Socio-demographic and Clinical Profile of Patients with Substance Use Disorder at a Tertiary Care Centre in Vindhya Region: A Hospital-based Study

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ABSTRACT

Introduction: The rampant increase in substance use in India makes it a serious public health hazard, in consonance with the western trend. The upsurge of substance use is getting so alarming that the preventive strategies have become a matter of national priority. The youth constitute the most vulnerable section in the society. Similar to the unprecedented rise of substance use all over India, Madhya Pradesh did not remain untouched by this erosion. In the recent past, the pattern of substance use in this region has worsened leading to an increase in behavioural disturbances due to substance use, poor family dynamics, illegal issues and restrained interpersonal relationships.

Aim: To study the clinical and socio-demographic profile of various substance users in the Vindhya region, Madhya Pradesh, India.

Materials and Methods: The present hospital-based cross-sectional study was conducted in the Department of Psychiatry, Shyam Shah Medical College, Vindhya, Madhya Pradesh, India, from January 2019 to May 2019. Patients of all ages, both genders (339), diagnosed under substance use disorders as per Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5) criteria were included in the study. A detailed assessment including socio-demographic and clinical history, physical examination and other relevant investigations were done. Statistical analysis was done using Statistical Package for the Social Sciences (SPSS), version 21.0.

Results: After the screening of 432 patients, 339 fulfilled the inclusion criteria. Total 92 (27.29%) patients were multiple substance users, followed by opioids 82 (24.33%), and benzodiazepines 66 (19.58%). Alcohol, tobacco, and cannabis users were 42 (12.46%), 29 (8.6%), and 28 (8.3%) respectively. Majority of the study participants 160 (47.2%) were in the younger age group (21-30 years). Most of them were males 303 (89.4%), single 230 (67.8%), from urban areas 204 (60.2%), and belonging to the lower-middle socio-economic class 108 (32%). The bulk participants were students 95 (28%), and well-educated (undergraduate and above). The chief reason for seeking the treatment was withdrawal symptoms. The majority of the subjects with substance use had onset within the age range of 10-20 years (149, 44%). Peer group influence was the most common factor responsible for the initiation of substance use overall (145, 42.7%). Strong craving (77, 22.7%) was the most important continuation/maintenance factor.

Conclusion: The younger age groups with a family history were at a high risk of developing substance use disorders. Easy accessibility of substances along with peer motivation for substance-taking behaviour has made increased the number of adolescents and young substance users.

INTRODUCTION

Substance use has been in existence in most societies over the world since time immemorial [1]. However, the problem there has been a drastic rise in substance use as well as its harmful consequences over the last few decades [2]. Substance use has proved to be a global challenge with serious detrimental effects on health- both mental and physical, economy as well as the peace of nations. It has progressed to impulsive criminal activities, risky sexual behaviour, medical complications, negative psychological impact on families, precipitation of various psychiatric disorders, and adverse interaction with drugs used in other medical disorders [3].

Digitalisation, rapid mechanisation, continuous westernisation, urbanisation, over-competitiveness, unemployment along with the increasing struggle for existence and identity have yielded an invincible rise in stress and strain in our day-to-day life [4]. To escape temporarily from this stark reality, substance use is easily becoming an astucious choice. Currently, substance use is rapidly rising in youth and even finding its presence in the female population, making it a developing and ever-progressing catastrophic health challenge.

The younger group shows lack of choices for substance and strong craving for any psychotomimetic agents available and poses a great social and clinical challenge [5]. In the Vindhya region, there has been a substantial change in the culture and pattern of numerous sorts of substance misuse in recent decades. The region's physical location, where the boundaries of three states (Madhya Pradesh, Uttar Pradesh and Chhattisgarh) intersect, allows for drug transit across the state. Due to the easy availability of substances such as alcohol, alprazolam, spasmoproxyvon tablet, heroin, cannabis, and other psychiatric disorders and medical conditions in the region, the current disturbed conditions have worsened the drug use scenario, as well as a phenomenal increase in psychiatric disorders and medical conditions. Alcohol intoxication and withdrawal symptoms, which can be severe or uncomplicated, opioid withdrawal symptoms, cannabis-induced psychosis, and premature death due to overdose and accidents have all increased as the rate of substance usage has climbed. Realising the high magnitude and changing pattern of substance use, the present study aimed to investigate various socio-demographic and clinical trends of substance in a tertiary hospital set-up.

