

## Original Article: Lifestyle Modification ‘Future Mantra’

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### Abstract:

**Introduction:** Demographic and epidemiological transitions taking place in the developing country is shifting the disease burden from communicable towards non communicable disease. Lifestyle modification disease has taken a toll in the modern genera. The life of professional medical students is stressful thought out the course of trainings. Types of food intake, lack of exercise, improper guidance, psychological depression due to study burden, examination pressure, deviations between expectation and reality, and dispersion of interests all buildup psychological stress and culminates into lifestyle diseases.

**Objective:** The purpose of this cross-sectional study is to establish, clarify and decode the association amongst dietary habits, lifestyle diseases and role of physical activities. Simple life style modifications and nutritional advice and proper guidance prepare a better future doctor.

**Material and Methods:** A cross-sectional study was conducted on 200 medical students of Vardhman Institute of Medical Sciences and 200 students from Nalanda Medical College, Patna. A Pre-designed, pre-tested, self-administered questionnaire related to life style and perceived physical activities were analyzed.

**Results:** Male: Female ratio was 1:1.06. Maximum students were between 17-21 years(82%). 47.75% non-vegetarian, 56.25% showed fast food consumption 3-4 times per week, 51.25% had soft drink affliction. Cigarette and Gutkha chewing were seen in 23.47% respondents. No exercises were seen in 21.75% of future doctors. Sedentary life style and high BMI was seen 14.5% medical student. In this study, consumption of non-vegetarian diet and fast food was found amongst students.

**Conclusion:** Medical students were not much conscious to make extra effort to choose a healthier lifestyle. Healthy lifestyle amongst medical students are even more important as they are future doctors and as students who personally ignore healthy lifestyle are more likely to fail to establish health promotion opportunities for their patients

**Keywords:** Medical students, dietary habits, lifestyle, addictions, physical activity, demographic profile.

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### I. Introduction

Life and health is product on the basis of regular physical cleanness, mental balance, and regular exercise and to keep balance of all the system organ and mind. A high prevalence of life style risk factors is seen in modern society of urban population [1]. Our food patterns, life style and addiction bending are slowly pushing us towards ill health and lower vitality. The life of medical students is stressful throughout the course of studies and training [2]. Types of food intake, lack of exercise, psychological depression due to study burden, examination pressure, peer pressure, discrepancies and deviation between expectation and reality all compound into psychological stress. An increase in body mass index and sedentary life style shows strong association with hypertension and other non-communicable disease and alteration in sleep patterns.[3] Although behaviors of students are temporary part of college life unhealthy habits picked up drags into adult life.[4] College life is an important stage for individual as at this time their behaviors are conducive to change.[5] Lifestyle modification, previously termed no pharmacologic therapy, has important roles in hypertensive as well as non-hypertensive individuals. In hypertensive individuals, lifestyle modifications can serve as initial treatment before the start of drug therapy and as an adjunct to medication in persons already on drug therapy. In hypertensive individuals with medication-controlled BP, these therapies can facilitate drug step-down and drug withdrawal in highly motivated individuals who achieve and sustain lifestyle changes. In non-hypertensive, lifestyle modifications have the potential to prevent hypertension, Obesity, diabetes and related clinical complications in whole populations.

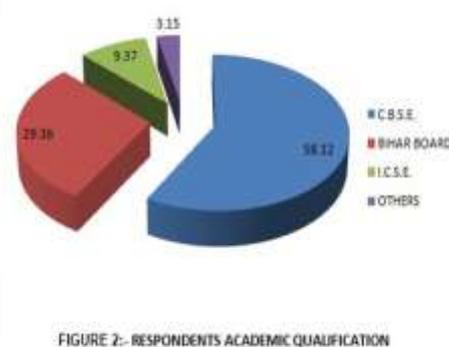
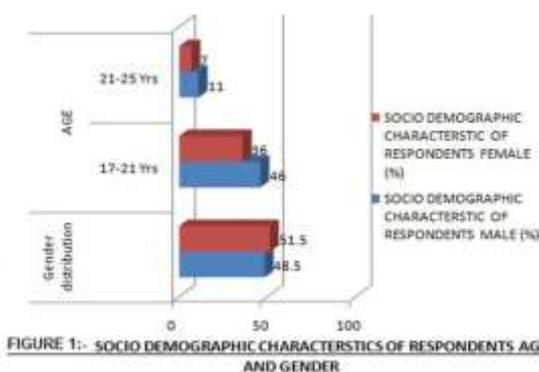
### II. Material & Methods

A cross sectional study was conducted amongst 200 students from Vardhman Institute of Medical Sciences, Pawapuri and 200 students of NMCH, Patna between September 2013 to July 2016. A total of 400 students were surveyed of which 194 (48.5%) were male and 206 (51.5%) female students aged between 17-25 years. The purpose of the study was to clarify the association between health status, dietary habits and life style

