Original Research Article

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Substance use and its determinants among students of industrial training institute in tribal area of Thane district, Maharashtra

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ABSTRACT

Background: Substance use is a major public health challenge because it is engulfing the younger generation with serious health, social and economic concern. Unhealthy behaviors such as smoking, drinking and illicit drug use often begin during adolescence. The study was undertaken with objectives of assessing the prevalence of substance use and its determinants among students of Industrial Training Institute (ITI).

Methods: A cross sectional study was conducted in all students of the institute to find out prevalence of substance use and its determinants. Data was collected in a predesigned and pretested proforma by oral questionnaire method and was analyzed by SPSS software using descriptive statistics and appropriate statistical tests of significance.

Results: Prevalence of substance use was 18%. There was no significant association of substance use with age, education, caste or residence of the student but it was significantly associated with type of family (p=0.02) and literacy of mother and father (p=0.04 and p=0.01). Tobacco was most commonly used substance and most common factor determining substance use was addiction in family members. All the participants were aware about cancer as a health hazard of substance use but awareness about other health hazards was low.

Conclusions: Several factors can act as determinants of substance use including type of family, education of parents, peer pressure and addiction in family members. Role of family and society should be identified and practiced for prevention and control of this substance use.

Keywords: Prevalence, Substance use, Students, Tobacco

INTRODUCTION

According to the World Health Organization (WHO), substance abuse refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs. Substance abuse is "persistent or sporadic drug use inconsistent with or unrelated to acceptable medical practice." Unhealthy behaviors such as smoking, drinking, and illicit drug use often begin during adolescence; they are closely related to increased morbidity and mortality and represent major public health challenges.² Cannabis products, often called charas, bhang or ganja are abused throughout the country because

it has attained some amount of religious sanctity because of its association with some Hindu deities.³

Joint family, parental abuse status, working status, illiteracy and school dropout are some of the risk factors which are related to substance abuse. Unemployment, poor health, accidents, suicide, mental illness, and decreased life expectancy all have drug misuse as a major common contributing factor. Substance abuse has a major impact on individuals, families, and communities as its effects are cumulative, contributing to costly social, physical, and mental health problems. Several factors can enhance the risk for initiating or continuing substance

abuse including socioeconomic status, quality of parenting, peer group influence and biological/inherent predisposition toward drug addiction.⁵ The effect of substance abuse is manifold, typically harming physically, mentally, socially as well as economically. Such addicted individuals are ostracized by the society leading them to have low self-esteem.⁶

Adolescent age group is highly turbulent age group due to various changes in body and surrounding environment. Any disturbance of deviation in families, social level, economical stress or differences and problems with friends become triggering factors for initiating consumption of any substance. Globally, alcohol and substance use among youth have emerged as a serious issue of concern resulting in a pattern of deceit and irresponsible behaviour.⁷ India is developing country, because of fast development lot of industries opened in rural and urban areas. The health of the industrial workers is influenced by various factors including substance use. Industrial Training Institute (ITI) students presently in the age group of adolescents and youth will later on work in different industries and areas and will be prone to various health ailments including substance use.

The present study was therefore undertaken in students of ITI to assess the prevalence of substance use and its determinants and to suggest recommendations based on findings of the study.

METHODS

A cross sectional study was conducted among students in the Industrial Training Institute, Sakwar. It is located in the field practice area of Rural Health and Training Center, Sakwar of Department of Community Medicine, Seth G S Medical College and KEM Hospital, Mumbai, located at a distance of 75 kilometers from the teaching institution.

The study was conducted over a period of three months from June 2011 to August 2011. Universal sampling method was used and all those students in ITI, who were available at the time of study and consented to participate, were included in study. No student was excluded as all students showed willingness for participation in study. Sample size was 65. All were male students as there was no female student enrolled in the Sakwar ITI. Permission from ITI authority was taken before collecting required data. Informed verbal consent was taken from all the participating students before the start of the study after telling them about objectives of the study.

Data was collected using the predesigned, pre-tested proforma by oral questionnaire method. Data was collected by taking personal interview with maintaining proper privacy and after relaxing and assuring student. After establishing good rapport with study group, demographic profile in form of name, age, sex, caste, education, residence, type of family, literacy status of parents etc. was taken.

Questionnaire was in the form of multiple choice questions with few open ended questions assessing the knowledge, attitude and practices of study participants regarding substance use.