MATERIALS AND METHODS

This hospital-based, cross-sectional study was conducted at the Department of Psychiatry, Shyam Shah Medical College, Vindhya, Madhya Pradesh, India, from January 2019 to May 2019. The Institutional Ethical Committee (IEC) approval was taken from Ethical Committee (letter no. 12/SS/MC/18). During the study period all

patients with substance use attending Psychiatric Outpatient Department were screened for the study.

Inclusion criteria: Patients of all ages, both genders, diagnosed with substance use disorders as per Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5) [6] criteria by the Consultant Psychiatrist were included in the study.

Exclusion criteria: Patients with acute medical and surgical emergencies, pregnancy, and lactation were excluded from the study.

A detailed assessment was done with the help of a semi-structured proforma consisting of various socio-demographic and clinical variables.

STATISTICAL ANALYSIS

Statistical analysis was done using Statistical Package for the Social Sciences (SPSS) version 21.0 (IBM Inc., Armonk, New York). Data were represented as percentages and frequencies.

RESULTS

After screening 432 patients, 339 patients fulfilled the inclusion and exclusion criteria and were enrolled for the study. Total 92 (27.29%) patients were multiple substance users followed by opioids (82, 24.33%) and benzodiazepines (66, 19.58%). Alcohol, tobacco, and cannabis users were 42 (12.46%), 29 (8.6%), and 28 (8.3%) respectively [Table/Fig-1].

Details	Number
Total number of patients screened	432
Total number of patients fulfilling inclusion criteria	339
Total number of patients completed the study	
Alcohol	42 (12.46%)
Opioid	82 (24.33 %)
Tobacco	29 (8.6 %)
Cannabis	28 (8.3 %)
Benzodiazepines	66 (19.58 %)
Multiple substance	92 (27.29%)

[Table/Fig-1]: Patient selection details.

Majority of study participants (160, 47.2%) were in younger age group (21-30 years). Most of them were males (303, 89.4%), single (230, 67.8%), from urban settlements (204, 60.2%), and belonging to the lower middle socioeconomic class (108,32%). The bulk of study participants were students (95, 28%), and well-educated (undergraduate and above) [Table/Fig-2]. Chief reasons for seeking the treatment among alcohol, opioid, benzodiazepine, and multiple substance users was withdrawal symptoms, followed by self-motivated deaddiction. None of the cannabis users and very few tobacco users presented for deaddiction/withdrawal/intoxication. Most tobacco and cannabis subjects were selected from psychiatric patients attending psychiatry Outpatient Department and Inpatient Department or were selected from patients with medical consequences referred to Psychiatric Unit From Medicine Unit. Overall, the main reason for seeking treatment among substance users was withdrawals symptoms [Table/Fig-3].

The majority of the subjects with substance use had onset in the age range of 10-20 years (149, 44%) followed by 21-30 years (144, 42.5%). Total 4 (1.2%) patients were having onset of substance use below 10 years and belonged exclusively to opioid and benzodiazepine groups [Table/Fig-4]. The peer group motivation was the most common factor responsible for the initiation of substance use overall (145, 42.7%) and individually in all the groups as well viz. opioid (67.1%), tobacco (51.7%), cannabis (50%) alcohol (47.6%), multiple substance (26.1%) and benzodiazepines (25.8%) [Table/Fig-5]. Strong craving (77, 22.7%) was overall the most important continuation/maintenance factor for substance use, followed by pleasure-seeking (73, 21.5%) and avoiding withdrawal (60, 17.7%) respectively [Table/Fig-6].

Family history of substance use was seen in tobacco 17 (58.6%) and alcohol 23 (54.8%) users, followed by cannabis users 13 (46.4%). A family history of serious mental illness was present in tobacco 25 (86.2%) and cannabis 21 (75%) users, followed by alcoholics 13 (31%) [Table/Fig-7].

