Research Article

Obesity Management among College Students in Chennai City

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ABSTRACT

The prevalence of obesity has increased worldwide in all segments of the population due to changes in diet and lifestyles. Consuming more high energy fast foods and shifting to sedentary lifestyle has affected our youth and also increased the risk of chronic diseases. Obesity has association with increased risk of heart disease and cancer in later life. Control and prevention of obesity is one of the major concerns for all developing nations. The present study was carried out among 110 youth in Chennai city during the period October 2014 to February 2015. The objective is to assess the awareness on obesity and risk factors among youth selected by convenient sampling method. High intake of junk foods was reported to the extent of 59 per cent among these target respondents. Absence of Physical activity was reported among respondents to the extent of 46 per cent.

Keywords: Obesity, BMI, Junk food, Healthy food, over weight

INTRODUCTION

Obesity is a condition in which excess body fat has accumulated to greater extent that it may cause a harmful effect on health. Obesity is a health concern. It increases your risk of health problems such as heart disease, diabetes and high blood pressure. A combination of higher amount of food energy intake and a lack of physical exercise are thought to explain majority of obesity cases. A limited number of cases are reported due to genetics, medical reasons, or psychiatric illness. In contrast, increasing rates of obesity at a societal level are felt to be due to an easily accessible and tasty diet, increased reliance on motor vehicle and mechanized manufacturing or ergonomics lifestyle preference. During the past 20 years, prevalence of obesity among youth has doubled in developed countries like America, England, and Canada[1].

The World Health Organization (WHO) predicts that obesity may soon replace more traditional public health problems such as under nutrition and infectious diseases as the most significant cause of poor health. Obesity is a public health problem because of its prevalence, costs, and health effects.

The United States Preventive Services Task Force recommends screening for all adults followed by behavioural interventions of obese.

Public health efforts seek to correct the environmental factors responsible for the increasing prevalence of obesity in the population[2].

MATERIALS AND METHODS

Obesity

Obesity is a condition in which excess body fat has accumulated to the extent that it may cause a harmful effect on health, leading to reduced life expectancy and increases the risk of health problems such as heart disease, diabetes and high blood pressure[3].

Junk foods typically contain high levels of calories from sugar or fat with little protein, vitamins or minerals. Foods commonly considered junk foods include salted snack foods, gum, candy, sweet desserts, fried fast food and sugary carbonated beverages[4].

Healthy foods that contain high protein, natural vitamins, much fibre, low in fat and lesser amounts of cholesterol and sodium. BMI (Body Mass Index) is a person's weight in kilograms (kg) divided by his or her height in meters squared. The National Institutes of Health (NIH) now defines normal weight, overweight, and obesity according to BMI rather than the traditional height/weight charts[5].

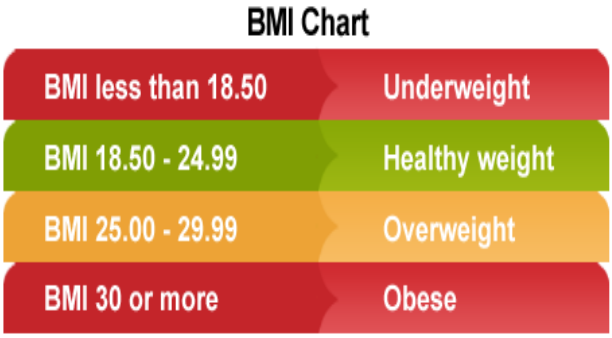

Figure 1: BMI (Body Mass Index) Chart

Research Methodology

Health of an adolescent is often neglected due to lack of awareness, hectic work schedule and poor compliance; as this adolescence is the futures of community. Keeping this in mind, this study was planned to evaluate the awareness about obesity among college students. This study was carried out among 110 students attached to various colleges in Chennai city, during the period from October 2014 to February 2015.

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The objective of the study is to assess the awareness towards obesity among youth in Chennai city colleges.

This study was carried out among samples chosen by convenient sampling method.

A questionnaire consists of personal information, family detail, eating habits, physical activities and awareness towards obesity.

Tested designed questionnaire were administered among college students in Chennai city.

Collected Data were edited, complied, and analyzed by using software called Statistical Package for Social Science (SPSS).

RESULTS AND DISCUSSION

Findings

Findings of the research study on awareness towards obesity among College students based on percentage analysis are given below:

Respondents were classified based on their opinion towards eating of healthy diet such as vegetables, fruits, milk, fresh fruit juices and frequency of consumption.

- Almost 32 per cent of respondents expressed their opinion as sometimes for vegetables eating habits.
- Almost 43 per cent of respondents expressed their opinion as sometimes for fruits eating habits.
- Almost 45 per cent of respondents expressed their opinion as sometimes for drinking full cream milk.
- Almost 35 per cent of respondents expressed their opinion as sometimes for drinking fresh fruit juices.
- Almost 35 per cent of respondents expressed their opinion on drinking milk for more than seven times per week.
- Almost 35 per cent of respondents expressed their opinion on drinking fresh fruit juices for four to five times per week.
- Almost 35 per cent of respondents expressed their opinion on eating green vegetables for two to three times per week.
- Almost 66 per cent of respondents expressed their opinion on eating potato, bread, biscuit, cake and noodle for some times in a week.
- Almost 63 per cent of respondents expressed their opinion on eating chocolate, ice cream and sweet candy for some times in a week.
- Almost 50 per cent of respondents expressed their opinion on eating egg for some times in a week.

