RESEARCH ARTICLE

FACTORS ASSOCIATED WITH TREATMENT SEEKING BEHAVIOUR IN ADOLESCENT SUBSTANCE ABUSER IN A DE ADDICTION CENTRE IN NORTH INDIA

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ABSTRACT
Background: Substance use appears to be increasing among children and adolescents, with an upward trend seen in recent surveys. Any substance abuse at this formative age is likely to interfere with the normal development and may have a lasting impact on the future life, along with affecting family and society.
Aims & Objectives: To study the demographic and clinical profile of adolescents seeking de-addiction treatment at a tertiary centre.
Materials and Methods: Retrospective structured chart review of adolescent substance abusers seeking treatment at a de-addiction centre between January 2012 and December 2013.
Results: The mean age of onset of addiction was 14.9years, with mean age of subjects being 17.8 years, 2.8 years was mean duration of dependence. Majority belonged to joint family (79%), with good social support (61.2%), urban background (50.7 %) and 47.8 % being school dropouts. The commonest substance of abuse was alcohol (41.8%), followed by opioids (40.3 %), tobacco (37.3%), cannabis (34.3 %), multiple substances (14.9 %), inhalants (6 %), benzodiazepines (6 %). The common reasons for initiation of substance use were peer pressure (52 %) and curiosity (48 %).
Conclusion: The common substance of abuse was alcohol, opioids, tobacco and cannabis. A small proportion were multiple substance users. Majority of the subjects belonged to joint family with good social support with the influential environmental determinant being peer substance use. Urgent preventive measures in schools seems the need of the hour.
Key Words: Substance Abuse; Adolescent; Treatment Seeking; Drug Abuse

Introduction

Children are an important asset for future of a nation. Those aged between 10 and 19 years of age constitute 22.8% of population and those aged 5-9 years comprise another 12.5% of population in India.[1] Use of tobacco, alcohol, and other substances among children and adolescents is a public health concern in several parts of the world, including India. The childhood and adolescent years are important formative years of life during which, the child acquires academic, cognitive, social and life skills. Any substance abuse at this age is likely to interfere with the normal development and may have a lasting impact on the future life.[2] Not only the child, but the family and society as a whole are likely to be affected as a result of early onset substance use. Thus, this issue is a matter of national interest and priority.

Adolescence, defined as a transition phase toward autonomy and independence, is a natural time of learning and adjustment. It is also a period of rapid neurobiological changes with heightened sensation seeking, including risk taking and reckless behaviours, making them vulnerable to substance use.[3] The younger the teenagers start using drugs, the more severe are the signs of drug addiction. Substance use and abuse by young people, and problems associated with this behaviour have been part of human history for a long time. The difference today is the increased availability of a wide variety of substances, and the declining age, at which experimentation with these substances take place. It is a well acknowledged fact in addiction science that individual characteristics may predispose to drug addiction.[4] A vast majority of drug users are teenagers and young adults who began consuming during adolescence.[5] In particular, a recent report of the National Survey on Drug Use and Health indicated that 31.2% of people below the age of 25 had consumed illicit drugs during the past month, while only 6.3% of older people acknowledged to do so.[6]

It is estimated that, in India, by the time most boys reach the ninth grade, about 50 percent of them have tried at least one of the substance of abuse.[7] In last three decades, many epidemiological surveys have been carried out in India to assess the prevalence of substance abuse. The Drug Abuse Monitoring System (India, 2004) found that, in 28%, age of onset of substance use was less than 20 yrs, with 5% treatment seeking in same group.[8] Adolescent risk-taking and reckless behaviour is a major public health concern that increases the odds of poor lifetime outcomes, including loss of control over drug use. The adolescent brain is a vulnerable brain, as long as the development of executive functions including

relevant decision making and planning, abstract reasoning and response inhibition remains unfinished.[9] Developmental factors, such as increased sensitivity to immediate rewards, a focus on peers and social rewards, immature inhibitory and self-regulatory processes, increased risk taking and sensation seeking, and difficulty with mood regulation - affect the trajectories that lead to substance abuse and addiction. Simultaneously this also interferes with the normal brain development, increasing the vulnerability to abuse drugs later during adulthood, thus completing a vicious chain.[10,11]

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, absence of parental love and care in modern families where both parents are working, decline of old religious and moral values, drug encouraging role of media, role models etc. lead to a rise in the number of drug addicts, who take drugs to escape hard realities of life.[12] The regional variations are likely in the prevalence and pattern of substance use. Treatment seeking is low in adolescents. Those who seek treatment are likely to be cannabis, inhalant or opioid users, including injecting drug users.

