

Substance-Related Knowledge and Attitude In School and College Students

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Abstract

Background: Knowledge and attitude about substance use are of vital importance for prevention as well as treatment of substance abuse especially in adolescents as it is the age when the majority of drug users start use of various substances.

Objective: This study was aimed to assess the drug related knowledge and attitude among school and college students.

Method: School students (of class 8, 9 and 10) and college students (pursuing graduation) were recruited through drug awareness programs by using total enumeration method. 'Drug related knowledge and attitude questionnaire for students', a self-reported questionnaire was employed in this cross-sectional study.

Results: The total sample consisted of 192 students, out of these 92 high school students were enrolled from class 8, 9 and 10 and 100 were college students pursuing graduation. Most of the students appeared to have adequate knowledge about addictive substances and their harmful effects but only a minority had knowledge about the available treatment. Again only a minority had negative attitude towards substance abusers and agreed for substance use by themselves or their friends or family.

Conclusions: Majority of students had adequate knowledge about harmful effects of addictive substances but had limited information regarding treatment options. This highlights the need for spreading more awareness for prevention as well as treatment of substance related problems (German J Psychiatry 2013; 16(1): 15-19).

Keywords: drugs, substance dependence, knowledge, attitude

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Introduction

Adolescence is a transitional stage of physical and mental human development with substantial risk for initiating substance use. Reproductive and Child Health Program mentions adolescents as being between 10-19 years of age (UN system in India, 2003). Nearly 20% of Indian population is adolescent (UNICEF's report, 2011) with 1.2 billion adolescent population in the world.

Experimentation with addictive substances begins in adolescence as they are cognitively immature and vulnerable to social influences. Recent reports have documented a global increase in addictive drug availability and consumption and a pattern of vulnerability among those aged between 15 and 25 years (Haddad et al., 2010). Drug abuse has increased all

over the world and the age of initiation of abuse is progressively falling. Encouragement from the peer group, deep desire to be popular, poor parental control and easy availability of the substances make an adolescent to go for drug abuse. Earlier initiation of drug use is found to have more impairment, crime, and difficult to quit and is usually associated with a poor prognosis and a lifelong pattern of deceit and irresponsible behavior (Chatterjee et al., 2011).

Substance abuse is quite prevalent among the adolescent population worldwide (12.5%- 84%) (Singh et al., 1991; Tsering et al., 2010) as well as in India (1.8% - 57.4%) (Thacore, 1972; Mohan et al., 1976 & 1977; Verma et al., 1977; Sethi et al., 1978; Khan & Unnithan, 1979; Kushwaha et al., 1992; Panicker, 1998; Tripathi & Lal, 1999; Saluja et al., 2007).

Table 1. Drug related knowledge and attitude

Question	Total sample (N=192)	School students (N=92)	College students (N=100)	χ^2 value
	Frequency (%)			
Substances reduces stress	16 (8.3)	7 (7.6)	9 (9)	0.12
Substances don't damage health if used in small amount	84 (43.8)	42 (45.7)	42 (42)	0.26
If one won't feel intoxicated over consumption of larger amounts it shows that he is healthy	37 (19.3)	12 (13)	25 (25)	4.40*
People appear influential/ rich on consumption of substance	9 (4.7)	4 (4.3)	5 (5)	0.046
It improves memory/ concentration	13 (6.8)	5 (5.4)	8 (8)	0.50
Willful subjects may quit substance any time despite longer intake of substance	157 (81.8)	75 (81.5)	82 (82)	0.007
Drugs increases pleasure of life	9 (4.7)	2 (2.2)	7 (7)	2.49
One should take substance at least once just to understand that it causes damage	20 (10.4)	9 (9.8)	11 (11)	0.076
Substance abusing youth are influential in their peer group	60 (31.3)	30 (32.6)	30 (30)	0.15
Substance abusing youth are more likely to succeed	2 (1)	1 (1.1)	1 (1)	0.004
Majority of substance abuser are rich people	28 (14.6)	18 (19.6)	10 (10)	3.51
Harmful effects of drugs are only temporary	8 (4.2)	1 (1.1)	7 (7)	4.19*
It causes liver damage if used for longer duration	177 (92.2)	88 (95.7)	89 (89)	2.94
Chewing tobacco may cause oral and throat cancer	176 (91.7)	82 (89.1)	94 (94)	1.48
Risk of substance use if staying with such people	48 (25)	37 (40.2)	11 (11)	21.81***
Injecting drugs may cause HIV	175 (91.1)	84 (91.3)	91 (91)	0.005
One should not take substances which cause bad effect but one may take substances which won't cause bad effects	43 (22.4)	22 (23.9)	21 (21)	0.23
Females won't consume any substance	25 (13)	6 (6.5)	19 (19)	6.58*
Substance abusers are bad people so they should not be helped	24 (12.5)	14 (15.2)	10 (10)	1.19
There is no problem in substance intake until it is revealed to others	19 (9.9)	7 (7.6)	12 (12)	1.03
Most of youth don't take any substance	68 (35.4)	41 (44.6)	27 (27)	6.46*
Most of substance abuser don't know their harmful effects	158 (82.3)	79 (85.9)	79 (79)	1.55
Most of youth starts substances with peer group	179 (93.2)	89 (96.7)	90 (90)	3.44
If someone takes substance at home there is more risk for such intake in family	100 (52.1)	51 (55.4)	49 (49)	0.79
There is no treatment for addiction	50 (26)	21 (22.8)	29 (29)	0.94
Youth takes substance only when there is any quarrel between parents/ peers	36 (18.8)	11 (12)	25 (25)	5.35*
Have you taken any substance	15 (7.8)	1 (1.1)	14 (14)	11.09**
Does any of your friend takes substances	50 (26)	11 (12)	39 (39)	18.19***
Does any of your family member takes substance	35 (18.2)	15 (16.3)	20 (20)	0.43
Do you have confidence to say no when somebody offers you any substance	185 (96.4)	87 (94.6)	98 (98)	1.60
Do you want to have correct information regarding how to prevent substance intake	186 (96.9)	91 (98.9)	95 (95)	2.42

