Original Research Article

Prevalence of drug abuse among youth and its association with socio-demographic and risk factors: A growing menace

ABSTRACT

Aim: Substance abuse has a detrimental impact on individual's families and communities posing major public health challenges. Therefore, present study has been designed to find the level of prevalence of drug abuse and its association between with socio demographic factors and various risk factors.

Study Design: The study has been done by using mixed method, exploratory - descriptive research design.

Place of study: This study was conducted in five schools and five colleges (one school and one college from each block)from five blocks of district Kangra, Himachal Pradesh.

Methodology: The present research assessed the prevalence of drug useamong 500 students from schools and colleges in the age range of 12-25 and its association with various socio-demographic and risk factors by using "The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST)".

Results: It was revealed that tobacco was the most used substance (29.2%) followed by alcohol (28.2%) and inhalants (11.8%). Less than 10 per cent of sample used other substance at least once in their lifetime. Highly significant association was observed between factors like age, type of educational institutes, mother's occupation, bad company, peer pressure, curiosity, and use of drugs by parents with prevalent drug abuse among study subjects.

Conclusion: It was concluded from theresults that tobacco was the main drug which is used by both school and college students. Alcohol is 2nd most drug which is used by the subjects followed by inhalants. The subjects have moderate level of prevalence of drugs in which significant association was seen with various factors.

Keywords: Curiosity, peer pressure, risk factors, substance use/abuse, tobacco

1. INTRODUCTION

Drug abuse is one of the most serious social problems we are facing these days.The World Health Organization (WHO)[1] defines Substance abuse as persistent, sporadic or hazardous use of psychoactive substances including alcohol and illicit drugs,whose repeated use can lead to dependence syndrome-a cluster of behavioral, cognitive, and physiological phenomena which involves a strong desire to take the drug, and difficulties in controlling its use. Drugs have the ability to change an individual's consciousness, perception, mood, thinking process, behaviour or motor function. Use of any substance once or twice may happen without having notable ramifications, but with repeated substance use the tolerance is built and it results in substance usedisorder, where individual's functioning is effected at the expense of work, relationships, education, health or safety. Substance use disorders are marked as growing addiction or dependence on the substance and inability to restraint from it(American Psychiatric Association, APA, 2013)[2]. About 5 % of adult population globally

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uses drugs at least once during their life time. Whereas, 0.6 % of adult population suffers from disorders associated with drug use.According to The United Nations Office on Drugs and Crime (UNODC)'s World Drug Report 2022[3] it was estimated that around 284 million people worldwide use drugs. The report further claims that India has one of the world's single-largest opiate markets. Youth in India are the most affected by this menace. Punjab state has become the hub of illicit drugs. About 60 % of all illicit drugs seized in India are from Punjab.Dependence of drug not onlycreate economic burden because of increasing costs of health care, but also social costs in the form of loss of productivity and family income, violence, security problems, traffic and workplace accidents.The regular use of intoxicating psychoactive substances leads to dependence which has not only an adverse effect on the physical and mental health of an individual but also disrupt his family life, social relationship and social development (Kumar *et al.*, 2013)[4]. It has a detrimental impact on the society by increase in the crime rate like eve teasing, group clashes, assault, impulsive murder, stealing to pay for their drugs ~~etc~~. Apart from affecting the financial stability, addiction increases conflicts and causes untold emotional pain for every member of the family.The injecting drug users are vulnerable to acquire HIV/AIDS, due to sharing of needles and risky sexual behaviour. Substance abuse is considered as a complicated and multidimensional problem. It is not entirely a problem of an individual person or any specific drug or a community, but is interplay between the triad (Ortiz, 1990)[5]. The epidemic of substance abuse among youth has assumed alarming dimensions in India.Drug abuse in India is as old as elsewhere, if not older. Numerous references are well stocked in Ancient books regarding various intoxicants such as "soma rasa ", "dev booty ", "madira" ~~etc~~. Opium became popular during the Mughal period. The post-war period saw the rise of synthetic drugs-both stimulants and depressants. Hard drugs such as heroin and lysergic acid diethylamide (LSD) are in use. Recently discovered hallucinogens such as phencyclidine hydrochloride that may be known as (Angel Dust) to certain users in metropolitan areas. The traditional drugs like opium, charas, bhang and ganja were used by sections of the society partly as leisure time activity and partly as part of the religious ceremony. Therefore, their consumptions did not invite much negative sanction from the society. Abuse of alcoholic beverages and tobacco are endemic in many societies, whilst the abuse of other psychoactive substances present in epidemic features and drug abuse is transmitted from person to person like an infectious disease (Medina-Mora et al., 1990)[6]. Substance use leads to definitive socio-economic burden and has become a major public health concern worldwide. In spiteofrealizing the adverse effects and repercussions of drug use, youth especially the adolescents have a proclivity to continue the habit(Tsering et al., 2010)[7].Early initiation into substance/drug use is generally associated with a poor prognosis and a lifelong pattern of trickery and irresponsible behavior. There are multifarious causes of substance use disorder like genetic, poor impulse control, peer pressure, uninvolved parenting, neurologicalvulnerability to addiction or various mental health issues like anxiety or depression UNODC, 2018[8]. Various other factors like breakdown of traditional values, peer pressure, curiosity, media, unemployment, industrialization and rural urban migration, availability of drugs have contributed to increase the number of drug abusers. With majority of drug users in the productive age group of 15-35 years, the loss in terms of human potential is immeasurable.

