



ORIGINAL RESEARCH PAPER

Community Medicine

A CROSS SECTIONAL STUDY ASSESSING LIFESTYLE AND STRESS AMONG MEDICAL UNDERGRADUATES AND ITS IMPACT ON THEIR ACADEMIC PERFORMANCES IN MUMBAI CITY

KEY WORDS: Medical Students, Lifestyle, Stress

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ABSTRACT

Introduction: Medical undergraduate experience relatively higher stress and unhealthy lifestyle. Study aims to assess lifestyle pattern and stress among undergraduates.

Methodology: Cross-sectional study, carried out over 197 III MBBS students of Grant Medical college, Mumbai. Structured questionnaire was provided to students and subsequently data was entered in Excel and analyzed by SPSS. College Student's Stressful Event Checklist used to for stress assessment.

Results & Discussion: 67.5% students were Hostel students and 58.9% were Male. 20.8% students consumes alcohol and 4.6% smokes cigarette. 58.4% students were in moderate and severe category of stress. Males experienced more stress also scored less marks compared to females. Day scholars living healthy lifestyle and were also good in academics. Stress was invariably present among medical students. Alcohol consumption found to have a vicious cycle with stress.

Conclusion: Unhealthy lifestyle, increasing stress making Medical undergraduates vulnerable for future sickness.

INTRODUCTION:

Medical students undergo a period of transition and major life changes when they enter medical colleges for the first time. More than 60000 students pursuing MBBS course from almost 450 Medical college in India which are mostly located in urban areas¹. A positive lifestyle can bring health and happiness, while a negative lifestyle can lead to illness and depression². Health risk behaviors such as smoking, alcohol abuse, unhealthy dietary patterns, sedentary habits, and unsafe and aggressive behaviors have been found to have an important influence on morbidity and mortality³⁻⁵. Health risk behaviors, which develop over time, can also contribute to an unhealthy lifestyle⁶⁻⁷.

Medical students experience a relatively high level of personal distress, with adverse consequences on academic performance, competency, professionalism, and health^{8,9}. Studies shows that prevalence of alcohol consumption and smoking ranges from 20%-50% and 10-35% respectively among medical students¹⁰⁻¹². Psychological morbidities among medical undergraduates are quite common at various stages of their training, which vary depending on academic pressures, different sociodemographic factors and the scale of measurement¹³.

OBJECTIVES:

1. To study different lifestyle factors among Medical Undergraduates and its impact on academic outcomes.
2. To assess stress level by using College Student's Stressful Event Checklist designed by T.H. Holmes and R.H. Rahe and different factors associated with stress.

METHODOLOGY:

It was a cross sectional study conducted over 197 III MBBS students of Grant Government Medical College & Sir J.J. Group of Hospitals, Mumbai, Maharashtra. Uncontrolled Quota Sampling method was used to select sample. The study was carried out over a period of three months from August-October 2017. The study was started after Institutional Ethical Committee clearance. Daily 40 students were interviewed with self-administered structured questionnaire after finishing of their III MBBS Prelims practical examination and obtaining consent of participation. Stress category was accessed by using College Student's Stressful Event Checklist designed by T.H. H olmes and R.H. Rahe. The scale consist of 32 potential stress producers which are assigned with certain values, the accumulated values categorized into three categories viz Mild Stress <150, Moderate Stress 150-300 and Severe Stress >300.

Data was entered in Microsoft excel software 2016 version. Statistical analysis was done by using SPSS version 19 software. Lifestyle factors is shown by descriptive statistics. Chi-square test,

Unpaired t test, Spearman's rho Correlations was used to find association between different variables.

RESULTS:

The mean age of 197 III MBBS students was 21.19 years with a standard deviation ±0.974. 2/3rd students were hostellers and remaining 1/3rd Day scholars were from various parts of Mumbai, Thane and Raigad District. The ratio of Male and Female students were 3:2. The median sleeps hours of students was 7 hours daily. The median of taking meals in hotels per week and watching movies in theater per month was 2. The mean monthly expenditure of medical students was 5981 rupees. Average monthly expenditure was more in hostel students as compared to Day scholar (p value<0.00 with t test). Alcohol consumption and cigarette Smoking was reported by 41(20.8%) and 9(4.6%) student respectively. 74/81(91.4%) Female students reported regularity in menstruation and 37/81(45.7%) were having Dysmenorrhea. Though dysmenorrhea was not affecting stress score and percentage scored in II MBBS (p value>0.05 with t test). The mean II MBBS percentage scored was 68.38 with ±5.418%SD. Study has revealed that more than half students (58.4%) were in moderate and severe category stress evaluated using College Student's Stressful Event Checklist. [Table No 1]

