standard. More prevalence of substance use was expressed by adolescents who were from nuclear family. Subjects who had less than two siblings reported more substance use. No other demographic variables had a significant association with prevalence of substance use among adolescents.

Table 3: Relationship between substance abuse and sociodemographic characteristics

Sociodemographic characteristics	Yes (n=60)	No (n=40)	P value
Educational status			0.005
Below 10 th standard	41	17	
10-12th standard	13	09	
Graduate	06	04	
Type of family			0.008
Nuclear	45	30	
Joint	15	10	
No of siblings			

≤2	40	27	0.005
≥2	20	13	
Monthly family income			0.042
Below 5000	42	30	
Above 5000	18	10	
Age of subjects	15.35±2.4	14.55±2.6	0.27

DISCUSSION:

Substance use surveys among male adolescents provide useful information about the extent and pattern of substance use among children. This cross-sectional study was conducted with the aim to understand prevalence and pattern of substance use among male adolescents in New Delhi. Study findings revealed that nearly more than half (60%) of the male adolescents reported the use of one or more substances in their lifetime. All the studies including the present one reported the high prevalence of substance use among male adolescents in India.[7-13] There could be several reasons for the high prevalence of tobacco use among youths. Both cigarettes and smokeless tobacco products are easily available to students, and their use is socially acceptable.[14] The important finding noted in this study is that more than half of the subjects were used substances such as solvents such as (kores, dendrite, petrol, and nail polish) which are very high compared to the previous study finding.[8]

On the other hand, only 20% of the subjects reported that use of alcohol which was comparatively less to previous studies reported from India.[15] In our study, none of the adolescents reported the use of heroin, opiates, and cannabis. This could be because of an effective campaign by governmental and nongovernmental organizations against the use of these substances in the state.

Nearly half of the subjects reported that they were started to use substances before 13 years of age which was similar to the previous study finding.[15] This reflects the easy availability of substances to young population and the use of substances during festivals could be another reason for the high prevalence. Substances such as betel nuts, tobacco, cigarettes, cannabis, and locally prepared alcohol are offered traditionally during various ceremonies in New Delhi.

Most common reason specified by the subjects for taking substances was to be like by friends, and most of them were getting substances from their friends. Friends may influence a person to start using substances by making them available, providing an example, or defining the nature of the physiological experience.[8,15]

Most of the subjects (60%) reported the use of substances once or twice in a month which was comparatively less than previous studies.[8,9,13] The reason could be because peer pressure continues to use substances and making frequency shorter with knowing the detrimental effects of substance use.

Schools are often recognized as important sites for efforts toward prevention of substance use among adolescents. School substance uses health policy is a key component of health promotion in school. Such policy describes the framework within which the whole school community manages issues relating to substance use. The intervention strategies such as school and community health education programs often include providing factual information about substance use, management of alcohol, tobacco, and drug-related incidents, imparting life skills training, legislation relevant to substance misuse, and provision of staff training can be very useful in the prevention substance use among adolescents.

CONCLUSION:

Our findings indicate a high prevalence of tobacco and inhalants use among adolescents in Lucknow. The onset of substance use is early than 13 years. Low educational status and less family members are associated with substance use in adolescents. Friends are the key source of substances and their initiation of substance use.

Based on these findings, following recommendations can be considered.

(I) Maintaining the substance use control through legislation by which controlling of selling substances under 18 years of age and prohibition of substance use in public places seems to be effective.

(ii) Early onset of substance use calls for effective measures directed

against the younger age groups. Therefore, educational intervention at the school level appears to be the most feasible measure to prevent initiatives toward the use of substances. This needs to include substance use and its adverse effects, management of substance use incidents, communication of refusal skills among students and provision for training, and staff development. Parents and siblings should be involved in school education programs concerning substance use and should be motivated to share a healthy relationship with their children and give more time to them, especially in the growing up stage when deviant behaviour can influence them easily. Periodic surveys, possibly every 2–3 years, would be useful to address the substance use issues and to evaluate the impact of the preventive measures.

Limitations:

It was a single centre short duration study so the results cannot be generalised. In future multicentric studies are recommended to study the prevalence and contributing factors of substance abuse among adolescents.

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REFERENCES:

1. World Health Organization. Guide to Drug Use Epidemiology. Available from: http://www.who.int/hq/2000/a58352_PartA.pdf. [Last accessed on 2007 Jun 17].
2. Smart RG, Hughes PH, Johnston LD, Anumonye A, Khant U, Medina-Mora ME, et al. A Methodology for Student Drug-Use Surveys. Geneva: World Health Organization; 1980.
3. Swadi H. Drug abuse in children and adolescents: An update. Arch Dis Child 1992;67:1245-6.
4. WHO. Techn Res Ser No.886: 1999. p. 48.
5. Scary State of Drug Addiction in India. Available from: <http://www.bjpindia.in/index.php/causes-and-issues/27-youth/78-scarey-state-of-drug-addiction-in-india.html?tmpl=component&print=1&page>. [Last accessed on 2014 Sep 20].
6. Nadeem A, Rubena B, Agarwal VK, Piyush K. Substance abuse in India. Pravara Med Rev 2009;4:4.
7. Children Affected by Substance Abuse. Available from: <http://www.childlineindia.org.in/children-affected-by-substanceabuse.html>. [Last accessed on 2014 Sep 15].
8. Ningombam S, Hutin Y, Murhekar MV. Prevalence and pattern of substance use among the higher secondary school students of Imphal, Manipur, India. Natl Med J India 2011;24:11-5.
9. Venkataraman S, Mukhopadhyaya A, Muliyl J. Trends of smoking among medical students. Indian J Med Res 1996;104:316-20.
10. Reddy DC, Singh SP, Tiwari IC, Shukla KP, Srivastava MK. An epidemiological study of cannabis abuse among college students of Varanasi. Indian J Public Health 1993;37:10-5.
11. Kumar C, Prabhu GR. Prevalence of drug abuse among male youth in Tirupati, A.P. Indian J Community Med 2006;31:281.
12. Chavan BS, Arun P, Bhargava R, Singh GP. Prevalence of alcohol and drug dependence in rural and slum population of Chandigarh: A community survey. Indian J Psychiatry 2007;49:44-8.
13. Sarangi L, Acharya HP, Panigrahi OP. Substance abuse among adolescents in urban slums of Sambalpur. Indian J Community Med 2008;33:265-7.
14. Juyal R, Bansal R, Kishore S, Negi KS, Chandra R, Semwal J. Substance abuse in intercollege students in district Dehradun. Indian J Community Med 2006;31:252-4.
15. Kokiwar PR, Jogdand GR. Prevalence of substance use among male adolescents in an urban slum area of Karimnagar district, Andhra Pradesh. Indian J Public Health 2011;55:42-5.