Variables	Alcohol (n, %)	Opioids (n, %)	Tobacco (n, %)	Cannabis (n, %)	Benzodiazepines (n, %)	Multiple substance (n, %)	Total (N, %)
Age in years							
≤20	3 (7.1%)	19 (23.1%)	4 (13.7%)	8 (28.5%)	13 (19.6%)	14 (15.2 %)	61 (18%)
21-30	16 (38.9%)	40 (48.7%)	13 (44.8%)	13 (46.4 %)	33 (50%)	45 (48.9%)	160 (47.2%)
31-40	13 (30.9%)	20 (24.3%)	6 (20.6%)	5 (17.8 %)	18 (27.3%)	28 (30.4%)	90 (26.5%)
41-50	8 (19 %)	3 (3.6 %)	4 (13.7%)	1 (3.5 %)	2 (3 %)	4 (4.3 %)	22 (6.5%)
>50	2 (4.8%)	0	2 (6.8%)	1 (3.5 %)	0	1 (1.1%)	6 (1.7%)
Gender							
Male	36 (85.7%)	74 (90.3%)	24 (82.8%)	27 (96.4%)	60 (91%)	82 (89%)	303 (89.4%)
Female	6 (14.3%)	8 (9.7%)	5 (17.2%)	1 (3.6%)	6 (9%)	10 (11%)	36 (10.6%)
Marital status							
Single	24 (57.1%)	62 (75.6%)	12 (41.4%)	18 (64.3%)	54 (81.8%)	60 (65.2%)	230 (67.8%)
Married/Cohabiting	10 (23.8%)	17 (20.7%)	8 (27.6%)	6 (21.4%)	8 (12.1%)	20 (21.7%)	69 (20.4%)
Widowed/Separated/Divorced	8 (19.1%)	3 (3.6%)	9 (31%)	4 (14.3%)	4 (6.1%)	12 (13%)	40 (11.8%)
Residence							
Urban	32 (76.2%)	60 (73.2%)	11 (38%)	6 (21.4%)	48 (72.7%)	47 (51.1%)	204 (60.2%)
Rural	10 (23.8%)	22 (26.8%)	18 (62%)	22 (78.6%)	18 (27.3%)	45 (48.9%)	135 (39.8%)
Family type							
Extended/Joint	28 (66.7%)	20 (24.4%)	19 (65.5%)	9 (32%)	18 (27.3%)	48 (52.2%)	142 (42%)
Nuclear	14 (33.3%)	62 (75.6%)	10 (34.5%)	19 (68%)	48 (72.7%)	44 (47.8%)	197 (58%)
Education							
Illiterate	4(9.5%)	6 (7.3%)	5 (17.2%)	5 (17.8%)	4 (6.1%)	9 (9.8%)	33 (9.7%)
Primary and Middle school	4 (9.5%)	10 (12.2%)	7 (24.1%)	14 (50%)	10 (15.2%)	15 (16.3%)	60 (17.7%)

