

Research Article



Nutrition and Healthy Lifestyle: Knowledge, Attitude and Practice in Medical Students of Yenepoya Medical College, Mangalore. A Questionnaire Based Study.

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ABSTRACT

Medical students are an essential and a cardinal pillar of the society. These future physicians despite assumed to have good nutritional knowledge need to be evaluated for the same. The fact is that knowledge only doesn't suffice but there is need for an evidence to indicate how this knowledge translates into maintaining a good health practice. Eating an unhealthy diet can lead to various kinds of health problems including obesity, diabetes mellitus, cardiovascular diseases etc. These disorders can be prevented if doctors take early measures and encourage their patients to follow a healthy lifestyle and counsel them at right time. Therefore, it is important to translate this nutritional knowledge into a positive health attitude and healthy practices by the medical students and then implementation of the same to their patients in future. A cross-sectional study was conducted on 262 medical students between ages 19-24 years from Para clinical levels in the faculty of medicine in Yenepoya Medical College, Mangalore that aimed to know the knowledge, attitude and practices of medical students towards diet and healthy lifestyle. A self-reported questionnaire was formulated and given to them based on important aspects of nutritional knowledge, attitude and practices. Medical students of the study group had good knowledge about nutrition and healthy lifestyle but due to poor time management and academic stress they were unable to practice these on regular basis. Female students showed significantly positive attitude towards healthy lifestyle and nutrition than male students. Breakfast skipping and craving for junk foods were the biggest barriers towards healthy eating identified in this study. The awareness created by this study can help them to improve their diet and lifestyle practices and focus on proper time management so as to prevent current trend of metabolic diseases.

Keywords: Knowledge, Attitude, Practice, Medical Students, Nutrition.

INTRODUCTION

A Balanced diet provides essential nutrients in appropriate quantity and quality to perform several vital biochemical functions that support human life and health. Sedentary lifestyle, unhealthy dietary habits and addictions like smoking and or alcoholism increase the risk of developing several non-communicable diseases such as obesity, diabetes mellitus, hypertension, stroke, osteoporosis, cardiovascular diseases and even some cancers. In preventing this global epidemic of metabolic disorders medical students can play an important role as their adequate knowledge about nutrition along with healthy behaviours and practices can enhance nutrition of the community, and lead to a healthier society in future¹. The burden of metabolic disorders has increased globally and in order to prevent this growing epidemic of metabolic disorders, adequate knowledge about balanced diet and healthy lifestyle habits and implementation of the same is very important. Drastic and speedy changes in diets and lifestyles have occurred with growing industries, urban life, global marketing of goods and increase in economic development with people having easy access to fast foods, luxurious and cosy lifestyles. This trend is becoming more harmful for developing countries like India. Previous studies have reported conflicting findings

with respect to the knowledge, attitudes and practices of nutrition and lifestyle in medical students²⁻⁴.

Adoption of a new behaviour or modification of the existing needs many inputs like knowledge about the matter, healthy attitude and practice of what knowledge we have and implementing same to achieve our desired health goals. For medical students it has been reported that the time they spend at college is a golden period to acquire and improve their knowledge, attitude and practices of diet and healthy lifestyle⁵. Sedentary lifestyle habits like watching a TV show for prolonged hours, cyber addiction and intake of junk food is easier than working out in a gym or taking a brisk walk. In such scenario, having an adequate knowledge of nutrition, balanced diet and healthy lifestyle is not only essential but at the same time this knowledge needs to be translated to practice.

Medical students are expected to have a greater knowledge about nutrition and healthy lifestyles as compared to non-medical students. Nutritional knowledge, attitudes, dietary practices and lifestyle habits of medical student's needs emphasis as this will help them in future to counsel their patients too. In the present scenario of metabolic disorders, prescribing medicines only is not enough until diet and lifestyle modifications are done. Similar study conducted on non-medical/legal students showed that the students were



not much conscious to choose a healthier lifestyle and needs awareness⁶.

MATERIALS AND METHODS

Study design

Cross sectional study was conducted on medical students.

