

Prevalence of Cigarette Smoking, Alcohol And Tobacco Consumption and Associated Factors Among Undergraduate Medical Students of NSCB Medical College Jabalpur, Mp, India



MEDICAL SCIENCE

KEYWORDS : smoking, alcohol, tobacco

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ABSTRACT

Background: The high rate of cigarette smoking and abusive drug use among medical students is a well established fact. Probably due to their knowledge and ease of access to various drugs, medical students have been assessed as a possible target of substance abuse. The objective of this study was to estimate the prevalence of cigarette smoking, alcohol and tobacco consumption among undergraduate medical students and ascertain the factors associated with substance use in this population.

Materials and method: This cross sectional study was conducted on undergraduate medical students of NSCB Medical College Jabalpur with the help of self-administered, pretested, structured proforma.

Result & discussion: prevalence of regular drinkers was 28% only, and of occasional drinkers was 47%. In tobacco users prevalence of regular chewers was more [40%] than occasional chewers. The addiction was gradually increasing from 1st year students to Final year students.

Conclusion: The most common reason behind starting any kind of addiction was peer pressure and second reason was same habit in family and lastly due to stress and anxiety. So it is important to counsel all the medical students properly.

Introduction:

Cigarette smoking, alcohol and tobacco consumption is a worldwide health problem and a public health issue of great concern. These are amongst, the greatest, avoidable, causes for morbidity and mortality in developed countries (WHO; 1980). Although, students of medical faculties are expected to have solid knowledge about hazards, a significant number of them still smoke, drink and consume tobacco. The high rate of abusive drug use among medical students is a well established fact. Probably due to their knowledge and ease of access to various drugs, medical students have been assessed as a possible target of substance abuse (Mesquita AM, et.al. 1997). This is a worrisome scenario in light of its professional consequences and possible social impacts. Majority of medical students and doctors found substance abuse as relaxing along with addicting, and this is the main factor responsible for continuation of smoking and consuming alcohol (WHO; 1980). In addition to all the substance abuse related health hazards that medical students are exposed to, they are also not able to counsel their patients effectively during trainings (Helwick SA, 1985). So that addictive behaviours among medical students have important implications for the health of the general population. It is evident that if health care providers themselves smoke, they cannot educate masses regarding smoking cessation (Andy Petroianu, et al. 2010). It is therefore important to ascertain the prevalence and patterns of substance use among medical students and to appraise the reasons behind their continuation of addiction despite their medical qualification. The objective of this study was to estimate the prevalence of cigarette smoking, alcohol and tobacco consumption among undergraduate medical students and ascertain the factors which are associated with substance use in this population.

Materials & Method:

This cross-sectional study was conducted at NSCB Medical College Jabalpur from January to march 2012. Undergraduate medical students of all four years were informed about the purpose of this study and invited on specific day, decided for every year students to take part voluntarily after 12-1pm theory class, with safeguards to ensure that responses would not be identifiable. After expressing consent, students received a self-administered, pretested, structured questionnaire and data were collected. Here current users were defined as a person who, at the time of

survey take addictive drugs either daily or occasionally within 30 days preceding the survey. Former users were defined as a person who, used addictive drugs in past, even once in lifetime but did not take since last 30 days at the time of survey. Statistical analyses were conducted with the Epi Info 7 software package. The significance level was set at $P < 0.05$.

Result:

Total 420 undergraduate medical students were participated in the study out of that only 376 forms were filled correctly. In which 200 were males and 176 were females.[Table 1] Response rate was 85% in male and 94.6% in female medical students.[Table 1]

Table 1: Year and sex wise distribution of undergraduate medical students

Year	Male		Female	
	Participated	Correctly filled	Participated	Correctly filled
Final	56	50	80	78
Prefinal	58	50	38	38
IInd year	62	54	36	30
Ist year	58	46	32	30
Total	234	200 [85%]	186	176 [95%]

Table 2 shows that among male undergraduate medical students out of 200, 142 were current cigarette smoker, 150 were current drinkers of alcohol and 124 were tobacco chewers in any form like gutkha, khaini or manjan. The prevalence of cigarette smoking among males was 71%, for drinking alcohol was 75% and for tobacco chewing was 62%. Here the prevalence includes both regular and occasional users, while prevalence of regular drinkers was 28% only, and of occasional drinkers was 47%. In tobacco users prevalence of regular chewers was 40% and of occasional chewers was 22%.[Table 3] Only two females [1.15%] in the final year were found to be consuming alcohol occasionally. Cigarette Smoking or tobacco chewing was not reported in any girl. Both the girls reported as consuming alcohol were hostellers and started this before joining medical college, as they saw this in their family.