High and Higher secondary school	8 (19.1%)	14 (17.1%)	9 (31%)	6 (21.4%)	24 (36.4%)	33 (35.9%)	94 (27.7%)
Undergraduate and above	26 (62%)	52 (63.4%)	8 (27.6%)	3 (10.7%)	28 (42.4%)	35 (35.9%)	152 (44.8%)
Occupation							
Unemployed	8 (19%)	7 (8.5%)	5 (17.2%)	6 (21.4%)	6 (9.1%)	18 (19.6%)	50 (14.7%)
Unskilled/Farmer/Clerical	11 (26.2%)	5 (6.1%)	7 (24.1%)	7 (25%)	7 (10.6%)	22 (24%)	59 (17.4%)
Semi-skilled/Skilled work	10 (23.8%)	25 (30.5%)	6 (20.7%)	7 (25%)	13 (19.7%)	19 (20.6%)	80 (23.6%)
Professional/Business	5 (12%)	15 (18.3%)	7 (24.1%)	5 (17.8%)	10 (15.2%)	13 (14.1%)	55 (16.2%)
Student	8 (19%)	30 (36.6%)	4 (13.8%)	3 (10.7%)	30 (45.5%)	20 (21.7%)	95 (28%)
Socio-economics status (Kuppuswamy socio-economic class) [7]							
Class I - Upper	4 (9.5%)	8 (9.7%)	6 (20.7%)	3 (10.7%)	7 (10.6%)	13 (14.1%)	41 (12.1%)
Class II - Upper middle	4 (9.5%)	27 (33%)	5 (17.2%)	4 (14.3%)	19 (28.8%)	19 (20.7%)	78 (23%)
Class III - Lower middle	15 (35.6%)	33 (40.2%)	6 (20.7%)	6 (21.4%)	28 (42.4%)	20 (21.7%)	108 (32%)
Class IV - Upper lower	12 (28.6%)	11 (13.4%)	7 (24.1%)	8 (28.6%)	9 (13.6%)	22 (24%)	69 (20.4%)
Class V - Lower	7 (16.7%)	3 (3.6%)	5 (17.2%)	7 (25%)	3 (4.5%)	18 (19.6%)	43 (12.7%)

[Table/Fig-2]: Socio-demographic variables in terms of frequency and percentage (N=339) [7].

Reasons for seeking treatment	Alcohol (n, %)	Opioids (n, %)	Tobacco (n, %)	Cannabis (n, %)	Benzodiazepines (n, %)	Multiple substance (n, %)	Total (N, %)
For deaddiction	14 (33.3%)	31 (37.8%)	8 (27.6%)	0	25 (37.9%)	30 (32.6%)	108 (31.9%)
Acute intoxication	13 (31%)	4 (4.9%)	0	0	3 (4.5%)	14 (15.2%)	34 (10%)
Withdrawal symptoms	22 (52.4%)	42 (51.2%)	2 (6.9%)	0	38 (57.6%)	33 (35.9%)	137 (40.4%)
Psychiatric manifestations due to withdrawal	13 (31%)	9 (11%)	25 (86.2%)	21 (75%)	11 (16.7%)	26 (28.3%)	105 (30.9%)
Medical consequences	7 (16.7%)	2 (2.4%)	13 (44.9%)	7 (25%)	7 (10.6%)	12 (13%)	48 (14.2%)

[Table/Fig-3]: Reasons for seeking the treatment.

Age (in years)	Alcohol (n, %)	Opioids (n, %)	Tobacco (n, %)	Cannabis (n, %)	Benzodiazepines (n, %)	Multiple substance (n, %)	Total (N, %)
<10	0	2 (2.4%)	0	0	2 (3%)	0	4 (1.2%)
10-20	16 (38.1%)	49 (59.8%)	17 (58.6%)	13 (46.4%)	37 (56.1%)	17 (18.5%)	149 (44%)
21-30	20 (47.6%)	27 (33%)	10 (34.5%)	12 (42.9%)	22 (33.3%)	53 (57.6%)	144 (42.5%)
>30	6 (14.3%)	4 (4.9%)	2 (6.9%)	3 (10.7%)	5 (7.6%)	22 (23.9%)	42 (12.4%)

[Table/Fig-4]: Age of onset of substance use.

Variables	Alcohol (n, %)	Opioids (n, %)	Tobacco (n, %)	Cannabis (n, %)	Benzodiazepines (n, %)	Multiple substance (n, %)	Total (N, %)
Peer group	20 (47.6%)	55 (67.1%)	15 (51.7%)	14 (50%)	17 (25.8%)	24 (26.1%)	145 (42.7%)
Out of curiosity	6 (14.3%)	11 (13.4%)	0	5 (17.9%)	9 (13.6%)	13 (14.1%)	44 (13%)
Seeking pleasure	5 (12%)	13 (15.9%)	6 (20.7%)	4 (12.3%)	9 (13.6%)	17 (18.5%)	54 (16%)
Frustration/Tension/Anxiety relief	4 (9.5%)	3 (3.7%)	8 (27.6%)	5 (17.9%)	15 (22.7%)	14 (15.2%)	49 (14.5%)
For sleep induction	3 (7.1%)	0	0	0	16 (24.2%)	15 (16.3%)	34 (10%)
Loneliness	4 (9.5%)	0	0	0	0	9 (9.8%)	13 (3.8%)

[Table/Fig-5]: Predominant Initiation factor.