Study participants

This study was conducted in Yenepoya University Mangalore from a period of June 2016 to November 2016 after obtaining the ethical clearance from the Institutional Ethical committee. 262 medical students (of both the genders) in the age group of 19 to 24 years, studying at Yenepoya Medical College, Mangalore participated in the study. Consent was taken from each student and they were explained about the study, its impact and its usefulness.

Questionnaire form

Self-reported questionnaire was formulated based on important aspects about knowledge, attitude and practices of diet and healthy lifestyle under same headings.

Inclusion criteria

Medical students in the age group of 19 to 24 years studying medicine in Yenepoya Medical College, Mangalore.

Exclusion criteria

Students who are undergoing treatment for some disease condition.

Data collection

Each student was given a “questionnaire form” which was formulated on balanced diet, nutrition and practices of healthy lifestyle keeping knowledge of medical students into consideration.

Statistical tools used for analysis

Student’s t-test and Mann Whitney test for numeric or categoric variables respectively using SPSS 22.0 software. p value of < 0.05 was considered as statistically significant value.

RESULTS AND DISCUSSION

262 medical students were evaluated separately on important aspects of Knowledge, attitude and practices. Knowledge of the medical students regarding balanced diet and healthy lifestyle was assessed and some important parameters are explained in fig.1.

Knowledge scores were analysed by the t-test and there was not much significant difference between the knowledge scores of males and female students. Overall both males and females had adequate knowledge about balanced diet and nutrition. In fig.1 various important aspects about balanced diet and nutrition is shown. 80%

of the students answered correctly when asked about the composition of the balanced diet.

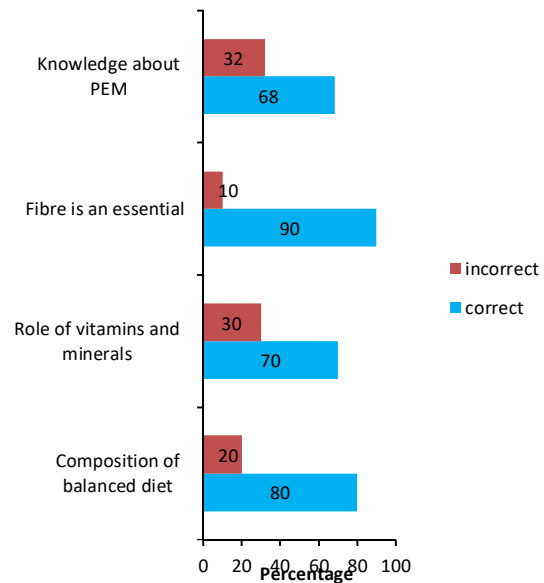


Figure 1: knowledge of medical students about balanced diet and nutrition.

Importance of vitamins and minerals in diet was answered correctly by 70 % of students. 90% knew how important fibre is for health. They had a fair knowledge about protein energy malnutrition and 68% wrote correctly about this condition.

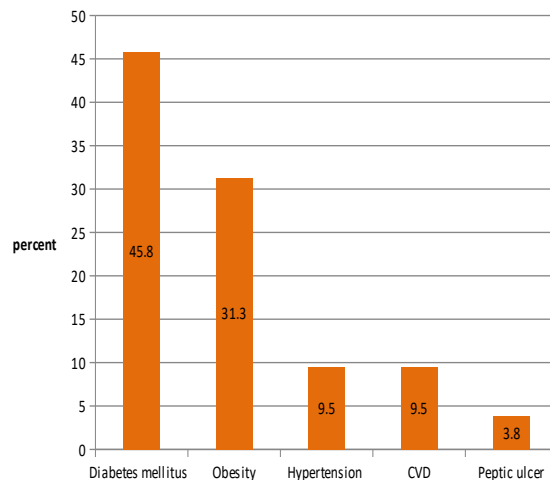


Figure 2: Diseases caused by unhealthy lifestyle named by medical students.

An open ended question regarding the diseases which could be caused by unhealthy lifestyle was answered differently by different students. On evaluation 45.8% answered Diabetes mellitus, 31.3% said obesity, and 3.8% said peptic ulcer diseases while as 9.5% thought Hypertension and cardiovascular diseases are equally caused due to unhealthy lifestyle. These results are shown in Fig.2.

