



Assessment of Lifestyle and Risk Behaviour Practices among Undergraduate Medical Students

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Financial Support: None declared
Conflict of Interest: None declared
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How to cite this article:

Jain M, Jain M, Kumar V, Garg K, Qurishi AA, Gupta PK. Assessment of Lifestyle and Risk Behavior Practices among Undergraduate Medical Students. Natl J Community Med 2019; 10(5): 312-315

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Date of Submission: 11-04-19

Date of Acceptance: 12-05-19

Date of Publication: 31-05-19

ABSTRACT

Introduction: Medical students are future physicians. Life style and risk behaviour practices that are acquired in early life and in medical college will have a direct impact on their clinical performances. Objective: to assess the dietary habits, physical activity and current habits of smoking, smokeless tobacco uses and alcohol consumption among undergraduate medical students.

Material and method: A pretested, self-administered questionnaire was used for collection of data regarding socio-demographic characters i.e. age, sex, residence, and lifestyle i.e. dietary habits, physical activities and risk behaviour practices i.e. smoking, smokeless tobacco use and alcohol consumption.

Results: 59.4% students had breakfast daily. Daily consumption of at least 5 portions fruits and vegetables was reported by only 36.9% of students. Moderate physical activity for at least 30 min/day for 5 or more days was reported by only 23.6% students. 15.6% students had junk foods 4-5 times a week while 29.7% had 2-3 times a week. Habits of smoking and alcohol consumption were significantly higher among male undergraduate students.

Conclusion: The study revealed poor dietary habits, inadequate physical activity and high prevalence of substance abuse among the medical students. The students should be motivated to adopt healthy life style practices.

Key Words: Breakfast, Physical activity, Students, Life style

INTRODUCTION

India is faced with double burden of communicable and non-communicable diseases. By 2020, 57% of disease burden of India will be due to non-communicable diseases.¹ In developing countries CVD is an emerging public health problem and trend is rising. The major cardiovascular disease risk factors tobacco use, inappropriate diet and physical inactivity explain 70-85% new cases of coronary heart disease.¹

High rates of psychological morbidity are experienced by medical students and doctors due to their work and study environment. Medical students are initially similar to the general student population before entrance in medical curriculum. As the

training commences, the psychological well-being has been demonstrated to reduce. Stress may be a contributing factor for unhealthy behaviours and co-morbidities. Up to half of the medical students reportedly abuse of alcohol as well as illicit substances in previous studies.² Other aspects of health and lifestyle of students, such as reduced physical activity and poor diet, also suffer with increasing workload.

Although lifestyle and behaviours of college students are considered as a temporary part of life, nevertheless unhealthy habits which are picked up at this level generally persist in future life. College life is an important stage for every one as at this time their life style and behaviours are prone to change.³

Unhealthy life style habits, smoking and alcohol consumption has been strongly associated with non-communicable diseases.⁴

As medical students are future physicians, the diseases which will progress from poor lifestyle choices such as regular smoking, poor nutrition and poor exercise will be dealt with by the doctors of the future.² As the medical students currently in their education phase will have to deal with today's population's poor lifestyle choices, it is essential to assess lifestyle disease risk behaviour among these students. Life style of male and female medical students also differs due to increased exposure of male students to outer world and more cultural acceptance regarding alcohol and tobacco. Food habits and physical habits are also subjected to gender variations. In present scenario, risk behaviour practices like smoking and alcohol also getting on rise among female students may be due to staying away from home and different socio-cultural environment in college life. Life style and risk behaviour practices that are acquired in early life and in medical college will have a direct impact on their clinical performances. With these backgrounds, this study was conducted to assess the lifestyle and risk behaviour practices of undergraduate medical students of a medical college situated in south-eastern Rajasthan.

OBJECTIVES

The study was conducted to assess the dietary habits, physical activity and current habits of smoking, smokeless tobacco uses and alcohol consumption among undergraduate medical students 2) to compare the lifestyle pattern and risk behaviour practices of male and female undergraduate medical students.