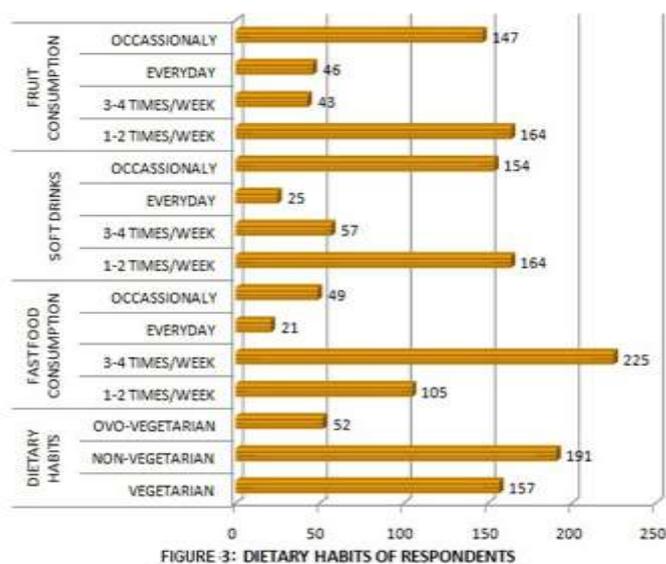
of the students. A self-administered questionnaire was filled by all the respondents. The questionnaire consisted of question pertaining to life style, type of diet, consumption of fast food and soft drinks, habit of smoking ,Guthka chewing, alcohol drinking and type of exercise. Body weight was recorded by adult portable weighing machine. Height measured with stadia meter attached to horizontal platform, blood pressure recorded by Sphygmomanometer using a standard Riva Rocci of 12.5cm, recorded at the brachial artery in the left arm. The data were analyzed by using SPSS Version 10 and Windows 7 by one of the Co-authors Dr. Ruby Sinha.

### III. Result

Socio-demographic analysis was done. A total of 400 students were analyzed with 48.5% male and 51.5% were female. Male: Female ratio was 1:1:06. Maximum (93.44%) students were between 17-21 year 58.21% had academic qualification for CBSE Board.



The Dietary Habits analyzed showed 47.75% were non vegetarian, OVO vegetarian 13% and 39.2% vegetarian. Fast Food consumption was 56.25% 3-4 times per week 4.1% had soft drinks 1-2 times a week and 3-4 times a week in 225 respondents. Fruit Consumption was 1-2 times a week in 40.91%, 3-4 a week 10.38% and every day in 11.46%.



Addiction were common during examination and post graduate entrance examination Tobacco chewing seen in 23.47% and alcohol in 9.4% respondents.

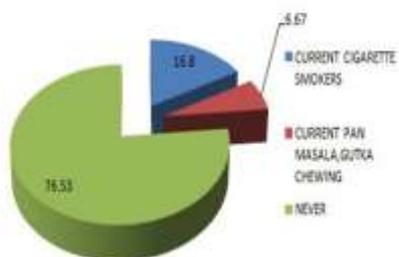


FIGURE 4: ADDICTION RELATED DETERMINANTS : TOBACCO CONSUMPTION

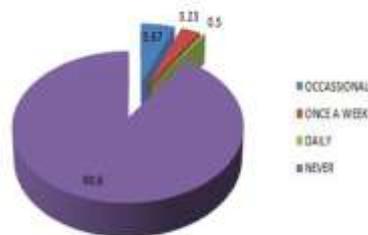


FIGURE 5: ADDICTION RELATED DETERMINANTS : ALCOHOL CONSUMPTION

Types of physical activities done in respondents were running 26.5%, walking 11.75%, aerobic 8.75% and Gym 5.25%. Students engaged in Yoga were 11.75% and various sports were 14.70%. 21.75% medical students did not indulge in any physical activities Respondent body mass index was calculated and showed overweight in 13.75% and 0.75% were obese.

