



PREVALENCE OF SUBSTANCE ABUSE AMONG STUDENTS OF RURAL DEGREE COLLEGE

Community Medicine

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ABSTRACT

Background: Substance abuse disorders are among the world's leading public health problem as they cause enormous human sufferings in terms of morbidity, mortality and economic loss. Substance abuse among students has become an issue of concern throughout the world. Increasing substance abuse and its impact on physical and psychosocial health is a worldwide public health concern affecting the early youth and subsequently the whole life of the individuals. Rapid industrialization, urbanization and changing life styles have left students struggling for their survival, forcing many to refuge in the dark world of substance abuse. **Objectives:** 1) To find out the prevalence of substance abuse among degree colleges students in rural area. 2) To find out the prevalence of substance abuse among degree colleges students in relation to study year, stream and gender. **Methodology:** Taking prevalence of substance abuse as 30%, sample size of 900 was calculated. 300 students were selected from each college by simple random sampling method. Data was collected on a pre-designed questionnaire and statistically analyzed. **Result:** The prevalence of substance was found to be 40.44%. Substance abuse was highest in 3rd year (50.5%) followed by 2nd year (40.44%) and 1st year (28.7%). In the present study, maximum addictions was seen in commerce stream (51.6%) followed by art (35.5%) and science (33.9%). Substance abuse was more in males (44.3%) compared to female (29.5%) **Conclusion:** Substance use is common in college students. So there is a need to educate and aware students regarding bad effects of drug abuse.

KEYWORDS

Substance abuse

INTRODUCTION

According to WHO, substance abuse is defined as, "Harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs."⁽¹⁾ Substance abuse disorders are among the world's leading public health problem as they cause enormous human sufferings, in terms of morbidity, mortality, economic loss and threatens the very fabric of almost all communities around the world.⁽²⁾ The youth of the country are more vulnerable to substance abuse due to increased academic pressure, peer group influence and increased popularity and availability of substances.⁽³⁾ Limited study has been done on substance abuse among youth of degree colleges in Western Uttar Pradesh in recent years. So the present study is designed to keep in view the recent trends of substance abuse among the students of degree colleges of rural area of district Meerut, UP.

Aims And Objectives:

1. To find out the prevalence of substance abuse among degree colleges students of rural area of district Meerut, UP.
2. To find out the prevalence of substance abuse among degree colleges students in relation to study year, stream and gender.

MATERIAL AND METHOD

The present cross-sectional study was conducted in the degree college of rural area of district Meerut, UP. The study was carried out from March 2023 to April 2024 which was used for data collection, compilation and presentation of finding.

Sampling Technique: Simple Random Sampling

Study Population: The study was conducted in the under-graduate and post-graduate students of co-educational degree college student of rural area of district Meerut.

Sample Size Estimation: To calculate the sample size, following formula is used

$$n = z^2_{\alpha/2} p q / d^2$$

Where, n=sample size d=absolute precision p=prevalence q=(1-p)

Sample size is calculated using prevalence of substance abuse in rural of north India (Kashmir Valley) which was 30%⁽²⁾ among college students by taking the relative precision 10% at 95% confidence interval.

The sample size is calculated as: $n = 3.84 \times .3 \times .7 / (.03)^2$
=896

To make the mathematical calculation easier, the minimum sample size was taken to be 900.

Sampling Method:

All of the 50% co-educational degree college in rural Meerut were included in the study to get the desired sample size. Enrolment list of all the undergraduate and postgraduate students was obtained from the college office. Out of the total 3050 students of science, art and commerce stream from each college, 300 students were selected randomly by using the simple random sampling technique.

Data Processing And Statistical Analysis:

The data thus collected, was first coded and transferred to the Excel sheets and then a master chart is prepared from which tables were finally prepared, analyzed and statistically evaluated using Epi Info TM 7.2.5. P-value < .05 was considered for statistical significance.

Tools Of Data Collection:

Pre-designed, pre-tested, semi-structured, questionnaire was used. Before administering the questionnaire, study subjects was pre-tested on 90 college students (10% of total sample size) and was suitably modified before finalization. The Principal of these colleges were informed in writing about the purpose of the study and permission for the same was taken from them. Students were approached during their free time and were asked to participate in the study voluntarily after taking verbal consent from them. Students were explained about the instructions to fill up the questionnaire and were requested to provide authentic information. They were assured that all information would be kept confidential. Both Hindi and English questionnaire was provided to the students and they were asked to fill the questionnaire in whichever language they prefer. Any query of the student regarding questionnaire was resolved then and there only.

Inclusion Criteria:

1. Students of Science, Arts and Commerce streams.
2. Students willing to give consent to participate in the study.

Exclusion Criteria:

1. Students not available at the time of study.
2. Students not willing to give consent in the study.

Ethical Clearance:

The protocol of the thesis was approved by the ethical committee of the institution.

RESULT

A total of 900 students (300 from each college) were selected by simple random sampling method. Students of all the three academic years, i.e.

first year, second year and third year were enrolled in the study. The students belonged to science stream, art stream and commerce stream. Out of 900 students, 364 students had abused substance, so the prevalence of substance abuse was found to be 40.44 % in the present study. The prevalence of substance abuse was 33.7% , 47.7% and 40% in the three colleges , difference in prevalence of substance abuse in these college was not found to be statistically significant ($P>0.05$)(Table 1). The prevalence of substance abuse was maximum in students who belonged to 3rd year (50.5%) followed by 2nd year (40.3%) and 1st year (28.7%) This difference in prevalence of substance abuse in relation to year of study was found to be statistically significant. ($P < 0.05$)(Table 2). Prevalence of substance abuse was maximum in students who belonged to commerce stream (51.6%) followed by art stream (35.5%) and science stream (33.9%) and this difference in the prevalence of substance abuse in relation to stream of study was found to be statistically significant ($P < 0.05$)(Table 3). As shown in Table-4 that the prevalence of substance abuse was higher in males (44.3%) as compared to females (29.5%). The difference in substance abuse according to sex was found to be statistically significant ($P<0.05$).