METHODOLOGY

A Cross-sectional study was carried out to assess the lifestyle and risk behaviour practices among undergraduate medical students of a tertiary care teaching institute in south-eastern Rajasthan. Study was conducted from September 2018 to February 2019. Study population comprised of all undergraduate medical students of first, third and fifth semesters studying in teaching institute. First semester batch comprises of 150 medical students while there are 147 students in 3rd semester and 145 in 5th semester. Nature of the study was explained to all students in detailed before study and written consent was taken. Approval from institutional ethical committee was taken before commencing the study. The students not willing to participate in study, not providing written consent and not available at the

time of data collection, were excluded from the study. On the days of data collection, 73 students were absent while 9 students did not give consent for the study. Hence, in presence study 127 students from 1st semester, 118 from 3rd semester and 115 from 5th semester, total 360 undergraduate medical students participated in study. A pretested, self-administered and semi structured questionnaire was used for collection of data regarding socio-demographic characters i.e. age, sex, residence, and lifestyle i.e. dietary habits, physical activities and risk behaviour practices i.e. smoking, smokeless tobacco use and alcohol consumption. Study was completely anonymous and data confidentiality was maintained. The questionnaire was distributed to students in batch wise manners in lectures theatre and half an hours' time was provided to fill the questionnaire. Definitions of tobacco use status were based on self-reported smoking of cigarettes/beedis and chewing of tobacco. Current users were defined as those who had smoked or chewed tobacco in the last 30 days preceding the survey either occasionally or daily.⁵ Current alcohol users were those who had consumed alcohol at least once during the past one year preceding the time of the survey.⁶ The data was coded, tabulated and analyzed using Microsoft Excel 10 and epi-info 7 software. Chi square test of significance was used for statistical analysis. P value of less than 0.05 was considered significant.

RESULTS

Out of total 360 undergraduate medical students, 187 (51.9%) were males and 173 (48.1%) were females. Mean age of study participants was 20.24 ± 1.44 years.

59.4% students had breakfast daily. Proportion of students taking breakfast daily was significantly higher ($p < 0.05$) among female participants. Daily consumption of at least 5 portions fruits and vegetables was reported by only 36.9% of medical students. Daily consumption of junk foods was reported by 3.1% students, 15.6% had junk foods 4-5 times a week while 29.7% had 2-3 times a week. 49.2% students reported occasional consumption of junk foods. No significant association was ($p > 0.05$) found between gender and intake of junk foods, fruits and vegetables. (Table 1).

Moderate physical activity for at least 30 min/day for 5 or more days was reported by only 23.6% medical students and proportion was significantly higher ($p < 0.05$) among male students (33.7%) as compared to female students (19.1%) (Table 2). Out of total 360 students, 17.5% were current smokers and 40.6% were current alcohol users. Only 1.7% were current tobacco chewers.

Table 1 Dietary habits of the medical students.

Dietary Habits	Male (n=187)	Female (n=173)	Total (n=360)	P Value
Daily Breakfast				
Yes	90 (48.1)	124 (71.7)	214 (59.4)	<0.001
No	97 (51.9)	49 (28.3)	146 (40.6)	
Fruits and Vegetables				
≥ 5 Portions/day	74 (39.6)	59 (34.1)	133 (36.9)	0.28
< 5 Portions/day	113 (60.4)	114 (65.9)	227 (63.1)	
Junk Foods				
Daily	8 (4.3)	3 (1.7)	11 (3.1)	0.47
4-5 times a wk	27 (14.4)	29 (16.8)	56 (15.6)	
2-3 times a wk	52 (27.8)	55 (31.8)	107 (29.7)	
Occasionally	94 (50.3)	83 (48.0)	177 (49.2)	
Never	6 (3.2)	3 (1.7)	9 (2.5)	

Table 2 Physical activity among medical students

Moderate physical activity	Male (n = 187)	Female (n = 173)	Total (n = 360)	P Value
Not at all	25 (13.4)	31 (17.9)	56 (15.6)	0.02
Occasionally	57 (30.5)	66 (38.2)	123 (34.2)	
< 5 days a wk	42 (22.5)	43 (24.9)	85 (23.6)	
≥ 5 days a wk	63 (33.7)	33 (19.1)	96 (26.7)	

*(of at least 30 minutes)

Table 3: Current habits of substance use among medical students

Variables	Male (n = 187)	Female (n = 173)	Total (n = 360)	P Value
Smoking	50 (26.7)	13 (7.5)	63 (17.5)	<0.001
Smokeless tobacco	5 (2.7)	1 (0.6)	6 (1.7)	0.12
Alcohol	108 (57.8)	38 (21.9)	146 (40.6)	<0.001

Table 4: Timing of initiation of tobacco and alcohol use among medical students

Variables	Timing of initiation	
	Before entry	After entry
Smoking (n=63)	15 (23.8)	48 (76.2)
Smokeless tobacco (n=6)	5 (83.3)	1 (16.7)
Alcohol (n=146)	28 (19.2)	118 (80.8)

*In medical college

Table:5 Reasons for alcohol and tobacco use

Reasons	Number* (%)
Pleasure	66 (39.5)
Peer pressure	42 (25.1)
Releasing stress	47 (28.1)
Curiosity	107 (64.1)
Use by family members or relatives	10 (6)

*Multiple Responses

Habits of smoking and alcohol consumption were significantly higher (p <0.05) among male undergraduate students (Table 3).

