

**EVALUATION OF HEALTH AND LIFESTYLE OF UNDERGRADUATE STUDENTS IN MUMBAI.****DNYANESH LIMAYE¹, ANVAY UKIDVE², SNEHA RATHI², JUHI CHAUDHARI², ADWAIT PRADHAN², RAHUL LALGE², MITTAL DARJI², VAIDEHI LIMAYE*³ AND GERHARD FORTWENDEL¹.**¹ *University of Applied Sciences and Arts, Hannover, Germany*² *Department of Pharmaceutical Sciences & Technology, Institute of Chemical Technology, Mumbai, India*³ *University of Mumbai, India.***ABSTRACT**

The overall development of a student is completely dependent on the ability of the student to cope up with the growing pressure of college and modern life mentally as well as socially. It is seen that this new setting brings about certain changes in the lives of students which either may have a positive or negative impact on their overall well-being. Many students get involved in unhealthy and risky lifestyle behaviours like alcohol abuse, tobacco use, physical inactivity and unhealthy dietary practices which may adversely affect their health in the long-term. In India, research with regard to health and lifestyle patterns amongst students remains limited. A cross sectional study was conducted to evaluate the health and lifestyle of students in Mumbai, India. Materials and methods: A total of 217 undergraduate students were scored using a validated Student health and lifestyle questionnaire' to understand demographic details, lifestyle and health problems, and quality of life. Results and conclusion: 79.72 % students were assessed to be healthy, 94.47% abstained from consumption of alcohol, and 98.62% refrained from consumption of Tobacco. Data regarding quality of life (depression, anxiety and stress parameters) showed that the majority of students belonged to the normal category. The results of this study showed that the undergraduate students from Mumbai, India do not engage in unhealthy lifestyles and risky behaviours and have normal quality of life.

KEYWORDS: Health, Lifestyle, Students, unhealthy diet, Mumbai, India**VAIDEHI LIMAYE**
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INTRODUCTION

Lifestyle is defined as normal and conventional daily activities which are practiced by people during their lives and these activities have an effect on their health. By selecting a lifestyle, an individual tries to maintain and promote his/her health and avoid diseases by having a proper diet, rest/activity, exercising, controlling body weight, avoid excessive smoking and alcohol consumption and immunizing body against diseases; this set of activities constitutes the lifestyle. The importance of lifestyle is to a large extent due to its effect upon various diseases and quality of life. Inappropriate lifestyle is one of the influential factors for the emergence of chronic diseases like colon cancers, hypertension, chronic obstructive pulmonary diseases, liver cirrhosis, peptic ulcers, AIDS and cardiovascular diseases¹. Non-contagious diseases are closely related to lifestyle¹. Thus, it is essential to have a good lifestyle in order to maintain and promote health. At this level, health is defined using some positive qualities recommended by World Health Organization. Health is the fulfilment of human potential, maintenance of balance and goal orientation in the environment². This definition covers mental, physical as well as social aspect of an individual's health. These three when put together give us the true picture of an individual in a society³. According to the survey conducted by Government of India⁴, Adolescents constitute a major portion of this large population. They have always remained in a dilemma, as they are neither considered children nor adults. India has about 253 million adolescents in the age group 10 - 19 years making upto 20.9% of the total population. It is

this adolescent population which will enter the workforce in the next 5 - 15 years, and play a vital role in India's socio-economic development. These adolescents undergo a major transition from the cocoon-like schooling stage to the independent college or university life. This change is thought to bring with it certain behavioural modifications that could affect the overall performance of students. Their selection of any kind of lifestyle can affect not only their personal lives, but also the lifestyle and behaviours of other groups in the society².

