Research Article

Awareness of BMI among dental students – A survey

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ABSTRACT

Introduction: Today, all over the world, there is evident change in lifestyle of people mainly due to the excess availability and irregular food habits. People basically prefer foods that are cheaper, foods which are prepared faster, and foods which satisfy our hunger; high preference is predominantly given for taste. People usually prefer for junk and other fancy foods rather than having traditional healthy and nutritional food. The reason given for unhealthy food habits is lack of time, stress, preference for taste, etc. This study is about analyzing the awareness of body mass index (BMI) among dental students. **Materials and Methods:** The study was conducted in two phases. In Phase I, the weight and height of the students were calculated using weighing machine and measuring tape. Their BMI was calculated and tabulated to obtain results. In Phase II, a survey of 15 questions was prepared and circulated among the participants to know about the food habits, lifestyle, family background, and other medical conditions. **Results and Discussion:** Majority of the participants are healthy, but still most of the healthy persons are in the risk of being underweight or overweight. Even though there is good awareness of improper food habits and improper lifestyle, participants accept that they still follow unhealthy food habits. From the survey, it was evident that awareness of lifestyle and food practice is very important in the current scenario.

KEY WORDS: Body mass index, Balanced diet, Exercise, Height, Weight

INTRODUCTION

Adolphe Quetelet, an astronomer, mathematician, and sociologist, introduced the basis of the body mass index (BMI) as he developed and called it social physics, which in the present day called BMI.[1-4] BMI is applicable for population studies and inappropriate for individual analysis. Nevertheless, due to its simplicity, it has come to be widely used for preliminary diagnoses. Additional metrics, such as waist circumference if measured along with BMI, can be more useful.[5-7]

The BMI is universally expressed in kg/m^2, resulting from mass in kilograms and height in meters. If pounds and inches are used, a conversion factor of 703 $(kg/m^2)/(lb/in2)$ must be applied. Once the term BMI is employed informally, the units are sometimes omitted.[8] The BMI is the value calculated from the weight and height of a person. The BMI can be described as the weight of the person divided by the square of the height and is expressed in kg/m^2 universally, resulting from weight in kilograms and height in centimeters. The BMI calculation is an attempt to determine the amount of tissue mass which includes muscle, fat, and bone in an individual, and the person is categorized according to their BMI as underweight, normal weight, overweight, or obese.[9] Commonly accepted BMI ranges are as follows:

- Underweight: Under 18.5 kg/m^2
- Normal weight: 18.5–25kg/m^2
- Overweight: 25–30
- Obese: Over 30.

In this technology-driven world, people find lack of time as well as lazy to concentrate on their well-being. Be it educated or uneducated, they spend their time more on gadgets and entertainment by keep in their valuable health at risk. They realize only after the deterioration of health starts. Data from the WHO constantly remind on the increase in the lifestyle-induced disorders such as diabetes, hypercholesterolemia, and atherosclerosis. A proper awareness of the importance of diet and health is very much important at this juncture. Spreading health-related awareness always adds value to life.[10]

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MATERIALS AND METHODS

Phase I

The BMI of 50 students of Saveetha Dental College was calculated, using weighing machine and measuring tape. Weight was recorded in kilogram, whereas height was recorded in centimeter.

The obtained results were tabulated in Excel sheet and the BMI was calculated using the formulae:

$$BMI = Weight\ (kg)/height\ (cm^2)$$

The BMI values were obtained and were categorized as normal, underweight, and overweight according to their BMI range.

Phase II

A survey of 15 questions was prepared and circulated among the same students whose BMI was calculated, to know more about their food habits and their lifestyles.

The responses were obtained and tabulated to obtain results.

RESULTS AND DISCUSSION

Even though maximum numbers of students are having healthy BMI, there are still few of them who come under underweight and overweight category. A very few percentage of the people prefer to go for healthy foods, many are interested in having junk and other food items with very low nutritional value. It is clear from the survey that most of the students do not take regular meals; sometimes, they have the tendency to skip their meals. About 73% of the students do not take regular breakfast which is not the right thing to do because after 6–8 h of sleep, our body needs some source of energy to function properly, preferably foods rich in carbohydrates. Skipping breakfast will not affect the body initially; this in long term has the potential to lead to severe abnormal conditions.

Considering the above-mentioned factors, a proper diet plan with exercise and other workouts was circulated to them, to maintain their BMI.

From the study, we can understand that maximum numbers of students have healthy BMI, but still, many of them are in the risk of being unhealthy. Nine students are in underweight category, while 12 of them are overweight [Figure 1]. Even though there is enough awareness, most of their food habits are not healthy, many do not eat healthy food. A very few percentage of them prefer to have healthy foods, rather than going for junk foods.

About 35% of the students have a very bad practice of eating snacks such as fried chips, carbonated drinks, and other fast foods [Figure 2] which will eventually cause lot of health problems and also make them gain weight. They usually eat snacks at night only because they are not sleeping in time, staying up all night without proper rest to the body is also not a good practice.

About 57% of them exercise regularly which is very good thing because our body requires some kind of physical activity [Figure 3], which makes us fit physically as well as mentally.
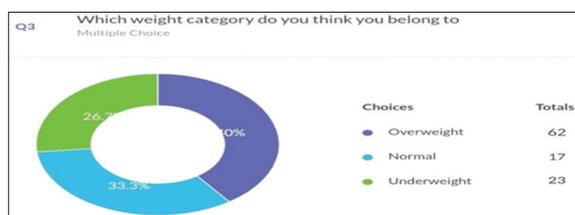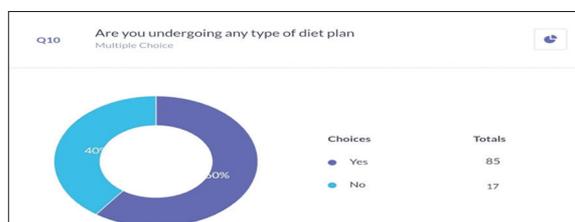

Figure 3: BMI awareness

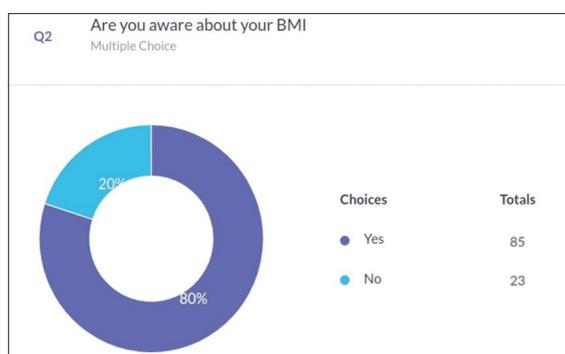**Figure 1:** Weight category

Figure 2: Diet plan

Figure 4: BMI assessment

From the survey, it is clear that only 27% of the students have regular breakfast, whereas rest of the 73% skips their breakfast [Figure 4], mostly students who stay in hostels. They are not getting regular sleep; this alters the sleep cycle of the students, which has the potential to lead to several serious disorders.

Diabetes runs in many of their family tree, which has the chance of getting inherited.

About 60% of them are undergoing diet, as parts of the study, rest of 40% were provided with a proper diet plan according to their BMI.

CONCLUSION

About 100% of the students accept that it is important to maintain BMI and from this study, it was understand that there exists an appreciable amount of awareness of BMI among students of Saveetha Dental College.

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