Himachal Pradesh is also becoming notorious with increasing number of drug abusers in the state. Cannabis can be growing naturally near the roadsides and even illicit cultivation of opium and cannabis in higher reaches of Kangra, Kullu, Mandi districts has become a matter of concern. Even Baddi in district Solan has emerged as pharmaceutical hub of India but few firms were caught for illegally producing synthetic drugs like adulterated heroin (called Chitta). Youth are getting hooked to 'chitta' as the peddlers are operating from

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small shops like ration or confectionery shops near educational institutions and chains are being formed by roping in new vulnerable targets especially young children. Illicit drug produced in the State attracts traffickers and as well as Indian and foreign tourists for consumption of narcotic drugs. 'Malana cream 'produced from cannabis is grown higher reaches of Kullu is a known brand in the international drug trafficking circles. Illicit use of drugs in 'Rave Parties or Full Moon Parties" are also reported in some areas of Kullu and Kangra. Increase in cases of drug addiction is posing big challenge to human life, dignity, and law and order situation in the State. The present researchwas conducted with the objectives to study the prevalence of drug abuse among young population of Himachal Pradesh a northern state of India and to assess the association between drug abuse with various socio-demographic factors.

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2. METHODOLOGY

Locale of the study: The study was conducted in district Kangra of Himachal Pradesh. Out of 12 districts of Himachal Pradesh, Kangra district was purposively selected for the purpose of the study as Kangra is the most populous district of Himachal Pradesh and it also shares its borders with Punjab state where drug abuse has acquired the proportions of a pestilence that has shaken the entire society of the state. This raging epidemic has its claws in Himachal where border areas are under the grip of this menace.

Research design: The study has adopted as mixed method, exploratory - descriptive research design. Under which prevalence of drug abuse among youth is explored using standardized tool and secondly the association is observed among socio demographic and risk factors and drug abuse.

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Sample size: The sample for the study comprised of500 respondents in the age range of 12-25 years.

Procedure for selection of subjects: Kangra district is further subdivided into 15 blocks. Therefore, out of 15, five blocks namely Nurpur, Shahpur, Bhawarna, Dharmashala and Dehra were selected randomly. The list of Senior Secondary schools and Colleges has been procured from the portal of Education department of Himachal Pradesh. From the list 5 schools and 5 Colleges were randomly selected i.e. one school and one college each from selected blocks were identified for sample selection. From each school under the selected block 50 students in the age range of 12-18 years and similarly 50 students from each college in the age range of 19-25 years under the respective block were selected for collecting the data. Therefore, 250 students were selected from schools and 250 were selected from colleges, thus making a total of 500 sample size. The principals of these schools and colleges were contacted through phone andpriorpermissionwas taken for data collection.

Tools used for the study:

Background information Proforma: This is a self-structured proforma that comprisesthe socio demographic factors like name, age, gender, Name of school/college, Parental educational and occupational status, religion, caste, type of family, No. of family members and Family income of the respondent.

The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST): was developed under the auspices of the World Health Organization (WHO)[9] by an international group of researchers and clinicians who work in the field of substance abuse and addiction. This scale was generated in lieu of the overwhelming public health concern associated with drug abuse globally. This questionnaire comprises of 8 item designed to be administered to a client using paper and pencil. This scale is culturally neutral and useable across a variety of cultures to screen for use of the following substances: tobacco products, alcohol, cannabis,

cocaine, amphetamine-type stimulants (ATS), sedatives and sleeping pills (benzodiazepines), hallucinogens, inhalants and opioids.

General Information about drug awareness and abuse: This is a self-structured checklist where information is generated about the curiosity regarding drugs, awareness about drugs and problems associated with it, their attitude towards drug use, information about drug abuse in family or friends their association with bad company of friends etc.

Method of Data Collection: Primary data was collected through Questionnaire method in group setting. A group of 10 students each were given the questionnaire. The researchers gave brief introduction about the project. Consent is being taken and respondents were assured about the anonymity and confidentiality of their names along with data privacy. After seeking their approval in participating in the survey it was also notified that they can cancel their participation in survey if they want. After giving the introduction about the questionnaire, it was administered. It took about 20-30 minutes to complete the questionnaire. The researchers were present during the whole time the questionnaire was administered and any query sought was cleared there and then only. This survey followed the Guidelines for Ethical Considerations in Social Research & Evaluation in India.

Data analysis: After the responses were generated, the information was tabulated and computed. The tables were quantified using frequency and percentages were calculated. Each drug usewasmeasured by their levels in terms of their use i.e. (Low, Moderate, High). Data were further subjected to statistical analysis by using appropriate test. For measuring the association between socio demographic and risk factors with prevalence of drug abuse among youth chi square test was applied.

Math formula:

Chi- square test for independence of attributes in contingency tables: The chi-square test is a statistical procedure for determining the difference between observed and expected data. As it is used to determine if there is a significant relationship between two nominal variables or not. The frequency of each category for one nominal variable is compared across the categories of the second nominal variable. The data of A and B displayed in 'x × y' contingency table, which contains 'xy' cell frequencies in 'x' rows represents a category for one variable (A) and 'y' columns represents a category for the other variable (B). e.g., if we want to examine the relationship between gender (male vs. female) and prevalence of drug abuse(low or high). The chi-square test of independence can be used to examine this relationship.