Table 3 showing that among male cigarette smokers, more students were of final year with significant $p=0.000$ and $OR = 9.53$

[3.4-26.8] as compared to 1st year students. Drinking alcohol was also more among students of final year with significant $p=0.000$ and $OR =18.7 [5.0-68.6]$ as compared to 1st year students. Same results were found for tobacco chewing also ($p=0.000$ and $OR=4.8[2.0-11.5]$).The addiction was gradually increasing from 1st year students to Final year students.

Among final year students 48% were smoke >5 cigarette per day and 40% were smoke ≤ 5 cigarette per day. While among prefinal, IInd year and 1st year students more were smoke ≤ 5 cigarette per day. In drinking alcohol among all year's students, maximum were drink alcohol occasionally. While in tobacco chewing, maximum students of final, prefinal and IInd year were regular chewers as compared to 1st year students.[Table 3]

Table 4 shows that cigarette smoking, consuming alcohol and chewing tobacco, all were more in student belong to family living in urban area. Around 70% of students initiated addiction after joining the Medical College. In which maximum was living in

the hostels or in rooms as day scholars without parents.

While taking reason for addiction, 35-40% was started cigarette smoking, drinking alcohol or tobacco chewing under Peer or friends influence. Second common reason was found to be Habit in the family for any kind of addiction. For the smoking and drinking next most common reason was Stress or anxiety then least was started as experiment (7.8%). For tobacco chewing started as Self interest or Experiment was more than 10%. Stress or anxiety was less common reason for initiating tobacco chewing.[Table 4]

When asked 'Is yours addiction habits in knowledge of guardians' nearly 80% of cigarette smokers and alcohol drinkers responded that their guardian did not know about their addiction habits. This proportion was 62%among tobacco chewers.[Table 4]

On quitting history, 35% of cigarette smokers and 28% of alcohol drinkers were tried to quit, but they felt annoying and started again.[Table 4]

Table 2: Distribution of undergraduate medical students according to their addiction

Sex	Cigarette smoking			Drinking alcohol			Tobacco chewing		
	Non users		Current users	Non users		Current users	Non users		Current users
	Never	Former		Never	Former		Never	Former	
Male	46	12	142 [71%]	30	20	150 [75%]	52	24	124 [62%]
Female	176	0	0	174	0	2 [1.15%]	176	0	0

Table 3: Distribution of male undergraduate medical students according to their year wise current addiction pattern

Year	Cigarette Smoker [Current users]			Alcohol Drinker [Current users]			Tobacco chewer [Current users]		
	Male		p-val [OR & CI]	Male		p-val [OR & CI]	Male		p-val [OR & CI]
	>5 cig. [%]	≤5 cig. [%]		Regu-lar[%]	Occasional [%]		Regu-lar[%]	Occasional [%]	
Final N=50	24 [48]	20 [39.5]	0.000* 9.53[3.4-26.8]	17 [34]	29 [58.5]	0.000* 18.7[5.0-8.6]	29 [58]	8 [16]	0.000* 4.8[2.0-11.5]
Prefinal N=50	18 [35.5]	22 [44]	0.000* 5.2[2.1-12.9]	17 [34]	26 [52]	0.000* 7.3[2.7-9.6]	25 [50]	10 [20]	0.001* 3.9[1.7-9.3]
IInd year N=54	18 [34]	20 [37.6]	0.006* 3.0[1.4-7.0]	16 [29]	24 [44.2]	0.003* 3.4[1.5-7.9]	19 [35]	16 [30]	0.005* 3.1[1.4-7.1]
1st year N=46	7 [14.3]	13 [28]	1	6 [12.3]	15 [32.2]	1	7 [15]	10 [21.7]	1
Total n=200	67 [33.5]	75 [37.5]		56 [28]	94 [47]		80 [40]	44 [22]	

*significant

Table 4: Factors associated with addiction among male undergraduate medical students