Variables	Alcohol (n, %)	Opioids (n, %)	Tobacco (n, %)	Cannabis (n, %)	Benzodiazepines (n, %)	Multiple substance (n, %)	Total (N, %)
Craving/Inability to control impulse	11 (26.1%)	21 (25.6%)	9 (31%)	6 (21.4%)	11 (16.7%)	19 (20.7%)	77 (22.7%)
To avoid withdrawal	9 (21.4%)	24 (29.3%)	6 (20.7%)	1 (3.6%)	9 (13.6%)	11 (12%)	60 (17.7%)
For company to peers	5 (12%)	11 (13.4%)	5 (17.2%)	4 (14.3%)	9 (13.6%)	11 (12%)	45 (13.3%)
For seeking pleasure	7 (16.7%)	10 (12.2%)	6 (20.7%)	14 (50%)	15 (22.7%)	21 (22.8%)	73 (21.5%)
Relieving frustration/Tension/Anxiety	6 (14.3%)	8 (9.8%)	3 (10.3%)	3 (10.7%)	13 (19.7%)	15 (16.3%)	48 (14%)
Relief of somatic complaints	2 (4.8%)	8 (9.8%)	0	0	1 (1.5%)	6 (6.5%)	17 (5%)
Insomnia	2 (4.8%)	0	0	0	8 (12.1%)	9 (9.8%)	19 (5.6%)

[Table/Fig-6]: Predominant continuation/maintenance factors.

History of participants		Alcohol (n, %)	Opioids (n, %)	Tobacco (n, %)	Cannabis (n, %)	Benzodiazepines (n, %)	Multiple substance (n, %)	Total (N, %)
Family history of substance use	Present	23 (54.8%)	14 (17%)	17 (58.6%)	13 (46.4%)	12 (18.1%)	38 (41.3%)	117 (29%)
	Absent	19 (45.2%)	68 (83%)	12 (41.4%)	15 (53.6%)	54 (81.8%)	54 (58.7%)	222 (71%)
History of mental illness in patient	Present	13 (31%)	9 (11%)	25 (86.2%)	21 (75%)	11 (16.7%)	26 (28.3%)	105 (31%)
	Absent	29 (69%)	73 (89%)	4 (13.8%)	7 (25%)	55 (83.3%)	66 (71.7%)	234 (69%)

[Table/Fig-7]: Medical and family history of the participants.

DISCUSSION

The present study was conducted among 339 patients of substance use, with the aim to investigate various socio-demographic and clinical aspects of substance in a tertiary hospital set-up.

In the present study, maximum clustering of patients (47.2%) was in the age range of 21-30 years. This supports the consensus that substance use erodes the most productive younger age group. Similar findings were reported by few studies [8,9], but different in others [10-12,16].

Use of opioids and benzodiazepines was also common in the age group of <20 years, whereas the majority (73.8%) of the abusers were within the age range of 21-40 years. The present observations, therefore, indicate that although substance use invades all the age group yet it is most fulminant in younger age group [Table/Fig-8].

The overwhelming stresses with a relatively lower threshold to tolerance, over competitiveness, struggle for identity, generation gap, and eventually developing emotional turmoil in this age group may interact with genetic endowment and give rise to the emergence of substance use. The use of alcohol and tobacco was also common in the age group of 31-60 years. Early consultation of opioid use could either be due to compelling physical ailments or severe withdrawal symptoms. Cause for consultation in opioid users as explained in prior studies were either due to social issues, family pressure or withdrawal symptoms [9,11]. Factor for early initiation of substance use was majorly due to peer pressure. Other studies had

similar findings as depicted in [Table/Fig-8]. In the present study, males (303, 89.4%) were the predominant substance users, and this finding simulates the findings of other studies as well. However, a trend of increased substance use was noted among females as well (10.6%), which is a definite change although male preponderance was present in the present study, similar to previous studies [Table/Fig-8]. The reason for this may be westernisation, urbanisation, over-competitiveness, increased frustration, and easy over-the-counter availability [12,13]. Due to social stigma and embarrassment female patients avoid visiting the de-addiction centers which leads to a poorer prognosis, [Table/Fig-8] [8-11,14-19]. For any given amount of alcohol consumption, females are at higher relative risk of developing alcoholic liver diseases than males [20].