Test Statistic:

$$\chi 2 = \sum_{i=1}^{x} \sum_{j=1}^{y} \frac{(O_{ij}-E_{ij})^2}{E_{ij}} = \sum_{i=1}^{x} \sum_{j=1}^{y} \frac{O_{ij}^2}{E_{ij}} - N,$$ is distributed as $\chi 2$ with (x-1) (y-1) is considered d.f.

Where, $O_{ij}$is the observed frequency in the (i, j) cell and E_{ij} be the expected frequency in the (i, j) cell.

N is the total frequency

d.f. is degree of freedom

Table 1 Frequency and percentage distribution of socio-demographic factors among respondents

Variables		Sample(N=500)	Percentage(%)
Age			
12-14		63	12.6
15-17		187	37.4
18-21		188	37.6
22-25		62	12.4
Gender			
Male		358	71.6
Female		142	28.4
Type of educational institute			
School		250	50.0
College		250	50.0
Type of institute			
School (n=250)	Govt. School	150	60.0
	Private School	100	40.0
College (n=250)	Govt. College	200	80.0
	Private College	50	20.0
Father educational status			
Illiterate		5	1.0
Primary		14	2.85
Middle		68	13.6
Matric		118	23.6
Sr. Sec		121	24.2
Graduate		122	24.4
Post Graduate & above		52	10.4
Father Occupational Status			
Govt.		137	27.4
Private		148	29.6
Business		82	16.4
Agriculture		40	8
Daily wage earner		68	13.6
Non-working		25	5
Mother educational status			
Illiterate		10	2.0
Primary		26	5.2
Middle		73	14.6
Matric		164	32.8
Sr. Sec		95	19
Graduate		103	20.6
Post Graduate & above		29	5.8
Mother Occupational Status			
Govt.		43	8.6
Private		32	6.4
Business		15	3.0
Agriculture		15	3.0
Daily wage earner		24	4.8
Home maker		371	74.2
Religion			
Hindu		487	97.4
Sikh		10	2.0

Muslim	3	0.6
Caste Category		
General	206	41.2
SC	101	20.2
ST	50	10.0
OBC	143	28.6
Type of family		
Nuclear	316	63.2
Joint	184	36.8
Family income (annual)		
Less than 10,000	123	24.6
10,000-25000	132	26.4
25,000-50000	103	20.6
50000-75000	74	14.8
75000-1 lakh	34	6.8
1 lakh and above	34	6.8

3. RESULTS

Table 1 presents the socio demographic characteristics of the respondents. Among the respondents 37.6% are in the age group of 18-21 years, followed by 37.4% who belong to the age range 15-17 years. About 12.6 per cent and 12.4 per cent belong to the age 12-14 years and 22-25 years respectively. Out of total sample of 500, 71.6% were males and remaining 28.4% were females. In case of type of educational institute 60 per cent of respondents from school and remaining 40 per cent were from government and private schools respectively. In case of colleges 80 per cent of youth belong to government institutes and remaining 20 per cent were from private colleges. Regarding educational status of the fathers of respondents 24.4% had education upto graduation level followed by senior secondary i.e. 24.2 per cent. About 23.6 % were educated upto 10^{th} standard. Only 10.4 per cent educated upto post graduate level and above. In case of father's occupational status of the respondent's majority i.e. 29.6% were working in private sector followed by 27.4% who were working in government sector and 16.4 percent had run own business as their occupation. Only 5 per cent of them were non-working and 13.6% were daily wage earner. About 8 per cent had agriculture as their occupation. Regarding mother's educational status, it was seen that majority of mother's i.e. 32.8 per cent had education upto 10^{th} standard followed by graduation i.e. 20.6 per cent. Only 5.8 per cent were highly educated i.e. post graduate and above. Mother's occupational status reported that 74.2% were homemakers, 8.6% and 6.4% in government and private jobs respectively. Majority i.e. 97.4% were Hindus and 41.2% belongs to General category followed by OBC i.e. 28.6 per cent. About 20.2 % were belonging to Scheduled caste. Only 10 per cent were from Scheduled tribes. Majority i.e. 63.2 % were living in nuclear families and remaining 36.8 per cent belonged to joint families. In case of family income majority i.e.26.4 per cent had family income between Rs10,000 – Rs 25,000, followed by24.6% who had income less than Rs 10,000, very few i.e. 6.8% had monthly income above Rs 75000 – 1lakh and above.

Table 2 Frequency and percentage distribution of overall substance use prevalence among respondents

Drugs	School (n=250)			College (n=250)			Total(%) N=500
	Boys(%)	Girls(%)	Total(%)	Boys(%)	Girls(%)	Total(%)	
Tobacco	29(11.6)	12(4.8)	41(16.4)	67(26.8)	19(7.6)	86(34.4)	146(29.2)
Alcohol	29(11.6)	10(4.0)	39(15.6)	67(26.8)	23(9.2)	90(36.0)	141(28.2)
Cannabis	14(5.6)	0.0	14(5.6)	24(9.6)	3(1.2)	27(10.8)	33(6.6)
Cocaine	6(2.4)	8(3.2)	14(5.6)	10(4.0)	5(2.0)	15(6.0)	33(6.6)
Amphetamine	0.0	4(1.6)	4(1.6)	4(1.6)	3(1.2)	7(2.8)	12(2.4)
Inhalants	21(8.4)	12(4.8)	33(13.2)	16(6.4)	11(4.4)	27(10.8)	59(11.8)
Opioids	9(3.6)	0.0	9(3.6)	11(4.4)	3(1.2)	14(5.6)	19(3.8)
Sedatives	6(2.4)	5(2.0)	11(4.4)	14(5.6)	4(1.6)	18(7.2)	26(5.2)

Comment [CW(aM16]: This is actually interesting data.