Materials and Methods

The study was conducted at the Drug De-addiction Centre (DDC) of the Department of Psychiatry at the Pt. B.D Sharma Postgraduate Institute of Medical Science (PGIMS), Rohtak; a tertiary-care hospital in north India (Haryana) that caters to more than 40 million people. Most patients come by self or family referral, whereas others are referred from other hospitals or other departments of PGIMS. The services of the centre include outpatient and inpatient care that are provided by a team of psychiatrists, psychiatric social workers (PSWs), nurses and psychologists.

The cohort for this study consisted of all child and adolescent patients, age less than or equal to 19 yr at the time of registration, registered at the DDC between January 2012 and December 2013. The diagnosis of substance dependence was made by a consultant psychiatrist after direct interview with the patient and the relatives, according to International Classification of Diseases (ICD)-10.

Of the total 1598 substance use treatment seekers attending our clinic, only 70 (4.38%) were in the age group 10-19 years. For all those70 registered adolescent subjects, records were available only for 67, which were scanned and relevant information was retrieved. The information included sociodemographic profile, substance use pattern and physical & psychiatric comorbidities. The clinical information was obtained from the recorded history, clinical evaluation, and follow-up notes.

Measures

1. *Sociodemographic profile proforma:* The Drug Abuse and Monitoring System (DAMS) format was used to record age, educational years, occupation, family type, religion, and locality.
2. *Clinical profile proforma:* This included details of substances, duration of dependence, and physical & psychiatric comorbidity. The information about the physical and psychiatric comorbidity was inferred from the history, clinical, and laboratory evaluation, and monitoring of the patient throughout the contact period.

Statistical Analysis

Descriptive statistics was used for the demographic and clinical variables. Analysis was done by Statistical Package for Social Sciences (SPSS) version 20 for Windows (Chicago, Illinois, USA).

Results

Of the total 1598 substance use treatment seekers attending our clinic, only 67 (4.19%) were in the age group 10-19 years.

Demographic Profile

The mean age of the sample was 17.81years (SD ±1.5; range: 12-19), with majority of the substance users being in the age range 17 to 19 years (67.2%). The mean age at first use of the primary substance abuse was 14.9 years (range 7 to 18). Out of these, 50.7% were from urban background. All were Hindu by religion. Majority were males (97%). Most of the adolescents belonged to joint families (79.1%). Less than one-third(31%) were educated up to primary level (up to 5thstd). 47.8 % of the subjects were school drop-outs, rest were going to school regularly. It was also observed that, 59.7% of the subjects were brought to the OPD by parents, 13 % by a relatives and friends, and rest by their own. Most of the subjects (61.2 %) had good social support hailing from joint families (79 %).

Table-1: Sociodemograhic variables

Sociodemographic variables		N	%
Gender	Male	65	97
	Female	2	3
Residence	Rural	32	47.8
	Semi Urban	1	1.5
	Urban	34	50.7
Education	Illiterate	7	10.4
	Primary (upto 5th std)	31	43.3
	Middle (upto 8th std)	8	11.9
	High school (upto 10th 12th std)	21	31.3
	Irregular attendance	10	14
	School dropout	32	47.8
Employment status	Student	29	43.3
	Never employed	16	23.9
	Presently unemployed	12	17.9
	Self-employed	4	6
	Part time employed	6	9
Family type	Joint	53	79.1
	Nuclear	14	20.9
Family support	Good	42	62.7
	Poor	25	37.3
Brought by	Parent	40	59.7
	Relative	9	13.4
	Friend	9	13.4
	Self	6	9
	Neighbour	3	4.5

Table-2: Substance use profile

Substances used		N	%
Alcohol		28	41.8
Opioid	Dextropropoxyphene	17	25.4
	Codeine syrup	6	9
	Heroin	4	6
	Total	27	40.3
Tobacco		25	37.3
Cannabis		23	34.3
Benzodiazepine		4	6
Volatile substances		4	6

Table-3: Clinical variables

Variables		N	%
Family history of SUD		41	61.2
Reason to start	Peer influence	40	59.7
	Curiosity	27	40.3
Dual diagnosis	Depression	6	9
	Psychosis	4	6
	Conduct disorder	4	6
	BPAD	2	3
	Schizophrenia	1	1.5
	Total	17	25.4
Follow up	1-5 times	21	31.3
	6-20 times	6	9
	Total	27	40.3

Clinical Profile

The mean duration of substance dependence was 2.8 years (SD: 2.02; median: 2). Common substances were: alcohol (41.8%), opiates (40.3 %), tobacco (37.3%) and cannabis (34.3%). Multiple drugs (14.9%), inhalants (6%) and sedative-hypnotics (6%) constituted the rest. The common opioids used were: dextropropoxyphene (25.4 %), codeine cough syrup (9 %) and heroine (6 %). Only one injection drug user used pentazocine and reported needle sharing.