MATERIALS AND METHODS

The study was a cross sectional study. It was conducted among under graduate students in Mumbai. Undergraduate students of Mumbai University (age group 16 – 22 years) were contacted by study coordinators, and explained the study details. The students were assured of confidentiality of the information. Those who showed the interest and willingness to participate by signing the informed consent were selected for this study. Study subjects were not reimbursed for study participation. The period of study was February to March 2014. Pseudonymization was done to subject data. There was only one visit during which data was collected for study subjects. A previously structured questionnaire, an adapted version of the 'Student health and lifestyle questionnaire'⁵ was used for this study, which is available for free for study purposes. It consisted of three sections which were as follows:

Section (A): Demographic details,

Section (B): Questions on lifestyle and health problems, (Upper respiratory tract infections, gastrointestinal tract infections and general malaise).

Section (C): Quality of life - Depression, Anxiety and Stress Scale (DASS)

And anthropometric measurement like waist circumference was used for data collection. Waist circumference is indicative of central as well as general obesity. The waist circumference was taken at the midpoint between the iliac crest and the lower border of the ribs after normal expiration⁶. The questions on lifestyle and health problems were

answered indicating their frequency as every day, twice a week, once a week, once a month, not at all. DASS test was used to evaluate the quality of life of the candidate. The DASS is a 42-item questionnaire which includes three self-report scales designed to measure the negative emotional states of depression, anxiety and stress. Each of the

three scales contains 14 items, divided into subscales of 2-5 items with similar content⁷. The Depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, and lack of interest/involvement, anhedonia, and inertia. The Anxiety scale determines the effects on autonomic arousal, skeletal system, anxiety. It also finds out personal feelings of anxious effects. and also personal exppatients It assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive and impatient. Respondents are asked to use 4-point severity/frequency scales to rate the extent to which they have experienced each state over the past week.

RESULTS

In this study a total of 217 undergraduate students in Mumbai were screened of which

113 (52.07%) were males and 104 (42.93%) were females. All the students were in the age group of 16 to 22 years, studying in various undergraduate courses in various colleges of Mumbai University across the city. The demographic details of the students, segregated gender-wise are shown in Table 1. 77.42% students resided with their parents, while 22.58% stayed without their parents either as paying guests or in hostels. Waist circumference was measured to indicate central and general obesity and it was found that 27.65% students were obese while 72.35% of the students fell into the non-obese category. 30.88% students used various means of transport to travel to their respective colleges, like train, bus, auto, taxi, car etc.); while a majority (69.12%) preferred to walk. The exercise frequency and exercise time in the last month are shown in Table.

Table 1
Demographic Statistics of the test population (in %)

Sr.no.	Criteria	Sub-criteria	Males (%)	Females (%)	Total (%)
DEMOGRAPHIC DATA					
A.	Residence	Without parents	22.12	23.08	22.58
		With parents	77.88	76.92	77.42
B.	Obesity	Obese	26.55	28.85	27.65
		Not obese	73.45	71.15	72.35
C.	Mode of transport	Walking	66.37	72.12	69.12
		Use of Vehicle	33.63	27.88	30.88
D.	Exercise frequency	No exercise at all	30.97	42.31	36.41
		< 7 days	15.04	26.92	20.74
		7-15 days	15.04	13.46	14.29
		15-20 days	1.77	2.88	2.30
		> 20 days	37.17	14.42	26.27
E.	Exercise time	0 mins	30.97	42.31	36.41
		< 15 mins	6.19	2.88	4.61
		15-30 mins	17.70	19.23	18.43
		30-45 mins	15.93	27.88	21.66
		45- 60 mins	21.24	4.81	13.36
		> 60 mins	7.96	2.88	5.53

In the Section (B) of the questionnaire, the health and lifestyle of the students was evaluated, the results of which have been reported in Table 2. Upper respiratory infection frequency, gastrointestinal infection frequency and general malaise over the last month were combined to give a total illness score. It was observed that 79.72 % students

were assessed to be healthy,13.36% and 5.07% were found to be susceptible and at a risk respectively. Very low number 1.84% students were at a high risk of falling ill. While evaluating the alcohol score it was found that a great majority (94.47%) of the undergraduate students of Mumbai abstain from consumption of alcohol, 3.69% students

were found to be light alcohol consumers. Similarly for Tobacco, 98.62% refrained from

smoking while a negligible (0.92%) number of students were light tobacco consumers.