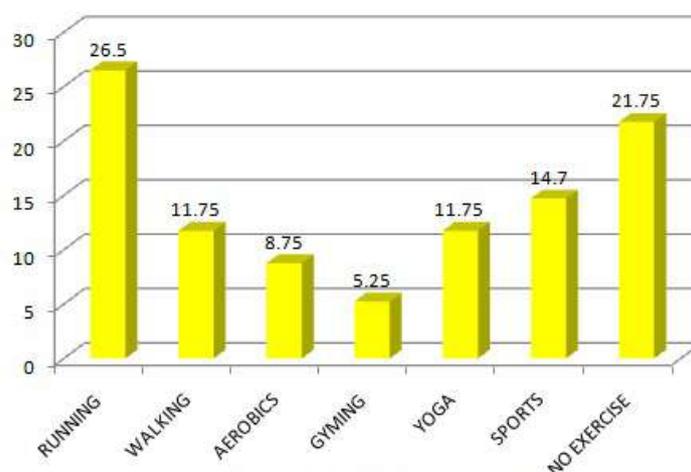


FIGURE 6: PHYSICAL ACTIVITY OF RESPONDENTS

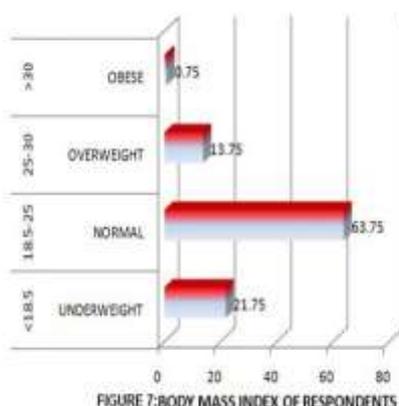


FIGURE 7: BODY MASS INDEX OF RESPONDENTS

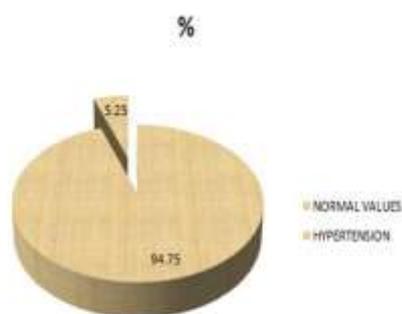


FIGURE 8: BLOOD PRESSURE OF RESPONDENTS

#### IV. Discussion

In this study, consumption of non-vegetarian (47.75%), fast food (87.5%) and soft drinks (61.5%) were found frequently among the medical students. Good nutrition, proper balanced diet and adequate exercise are corner stones for establishing health promotion opportunities in the patient. Fast food, non-vegetarianism and inadequate physical activities coupled with unhealthy life style, stress and peer pressure lead to deleterious effect on medical students and future doctors. Everyday intake of fruits was only 11.16% in this study which

was much below the WHO recommended standards. [6].16.8 % medical students were exposed to smoking, addiction to Guthka, Khani chewing were seen in 6.67% and alcohol intake were seen in 9.4% similar comparative study conducted by Lasker A et al (2010) suggested that current smoking rate was observed in 17.06% and 2.45% males admitted to have consumed alcohol daily [7].

The prevalence of body weight in medical student's as BMI>18.5 were 21.75%, normal weight 65.75% and obese 5.25 %. This is depicting a shift toward obesity amongst the young adult. A study conducted by Banarjee Amitav et al 2010 revealed that more than 20% of the medical students were overweight/obese and total of 9.04% of subject were underweight [8]. A study by Gupta et al suggested that overall prevalence of overweight among undergraduate medical students was 3.04% [9]. In this study obesity were seen in 0.75% and overweight in 13.75% medical students. A similar study by Chhabara et al (2000) reported a prevalence of 11.07% overweight among undergraduate medical students of Delhi [10]. This study suggested that there is a lack of health consciousness and awareness amongst the medical students and practicing unhealthy dietary habits and adopting modern lifestyle. A study conducted by Wong N.D. et al (2000) has shown sedentary lifestyle to be associated with an increased risk of cardiovascular and cause of morbidity and mortality [11]. Future doctors who are medical student's personal lifestyle, habit and health behaviors have been shown to be associated with their prevention related counseling and screening practices with their patients [12]. Doctors with impaired physical and mental health can have a direct impact on patient care and safety. Physical activity and dietary habits and are an important marker of how the public perceives harmful lifestyle behaviors [13]. Researcher have reported that exercise and dietary restriction can promote greater reduction in weight than change diet alone [14]. Types of physical activities found by the respondents 26.5% in running walking 11.75%, 8.75% aerobic and 5.25% visited gym regularly while 11.75% practiced Yoga. Yoga and meditation practiced by 11.15% and no exercise was done by 21.75% students there is a tendency towards sedentary lifestyle in young medicos. Inappropriate nutrition and physical inactivity increase the risk of diabetes, osteoporosis, obesity and cardiovascular disease unhealthy habits and addictions contributed to risk of developing the non-communicable disease [15].

## V. Conclusion

Medical College life is periods in which individuals are in most part exposed to stress and strain and lack of time, posing a barrier to adoption of healthy practices. Medical students were not much conscious to make extra efforts to choose a healthier lifestyle. Most medical students did not get any proper time to exercise and healthier food due to lack of time in their busy schedule of studies and clinical rotation. Healthy lifestyle among medical students is even more important as they are future doctors and the students who personally ignore healthy lifestyle are more likely to fail to establish health promotion opportunities for their patients. A focus on creating healthy lifestyles will be beneficial to the medical students as much as the general population. 'a conscious effort by future doctors of sparing 1 hour for self and 1 hour for the country' will make a long term investment in futuristic medical health care of the nation. A three prong attack based on dietary restriction, regular exercise and soothing of senses by meditation brings about changes in lifestyle diseases of futuristic doctor's

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**Funding** : **None**  
**Ethical Issue** : **None**

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