Body mass index of the medical students was calculated using Quetelet's index from their weight and height values and the results ranged from underweight to overweight, obese and morbid obese. However, 74.8% of the students had normal weight, 10.3% were overweight, 11.1% were underweight, 3.4 % were in obesity category and 0.4% were morbid obese. The values are depicted in Table 1.

Table 1: BMI Values of the study group (n=262)

BMI	Frequency	Per cent
Underweight	29	11.1
Normal weight	196	74.8
Overweight	27	10.3
Obese	9	3.4
Morbid obese	1	.4
Total	262	100.0

Attitude scores were analysed by Mann Whitney test and there was a significant difference between males and females. Females showed more positive attitude towards healthy diet and lifestyle than males with a p value of 0.015 which was significant.

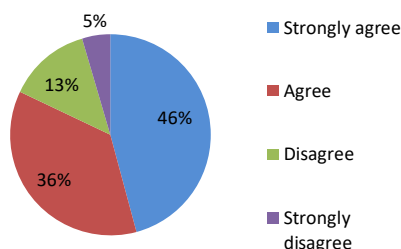


Figure 3: Opinion of medical students regarding unhealthy food as the cause of metabolic disorders.

46% of study population strongly agreed and 36% agreed to the fact that eating an unhealthy food was an important risk factor for various diseases that are otherwise preventable by lifestyle modifications. However, only 13% disagreed and remaining 5% strongly disagreed to this statement. Fig.3.

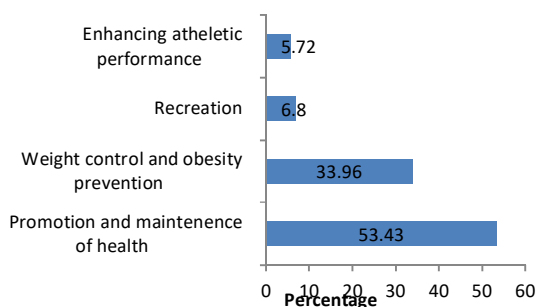


Figure 4: Major perceived benefits of doing exercise.

Table 2: Knowledge and Attitude scores of the study group. (n=262)

Knowledge	RANGE: 4 - 20	Mean± SD: 12.115 ± 2.9365
Male	MEAN: 11.71	p value = 0.102*
Female	MEAN: 12.33	p value = ns*
Attitude	Range= 0- 4	Mean ± SD = 3.221 ± 0.608
Male	Median = 3	p value = 0.015**
Female	Median = 4	p value = 0.015**

Knowledge scores had a *p value of 0.102 and were analysed by t test and the scores were not significant.

**p value is significant for attitude scores and are analysed by Mann Whitney test.

According to the students the major benefit of doing physical exercise was promotion and maintenance of health and is shown in Fig.4. More than half of the students believed in this fact (53.43%). A good percentage (33.96%) thought exercise helps in prevention of obesity and for weight control, 6.8% said that it was for recreation and 5.72% thought exercise is for enhancing athletic activity.

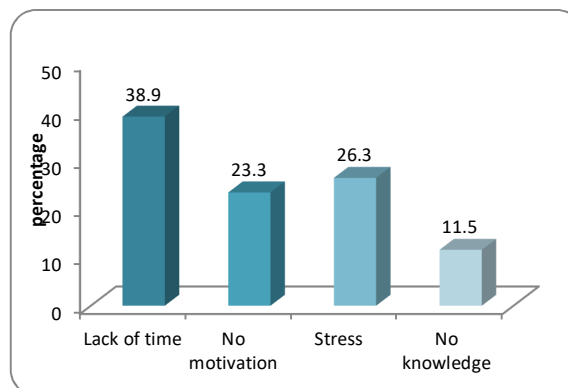


Figure 5: Attitude of students about exercise hindering factors.

The main hindrance felt by students towards exercise was lack of time (38.9%).some thought no motivation was the cause (23.3%) and some thought stress was the main factor (26.3%) and small percentage of students said they didn't have knowledge about its benefits (11.5%).these results are shown above in Fig.5.