Factors	Cigarette smoker [%] N=142	Alcohol drinker [%] N=150	Tobacco chewers [%] N=124
Family residence			
Rural	44[31]	43[28.7]	45[36.2]
Urban	98[69]	107[71.3]	79[63.8]
When initiated			
Before joining MC	42[29.6]	46[30.7]	38[30.6]
After joining MC	100[70.4]	104[69.3]	86[69.4]
Place of residence			
Hostellers	84[59.2]	96[64]	79[63.7]
Day scholars	35[24.6]	30[20]	25[20.2]
Localities	23[16.2]	24[16]	20[16.1]
Reason			
Self interest	8[5.6]	5[3.3]	15[12]
Experiment	11[7.8]	19[12.7]	17[13.7]
Habit in the family	35[24.6]	28[18.6]	37[29.8]
Conflicts in family	10[7.0]	14[9.3]	3[2.4]
Peer or friends influence	58[40.8]	57[38]	43[34.6]
Stress /anxiety	20[14]	27[18]	9[7.2]
Yours addiction is in knowledge of guardian			
Yes	32[22.5]	30[20]	47[38]
No	110[77.5]	120[80]	77[62]
Ever trying to quit			

Factors	Cigarette smoker [%] N=142	Alcohol drinker [%] N=150	Tobacco chewers [%] N=124
Yes	49[34.5]	42[28]	15[12]
No	93[66.5]	108[72]	109[88]
If tried to quit			
Feel relaxing	[0]	[0]	[0]
Feel annoying	49[100]	42[100]	15[100]

Discussion:

In this study the prevalence of cigarette smoking among males was 71%, for drinking alcohol was 75% and for tobacco chewing was 62%. In a study among medical students at the University of Leeds, 86% of the students drank alcohol (Pickard M, 2000). And in a research carried out in the China, 35.7% of the physician doctors were found to be current smokers (Yan et al., 2008).

In our data only two females [1.15%] in the final year were found to be consuming alcohol occasionally. In a study by Malick et al. 2010 reported that the prevalence of smoking with a male to female gender prevalence being 50.31% to 7.04% among doctors. Thus it can be stated that our results follows the regional trend. This is as opposed to Italy, which shows a higher percentage of smoking among the female members (Zanetti et al., 1998).

In our study we found that addiction was more among students of final year as compared to 1st year students. In a study on US medical students it was found that 78% of medical students re-

ported drinking in the past month and 34% drank excessively, were more of final year students (Erica Frank, 2008). The prevalence rate among senior medical students for alcohol was found 87.5% (Baldwin DC et. al. 1991). Conard S et al. 1988 also reported that the prevalence rate of tobacco consumption among fourth-year students at 13 U.S. medical schools was 87.8 %. Probably it was due to increase in stress or more influence of peers group. But in a study on Canadian medical students 86% of 1st year students found to be as current drinkers, (Thakore S, et.al. 2009) opposite to our findings.

We found that maximum (47%) were take alcohol occasionally, opposite to finding of Newbury-Birch D. 2000 who reported that among medical students 45% of the medical students reported drinking above the recommended limits.

In our study we found that 70% of students initiated addiction after joining the Medical College. In which maximum were living in the hostels or in rooms without parents. It was supported in studies that resident with friends, having a family member(s) who smokes was independently associated with smoking (S Metintaş et al., 1998). Some other studies by Suzanne L Tyas, et al. (1998), Smith D R, et al. (2007), Thorlindsson, et al.(1991) and Janet Kay Bobo, et al. (2000) were also reported that smoking, alcoholism and tobacco chewing is more associated with the peers influence and factors in the family like addiction and stress.

As in our study, Karamat A. 2011, also found that students started smoking due to influence of friends and majority had no intention to quit because they felt annoying whenever tried to quit.

Conclusion:

Cigarette smoking, alcohol and tobacco consumption is common among undergraduate medical students, but smoking and alcohol consumption being most prevalent. This is most common among male hosteller students who do not live with family members. Prevalence of addiction increases gradually from 1st year to final year students. The most common reason behind initiation of addiction is peer influence and second reason is, same habit in family and lastly due to stress and anxiety. So it is important to counsel all the undergraduate medical students and should try to understand their problems with proper solution to motivate them for not adopting and leaving addictive behaviour.

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