From Table 2 it can be reported that majority of students from both schools and colleges (29.2 %) used tobacco at least once in their lives. If we look further it can be seen that percentage of boys is higher as compared to girls. The use of tobacco is higher in college goers (34.4%) as compared to school goers (16.4%). In case of alcohol 28.2 per cent of collegiate consumed alcohol at least one in their lifetime out of that 36% was boys and 9.2% were girls. About 15.6 per cent were school students out of those 11.6% were boys and 4% were girls. There is 5.6% intake of cannabis among school boys while zero intake of cannabis among girls had been reported. For college goer's cannabis intake (9.6%) in boys and (1.2%) in girls. Overall intake of cannabis among students was found to be 6.6 per cent. The intake of cocaine in school girls (3.2%) is slightly more than boys (2.4%). Only 6 per cent of college boys and girls used cocaine once in their life. No intake of amphetamine in school boys was reported whereas 1.6% of school girls took amphetamines once in life. In case of college students 2.4 per cent consumed amphetamines at least once in their life. Regarding use of inhalants 13.2 per cent of school students and 11.8 per cent of college students use inhalants. Almost similar percentage i.e. 3.6 percent of school goers and 3.8 percent of college students abused opioids. Use of sedatives in lit bit higher in college goers i.e. 5.2 percent as compared to school students i.e. 4.4. per cent.

Table 3. Frequency and Percentage distribution of Levels of Prevalence of drug abuse among respondents

Variables	Sample	Levels	Tobacco	Alcohol	Cannabis	Cocaine	Amphetamine	Inhalants	Opioids	Sedatives
School (n=250)	Boys(%)	Never	142(56.8)	149(59.6)	184(73.6)	180(72.0)	189(75.6)	170(68.0)	185(74.0)	186(74.4)
		Low	11(4.4)	31(12.4)	2(0.8)	1(0.4)	1(0.4)	3(1.2)	0.0	1(0.4)
		Moderate	37(14.8)	8(3.2)	3(1.2)	8(3.2)	0.0	16(6.4)	5(2.0)	3(1.2)
		High	0.0	2(0.8)	1(0.4)	1(0.4)	0.0	1(0.4)	0.0	0.0
	Girls(%)	Never	48(19.2)	50(20.0)	60(24.0)	52(20.8)	56(22.4)	48(19.2)	60(24.0)	56(22.4)
		Low	5(2.0)	9(3.6)	0.0	1(0.4)	0.0	2(0.8)	0.0	3(1.2)
		Moderate	7(2.8)	1(0.4)	0.0	7(2.8)	4(1.6)	10(4.0)	0.0	1(0.4)
		High	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Total(%)	Never	190(76.0)	199(79.6)	244(97.6)	232(92.8)	245(98.0)	218(87.2)	245(98.0)	242(96.8)
		Low	16(6.4)	40(16.0)	2(0.8)	2(0.8)	1(0.4)	5(2.0)	0.0	4(1.6)
		Moderate	44(17.6)	9(3.6)	3(1.2)	15(6.0)	4(1.6)	26(10.4)	5(2.0)	4(1.6)
		High	0.0	2(0.8)	1(0.4)	1(0.4)	0.0	1(0.4)	0.0	0.0
College (n=250)	Boys(%)	Never	101(40.4)	101(40.4)	144(57.65)	158(63.2)	164(65.6)	152(60.8)	157(62.8)	154(61.6)
		Low	10(4.0)	33(13.2)	6(2.4)	3(1.2)	1(0.4)	6(2.4)	6(2.4)	7(2.8)
		Moderate	49(19.6)	29(11.6)	15(6.0)	5(2.0)	2(0.8)	9(3.6)	4(1.6)	6(2.4)
		High	8(3.2)	5(2.0)	3(1.2)	2(0.8)	1(0.4)	1(0.4)	1(0.4)	1(0.4)
	Girls(%)	Never	63(25.2)	59(23.6)	79(31.6)	77(30.8)	79(31.6)	71(28.4)	79(31.6)	78(31.2)
		Low	5(2.0)	18(7.2)	2(0.8)	3(1.2)	1(0.4)	3(1.2)	1(0.4)	1(0.4)
		Moderate	13(5.2)	4(1.6)	0.0	2(0.8)	2(0.8)	8(3.2)	2(0.8)	3(1.2)
		High	1(0.4)	1(0.4)	1(0.4)	0.0	0.0	0.0	0.0	0.0
	Total(%)	Never	164(65.6)	160(64.0)	223(89.2)	235(94.0)	243(97.2)	223(89.2)	236(94.4)	232(92.8)
		Low	15(6.0)	51(20.4)	8(3.2)	6(2.4)	2(0.8)	9(3.6)	7(2.8)	8(3.2)
		Moderate	62(24.8)	33(13.2)	15(6.0)	7(2.8)	4(1.6)	17(6.8)	6(2.4)	9(3.6)
		High	9(3.6)	6(2.4)	4(1.6)	2(0.8)	1(0.4)	1(0.4)	1(0.4)	1(0.4)
Total (N=500)		Never	354(70.8)	359(71.8)	467(93.4)	467(93.4)	488(97.6)	441(88.2)	481(96.2)	474(94.8)
		Low	31(6.2)	91(18.2)	10(2.0)	8(1.6)	8(1.6)	14(2.8)	7(1.4)	12(2.4)
		Moderate	106(21.2)	42(8.4)	18(3.6)	22(4.4)	22(4.4)	43(8.6)	11(2.2)	13(2.6)
		High	9(1.8)	8(1.6)	5(1.0)	3(0.6)	3(0.6)	2(0.4)	1(0.2)	1(0.2)