χ^2 test applied between school and college group, * P < 0.05, ** P < 0.01, *** P < 0.001

High knowledge of harmful effects of substance was reported in students (Schwarz, 1997; Gassman et al., 2001; Giannetti et al., 2002; Warburton et al., 2007; Prakash et al., 2009; Tsering et al., 2010), health professionals (Happell et al., 1992; Heckman et al., 2010) and general public (Bryan et al., 2000). Several studies in adolescent population have reported positive association between knowledge about substance abuse and their attitudes toward substances (Schwarz, 1997; Gassman et al., 2001; Giannetti et al., 2002).

Most of the studies are from west (Tsering et al., 2010; Schwarz, 1997; Gassman et al., 2001; Giannetti et al., 2002; Moreira et al., 2009; Bryan et al., 2000; Happell et al., 2002) with limited data from India (Prakash et al., 2009; Nebhinani et al., 2012). This research was aimed to study the knowledge and attitude about substance use in school and college students from north India.

Materials and Methods

School students (of class 8, 9 and 10) and college students (pursuing graduation) were recruited by using total enumeration method in August and October, 2011 through drug awareness programs in Chandigarh. 'Drug related knowledge and attitude questionnaire for students', a self-reported questionnaire was employed in this cross-sectional study. It is a thirty one item semi-structured questionnaire with response of 'yes' or 'no'; developed from our department after a series of de-addiction awareness programs for school and college students. Verbal consent was taken from the school authorities and subjects. The Questionnaire was administered prior to awareness lecture on 'Drug related problems and its im-

pact on students' by 1st author, in his presentation he has elaborated about commonly abused substances, magnitude of problem, myths related to substances, their complications and treatment.

Statistical analysis

Analysis was done by SPSS version 14 for Windows (Chicago, Illinois, USA). Frequencies with percentages were calculated for categorical variables and mean and standard deviation were calculated for continuous variables. The data from the two groups were compared using chi-square test for categorical variables and t test for continuous variables. We have compared only two groups (school vs. college students); hence Bonferroni correction was not applied.

Results

The total sample consisted of 192 students, out of these 92 high school students were enrolled from class 8, 9 and 10 and 100 were college students pursuing graduation. The mean age of school students was significantly lesser than of college students (16.57 ± 1.63 years vs. 19.49 ± 1.29 , $t=13.78$, $p<0.001$). Compared to school students, female were slightly overrepresented in college sample (49% vs. 38%, $X^2=2.33$, $p=0.12$), but their difference was not statistically significant.

As shown in table-1 among the total sample ($N=192$), only a minority of subjects reported some positive effects of substance like it improves memory/ concentration (6.8%), reduces stress (8.3%), increases pleasure of life (4.7%) and substance abusing people appear more influential (4.7%) and more likely to succeed (1%). Similarly very few subjects agreed for following misconceptions: 'one should take substance at least once just to understand that it causes damage' (10.4%), 'if one won't feel intoxicated over consumption of larger amounts it shows that he is healthy' (19.3%), and 'harmful effects of substances are only temporary' (4.2%).

One-fourth (25%) of subjects appreciated risk of substance use on staying with such people, and nearly half (52%) of subjects agreed for higher risk of such intake if someone takes substances at home. Less than half of sample (43%) perceived substances harmless for health if used in small amounts.

One-sixth of the subjects (15%) had negative attitude towards substance abusers, as they labeled them 'bad people' and added that they should not be helped. Majority of students (91%) were knowing about harmful effects of substances, such as liver damage with longer duration of intake, oral and throat cancer with chewing tobacco and HIV with injecting drugs.

One-fourth of the subjects (26%) considered no treatment modality for substance and majority of students (81%) added that subjects may quit substance with willpower despite the longer duration of intake. Majority of students stated that

most of youth initiate substance with peer group (93%) without knowing their harmful effects (82%).