The majority of the patients in the present study were unmarried (230, 67.8%), suggesting an increased prevalence of substance use in unmarried individuals pertaining to poor social support. Loss of partner could explain the use of substance and can be deemed as a predisposing factor for substance use. Other researchers also concluded similar results [11,20].

Substance user was more predominant among individuals from urban settlement (204, 60.2%). Rapid urbanisation and westernisation is the reasons for increasing usage of substance use in and around urban settlements. These findings are in consensus with the studies by Din NU et al., and Margoob M et al., where 66.34% and 57.14% of the patients were residents of urban areas, respectively [9,15].

Authors and year of publication	Place of study	Age at presentation	Study population and socio-economic status	Common gender	Age at initiation	Commonly abused substance	Mode of intake	Reason for seeking treatment
Majumder U et al., (2021) [8]	Agartala	21-30 years	Outpatient Department (OPD) based patients came for de-addiction from 2018 to 2019	Male	21-30 years	Opioid > Alcohol	Opioid (IV route)	-
Din NU et al., (2019) [9]	Bemina	21-30 years	1st 300 consecutive patients attending psychiatric OPD for de-addiction Socio-economic Status (SES)-72% middle class	Male	<20 years	Polysubstance> opioids	Oral	Social Issues>Comorbidity> withdrawal
Prajapati BB et al., (2018) [10]	Gujarat	31 to 45 years	OPD based 1st 100 patients 1 January to 28 February 2018 SES- Lower and lower middle class	Male	Young age	Alcohol> tobacco	Oral	By family members> friends
Rather YH et al., (2013) [11]	Kashmir	21-30 (mean age 26.8 years)	All Inpatient Department (IPD) patients since June 2008 to May 2009 SES-56% lower middle and lower class	Male	11-20	Tobacco> Opioid> Cannabis	Oral	Social Issues>Comorbidity> withdrawal
Becker U et al. (1996) [14]	Denmark	30-79 years	Age stratified sample ≥20 years	Male	Young	Alcohol	Oral	Medical Complications
Margoob MA et al., (2004) [15]	Kashmir	16-60 years	All patients attending OPD from March 2002 to November 2002 between 16 -60 yrs SES-majority belongs to lower class	Male	Young	Cannabis	Smoking	Self-Referral
Gul D and Sharma N, (2017) [16]	Punjab	The age range of the sample was 18 to 82 years. As many as 248 patients (82.67%) belonged to the age group 18-37 years	OPD based patients starting from April 15, 2016. Total 300 consecutive treatment seeking subjects, fulfilling criteria for substance-dependence were included in the study	Male	<27 years	Opioid>alcohol	Oral	-
Weisner C et al., 2001 [17]		18 to 49 years maximum patients	Study subjects were individuals age more or equal to 18 years OPD based	Male	Young	Alcohol	Oral	Social, family, and employer pressure
Kadri KM et al., (2003) [18]	Gujarat	Mean age 32.8±1.6	All the substance users attending vyasanmukti Kendra from 1st January to 31st December 1997 were taken for the study SES-Class lower middle (31.3%) and upper lower (47.3%)	Male	<20 years and mean age 23.9±5.6	Alcohol	Oral	-
Kumar S et al., (2017) [19]	Srinagar Gharwal	21-30 years	All substance users patients attending centers over period of 6 month (July 2014 to December 2014)	Male	33.9±10.9 years	Alcohol	Oral	-

[Table/Fig-8]: Published studies on socio-demographic and clinical profile of substance use disorders [8-11,14-19].