Table 3 showed the levels of prevalence of drug abuse among selected sample. It can be seen from the table that majority of the school sample including both boys and girls never used any type of drugs. As for different drugs 98% of students never used opioids, amphetamines and 97.6 per cent never used cannabis, whereas 87.2 per cent never used inhalants. About 76 per cent never use tobacco followed by 79.6% who never consumed alcohol. The ones who consumed these different drugs were divided into three levels i.e. Low, Moderate and High according to their usage. As we go further into the table for respective drugs in case of school sample we observed thatabout 14.8% of school boys have fallen under moderate level of risk caused by tobacco. A few numbers of boysi.e. (4.4%) have low level of risk. Similarly, school girls (2.8%)were also fallen under moderate level of risk for tobacco. Whereas the number of boys (12.4%) and girls (3.6%) were in low level of risk caused by alcohol followed by moderate level. A very few number of both school boys and girls have scored higher in moderate level of risk caused by cannabis, cocaine, amphetamine, inhalants, opioids and sedatives followed by boys and girls under low level of risks.

As we delve further in category of college students it can be seen that 40.4% of boys and (25.2% & 23.6%) of girls never used tobacco and alcohol in their life while maximum number of college boys and girls did not used other drugs such as cannabis, cocaine, amphetamine, inhalants and opioids and sedatives. From the table, it is clear that the number of boys and girls for the drugs such as tobacco (19.6% & 5.2%), cocaine (2% & 1.2%), amphetamine (0.8% & 0.8%), inhalants (3.6% & 3.2%), opioids (1.6% & 0.4%) and sedatives (2.4% & 1.2%) respectively were under moderate level of risks followed by low level of risk except for alcohol. For alcohol both college sample (13.2% & 7.2%) were found to have low level of risk followed by moderate level. As we go further 3.6 % of tobacco users 2.4% of alcohol users, 1.6% cannabis users, 0.8 % cocaine and 0.4 % college goers were in high level of risk and need intensive intervention by health professional. If we look at the table and interpret results from the total sample it can be seen that maximum number of participants never used any drugs in their life and were found prevalent to any type of risks caused by drugs such as tobacco (70.8%), alcohol (71.8%), cannabis and cocaine (93.4%)each amphetamine (97.6%), inhalants (88.2%), opioids (96.2%) and sedatives (94.8%). The number of total participants in all types of drugs falls under moderate level of risk and are prevalent to drug abuse except for alcohol. Only for alcohol 18.2% of respondents were at low level where only brief intervention may be required. There are a very few number of respondents who are in high risk and need intervention to cure. For tobacco (1.8%), alcohol (1.6%), followed by cannabis (1.0%).

Table 4 observed the association between socio-demographic factors and prevalence of drug abuse among study subjects. As seen from the table that in case of age of respondent's $P > 0.01$ (p value is .001). Therefore, extremely significant association at 1% level of significance was found between age and prevalence of drug abuse among the selected respondents. Further it can be corroborated from the table that the type of institutes i.e. schools and colleges also were highly significantly associated at 5 % level of significance with the prevalence of drug /substance abuse among the respondents, where $P> 0.05$ (p value is .027) If we look into the table further it is seen that highly significant association at 5 % level of significance was observed between mother's occupational status and prevalence of drug /substance abuse among their children, $P> 0.05$ (p value is .029). No significant associations are observed between variables like Gender, Type of schools and college, father's education and occupation and mother's education with prevalence of drug abuse among children.

Comment [CW(aM18]: So if the majority of your participants never use any drugs, isn't that your main finding?

Comment [CW(aM19]: Your findings need to much more spelled out here. If you are saying something is significant be clear to the reader what it is.

Table 4: Association between socio-demographic factors and prevalence of drug abuse among sample

