



## A Cross Sectional Study of Alcohol Abuse among Medical Students in Upums Etawah

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## ABSTRACT

**Introduction:** Alcohol abuse among medical students has important implication. This study was conducted to determine prevalence of alcohol abuse in undergraduates of medical students and to determine the characteristics of alcohol drinking behaviour and to assess the effect on their academic performance.

**Methodology:** A cross sectional study was conducted on undergraduate MBBS students of UPUMS, using a self administered questionnaire. A total of 250 students of MBBS 2<sup>nd</sup> and 3<sup>rd</sup> year students were included in the study using purposive sampling, during November & December 2019. Data entry and data analysis were done using SPSS version 23.

**Results:** The proportion of alcohol consumption in males were 48% and 6.7% in females and the most common reason for initiation of drinking alcohol was curiosity (43.6%). The association between gender and alcohol intake and also the association between binge drinking and drink and drive were found significant.

**Conclusion:** This Study shows the high risk taking behaviour that are taken after drinking, that need to be curtailed by health education and motivation.

**Key Words:** Medical Students, Alcohol abuse, cross sectional study

## INTRODUCTION

The incidence of cirrhosis among doctors is falling but remains above the national average and suggests that drinking is a considerable and continuing problem within the profession.<sup>1</sup> A part of the excess health risk among young people is related to the fact that, usually, a greater proportion of the total alcohol consumed by young people is consumed during heavy drinking episodes.<sup>2</sup> Certainly, alcohol consumption of college students has impact on the students themselves and also considered as the role models in terms of health related behaviour. Alcohol consumption has a negative impact on their academic performance and their future professional abilities<sup>3</sup>. Secondly, medical students' own drinking behaviours might shape

their beliefs about levels of consumption that are normal or safe, particularly in the absence of specific knowledge about evidence-based drinking guidelines. Finally, the drinking behaviours of medical students might influence their attitudes and comfort about counselling those who drink excessively<sup>4</sup>.

Understanding any association between medical students' alcohol counselling habits and their drinking patterns and educational experiences could help increase screening and brief counselling interventions among healthcare providers. This study investigated the drinking habits of medical students and any association between drinking and academic performance and other health related attributes

## AIM & OBJECTIVES OF STUDY

The study was conducted to determine the characteristics of alcohol drinking behavior and also to determine prevalence of alcohol abuse in undergraduates of medical students in UPUMS, Saifai. The study also assessed the effect of alcohol on their academic performance

## MATERIAL AND METHOD

A cross sectional study was conducted among the undergraduate MBBS students of UPUMS, using a self-administered questionnaire. The study was approved by ethical comity of the University with ethical clearance number: 196/201. A total of 250 participants of MBBS 2<sup>nd</sup> and 3<sup>rd</sup> year students were included in the study conducted during period of November-December 2019. Informed consent was taken from all the participants. Questionnaire was prepared by reviewing literature related to the effect of alcohol abuse in students and validated by doing a pilot study on 30 participants. Questionnaire was distributed in the lecture hall in the last 10 minutes of the lecture and were taken back in the lecture hall itself. Data on the drinking frequency, quantity, pattern and reason for initiation along with data of effect on academic performance like skipping class, transient loss of memory were collected. The operational definitions of parameters used in the study are-

**Drinker:** Person who had drank alcohol at least once in any form once in last 12 months.

**Nondrinker:** Person who had not drank alcohol in any form in last 12 months.

**Binge drinker:** Person who had drank alcohol more than four drinks in a row within a time of 2 hours.

**Skipping class:** Absence from class next morning after drinking occasion, verified by attendance register.

**Abstinence:** Complete avoidance of alcohol.

Data was coded, entered and analysed using the Statistical Package for Social Sciences software version 23.0 (IBM Corp., Armonk, NY, USA). Chi-square test was used to test significance between variables. A p-value less than 0.05 were considered statistically significant.

## RESULT

The totals of 250 students were participated in the study, out of which there were 146 (58.4%) male participants and 104 (41.6%) female participants. A total of 78 (31.2%) students were drinker. Out of 146 males, 71 were drinkers (48.6%) and out of 104

females, 7 were drinkers (6.7%). The proportions of alcohol consumption in males were 7 times higher as compared to females. The association between gender and alcohol intake was found statistically significant (table1).

