

ORIGINAL ARTICLE



Knowledge, attitude, and practice of adolescents on psychoactive substance addiction: a survey in Jharkhand, India

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ABSTRACT

In India, school-going adolescents are primarily vulnerable to developing addictive behavior. Issues like their attitudes and knowledge towards psychoactive substances and their usage can significantly persuade or dissuade them from this behavior. This survey was conducted on 540 school-going adolescents to determine their knowledge (i.e., what they know), attitude (i.e., what they believe), and practice (i.e., what they do) regarding substance addiction. A survey of 540 students was conducted in five schools in Ranchi, Jharkhand, India. Five sensitization programs were conducted at those five schools to assess their knowledge, attitude, and practice on substance addiction. The institute's mental health teams organized a two-and-a-half-hour sensitization program. Students were given a bilingual (in Hindi and English) questionnaire before the sensitization program. Students were asked to submit the filled-up questionnaire at the end of the sensitization programs. A majority of adolescents believe that substance abuse harms family relationships, finances, the family environment, childcare, and the family's social status. The majority of adolescents also believe addictions can be prevented and treated. Also, they emphasized that people with an addiction should be supported and treated with compassion. They were familiar with psychoactive substances and their patterns of use. Girls attributed addiction to health factors, while boys attributed addiction to environmental factors. The adolescents from private schools better understood substance abuse than those from public schools. School-going adolescents have been found to have some knowledge about addiction and a positive attitude towards addicted people. School type and gender can significantly impact adolescents' knowledge, attitude, and practice about substance abuse.

KEYWORDS

Knowledge; Attitude;
Practice; Addiction;
Adolescents

ARTICLE HISTORY

Received 22 January 2024;
Revised 23 February 2024;
Accepted 1 March
2024

Introduction

Many factors make school-going adolescents the most susceptible to substance abuse among different population segments. In human life, the adolescent years are considered a critical transitional phase and the time of the most remarkable transformation. Several factors contribute to adolescents' higher risk of substance abuse, including high levels of curiosity, a mistaken perception of addiction as maturity, peer pressure, excessive risk-taking behavior, family and environmental factors, and academic and interpersonal stress [1-11]. Adolescents who use psychoactive substances during school develop a clinical dependence on them. Many factors might contribute to perpetuating and aggravating this problem in schools. Children are given opportunities for formal interaction at school and to build intimate relationships with their peers. Despite this, schools must watch out for factors that could sway students from mainstream education and normal interpersonal relations [6,7,12]. Various factors make it challenging to provide substance abuse treatment to school-going adolescents. Adolescents do not typically seek health-related problems, and when they do seek professional help, they are unlikely to get the complete recommended package of preventive services, including screenings and counseling [13]. However, not all adolescents are equally at risk of developing addiction at the syndromal stage. There are some factors, such as keeping out of an individual's family, community, peer group, or friends circle,

as well as a larger socio-cultural environment, that are responsible for making some of these people more vulnerable to addiction [5,12,14,15]. This survey was conducted with school-going adolescents to determine their knowledge (i.e., what they know), attitudes (i.e., what they believe), and behaviors (i.e., what they do) regarding general or specific topics related to substance abuse.

Materials and Methods

Study population

This study evaluated 540 students from five Ranchi-based schools. The data collection took place between January and March 2020. The study included children between the ages of 13 and 18. A total of five schools were present; two were government, and three were private schools. Five sensitization programs were carried out at those five schools to determine adolescents' attitudes and practices concerning substance abuse.

Selection of the subjects and brief description of the program

A team of Psychiatrists, Clinical Psychologists, and Psychiatric Social Workers of the Central Institute of Psychiatry organized a sensitization program on knowledge, attitudes, and practices about substance abuse for students of standard

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8th to standard 12th. All five school administrations were informed about the program's objectives, structure, and other aspects and asked to provide basic infrastructure requirements. The mental health teams of the institute organized a two-and-a-half-hour sensitization program. Upon completion of the program, all participants filled out a questionnaire. Mental health professionals who conducted these awareness programs also requested that 8th through 12th-grade students be selected from each participating institution.