Table: 1 College Wise Distribution Of Students

College	Substance abuse				Total	
	Present		Absent			
	N	%	N	%	N	%
A	101	33.7	199	66.3	300	33.3
B	143	47.7	157	52.3	300	33.3
C	120	40.0	180	60.0	300	33.3
Total	364	40.4	536	59.6	900	100

$$\chi^2=5.1798 ; df=2 ; p>0.05$$

Table: 2 Distribution Of Study Participants In Relation To Year Of Study

Year of study	Substance abuse				Total	
	Present		Absent			
	N	%	N	%	N	%
1 st	80	28.7	199	71.3	279	31
2 nd	116	40.3	172	59.7	288	32
3 rd	168	50.5	165	49.6	333	37
Total	364	40.4	536	59.6	900	100

$$\chi^2=12.9082 ; p \text{ value}=.001574 ; df=2$$

Table: 3 Distribution of study participants in relation to stream of study

Stream	Substance abuse				Total	
	Present		Absent			
	N	%	N	%	N	%
Art	89	35.5	162	64.5	251	27.9
Commerce	160	51.6	150	48.4	310	34.4
Science	115	33.9	224	66.1	339	37.7
Total	364	40.4	536	59.6	900	100

$$\chi^2=10.1066 ; p \text{ value}=.006388 ; df=2$$

Table : 4 Distribution Of Study Participants In Relation To Gender

Gender	Substance abuse				Total	
	Present		Absent			
	N	%	N	%	N	%
Male	294	44.3	369	55.7	663	73.7
Female	70	29.5	167	70.5	237	26.3
Total	364	40.4	536	59.6	900	100

$$\chi^2=7.11 ; p \text{ value}=0.00766 ; df=1$$

As shown in Table -4 that the prevalence of substance abuse was higher in males (44.3%) as compared to females (29.5%). The difference in substance abuse according to sex was found to be statistically significant ($P<0.05$)

DISCUSSION

The present study reveals that 40.4% college students from rural area are abusing drugs at least once in their lives. The prevalence of present study substance abuse is lower than the 58.3% respondents reported any lifetime substance use from three neighboring cities of North India and 47% in Etawah conducted by *Jaswal et al(2023)*⁽⁴⁾ and *Mehra J et*

al(2022)⁽⁵⁾ respectively.

In the present study prevalence of substance abuse was maximum in students who belonged to 3rd year (50.5%) followed by 2nd year (40.3%) and 1st year (28.7%). *Arora et al (2016)*⁽⁶⁾ also observed an increase in substance abuse in later years of education.

In the present study, the majority of participants were from the science stream (37.7%), followed by commerce (34.4%) and art (27.9%). The prevalence of substance abuse was highest among commerce students (51.6%), followed by art students (35.5%) and science students (33.9%). *Kumar PC et al (2023)*⁽⁷⁾ had reported higher substance use among professional course students (medical 17.15% to 60.26%) and engineering 26.8% to 47%) than general degree (arts , commerce and science students (31.3% to 31.8%). *Abhijit N et al (2024)*⁽⁸⁾ found that science stream students have a stronger association with substance abuse ($p<0.05$).

The current study included 900 participants, with 73.7% male and 26.3% female students. The prevalence of substance abuse was higher among males (44.3%) compared to females (29.5%), which confirms the findings of *Jasani et al (2019)*⁽⁹⁾ where prevalence was significantly higher in males (55.33%) than compared to females (5.0%) for abusing drugs. *Baba et al (2013)*⁽¹⁾ conducted study on substance abuse among college students of North India (Kashmir valley) found that maximum substance abuse was found more among males as compared to females (37.5% vs 19.6%). One possible explanation for this could be that men are more exposed to peers and peer pressure, while women are more influenced by family and society. Furthermore, if used by men, many things like alcohol and tobacco are socially acceptable.

CONCLUSION

Among total 900 students (300 each from 3 co-educational degree colleges) the prevalence of substance abuse was assessed across different demographic factors. The overall prevalence of substance abuse was 40.4% among college students in the rural area whereas it was 47.7%, 40.0% and 33.7% in the three colleges.

The highest prevalence was observed among 3rd-year students 50.5%, followed by 2nd-year students 40.3% and 1st-year students 28.7%.

Students in the commerce stream had the highest prevalence 51.6%, followed by those in the art stream 35.5% and the science stream 33.9%.

The majority of the study population were male (73.7%), among whom 44.3% reported substance abuse, while females constituted 26.3% of the study and had 29.5% of substance abuse.

Recommendation

As most of the respondents initiated substance abuse at early age, the prevention strategies should be focused on the children and adolescent population. For the secondary and tertiary prevention of this problem among students, the school and colleges are the best places. For this purpose, school health services should include periodic assessment of the extent of substance abuse among the students and should have the provision of psychotherapy of those who are substance abusers only and have not yet developed dependence. There should be provision for detoxication, medical rehabilitation, educational and vocational counselling, individual and group counselling, psychotherapy etc. at various peripheral centres where people can be treated and rehabilitated. Government should focus on developing and supporting social groups and NGO's working against substance abuse to help college going students. They should keep focus on working in colleges as going to de-addiction centre is still considered a social taboo.

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