In the present study, majority of the patients belonged to the lower middle class (108, 32%). Other studies also suggested higher substance use among the lower class [9,10,11,15].

Substance users in this study were predominantly undergraduates (152, 44.8%), suggesting a low educational level among substance users leading to lower knowledge about the ill-effects of substance use and poor employment. This causes increased stress and a perfect plot for ongoing substance use. These findings simulate those of Rather YH et al., and Gul D and Sharma N, [11,16].

In the present study, most of the study participants were students (95, 28%).The high prevalence of substance use in children can be due to the perception that substance could help them remain wake and active and even improve their attention and concentration, especially during exams and the lack of potential side effects. Academic stress, peer pressure, failure in love matters could as well potentiate the use of substance. Similar findings were reported by Dube KC et al., [21]. Whereas, these were inconsistent with the study by Majumder U et al., (2021) [8].

In the present study, majority of patients presented with withdrawal symptoms (137, 40.4%), which was contrary to the mentioned studies in the table 8, in which the reason was either social issues or pressure from family and friends. This is probably because patients lack social support which hinders their early hospitalisation for de-addiction, although they try to refrain from taking substances on their own without supervision leading to severe withdrawal symptoms.

The majority of subjects with initiated substance use in the age range of 10-20 years (149, 44%) involving substances like opioid, benzodiazepines, cannabis, and alcohol. Seventeen (18.5%) patients were multiple substance users in this particular age group. These findings were similar to other studies [Table/Fig-8] except that by Kumar S et al., who found that majority of patients in their study were between 20-30 years [19]. The maturation of prefrontal cortex regions involved in self-control, as well as the neural pathways linking these areas to the reward centres, occurs during adolescence. The prefrontal cortex, which is responsible for making decisions and weighing the pros and cons of various courses of action, is critical for controlling our behaviour in the face of possible rewards such as drugs and food. Adolescents are prone to risky behaviours and rash decisions that bring immediate delight rather than long-term benefits. This is partly due to the fact that their prefrontal cortex is still developing. Hence, it is of paramount importance to supervise the young adults and to deliver counselling to boost up healthy coping mechanisms, stress buffering and to make them aware of hazardous effects of substance. Early diagnosis and timely management would require coordinated team efforts from therapists, family members, teachers, and society to look out for and identify susceptible youth.

The peer group (145, 42.7%) motivation was the single most common impelling factor responsible for the initiation of substance use in all the groups. Majumder U et al., and Margoob M et al., also reported that peer pressure was most common reason for starting the substance (44.44%) and (55.2%), respectively [8,15]. Peer pressure interacts with a variety of other factors, such as familial pressure and support, personality qualities, and vulnerability factors, to influence drug usage overall. Family history of substance use was present among patients using tobacco 17 (58.6%) and alcohol 23 (54.8%).

The Ministry of Social Justice and Empowerment has produced a National Action Plan for Drug Demand Reduction (NAPDDR) [22] for 2018-2023 in compliance with the spirit of the United Nations Conventions and the current Narcotic Drugs and Psychotropic Substances (NDPS) Act 1985 and NDPS Policy 2012 [23,24]. Through collaborative efforts of the central and state Governments and Non Governmental Organisations, NAPDDR aims to focus on preventive education, awareness generation, identification, counselling, treatment, and rehabilitation of drug-dependent persons, as well as training and capacity building of service providers.

Limitation(s)

The sample size was limited. The study was primarily based on a treatment-seeking population, which is possibly different from the community where substance use is still not thought to be a disease, but only a social or legal problem.

CONCLUSION(S)

Although the issue of substance abuse has led to severe consequences for both the user and the society, merely any strong implementation of the government policies has been noted in the past. There is a requirement for more studies in this context on various levels to reflect the prevalence of various types of substance. The most affected population has always been the adolescent and the young; to combat addiction, appropriate efforts must be done to promote a healthy lifestyle among youth. Adequate rehabilitative measures must be used to reduce the risk of relapse and to give addicts new hope for a better life.

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