Data collection

Before the sensitization program, students were given a bilingual questionnaire (in Hindi and English) and instructions on completing it. This questionnaire included two parts: the first was designed to collect demographic information about students, and the second was designed to assess their knowledge, attitudes, and practices regarding substance abuse. The questionnaire contained questions like 'How many types of addictive materials are usually consumed by people? (Knowledge)', 'Do you think substance addiction can be prevented? (Knowledge)', 'Do you feel that addiction is a vice and addicted people should be socially isolated? (Attitude)', 'Do you think that making and keeping friendships with addicted persons is not advisable? (Attitude)', 'Will you help people to know about the availability of treatment and rehabilitative services for addiction? (Practice)', 'Have you ever been offered substances by your friend/s? (Practice)', and 'Have you ever been offered substances by one or more of your family members? (Practice)'. Two-thirds of the students were in the 9th standard (271 students in total), followed by students in the

10th standard (101 students in total); there were 27 and 41 students from the 12th and 8th standards, respectively. There were 314 students selected from private schools (n=314) and 226 from public schools (n=226). Most students (n=324) belong to Hinduism, followed by Islam (n=112), Christianity (n=18) and Animism (n=86). Most students reported that their fathers had a middle-level education (n=322), followed by a higher-level education (n=112). In total, 41 fathers had a primary education, while 65 fathers were illiterate. On the other hand, the number of illiterate and only primary school-educated mothers was much higher (n=128 and n=60, respectively). Most mothers, too, have a middle level of education, but the number of mothers with higher education is greater than the number of fathers (n=68). Most fathers were involved in agriculture, business, or service (government or private). Most mothers (n=446) are homemakers, although some work in the service sector or business or are self-employed. Most selected students live with their families (n=413), whereas only a few live away from home (with relatives or in school hostels). The average age of the selected students was 14.61 ± 0.97 years. Families of the chosen students had an average monthly income of Rs. 19282.22 ± 19357.55 .

Results

Table 1 shows that most adolescents are familiar with two or three psychoactive substances (Two/Three Substances of the List (n=154) and All Substances of the List (n=171). Almost two-thirds of school-going adolescents believe substance abuse harms family relationships, finances, the family environment, childcare, and the family's social status (n=222).

Table 1. Knowledge of the selected school-going adolescents about the types and negative consequences of psychoactive substances available in society (N=540).

Variables	Sub Classifications	Number (%)
About the Types of Psychoactive Substances	Alcoholic Beverages (All types)	87 (16.1)
	Nicotine	61 (11.3)
	Cannabis	38 (7.0)
	Opioid (Heroin)	13 (2.4)
	Sedative/Hypnotics	7 (1.3)
	Volatile Agents (Adhesive/Correction Fluid/Petrol/Paint Thinner)	9 (1.7)
	Two/Three Substances of the List	154 (28.5)
About the Negative Consequences of Substance Addiction	All Substances of the List	171 (31.7)
	Financial Problems in the Family	126 (23.3)
	Marital Problem	67 (12.4)
	Development of Family Dysfunction	52 (9.6)
	Domestic Violence	30 (5.6)
	Poor Care of Children/Neglect of Children	24 (4.4)
	Developing a Negative Image of the Family	19 (3.5)
	All of these	222 (41.1)

A description of the knowledge, attitude, and practice of high school adolescents is provided in Table 2. Most adolescents believe addiction can be prevented, cured, easily diagnosed, and easily treated. Furthermore, most of them accepted the treatment of addiction and its negative consequences, except for

socially isolating and sharing friendships with a person with an addiction. The majority of respondents agreed to help people with addictions in practice-related questions. Most of the participants had also been offered substances by a family member or friend and tried a substance at least once in their lifetime.