Respondents were classified based on their opinion towards eating of Junk food and frequency of consumption.

- Almost 59 per cent of respondents expressed their opinion as sometimes for eating fried potato and chicken per week.
- Almost 48 per cent of respondents expressed their opinion as sometimes for eating snacks, pastry, donuts per week.
- Almost 37 per cent of respondents expressed their opinion as sometimes for drinking Pepsi, cola per week.
- Almost 67 per cent of respondents expressed their opinion as never for drinking energy drinks like red bull per week.
- Almost 57 per cent of respondents expressed their opinion as sometimes for eating pizza, burger per week.

Respondents were classified based on their opinion towards physical activities.

- Almost 56 per cent of respondents expressed their opinion as less than 5 times for light activities like cycling, walking and household work in a week.
- Almost 32 per cent of respondents expressed their opinion as more than 5 times for light activities like cycling, walking, household work in a week.
- Almost 46 per cent of respondents expressed their opinion as never for strenuous activities like running, cricket, tennis, football in a week.
- Almost 33 per cent of respondents expressed their opinion as more than 3 times for strenuous activities like running, cricket, tennis, football in a week.

Respondents were classified based on their opinion towards watching TV, using internet, playing video games by sitting posture.

- Almost 37 per cent of respondents expressed their opinion as watching TV per day for less than 30 minutes per day.
- Almost 30 per cent of respondents expressed their opinion as using internet for more than two hours per day.
- Almost 35 per cent of respondents expressed their opinion as playing video games for less than 30 minutes per day.
- Almost 37 per cent of respondents expressed their opinion as playing video games for 30 to 90 minutes per day.

Factor analysis is a data reduction technique. KMO value of the output is .582, which confirms the suitability of factor analysis. Findings of the factor analysis are given below:

Factors were segmented into 8 components by the principal component analysis.

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Major findings on factor analysis are given below:

- Factors such as eating more fast food (.852), not doing more physical activity (.764), eating lots of fat food (.759), eating lots of sweets (.705) and taking more rest (.655) were segmented as Obesity causative factors.
- Factors such as cannot run (.678), excess weight (.663), eating too much (.648) and less physical activity (.616) were segmented as characteristics of Obesity.
- Factors such as eating fried food (.598) and drinking different kind of soda (.489) were segmented as food habits of obesity.
- Factors such as skipping food (.696), obesity is disease (.623), low school performance (.447) and an infectious disease (.402) were segmented as myths of obesity.

CONCLUSION

Eating right diet and doing exercise in a right manner are the major solution for obesity management[6].

Diet quality can be improved by reducing the consumption of high fat food and by increasing the intake of dietary fibre.

Students should take good efforts to participate in various physical activities such as sports, regular walking, jogging, meditation and yoga. Sitting ideally for long time and eating junk food should be avoided. Adapting active life style will improve the health of younger generation of our country.

Table 1: Extraction Method: Principal Component Analysis

Factor Analysis	8 components extracted							
Components	1	2	3	4	5	6	7	8
an infectious disease	.573	.430	-.361	.402				
excess weight	-.330	.663	-.359			.200	.172	
less physical activity		.616	.125		.222	-.330		.305
eating too much		.648	-.330	.290	.342	.173	.227	
positive food balance	.465			.249	.352	.257		.470
poor physical activity	-.274	.447	.154	-.222	-.182	-.272	.566	.296
Bacteria	.348		.343	.280	-.568	-.156	-.153	.112
Drinking different kind of soda		.135	.489	.147	-.302	-.591	.213	
eating fried food	-.207		.598	-.241	.101	.289	.178	-.173
doing exercise frequently	.597	-.228	.436		.423			-.101
positive balance food intake	.524	-.188	.509		.258	.260		.121
poor physical activities	-.140	.358	.485		-.167	.321		.405
heart disease	-.515	.462	.302	.104		.275	-.308	
Don't have friends	.227	.331	.172	-.259	.358	-.261		-.267
cannot run	-.215	.678		-.342	-.105	.262		-.115
Sleeplessness		.557			-.219	-.201	-.604	
low school performance		.348	.217	-.447	.379	-.202	-.219	-.309
Obesity is a disease		.460	.131	.623		-.116	-.176	-.235
dangerous for health	-.502	.178			.458	-.207		.307
eating lots of fat foods	.759				.365	-.172	.244	
Skipping food	-.172		.285	.696	.111		.441	-.208
Not doing more physical activities	-.764		.274	.301	.143	.142		-.145
eating more fast food	.852	.314		-.173	-.122		.131	
eating lots of sweets	.705	.251			-.257	.352		
taking more rest	.655	.258	.243		-.280	.173	.105	-.268

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