Factors	Components	N=500 (%)	Prevalence				Value	Df	p
			Never(%)	Low(%)	Moderate(%)	High(%)			
Age	12-14 years	63 (12.6)	29(5.8)	13(2.6)	19(3.8)	2(0.4)	27.680	9	**.001*** **
	15-17 years	187(37.4)	115(23.0)	21(4.2)	50(10.0)	1(0.2)			
	18-21 years	188(37.6)	91(18.2)	26(5.2)	65(13.0)	6(1.2)			
	22-25 years	62(12.4)	21(4.2)	11(2.2)	24(4.8)	6(1.2)			
Gender	Male	358(71.6)	186(37.2)	49(9.8)	109(21.8)	14(2.8)	4.389	3	.222
	Female	142(8.4)	70(14.0)	22(4.4)	49(9.8)	1(0.2)			
Type of educational institute	School	250(50.0)	143(28.6)	33(6.6)	70(14.0)	4(0.8)	9.185	3	**.027** **
	College	250(50.0)	113(22.6)	38(7.6)	88(17.6)	11(2.2)			
Type of school (n=250)	Government	150(60.0)	84(33.6)	23(9.2)	40(16.0)	3(1.2)	1.484	3	.686
	Private	100(40.0)	58(23.2)	11(4.4)	30(12.0)	1(0.4)			
Type of college (n=250)	Government	200(80.0)	88(35.2)	32(12.8)	69(27.6)	11(4.4)	3.228	3	.358
	Private	50(20.0)	23(9.2)	7(2.8)	20(8.0)	0.0			
Father education	Illiterate	5(1.0)	3(0.6)	0.0	2(0.4)	0.0	25.696	18	.107
	Primary	14(2.8)	1(0.2)	6(1.2)	7(1.4)	0.0			
	Middle	68(13.6)	37(7.0)	5(1.0)	23(4.6)	3(0.6)			
	Matric	118(23.6)	62(12.4)	13(2.6)	38(7.6)	5(1.0)			
	Sr Secondary	121(24.2)	63(12.6)	16(3.2)	38(7.6)	4(0.8)			
	Graduate	122(24.4)	67(13.4)	21(4.2)	32(6.4)	2(0.4)			
	Post Graduate & Above	52(10.4)	23(4.6)	10(2.0)	18(3.6)	1(0.2)			
Father occupation	Government	137(27.4)	74(14.8)	21(4.2)	38(7.6)	4(0.8)	14.448	15	.492
	Private	148(29.6)	70(14.0)	27(5.4)	47(9.4)	4(0.8)			
	Business	82(16.4)	47(9.4)	6(1.2)	28(5.6)	1(0.2)			
	Agriculture	40(8.0)	19(3.8)	4(0.8)	14(2.8)	3(0.6)			
	Daily wage earner	68(13.6)	34(6.8)	11(2.2)	20(4.0)	3(0.6)			
	Non-working	25(5.0)	12(2.4)	2(0.4)	11(2.2)	0.0			
Mother education	Illiterate	10(2.0)	4(0.8)	1(0.2)	5(1.0)	0.0			

	Primary	26(5.2)	13(2.6)	5(1.0)	8(1.6)	0.0	11.737	18	.861
	Middle	73(14.6)	40(8.0)	8(1.6)	24(4.8)	1(0.2)			
	Matric	164(32.8)	87(17.4)	20(4.0)	49(9.8)	8(1.6)			
	Sr Secondary	95(19.0)	45(9.0)	14(2.8)	34(6.8)	2(0.4)			
	Graduate	103(20.6)	53(10.6)	19(3.8)	29(5.8)	2(0.4)			
	Post Graduate & Above	29(5.8)	14(2.8)	4(0.8)	9(1.8)	2(0.4)			
Mother occupation	Government	43(8.6)	22(4.4)	7(1.4)	12(2.4)	2(0.4)	26.949	15	**.029****
	Private	32(6.4)	12(2.4)	7(1.4)	12(2.4)	1(0.2)			
	Business	15(3.0)	7(1.4)	3(0.6)	4(0.8)	1(0.2)			
	Agriculture	15(3.0)	6(1.2)	3(0.6)	3(0.6)	3(0.6)			
	Daily wage earner	24(4.8)	9(1.8)	6(1.2)	9(1.8)	0.0			
	Home-Maker	371(74.2)	200(40.0)	45(9.0)	118(23.6)	8(0.4)			
Religion	Hindu	487(97.4)	249(49.8)	70(14.0)	153(30.6)	15(3.0)	4.772	6	.573
	Sikh	10(2.0)	5(1.0)	0.0	5(1.0)	0.0			
	Musli /8858	3(0.6)	2(0.4)	1(0.2)	0.0	0.0			
Caste category	General	206(41.2)	105(21.0)	28(5.6)	67(13.4)	6(1.2)	2.569	9	.979
	Schedule Caste	101(20.2)	54(10.8)	11(2.2)	32(6.4)	4(0.8)			
	Schedule Tribe	50(10.0)	24(4.8)	9(1.8)	16(3.2)	1(0.2)			
	OBC	143(28.6)	73(14.6)	23(4.6)	43(8.6)	4(0.8)			
Family Type	Nuclear	316(63.2)	165(33.0)	47(9.4)	94(18.8)	10(2.0)	1.458	3	.692
	Joint	184(36.8)	91(18.2)	24(4.8)	64(12.8)	5(1.0)			
Family income	Less than 10,000	123(24.6)	63(12.6)	17(3.4)	41(8.2)	2(0.4)	20.981	15	.137
	10,000-25,000	132(26.)	73(14.6)	20(4.0)	33(6.6)	6(1.2)			
	25,000-50,000	103(20.6)	54(10.8)	13(2.6)	35(7.0)	1(0.2)			
	50,000-75,000	74(14.8)	37(7.4)	6(1.2)	30(6.0)	1(0.2)			
	75,000-1 Lakh	34(6.8)	15(3.0)	6(1.2)	11(2.2)	2(0.4)			
	1 Lakh & above	34(6.8)	14(2.8)	9(1.8)	8(1.6)	3(0.6)			
Significant level	***99%***95%** 90%****								

Table 5: Association between risk factors and prevalence of drug abuse among sample