Table 2. Knowledge, Attitude, and Practice of the selected school-going adolescents about the various facets of psychoactive substance addiction among adolescents and youths (N=540).

Variables	Responses	Number (%)
Knowledge		
Addiction is preventable	Agree	530 (98.1)
	Disagree	10 (1.9)
Addiction is curable	Agree	531 (98.3)
	Disagree	9 (1.7)
Addiction is easily diagnosable	Agree	517 (95.7)
	Disagree	23 (4.3)
Addiction is a treatable condition	Agree	516 (95.6)
	Disagree	24 (4.4)
Addicted people need family support	Agree	326 (60.4)
	Disagree	214 (39.4)
Addiction is a genetic disease	Agree	172 (31.9)
	Disagree	368 (68.1)
Addiction is infectious in nature	Agree	136 (25.2)
	Disagree	404 (74.8)
Addiction is caused by evil spirit/damnation or wrath of God	Agree	152 (28.1)
	Disagree	388 (71.9)
Addicted people have behavioral disturbances	Agree	507 (93.9)
	Disagree	33 (6.1)
Medicines can treat addiction	Agree	505 (93.5)
	Disagree	35 (6.5)
Early identification and treatment can ensure a good outcome in addiction	Agree	498 (92.2)
	Disagree	42 (7.8)
Attitude		
Addicted people should be socially isolated	Agree	269 (49.8)
	Disagree	271 (50.2)
Friendship with addicted persons is not advisable.	Agree	227 (42.0)
	Disagree	313 (58.0)
Addicted people must be treated compassionately	Agree	464 (85.9)
	Disagree	76 (14.1)
Addiction tarnishes the social image of the addicted people and their families	Agree	477 (88.3)
	Disagree	63 (11.7)
Addiction negatively affects vocational functions	Agree	507 (93.9)
	Disagree	33 (6.1)
Addiction affects the family atmosphere negatively	Agree	517 (95.7)
	Disagree	23 (4.3)
Addiction can increase cognitive abilities and skills	Agree	66 (12.2)
	Disagree	474 (87.8)
Addiction causes irreversible damage to health	Agree	497 (92.0)
	Disagree	43 (8.0)
Addiction increases glamour and attraction.	Agree	64 (11.9)
	Disagree	476 (88.1)

Practice		
Help people to know about the availability of treatment and rehabilitative services for addiction	Agree	489 (90.6)
	Disagree	51 (9.4)
Marriage can control addictive behavior	Agree	170 (31.5)
	Disagree	370 (68.5)
Family members should understand about treatment options for addiction	Agree	521 (96.5)

There was a significant difference between the boys and the girls regarding the reasons for substance abuse. Boys and girls attribute multiple factors to the onset of substance addiction. However, girls are more likely to attribute addiction to health factors, and boys are more likely to attribute addiction to environmental factors. Boys endorsed more health-related risk factors. Among the two groups of students, there was a significant difference regarding addiction as an infectious disease, as most girls believed addiction was contagious. Most girls believed that people with addiction need support and care from others, whereas the percentage of boys holding that opinion was much lower. Addiction is much less likely to be a

source of friendship for boys than for girls. Compared to girls, most boys disagree with the idea that addiction tarnishes the social image of people with addiction and their families and that addiction harms family life. In contrast to girls, many boys agreed that addiction causes irreversible health damage and increases glamour and attractiveness (Table 3). However, boys and girls differ in how they deal with addiction. Most girls disagreed with the idea that marriage could control addictive behavior. Boys are more likely than girls to disagree with educating people about the harms of addiction. Compared to girls, many boys have been offered substances by one or more family members and tried them.

Table 3. Comparison of the knowledge, attitude, and practice of the selected school-going adolescents about the various facets of psychoactive substance addiction as per their school type (N=540).