Table 2
Lifestyle Statistics of test population (in %)

Sr.no.	Criteria	Sub-criteria	Males	Females	Total
HEALTH AND LIFESTYLE DATA					
A.	Alcohol	Abstainer	91.15	98.08	94.47
		Light	5.31	1.92	3.69
		Moderate	1.77	0.00	0.92
		Heavy	1.77	0.00	0.92
B.	Tobacco	Abstainers	97.35	100.00	98.62
		Light	1.77	0.00	0.92
		Moderate	0.00	0.00	0.00
		Mod heavy	0.88	0.00	0.46
		Heavy	0.00	0.00	0.00
C.	Total Illness Score	Healthy	77.88	81.73	79.72
		Susceptible	14.16	12.50	13.36
		At risk	5.31	4.81	5.07
		At a high risk	2.65	0.96	1.84

In section (C) of the survey, data regarding depression, anxiety and stress parameters were obtained. The majority of students fall into the category determined as "normal" for any of the three areas under observations. More detailed results are provided in table 3.

Table 3
Depression, Anxiety and Stress Statistics of the test population (in %)

Sr.no.	Criteria	Sub-criteria	Males	Females	Total
DEPRESSION, ANXIETY AND STRESS DATA					
A.	Depression	Normal	78.76	75.00	76.96
		Mild	12.39	12.50	12.44
		Moderate	3.54	8.65	5.99
		Severe	5.31	3.85	4.61
B.	Anxiety	Normal	65.49	71.15	68.20
		Mild	15.04	16.35	11.98
		Moderate	15.93	12.50	14.29
		Severe	3.54	7.69	5.53
C.	Stress	Normal	85.84	81.73	83.87
		Mild	5.31	8.65	6.91
		Moderate	7.08	5.77	6.45
		Severe	1.77	3.85	2.76

DISCUSSION

Young adults transitioning between high school and college find themselves in an environment with increased opportunities to make personal and lifestyle decisions without supervision or input from their parents. Coupling this newfound freedom with growing academic pressure and an expanding social network can lead to stress and unhealthy lifestyle. For many students, the college years represent a time of new experiences and increased opportunities to make personal health decisions. Some of these decisions encompass the areas of nutrition and physical activity. Students are on their own; free to eat what they want, when they want. Busy academic and social schedules can take priority over eating well and exercising regularly. Class and work schedules vary from day to day and change every semester. Lifestyle changes, peer pressure, and limited finances may lead to an increase in stress, triggering overeating that result in weight gain. In addition, the steady availability of a wide variety of food, both nutritious and not so nutritious, can make wise food choices difficult. Unhealthy lifestyles during youth are strongly linked to unhealthy habits in adolescents. Health-related behaviours in early stages of life affect the disease risks related to lifestyle in later periods of life. Although it is difficult to change unhealthy

habits that adults have adopted in their youth, many effects of health risk factors among adults are avoidable if these behaviours are identified and changed at an early stage. Therefore, it is important to increase healthy lifestyle behaviours among young people¹⁰. Our study demonstrated that undergraduate students from Mumbai, India do not engage in unhealthy lifestyles and risky behaviours and have normal quality of life. Similar results were reported in a study to determine the sense of coherence health promoting behavior in North Indian students which showed good health promoting lifestyle.⁸ On the contrast a study done in South India reported an increase in health-risking behavior and a decline in health-promoting behavior among medical students during their stay in medical college.⁹ There is an increased awareness regarding healthy lifestyle behaviours amongst adolescents and universities do offer support for healthy lifestyle of students through seminars and sessions on healthy food choices, and helpful exercises. It will be of great benefit if a system to regularly monitor the health and well-being of all students could be established to take care of the continuously changing health needs of the students.¹¹ Government has also launched awareness initiatives and programmes for students, which certainly will offer guidance and support for healthy lifestyle of youth of the nation.

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