Minority of subjects agreed for taking any substance by themselves (7.8%) or by their family members (18%) and friends (26%). Though most of subjects (96%) were confident to refuse while being offered any substance and they were also willing to get information about more preventive measures.

Compared to college students, the higher proportion of school students mentioned that most of youth don't take any substance (44% vs. 27%, $p<0.05$) and greater risk of substance use on staying with such substance abusing people (40% vs. 11%, $p<0.001$). Higher proportion of college students considered substance related harm only temporary (7% vs. 1%, $p<0.05$) and greater capacity for being intoxicated as a sign of being healthy (25% vs. 13%, $p<0.05$) compared to school students. Again greater proportion of college students accepted for using any substance (14% vs. 1%, $p<0.01$) or such intake by their friends (39% vs. 12%, $p<0.001$) (Table 1).

Discussion

Adolescence is a transition phase when the mind is naturally motivated to experimentation and exploration of the world. It is the age when the majority of drug users start use of substances like inhalants and tobacco and later progress to alcohol and opioid preparations. Adolescents often believe that drug use improves their coping with personal difficulties and quarrels with parents/peers (O'Malley et al., 1998).

Hence schools have become the privileged setting for the development of preventive activities, aiming at health education since not only does the majority of the population attends school at specific ages, but also because schools provide highly favorable circumstances for the assimilation of certain habits, attitudes and knowledge (Moreira et al., 2009).

Similar to earlier studies (Haddad et al., 2010), our study subjects were aware about harmful effects of substances, such as liver damage with longer duration of substance, oral and throat cancer with chewing tobacco and HIV with injecting drugs. Parents, friends, and teachers (Haddad et al., 2010) and media such as radio or television (Prakash et al., 2009; Tsering et al., 2010; Linda et al., 2010; Nebhinani et al., 2012) are reported to be major source of information among adolescents.

One-fourth of study subjects were feeling risk of substance use on staying with such people, which may have preventive importance at one side. But on another side, they are likely to avoid contact with drug-addicted individuals may have implications for the rehabilitation of those individuals. Compared to earlier report (Bryan et al., 2000), lesser proportion of subjects in our study were having negative attitude towards substance abusers (12% vs. 57%).

Negative attitudes, particularly if expressed through negative or prejudicial behavior, may further alienate a social group that is already socially marginalized. This in turn may prevent

such group members from seeking the help they require (Bryan et al., 2000). Those who had personal experience of someone 'with a drug problem' tended to be less negative in their attitudes (Bryan et al., 2000; Gassman et al., 2001) and their contact with substance abusers is found to reduce the associated prejudice.

School students were understandably unaware about increased prevalence of substance abuse in children as they mentioned that most of youth don't take any substance. They were more concerned about the risk of substance abuse as they perceived greater risk of substance use on staying with such people. On another side more number college students accepted for using substances as such was expected with their higher age and greater exposure with social milieu than school students. They were also more casual about the risk and harm related to substance.

Prevention-based programs are necessary to decrease demand through informing people about the relative risks of dependence on various illegal drugs based on present knowledge of these risks. As the drug use usually begins after the age of 12 and rises rapidly until 15 years of age (White & Pitts, 1998). Hence the preventive drug education should begin in early adolescence and should deter or delay drug use through changes in knowledge, attitude, and behavior (Belcher & Shinitzky, 1998; Tobler et al., 1999; Black et al., 1998; McBride, 2003; Lilja et al., 2003). Adolescent drug education must meet the needs of those naïve to drugs as well as those experiencing initial drug exposure. Education provided in the first group is important in modifying young peoples' responses in drug situations and in the latter group it is most meaningful (Tobler et al., 1999).

Prevention programs should also be tailored to an individual's drug-specific educational needs (White & Pitts, 1998; Black et al., 1998). Comprehensive, multifactorial interventions that address behavioural, emotional, and environmental factors are more effective in eliciting lasting effects (Belcher & Shinitzky, 1998; Tobler et al., 1999; Black et al., 1998; McBride, 2003; Lilja et al., 2003).

The findings of this study provide the basis for developing comprehensive prevention programs that are directed to adolescents. These school-based educational programs should include information concerning addiction and forms of treatment as well as appropriate treatment services. School and public health programs must address the importance of smoking cessation and the addictive nature of nicotine as a gateway substance. Majority of students had adequate knowledge about harmful effects of addictive substances but had limited information regarding treatment options. This highlights the need for spreading more awareness about treatment of substance abuse via school lectures, media and campaign at larger level.

The main limitations of our study remained the instrument used to assess drug related knowledge and attitude was not standardized. Our findings cannot be generalized as the sample was recruited from only two educational institutes. Assessment of drug related knowledge, attitude and practices among adolescents are important as it guides to formulate effective preventive programs for the students. As demand reduction for substance can only be achieved by spreading

awareness about substance abuse along with primordial and primary prevention.

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