Data entry was done using Microsoft excel. All responses were tabulated and graphically represented wherever required. Data was analyzed by SPSS software version 16. Descriptive statistics like frequencies and percentage were used. Fisher exact test was used as a test of significance to determine the association of substance use with different variables, p<0.05 was considered statistically significant.

RESULTS

Total 65 students took part in the study and majority of the students (78.5%) were adolescents and studied up to 10th standard (66.2%). Most of the students (83.1%) were from rural background and 84.6% students were belonging to backward castes like other backward caste (OBC), scheduled caste (SC) and scheduled tribe (ST) while remaining 15.4% students belonged to open category. Majority of the students (73.8%) were belonging to joint family. About parents education; 36.9% students mentioned that mother was literate while 69.8% students mentioned that their father was literate (Table 1).

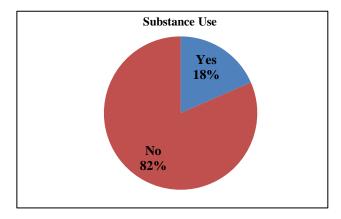


Figure 1: Prevalence of substance use among participants (n=65).

While assessing the prevalence of substance use among participants; 12 (18%) students agreed that they use substance (Figure 1).

While assessing the association between sociodemographic factors and substance use; no significant association was observed with age, education, caste or residence of the student but it was significantly associated with type of family (p=0.02) being more prevalent in students who belonged to nuclear family. Also the prevalence of substance use was significantly higher in students of illiterate parents (p=0.04 and p=0.01) for illiterate mother and illiterate father respectively (Table 1).

Table 1: Sociodemographic profile of participants and association with substance use (n=65).

		Substance use			
Variable		Yes	No	Total	P value
		Frequency (%)	Frequency (%)	Frequency (%)	
Age (in years)	≤19	8 (12.3)	43 (66.2)	51 (78.5)	0.46 (Fisher exact)
	>19	4 (6.1)	10 (15.4)	14 (21.5)	
Education	Secondary	7 (10.8)	36 (55.4)	43 (66.2)	0.75 (Fisher exact)
	Higher secondary	5 (7.7)	17 (26.1)	22 (33.8)	
Caste	OBC, SC and ST	9 (13.8)	46 (70.8)	55 (84.6)	0.53 (Fisher exact)
	Open	3 (4.6)	7 (10.8)	10 (15.4)	
Residence	Urban	4 (6.1)	7 (10.8)	11 (16.9)	0.21 (Fisher exact)
	Rural	8 (12.3)	46 (70.8)	54 (83.1)	
Type of	Nuclear	7 (10.8)	10 (15.4)	17 (26.2)	0.02 (Fisher exact)
family	Joint	5 (7.7)	43 (66.2)	48 (73.8)	
Education of	Literate	1 (1.5)	23 (35.4)	24 (36.9)	0.04 (Fisher exact)
mother	Illiterate	11 (16.9)	30 (46.2)	41 (63.1)	
Education of	Literate	4 (6.1)	41 (63.1)	45 (69.2)	0.01 (Fisher exact)
father	Illiterate	8 (12.3)	12 (18.5)	20 (30.8)	

Table 2: Pattern of substance use (n=12).

Type of substance used	Frequency	Percentage
Tobacco chewing	12	100
Tobacco smoking	7	58.3
Tobacco sniffing	1	8.3
Alcohol	5	41.7
Other*	1	8.3

^{*}Other includes Cannabis products like Bhang, Ganja, etc.

Table 3: Distribution of participants according to factors affecting substance use (n=12).

Factors affecting substance use	Frequency	Percentage
Curiosity and experimentation	6	50
Peer pressure	9	75
Addiction in family members	10	83.3
Family problems	4	33.3
Influenced by media	5	41.7
Other*	2	16.7

^{*}Other includes tension of studies, emotional disturbance, easy availability, etc.

Out of 12 substance users all were addicted to tobacco chewing and 1 student was addicted to all forms of substance use. Five students were using alcohol but tobacco was the most commonly used substance in different forms (Table 2).

Most common factor determining the substance use was addiction in family members (83.3%) followed by peer pressure (75%) (Table 3). All the participants were aware about cancer as a health hazard of substance use but awareness about other health hazards was low (Table 4).

Table 4: Awareness of participants regarding health hazards caused by substance use (n=65).