KNOWLEDGE ABOUT SUBSTANCE ADDICTIONS						
Variables		Groups (N=540)		χ^2 / Fisher's	df	P
		Government	Private	Exact Test#		
		School	School			
		Students	Students			
		(n=226)	(n=314)			
		n (%)	n (%)			
Knowledge of reasons for addiction	Health problems	1 (0.4)	26 (8.2)	126.088#	-	.0001***
	Environmental factors	46 (20.3)	6 (1.9)			
	Psychological factors	75 (33.3)	29 (9.2)			
	Social factors	1 (0.4)	6 (1.9)			
	Multiple factors	103 (45.6)	247 (78.8)			
Knowledge of risk factors of addiction	Health-related risk factors	114 (50.4)	151 (48.1)	11.754#	-	.003**
	Environmental risk factors	13 (5.7)	3 (0.9)			
	Multiple risk factors	99 (43.9)	160 (51.0)			
Knowledge of Signs and symptoms of addiction	Physical & physiological symptoms	60 (26.7)	68 (21.6)	11.350#	-	.010*
	Psychological & behavioral symptoms	10 (4.4)	2 (0.6)			
	Social & interpersonal problems	2 (0.8)	2 (0.6)			
	Multiple symptoms	154 (68.1)	242 (77.2)			
Addiction is an infectious disease	Agree	45 (19.9)	91 (28.9)	5.737	1	.021*
	Disagree	181 (80.1)	223 (71.1)			
Addiction is curable	Agree	200 (88.5)	307 (97.8)	19.704#	-	.0001***
	Disagree	26 (11.5)	7 (2.2)			
Addiction is treatable	Agree	221 (97.8)	295 (93.9)	4.559	1	.033*
	Disagree	5 (2.2)	19 (6.1)			

Addicted persons need support and care	Agree	102 (45.1)	224 (71.3)	31.789	1	.0001***
	Disagree	124 (54.9)	90 (28.7)			
Addiction is genetic and runs in the family	Agree	83 (36.7)	89 (28.3)	4.253	1	.039*
	Disagree	143 (63.3)	225 (71.7)			
Addiction is caused by evil	Agree	103 (45.5)	49 (15.6)	58.362	1	.0001***
spirits/damnation or the wrath of God	Disagree	123 (55.5)	265 (84.4)			
Behavioral disturbances are the outcome of addiction	Agree	218 (96.5)	289 (92.1)	4.479	1	.044*
	Disagree	8 (3.5)	25 (7.9)			
ATTITUDE TOWARD SUBSTANCE ADDICTIONS						
Addicted people should be socially isolated	Agree	155 (68.5)	114 (36.3)	54.769	1	.0001***
	Disagree	71 (31.5)	200 (63.7)			
Friendship with addicted persons is not advisable	Agree	58 (25.7)	169 (53.8)	42.763	1	.0001***
	Disagree	168 (74.3)	145 (46.2)			
Addiction tarnishes the social image of the addicted people and their families	Agree	214 (94.7)	263 (83.7)	15.240	1	.0001***
	Disagree	12 (5.3)	51 (16.3)			
Addiction increases vocational skills	Agree	37 (16.3)	29 (9.2)	6.238	1	.016*
	Disagree	189 (83.7)	285 (90.8)			
PRACTICE RELATED TO SUBSTANCE ADDICTIONS						
You will try to spread the idea that marriage can control addictive behavior	Agree	98 (43.3)	72 (22.9)	25.436	1	.0001***
	Disagree	128 (56.7)	242 (77.1)			
	Agree	196 (86.7)	206 (65.6)	30.813	1	.0001***

Adolescents from government schools differed significantly from those from schools run by the private sector (individuals or organizations). Adolescents from private schools better understood substance abuse than those from government schools. Most private school adolescents disagree that people with addiction should be socially isolated, that addiction increases vocational skills, and that addiction tarnishes the social image of people with addiction and their families compared to government school adolescents. Many adolescents in government schools disagreed with the view that friendship with addicts isn't advisable. Most adolescents from government schools agreed to spread the idea that marriage can control addictive behavior compared to adolescents from private schools. In addition, most government school adolescents disagreed that gender is a significant factor in addiction development. However, compared to adolescents from private schools, most were willing to educate people about addiction's dangers.