Among smokers, 76.2% students-initiated habit of smoking after entrance in medical college.

Majorities (80.8%) of the alcohol users also started alcohol consumption after entrance in medical college (Table 4).

Out of total 360 students, 167 (46.4%) students were current alcohol and/or tobacco (smoking/smokeless) users. Main reason of use reported by them was curiosity of tobacco/alcohol (64.1%), followed by for pleasure (39.5%), releasing stress (28.1%) and peer pressure (25.1%) (Table 5).

DISCUSSION

College life and medical profession are nerve-racking, hectic schedules and study burden affects the food choices and day to day routine of medical students. Medical students were the subject of particular interest for this study as they are future physicians and their lifestyle and risk behaviour practices can adversely affect their health and learning in present and will influence their future acceptance and practice of preventive strategies including their interaction with patients.

Regular Breakfast is known to provide energy for the brain and improve learning. It is also known to contribute significantly to the total nutrient's intake. Skipping breakfast may affect performance during the rest of the day. In spite of that, in present study, only 59.4% students had breakfast daily. In contrast to our study, 68% and 76.1% of the students had daily breakfast in studies by Nupura a Vibhute et al⁷ and Malak Eisa Abdalla Al-Haj et al⁸.

Daily consumption of at least 5 portions fruits and vegetables was reported by only 36.9% of medical students in our study. The minimum recommendation of taking at least 5 servings/day of fruits and vegetables was reported only by 12% of students in study by N Rustagi et al.⁹ Similar to present study, 66% students consumed less than 5 standard portions of fruits and vegetables per day in study by Anupama M et al.¹⁰

In present study, 3.1% students reported junk foods consumption daily, 15.6% had 4-5 times a week while 29.7% had 2-3 times a week. These Findings are indicating towards the gradual replacement of fruits and vegetable consumption with junk foods which is a sign of alarm. In contrast to our study, 4-5 times a week consumption of junk foods was reported by 32.5% students in study by Anupama M et al.¹⁰ Fried snacks were the most popular with 39% students in study by Nupura a Vibhute et al⁷. Sandhyarani Javalkar et al¹¹ reported that 23% of students preferred fast foods in their study in Derlakatte, Mangalore.

In present study, moderate physical activity for at least 30 min/day for 5 or more days was reported by only 23.6% medical students. Importance of

physical activity must be emphasized to students in prevention of obesity and reduction of risk of non-communicable diseases. In accordance to our findings, only 21% were doing the recommended amount of physical activity in study by Giri S et al.¹² Occasional or nil physical activity was reported by 49.8% students in our study. This finding is in accordance to finding of study conducted by N Rustagi et al.⁹

In our study, 17.5% were current smokers and proportion was significantly higher among male students. These findings are similar to study by Giri S et al.¹² In contrast, only 11.5% and 3.7% medical students were current smokers in studies by Anupama M et al.¹⁰ and G. S. Ramakrishna et al.¹³ Only 1.7% student were current tobacco chewers in our study. This is in accordance to finding of study by G. S. Ramakrishna et al.¹³ in which only 2.7% medical students were current smokeless tobacco users.

In present study, 40.6% students were current alcohol users. Prevalence of current alcohol users in our study is higher than study by Anupama M et al.¹⁰ and N Rustagi et al.⁹ where 24.0% and 28.8% students were current alcohol user respectively.

76.2% of smokers and 80.8% of alcohol users initiated these habits after entrance in medical college. This is a matter of concern and must promptly be addressed. In fact, the efforts to educate and counsel the medical students on problems associated with substance use must be initiated much earlier preferably at the very beginning of their medical curriculum. Similar findings were observed in study by Meenal Vinay Kulkarni et al.¹⁴

Main reason of alcohol and tobacco use among medical students was curiosity of tobacco/alcohol (64.1%), followed by for pleasure (39.5%), releasing stress (28.1%) and peer pressure (25.1%) in present study. In contrast to our study, main reason for taking up alcohol and/or tobacco was due to stress (43%) followed by the curiosity of alcohol and tobacco (41.5%) in study by Avi Singh et al.¹⁵

CONCLUSION

The study revealed poor dietary habits, inadequate physical activity and high prevalence of substance abuse among the medical students. The students should be motivated to adopt healthy life style practices. Study reinforces the time to time need of strategic delivery of proper life style oriented health education of the undergraduate medical students so

that they will become better prevention oriented future doctors.

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