Health hazards	Substance use Yes No Total			
caused by substance use	Frequency (%)	Frequency (%)	Frequency (%)	
Cancer	12 (18.5)	53 (81.5)	65 (100)	
Respiratory problems	3 (4.6)	20 (30.8)	23 (35.4)	
Liver problem	4 (6.2)	35 (53.8)	39 (60)	
Other*	4 (6.2)	19 (29.2)	23 (35.4)	

*Other includes peptic ulcer, general debility, mental problems, etc. ** Contains multiple responses

DISCUSSION

In present study all students were in the age group of adolescents or young adults. The present study revealed that 12 (18%) students were involved in one or more type of substance use which was lower than that reported in the study of Benegal et al and Jasani et al but it was higher than that reported in Smriti et al.8-10 Prevalence of substance use is associated with social factors also. In the study no significant association was observed between substance use with age, education, caste or residence of the student but prevalence of substance use was more among students who belonged to nuclear families compared to those from joint families and it was comparable to the findings of study by Smriti et al. 10 Also

^{**}Contains multiple responses

the prevalence of substance use was significantly higher in students of illiterate parents than that of literate parents. Similar findings were observed in study done by Patel et al in which tobacco consumption was less common in adolescents of literate women compared to adolescents of illiterate women and adolescents of working mothers were more prone to tobacco consumption in compare to adolescents whose mothers were housewives.¹¹

However, this aspect of working status of women was not part of the study. Jalilian et al in their study also found that higher the mothers' education level, the less the probability of smoking. Pole of family in development of adolescent is very important particularly education and occupation of mother play crucial role in habit formation of tobacco among adolescents.

In present study, tobacco in different forms was the most commonly used substance (100%) followed by alcohol (41.7%). Study done by Jasani et al disclosed that majority (72.93%) of substance abusers were abusing substance by chewing form, followed by smoking and drinking form.⁹ The finding observed in the study done by Prashant et al revealed that the most common forms of tobacco consumed were khaini, cigarette smoking, gutkha consumption, and tobacco chewing, in decreasing order. 13 A study by Kangule et al showed that the prevalence of substance use among the male youth living in the tribal areas of Maharashtra was more in the age group of 20-24 years (39.76%) and more than half (55%) of them consumed tobacco, followed by alcohol (20.7%) and marijuana (1.8%) which was similar to findings of the study.14

The habit of substance use comes either from the peer groups or it may be generated within the family because the elders are resorting to one or the other form of substance use.15 In present study, it was revealed that most common factor determining substance use was addiction in family members (83.3%) followed by peer pressure (75%). A study done by Jasani et al described that most common reason for initiation of substance abuse was peer pressure, followed by pleasure, tension of study or grades.9 Similar result was found in the study done in Andhra Pradesh. It showed that the important reasons for initiation of substance use were peer pressure (52.9%) in a significantly higher number of substance users, followed by the reason of enjoyment (21.1%) and Jain et al found curiosity in 68% of the cases. 13,16 This difference may be due to the different study setting and different social environment. A study from East Sikkim by Barua et al revealed that stress reduction, relaxing effect and mere pleasure were considered to be the major reasons for alcohol consumption.¹⁷ A study done by Baruah et al revealed that consumption of alcohol or tobacco by adolescents is significantly associated with alcohol or tobacco consumption by their family members. 18 Studies conducted by Sarangi, Mukharjee and Kumar, at different places i.e. Sambalpur, Mumbai and Tirupati respectively observed that the peer pressure was the important factor for the initiation of substance use which was also the second most common factor observed in our study. 4.19,20 Other studies have also demonstrated that the family members constitute the role models for their children in inculcating this unhealthy behaviour thereby resulting in poor quality of life. 21,22

The present study revealed that all students were aware about cancer as a health hazard of substance use but it was not found to be deterrent in using substance. Awareness about other health hazards was low. A study done by Lokhande et al revealed that awareness regarding hazards of tobacco and alcohol use increased with advancing age and health education was one of the common measures suggested for controlling tobacco by study participants.¹⁵

This study has a limitation that the findings cannot be generalized to the entire population, as it was specific to the male students enrolled for various courses of ITI. Prevalence of substance use in these students is a tip of iceberg; so future studies can be planned where actual situational analysis will be done at large scale to identify and address the factors affecting it.

CONCLUSION

The study findings highlighted that the several factors can act as determinants of substance use among students including type of family, education of parents, peer pressure and addiction in family members. Tobacco in different forms was most commonly used substance and all the participants were aware about cancer as a health hazard of substance use. Considering these results, it is recommended that role of family and society should be identified and practiced for prevention and control of this substance use in addition to strengthening of various IEC activities and strict implementation of present laws related to substance use.

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