Discussion

Human adolescence has been widely recognized as a crucial and significant time in a person's life. Adolescence can be the most tumultuous and productive time of a person's life due to several factors and issues. In today's society, adolescents are not yet prepared to understand the complexities of life as they clamor for identity, recognition, and an image similar to what adults have. Adolescents are among the most vulnerable segments of the population for developing substance addiction, so it is crucial to determine their perception and internalization of addiction to psychoactive substances and addicted individuals.

Based on the analysis of the data, it was determined that

55.4% of selected students were males and 44.6% were females. Most of the students in this study had adequate knowledge of the types of psychoactive substances available in Indian society; 154 students were familiar with two or three substances, and 171 students knew about all types of substances. In the selected school students (N=540), 16.1% and 11.3% have information about alcoholic beverages and nicotine, respectively. Like any other developing nation, globalization and modernization have severely influenced Indian culture; therefore, those who were naive to so-called foreign ideas are familiar with them. Thanks to a booming information technology system, Indian school students are familiar with addiction facts and ideas. Those topics are now thoroughly understood by students. Some school students are exposed to misinformation about the apparent benefits of all those substances, becoming addicted [5,16].

Many (n=222) selected students believe that addiction negatively affects every aspect of life, including finances, marital relationships, family dynamics, and child care; 23.3% believe addiction will cause financial problems. In the study, 12.4% of students (n=67) reported marital problems as a negative outcome of addiction, and 9.6% reported that addiction led to family problems. Students today are well-informed about the harmful effects of psychoactive substance use. There is a good understanding of substance abuse among students, including its harmful effects on the body, societal institutions, interpersonal relationships, and the global family ambiance. Most students believe substance abuse is a preventable health condition that can be easily diagnosed. Additionally, they believe addiction can be cured if people are brought into clinical settings at the right time (Table 4). Nonetheless, some students view substance abuse as a problem. The present study's findings are similar to

Table 4. Comparison of the knowledge, attitude, and practice of the selected school-going adolescents about the various facets of psychoactive substance addiction as per their school type (N=540).

KNOWLEDGE ABOUT SUBSTANCE ADDICTIONS						
		Groups (N=540)		$\chi^2 /$		P
Variables		Boys	Girls	Fisher's	df	
		(n=299)	(n=241)	Exact		
		n (%)	n (%)	Test#		
Knowledge of reasons for addiction	Health problems	4 (1.3)	23 (9.5)	25.264#	-	.001**
	Environmental factors	36 (12.0)	16 (6.6)			
	Psychological factors	56 (18.7)	48 (19.9)			
	Social factors	2 (0.6)	5 (2.0)			
	Multiple factors	201 (67.4)	149 (62.0)			
Knowledge of risk factors of addiction	Health-related risk factors	159 (53.1)	106 (43.9)	7.170	2	.027*
	Environmental risk factors	5 (1.7)	11 (4.5)			
	Multiple risk factors	135 (45.2)	124 (51.6)			
Addiction is an infectious disease	Agree	121 (40.5)	15 (6.2)	83.049	1	.0001***
	Disagree	178 (59.5)	226 (93.8)			
Addicted persons need support and care from family	Agree	143 (47.8)	183 (75.9)	44.065	1	.001**
	Disagree	156 (52.2)	58 (24.1)			
Addiction is a genetic condition	Agree	82 (27.4)	90 (37.3)	6.049	1	.016*
	Disagree	217 (72.6)	151 (62.7)			
ATTITUDE TOWARD SUBSTANCE ADDICTIONS						
Friendship with addicted persons is not advisable	Agree	143 (47.8)	84 (34.9)	9.215	1	.003**
	Disagree	156 (52.2)	157 (65.1)			
Addiction tarnishes the social image of the addicted people & their families	Agree	252 (84.2)	225 (93.3)	10.676	1	.001**
	Disagree	47 (15.8)	16 (6.7)			
Addiction affects the family atmosphere negatively	Agree	279 (93.3)	238 (98.7)	9.699	1	.002**
	Disagree	20 (6.7)	3 (2.3)			
Addiction causes irreversible damage to health	Agree	58 (19.4)	6 (2.5)	36.517	1	.0001***
	Disagree	241 (80.6)	235 (97.5)			
Addiction increases glamour and attraction	Agree	72 (24.0)	8 (3.3)	45.574	1	.0001***
	Disagree	227 (76.0)	233 (96.7)			
PRACTICE RELATED TO SUBSTANCE ADDICTIONS						
You will help people to know about the availability of treatment and rehabilitative services for addiction	Agree	261 (87.3)	228 (94.6)	8.349	1	.005**
	Disagree	38 (12.7)	13 (5.4)			
You will try to spread the idea that marriage can control addictive behavior	Agree	120 (40.1)	50 (20.7)	23.251	1	.0001***
	Disagree	179 (59.9)	191 (79.3)			