Risk Factors (N=500)	Curiosity		Peer Pressure		Substance use by parents (Alcohol and Tobacco)		Attitude towards drug use		Lack of awareness		Bad company	
	1(%)	0(%)	1(%)	0(%)	1(%)	0(%)	1(%)	0(%)	1(%)	0(%)	1(%)	0(%)
Never	198(39.6)	58(11.6)	225(45.0)	31(6.2)	204(40.8)	52(10.4)	154(30.8)	102(20.4)	196(39.2)	60(12.0)	248(49.6)	8(1.6)
Low	47(9.4)	24(4.8)	54(10.8)	17(3.4)	48(9.6)	23(4.6)	32(6.4)	39(7.8)	56(11.2)	15(3.0)	64(12.8)	7(1.4)
Moderate	101(20.2)	57(11.4)	118(23.6)	40(8.0)	124(24.8)	34(6.8)	72(14.4)	86(17.2)	126(25.2)	32(6.4)	144(28.8)	14(2.8)
High	11(2.2)	4(0.8)	9(1.8)	6(1.2)	8(1.6)	7(1.4)	4(0.8)	11(2.2)	11(2.2)	4(0.8)	9(1.8)	6(1.2)
Total	357(71.4)	143(28.6)	406(81.2)	94(18.8)	384(76.8)	116(23.2)	262(52.4)	238(47.6%)	389(77.8)	111(22.2)	465(93.0)	35(7.0)
Chi-square	9.722		17.549		9.453		14.642		.794		32.729	
Df	3		3		3		3		3		3	
P value	**.021****		**.001*****		**.024****		**.002*****		.851		**.000*****	
Significant level	***99%*** *95%***											

Comment [CW(aM20]: How are these terms defined.

Table 5 postulated, the association between risk factors and prevalence of drug abuse among subjects studied. As per table the curiosity in participants has P > 0.05 (p value is .021) which means that highly significant association at 5% level of significance was found between curiosity and prevalence of drug abuse among selected sample. If we look further into the table, peer pressure and prevalence of drug abuse in respondents has P> 0.01 (p value is .001). Therefore, extremely significant association at 1 % level of confidence is observed between peer pressure and prevalence of drug abuse among study subjects. From above table 5, it can be corroborated that the parental use of substances (i.e. alcohol and tobacco) of selected sample and prevalence of drug abuse has P > 0.05 (p value is .024) which depicts highly significant association between parent's substance use and prevalence of drug abuse at 5% level of significance. As seen from the table that in case of children attitude towards drug use and prevalence of drug abuse in them P > 0.01 (p value is .002) has been extremely significantly associated with each other at 1 % level of confidence. If we look further into the table, the respondents who find themselves in bad company and prevalent to drug abuse has P > 0.01) p value is .000) which means that extremely significant association at 1% level of significance is found between bad company and prevalence of drug abuse. No significant association is observed between lack of awareness and prevalence of drug abuse among students.

4. DISCUSSION

This article aims to shed light on the prevalence of drug/substance use among students 12-25 years old from the 5 blocks of district Kangra, of state Himachal Pradesh in India. These findings will help to understand the prevalent drug use among sample along with associated risk factors and also the association of various socio-demographic factors with drug abuse.

The findings suggested higher number of males as compared to females. The age group of study subjects was 12-25 years, where majority belonged to 15-21 years. The students selected from various government and private educational institute where majority of students were from government institutes. The education level of fathers and mothers of the respondents were graduates and up to matric level respectively. In case of occupation status majority of fathers of respondents were doing private jobs and mothers were homemakers. Majority of study subjects were Hindus in General category mostly living in nuclear families. Majority of respondent's family income was between Rs 10,000-25,000.

Regarding the overall substance/drug use and level of prevalence among study subjects, majorly used substance among youth is found to be tobacco followed by alcohol. Cigarette and alcohol use often develop simultaneously, and smoking is especially common among youth. Various studies suggested that tobacco use is closely associated with Alcohol and other drug (AOD). The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST): developed by World Health Organization (WHO)[9] gave level of drug abuse in terms of Low, Moderate and High. From the results it was observed that tobacco was the most consumed drug among youth and majority fall in moderate level of consumption both in case of boys and girls from schools and colleges. But in case of alcohol majority were in low level of use the rest of the users fell under moderate level of drug use. It is studied that use of psychoactive substances significantly escalates during the high school years especially 14–18 years old Johnston *et al.* (2006)[10].Another study conducted by Sivapuram*et al.* (2020)[11] on prevalence of alcohol and tobacco use in India found that the prevalence of alcohol abuse (8.7%) was higher than the tobacco abuse (7.9%). When compared among the genders, both alcohol and tobacco consumption was higher among males (15.8% alcohol and 13.1% tobacco) when compared to females (3.2% tobacco and 2.4% alcohol). The prevalence of smoking among 13, 329 respondents (44.9% males and 55.1% females) conducted a cross-sectional GATS-2 survey in India from aged 15 to 24 years found that overall, 11.9% of respondents were using tobacco (Grover *et al.* 2020)[12]. Contrast to our study findings in one study alcohol was the

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Comment [CW(aM23]: How is this paragraph useful? You told us this above.

Comment [CW(aM24]: Are you hanging your discussion around any form of theory?

Comment [CW(aM25]: Do you believe this to be your most important finding? Kids use cigarettes & alcohol?

Comment [CW(aM26]: Ref?

most common substance used by abusers (95.4%), followed by tobacco (46.5%) but the age of participants in this study were 30-50 years. It is further discussed that tobacco acts as gateway drug for initiation for the use and abuse of other substances, because who smoke are 3 times more likely than non-smokers to use alcohol, marijuana and cocaine (Sims, 2009)[13]. Every year, approximately 55,000 children start using tobacco generally hailing from low socio-economic status. This behavior is often initiated during among young population as 70% of adult smokers reported that they started smoking daily prior to age of 18 years (Ghosh, 2013)[14].