The main barrier that was identified by the medical students towards healthy eating was craving for the junk foods (47.7%) followed by academic stress (18.32%).Lack of time (17.55%) and friends and company (16.41%) were also responsible for creating barrier towards healthy eating in some students. These results are depicted in Fig 6.

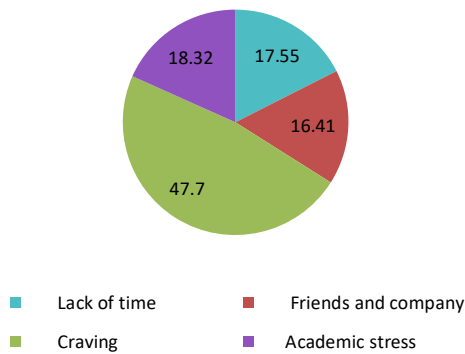


Figure 6: Perceived barriers towards healthy eating.

DISCUSSION

Knowledge of the medical students as assumed was good enough in both males and female students in our study. However, this knowledge needs to be translated into practice. On contrary another similar study conducted by Elhassan MR et al. (2013) suggests lack of adequate nutritional knowledge among students¹¹.

There was a significant difference in attitude scores of males and female medical students. Female students had a more positive attitude towards diet and healthy lifestyle on comparison to males in this study.

Breakfast skipping and craving for junk foods were the biggest barriers towards healthy eating identified in medical students of our study group. A Study conducted by Bano R et al. (2013) showed that total breakfast skipping was more common among the non-nutrition students⁵.

Various stress factors were identified during the course of this study out of which study related stress was the highest (51.52%) and the second cause was poor time management (20.61%). A similar study results done by Nuss MA et al. (2004) showed that the greatest barrier to life priorities was lack of time in addition to other factors like stress, troubling emotions, conflicting priorities etc⁸. Lack of time was the most important reason for skipping meals and not exercising regularly cited by Sajwani RA et al. (2009) in a study on both medical and non-medical students⁷.

In our study gender differences were considered as male and female students were compared in their knowledge, attitude and practice scores. Although the knowledge scores were same but attitude was not similar and there were differences in certain health and lifestyle practices.

In this study we also found that various disease conditions like migraine (19.4%), GI upsets (32.44%), allergies mainly food (22.13%) were faced by these students during the course of study and can be due to the probable outcomes of their unhealthy diet and lifestyle practices.

Medical student's knowledge about food labels and reading calorie content before purchasing various

foodstuffs showed that they had a very good knowledge and agreed that it was a good habit. A study done by Mahdevi AM et al. (2012) showed that designing and implementation of the educational programs in order to increase the level of knowledge about food labels is suggested⁹. Suganaet al. (2013) described that there is a need for special adolescent education in medical and paramedical students¹⁰.

The awareness created by this study can help medical students to improve their diet and lifestyle practices and focus on proper time management so as to prevent current trend of metabolic diseases. We need to emphasize on moulding the thinking of medical students so that they can develop healthy habits during their course of study itself. According to Bano R et al. (2013) college life is considered to be a golden period of life and has a significant impact on medical students⁵. Students should have adequate knowledge about diet and healthy lifestyle. Meshram SA et al. (2014) suggested that in medical curriculum more importance should be given to topics on nutrition and students should give more attention towards their diet pattern¹².

CONCLUSION

In this study medical students had good knowledge about nutrition and healthy lifestyle but due to poor time management and academic stress they were unable to practice these at all the times. On comparison of attitude scores, female students showed significantly positive attitude towards healthy diet and lifestyle than male students. Breakfast skipping and craving for junk foods were the biggest barriers towards healthy eating identified in this study which can be prevented by lifestyle modifications. Certain disease conditions were found in medical students that can probably be attributed to unhealthy lifestyle. The awareness created can help them to improve their diet and lifestyle practices and focus on proper time management so as to prevent current trend of metabolic disorders. This study can help the medical students to develop healthy diet and lifestyle skills which will be transferred by the advice and counselling of these future physicians and the pillars of healthcare system to their patients. This can become a good effort towards a healthy, prosperous and disease free community.

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