other studies on adolescents and young people [4,5,13,16,17].

The current study found that students have a fair amount of knowledge on various aspects of substance abuse, such as the effects of substance abuse on the human body, social institutions, and family settings. In addition, students have a good understanding of treatment options for substance abuse. The remarkable developments in information technology and the changes in the school curriculum have increased students' awareness of the negative effects of social problems like addiction [5,13,18,19]. It is possible that the location of the schools selected in the current study played a role. Those five schools are all located near two large mental hospitals, so like others in the area, they might have also learned about addiction from peers and locals. According to the findings, students at selected schools view substance abuse as a problem. Researchers have found that gender affects how well people understand the reasons and risk factors for addiction. Neither the boys nor the girls in the current study denied that multiple factors can cause substance abuse, but the boys admitted it more frequently (67.4%) than the girls (62.0%). A mere 1.3% of boys believed that substance addiction is caused by physical factors, compared to 9.5% of girls. Both boys and girls accepted numerous risks associated with substance abuse, but there were also differences. In the study, 51.6% of the girls and 45.2% of the boys thought substance abuse had multiple risk factors.

In the present study, 53.1% of boys ranked health-related factors as the most significant risk factors for substance addiction, while 43.9% of girls agreed. Evidence shows that gender differences exist in students' knowledge, attitudes, and practices regarding substance abuse [20-22]. Regarding use patterns and risk factors, there are several differences between men and women. Many factors contribute to the gender differences in psychoactive substance abuse. Women generally use those things as coping mechanisms to deal with problems, but men have a more positive attitude towards addiction [23,24]. The study of Kauffman et al. found that women were more likely to attribute causality to biological or environmental factors and to perceive drugs as more powerful [23]. The current study found that more girls than boys believed that addiction is detrimental to the family atmosphere and the health of the addicted individual. Most girls thought that addiction is an infectious disease that can tarnish the social image of addicted individuals and their families. The present study does not contradict previous research regarding the implications of gender on the reasons and risk factors for addiction.

Conclusions

The present study found that selected school-going adolescents were familiar with psychoactive substances and their use. To some extent, however, their knowledge seemed superficial and half-baked. They think addicted people need proper support, care, and treatment in order to return to normalcy. Teenagers' gender and type of school significantly affected their knowledge, attitude, and practice of substance abuse.

Acknowledgment

The authors of this study would like to express sincere gratitude to the administration of the Central Institute of Psychiatry, Ranchi, India, for giving permission for data collection and offering their active support during the study.

Disclosure statement

No potential conflict of interest was reported by the authors.

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