The third most abused drug comes under inhalants (11.8%) of students were found using inhalants. It is also clear from the study that inhalant abuse is not uncommon among youth. Inhalants like glue, turpentine thinners, paints are commonly used by adolescents and youth because of their easy availability Sadock&Sadock (2009)[15]; Dhawan &Pattanayak(2015)[16]; Narayanaswamy *et al*. (2012)[17]. Inhalants cause a momentary sense of well-being that reinforces repetition among users. Their effects generally last only a few minutes, where user experience exhilaration and a fleeting phase of tranquility. According to the National Drug Dependence Treatment Centre, AIIMS, New Delhi's 2019 conducted National Survey on Extent and Pattern of Substance Use in India, the prevalence of inhalant misuse is 0.7% nationwide (Patil*et al.*; 2022)[18]. The percentage of cannabis, cocaine, opioids and amphetamine user was less than 10 per cent but the level of prevalence for these drugs was found at moderate level, which is quite alarming.

Comment [CW(aM27]: If it is quite alarming then you should talk about it.

In case of association of socio-demographic characteristics age, type of educational institute that is school and college and mother's occupation with prevalence of drug abuse have significant association. In a similar study conducted by Gordon *et al.* (2021)[19] results showed that age of the respondents was significantly associated with substance use, where youth being more likely to engage in substance use (P<0.001); having a parent/guardian employed were negatively associated with substance use (P=0.021). The results also aligned with study of Mahmood *et al.* (2019)[20] who found that age group of 17-19 years of male adolescents were found to be significantly associated with tobacco intake or cigarette smoking. In another study of Mohammadpooras*et al.* (2012)[21], increasing age of the students was significantly associated with substance use. The reason behind this could be the easy accessibility of substances with increasing age. In contradictory to our findings age was not statistically significant on drug abuse among the students indicating that abuse of drugs takes place across

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any age. The result showed that there was no significant influence of age on drug abuse among undergraduate students of Benue State University, Makurdi. This is an indication that students at whatever age exhibit the same level of drug abuse among undergraduate students in Benue State University, Makurdi (Ajonye&Idoko, 2022)[22]. According to Gudaji*et al.* (2016)[23] study, found that being of younger age, being single, and having a father who smoked were significantly associated with psychoactive substance use. Participants who were singles were more likely to use inhalants, opiates, cannabis and stimulants. No relationship was observed between the age of the respondents and specific substance use. In another study prevalence of use of substance was found to be 1.3 times more among boys from the government schools in comparison to private school ($P < 0.05$), whereas alcohol use was 1.5 times more among girls from government schools in comparison to girls from private schools ($P < 0.05$); Narain*et al.* (2020)[24].

Association of prevalent substance use was found to be significantly associated with curiosity to use certain drugs, peer pressure, parental use of substances like alcohol and tobacco, attitude towards drugs and bad company. Similar results are found in the study of Mahmood *et al.* (2019)[20] who revealed significant association between student's cigarette and alcohol consumption with parental use of substance like tobacco and alcohol. The study of Rukundo *et al.* (2017)[25] confirmed that peer influence is the strongest risk factor associated with substance use in school students. Gudaji*et al.* (2016)[23] in their study showed that the fathers who smoked were significantly associated with psychoactive substance use. Webetu*et al.* (2020)[26] reported that children who had family members or peers exposed to substance use were more likely to use substance/drugs as compared to those whose family members are non-users. The odds of experiencing lifetime legal substance use were 2.5 times higher among students, who had a substance user family than those who don't have.

Whitesell *et al.* (2013)[27] reported that having a father, mother or siblings who are substance users increased the odds of cigarette smoking by 1.5 times, 5 times for alcohol consumption, compared with those who did not have a substance user in the family. Family members, especially parents act as a role model for children and this creates indirectly the impression that substance use is acceptable behaviour among adults.

5. CONCLUSION

Comment [CW(aM29]: What are you referencing?

Comment [CW(aM30]: Any recommendations for future practice/ research?

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Various unhealthy behaviors or conditions like smoking, drinking or use of illicit drug use often initiated during adolescent period leads to adulthood disorders that results in major public health challenges. From the study it was concluded that tobacco was the main drug used by the youth followed by alcohol and inhalants. Moderate level of drug use was found among majority of study subjects except for alcohol which was found to low for majority of respondents. Socio demographic factors like age, type of educational institute like schools and colleges and mother's occupation was found to be associated with prevalent drug use. Use of drugs like tobacco, alcohol, cocaine, opioids and other substances is a worldwide problem that affects many adolescents and youth. Various risk factors were found associated with use of substances among them. The most common is peer pressure and curiosity to use drugs along with positive attitude towards drug use. It was seen that parental use of drugs like tobacco and alcohol is also an associated factor that results in drug and substance use. Involvement in bad company was also found associated with drug use. Easy availability and accessibility of substance nowadays have made a profound increase in consumption of substances in various age groups. Strict measures should be taken by the police regarding prohibition of these substances nearby to school and college premises. Educational awareness pertaining to the harmful effects of substance use should be addressed in schools and colleges along with mandatory units regarding drug abuse in school curriculums starting from 6^{th} standard. Awareness programs need to be conducted at regular intervals at community level to address the issues of drug abuse.

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