**Table 1: Association of Drinking Alcohol with Gender**

Gender	Drinker (%)	Non Drinker (%)	Total
Male	71(48.6)	75(51.4)	146
Female	7(6.7)	97(93.3)	104
<b>Total</b>	<b>78</b>	<b>172</b>	<b>250</b>

P value <0.001

**Table 2: Association of Binge Drinking With Drink and Drive and Skipping Classes**

	Binge Drinker (N=34)	Non Binge Drinker (N=44)	P Value
<b>Drink and Drive Status</b>			
Drink & Drive	16 (47)	7 (16)	0.03
No Drink & Drive	18 (53)	37 (84)	
<b>Class Attendance</b>			
Skipping Class	19 (56)	12 (27)	0.02
Not Skipping Class	15 (44)	32 (73)	

Figure in parenthesis indicates percentage.

**Table 3: Distribution of Frequency of Drinking Among the Participants**

Drinking Frequency	Frequency (%)
Everyday	11 (14.1)
3-5 Times A Week	8 (10.3)
Once A Week	3 (3.8)
Only On Weekend	5 (6.4)
On Special Occasion	51 (65.4)
<b>Total</b>	<b>78 (100)</b>

**Table 4: Bar Chart Showing The Reason Of Initiation Of Drinking**

Reason	Frequency (%)
Peer Pressure	9 (11.5)
Curiosity	34 (43.6)
Because you felt like it	4 (5.1)
Influence of an adult	5 (6.4)
To relieve stress	11 (14.1)
To feel good	15 (19.2)

Out of all 78 drinkers, 34 (43.5%) had given history of binge drinking. Around 30% of the drinkers used to drive after drinking alcohol. Around 47% (16 out of 34) binge drinker had history of drink and drive, while only 15.9% (7 out of 44) non binge drinker used to drink and drive. The association between binge drinking and the students who used to drive after drinking were analysed and was found significant (p value=0.006). Forty percent students had missed a class next morning after

drinking alcohol. The binge drinking and the student who skipped the class was found statistically significant with p value of 0.02 (table2). Out of 78 drinkers, 50 are able to abstain from drinking and 28 are not able to abstain. 12 (4.8%) students had experienced the episode of memory loss.

The most common reason for initiation of drinking alcohol was found to be curiosity (43.6%) followed by to feel good (19.2%) and to relieve stress (14.1%). (Figure 1)

Talking about drinking frequency, 65.4% (51 out of 78) students who consume alcohol were those who drink on special occasion. Students who drink alcohol everyday are few (14.1%) (Table 3).

## DISCUSSION

The proportion of alcohol abuse was found to be 48% in males and 6.7% in females which was very less as compared with the study conducted by Singh A *et al*<sup>5</sup> in which 80% male and 35% females have consumed some form of alcohol. Around 84% prevalence of drinking alcohol in males and 15% in females was found to be in the study conducted by Shekhawat K S *et al*<sup>6</sup> in deemed private university in southern part of India. The difference may be due to the fact that the study was conducted in private medical college and students belonging to higher socio-economic status. The prevalence of binge drinker was found to be around 43.5% whereas in the study conducted by Thilakan VC and Rasania SK<sup>7</sup> the binge drinker were around 48%. The main cause of drinking was found to be curiosity in this study whereas stress relieving was the main cause in the study conducted by Singh *et al*. While the study conducted by Goel N *et al*<sup>6</sup> revealed pressure by friends as the most common cause for initiation of drinking followed by feeling psychological upset. Different reasons found in this study because of different study setting. All the current drinkers in a community have to be screened for problematic drinking pattern and it has to be supplemented with referral services, health promotion, behavioral change communication to the alcohol consumer, and his family members.<sup>9</sup> The study was limited by the facts that only students in the medical stream were included without any other control group; factors of parents-student, student-teacher and peer relationships were not assessed.

## CONCLUSION

This study showed the proportion of alcohol consumption in males were 48% and 6.7% in females and the most common reason for initiation of drinking alcohol was curiosity followed by to feel good and to relieve stress. When the association was studied between gender and prevalence of drinking alcohol the data was found statistically significant as the prevalence of alcohol intake is far less in females as compared to males. Association between binge drinking was compared with driving after drinking and missing the class, the result was found statistically significant.

This Study shows the high risk taking behaviour that are taken after drinking, that need to be curtailed by health education and motivation.

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