The cause of initiation in 59.7% was peer pressure, while 40.3% admitted trying substance out of curiosity. More than half of the subjects (61.2 %) had positive family history of either drug dependence or psychiatric illness.

Comorbid psychiatric disorders were present in 25.4 % of cases and included: -depressive disorder (9%), conduct disorder and psychosis (6 % each), BPAD (3%) and schizophrenia (1.5%). Only 4 (12%) patients reported prior treatment seeking (for substance use disorders) of which 2 (6%) patients had been hospitalized previously. All the subjects were treated on outpatient basis. At the time of first contact, more than 75% of the subjects had poor to superficial motivation for treatment (0-1 as rated on a 0-4 scale). When we studied the adherence to treatment in terms of follow up at our centre, it was found that only 40.3 % came for follow up visit, rest did not. Among those who followed up, 31 % visited 5 times and only 9% came more than 5 times.

When an attempt was made to find any difference between trends in different parameters separately for 2012 and 2013, there were trends suggestive of increasing in patient numbers. However, no significant difference was found between the two groups.

Discussion

The current study was a retrospective chart review with the aim of studying the socio- demographic and clinical profile of adolescents presenting to a de-addiction centre of a tertiary care hospital. This study cannot give an estimate of prevalence of substance use among children in our population but gives useful information on pattern and correlates of substance use of those presenting at our centre. The profile of treatment seekers can help the treatment agencies to prepare themselves in managing such cases.

More than half of the adolescents were in their primary school unlike that of the National Commission for Protection of Child Rights (NCPCR) finding.[14] This is unlike other studies, where most subjects were either school drop-outs, or attending school irregularly.

Mean age at first use of the primary substance was nearly 14.9 years, which suggests that drugs are easily available, and it is a matter of concern. Substance abuse was more in age group of 17-19 years (67.2 %), which is

similar to another study done in north India among school children.[15] Substance abuse was found to have significant association with age. Substance abuse increased with increasing age. Kapoor et al.[16] and Tsering& Pal[17] also observed in their studies that increasing age was significantly associated with increasing prevalence of substance abuse. The mean duration required to develop dependence was nearly 2.8 years. A small proportion of subjects (14.9 %) presented with multiple drug use. This is different finding from some of the earlier studies conducted in other tertiary centres in North India, where almost all the subjects were dependent on at least one substance at the time of presentation.[18]

Unlike other studies, the commonest used primary class of substance was alcohol followed closely by opioids. The commonest used opioid was dextropropoxyphene along with morphine (codeine syrup). This finding is similar to previous study findings where alcohol, tobacco[19] and Cannabis[7] (Ray , 2004) were among the prevalent substances of uses in the adolescent age group . The results of the NCPCR study showed that significant proportion of cannabis users were present among sample included from Haryana[14] (63.3%), and our review also found so. The small proportion of adolescents using heroin (6%) reflects harder substances encroaching the reach of the adolescent population. Another issue of concern is that both the patients who were injection-users were sharing needles, and were totally unaware of the risks like HIV/other transmittable diseases. This calls for an urgent need to include the school going population in the HIV awareness programs.

Most of the subjects started using the substance under peer pressure, or out of curiosity. Previous studies have also reported starting of substance on experimental basis, and later on becoming dependent on it. Co-morbidity was reported in few subjects, and they were mostly psychotic disorders. Nearly half of the subjects had positive family history of either drug dependence or psychiatric disorder, which is in similar lines with other studies, which have implicated environmental and genetic factors in the development of drug dependence.

Conclusion

Experimentation with drugs is common for adolescents. The results suggest that the development of substance dependence in children and adolescents is a combination of familial and social vulnerability factors, including the drug culture of the changing social milieu. Unfortunately, developmentally appropriate and effective methods to address substance use problems among teenagers remain few in number. The developmental changes in adolescents are central to the success of any intervention, the failure to do so may, in part, be responsible for the limited effectiveness of adolescent treatment to date. No wonder, despite the growing number of prevention campaigns, drug consumption in adolescents exhibits an increasing trend. Indian data on the profile of young population with substance abuse in organized form is also lacking. Therefore, for planning effectively, and to provide efficient services to the special needs of this sensitive and vulnerable population, there is a need to understand the substance use profile, associated problems, family dynamics and most importantly the developmental changes that characterize adolescence.

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