Table No. 1: Lifestyle variables

Type of Student	Frequency		Percentage	
		Hostel Students	133	67.5
	Day Scholars	64	32.5	
Gender	Male	116	58.9	
	Female	81	41.1	
Smoking	Yes	9	4.6	
	No	188	95.4	
Alcohol	Yes	41	20.8	
	No	156	79.2	
Stress Category	Mild	82	41.6	
	Moderate	74	37.6	
	Severe	41	20.8	

Among 41 students who consumed alcohols, 18 had severe category of stress, this association was found significant with chi square test (p-value<0.00). Alcohol consumption was not significantly associated with other factors like gender, academic performance and other lifestyle activities.

The variation in lifestyle was observed among male and female students, males reported watching more movies, more frequency of taking meal in hotels and high monthly expenditure compared to Females [Table No 2.A]. A weak relationship was found among

different lifestyle factors like taking meals in hotels and watching movies in theaters, also hostel students were found taking more meals in hotels and having more monthly expenditure compared to Day scholars. The uphill linear relationship, though weak was found with watching movies and sleeps hours [Table No 2.B]. The aggregated percentage scored in II MBBS was significantly found more in female students, smokers, who sleeps less and in day scholars [Table No 2.C]. The uphill relation was found significant with stress score and watching movies and taking meals in hotels [Table No 2.D].

Table No 2: Spearman's rho Correlations between different variables

Parameters		Correlation Coefficient (r)	Sig. (2-tailed)
A: Gender Factors (1 Male, 2 Female)	Gender Vs Watching Movies	-0.138	0.050
	Gender Vs Taking meals in hotels	-0.307	0.000
	Gender Vs Monthly Expenditure	-0.162	0.023
	Gender Vs Stress Score	-0.172	0.16
B: Lifestyle factors	Taking meals in hotels Vs Watching Movies	0.297	0.000
	Taking meals in hotels Vs Type of Student	-0.266	0.000
	Sleep Hours Vs Watching Movies	0.194	0.006
	Sleep Hours Vs Type of Student	-0.141	0.049
	Monthly Expenditure Vs Type of Student	-0.412	0.000
C: Effect on Academic Performance	Gender Vs II MBBS %	0.292	0.000
	Smoking Vs II MBBS %	-0.171	0.017
	Sleep Hours Vs II MBBS %	-0.171	0.017
	Type of Student Vs II MBBS %	0.171	0.017
D: Stress Factors	Stress Score Vs Movies Per Month	0.216	0.002
	Stress Score Vs Taking meals in hotels	0.218	0.002

DISCUSSION:

Medical colleges are generally situated at district level places and many of them are in metro cities. The process of admission in colleges gives opportunity to all students from different parts to come and pursue their education in this urban areas. But this transition exposes many students to unhealthy lifestyle and different kind of stress. The alcohol consumption and cigarette smoking was found among 20.8% and 4.6% of students respectively. This finding is in agreement with various studies; **Arora et al**¹⁰ reported alcohol use in 19.13% and cigarettes smoking in 10% medical students whereas **Nidhi Goel**¹¹ found 16.6% and 8.0% respectively. Author **Ashiq Rashid Mir**¹² stated 36.40% Alcohol consumption among students.

The academic performance was better in females and who takes less sleep. The academic performance was not affected by other activities like watching movies, taking meal outside in hotels and high monthly expenditure. This study finding is in close relationship with findings of **Lana Al shawwa**¹⁴. Current study found unhealthy lifestyle in students which is similar to **Kulkarni M**¹⁵ findings.

Study found 20.8% students were in severe stress, according to interpretation 80% chances of getting sick in near future, similarly 37.6% students had moderate stress which leads to 50% chances of experiencing a serious health change within two years. Study found that stress score was higher in alcoholics, whereas **Majra J**¹⁶ and **Arora et al**¹⁰ stated that stress is important triggering factor for alcohol addiction. These hypothesis pointed to a vicious cycle of stress and alcohol. Stress score didn't varied among Day scholars and hostel students, this finding is contrast with **Gupta S**¹⁷

findings, where author found more stress in Hostel students.

CONCLUSION:

The lifestyle varies with gender, males experienced more stress as well as scored less marks compared to females. Day scholars seemed to have a better edge in lifestyle over hostel students and were also good in academics. Stress was invariably present among medical students. Alcohol consumption found to have a vicious cycle with stress. Ultimately, students are experiencing and exposing to unhealthy lifestyle making them vulnerable for disease prone and stressful life.

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