

Prevalence of obesity with it's relation to physical activity among medical students in pad. Dr.Vithalrao vikhe patil medical college ahmedagar

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Abstract

Background: The prevalence of obesity is increasing in epidemic proportions in developed countries but it is not clear what factors are producing this phenomenon. One factor frequently mentioned as being responsible for the obesity epidemic increases energy intake as a result of consumption of high-fat or high-energy diets, larger portion size, and the easy availability of low-cost food. Physical Activity is defined as any activity that involves the use of one or larger ms.group and raises the HR. Physical Activity is a component of energy balance that is particularly important in the pathogenesis of obesity and its treatment. Physical exercise and Activity are important for maintaining long term weight loss and can be beneficial in preventing lean body mass while dieting. **Aim:** To see the prevalence of obesity and its relation to physical activity among medical student. **Methods and Material:** 100 Medical student subjects in the age group of 18 – 25 yr. were taken up for the study. Subject with a known case of any neurological, cardio respiratory and musculoskeletal dysfunction was excluded. They were assessed for obesity with BMI and Physical activity with the help of the International Physical Activity Questionnaire. **Result:** Shows that More the Vigorous and Moderate Physical Activity, Lesser is the BMI. **Conclusion:** Conclusion of my study is that there is 34% prevalence of obesity showing, there is a positive co-relation between the obesity and physical activity. And the subjects with mild physical activities are obese.

Keywords: BodyMassIndex, Physical Activity Questionnaire.

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INTRODUCTION

Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have an adverse effect on health, leading to reduced life expectancy or increase health problem. Obesity is most commonly caused by a combination of excessive food energy intake,

lack of physical activity and genetic susceptibility, although a few cases are caused primarily by genes, endocrine disorder, and medication or by illness. Obesity is a lead increase in adult. However, it has been estimated to affect 20 – 40 % of adult.¹ The prevalence of obesity is increasing in epidemic proportions in developing countries,²⁻⁶ but it is not clear what factors are producing this phenomenon. One factor frequently mentioned as being responsible for the obesity epidemic increases energy intake as a result of consumption of high-fat or high-energy diets, larger portion size, and the easy availability of low-cost food.⁷⁻⁹ Physical Activity is defined as any activity that involves the use of one or more large ms.group and raises the HR. It is a component of energy balance that is particularly important in the pathogenesis of obesity and its treatment. Physical exercise and Activity are important for maintaining long term weight loss and can be beneficial in preventing lean

body mass while dieting. A dose- response relationship has been demonstrated in overweight adult women between the amount of exercise and long term weight loss maintenance.^{10,11} Physical activities play an important role in the prevention of becoming overweight and obese in childhood and adolescence, and reducing the risk of obesity in adulthood. In many Western settings, a large proportion of children and adolescents do not meet recommended physical activity guidelines and, typically, those who are more physically active have lower levels of body fat than those who are less active. There is substantial evidence that the level of physical activity is associated with obesity, and it has been suggested that reduced physical activity in the population is primarily responsible for the continuing increase in the prevalence of obesity.^{8, 11-12} Various authors have suggested that technological development and automation in the workplace have modified the need for energy expenditure at work, and that, together with other components of the sedentary lifestyle of the modern societies, they may play an important role in the obesity epidemic.^{7, 8, 14}

MATERIAL AND METHODS

It is an observational study conducted at Padmashree Dr.Vitthalrao Vikhe Patil Medical College; Ahmednagar.Permission to carry out Research was obtained from Institutional Ethical committee. Proper instruction, explanation about procedure of test protocol was given.100 Medical student in the age group of 18 – 25 year of both sexes were selected. They were assessed for obesity with BMI¹ and Physical activity with the help of the International Physical Activity Questionnaire.¹⁵

Exclusion Criteria

1. Individual with age group below 18 years and above 25 years. 2. Patient with any neurological, musculoskeletal and Cardio respiratory disorder. Information on Work Related Physical Activity Questionnaire respectively, i.e (1) Which of the following choices would you say best describes your main or usual activity at work: (a)sitting down most of the day; (b) standing most of the day (c) walking, carrying some weight, frequent movement; or (d) heavy labor, jobs (2) Tell me which of these choices best describes most of your leisure-time activity: (a) I don't exercise (b) occasional physical or sports activities (c) regular physical activity several times a month or (d) physical training several times a week. Based on this information, individuals were classified into four categories for Work Related Physical Activity³.

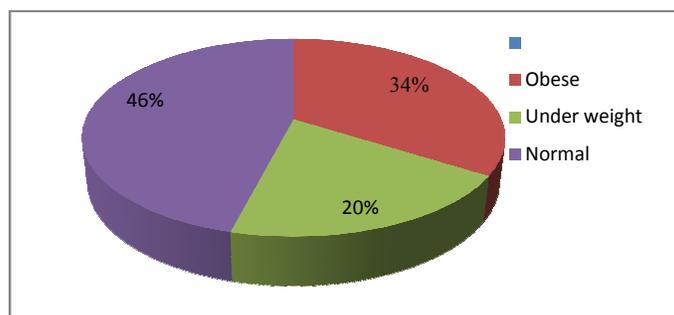


Figure 1: Prevalence of Obesity

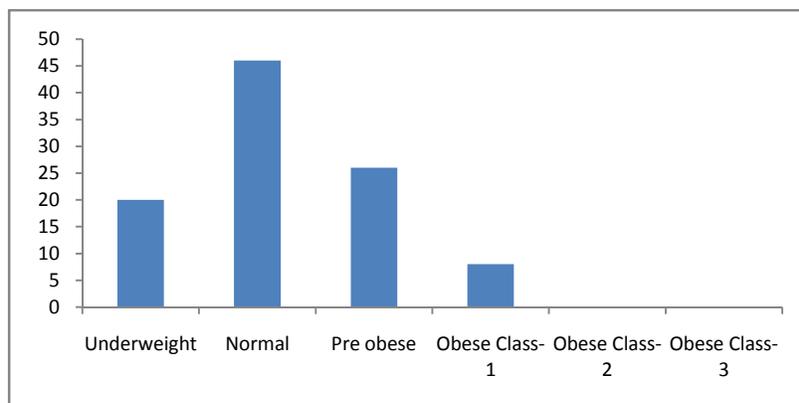


Figure 2: Subjective Distribution of Grading of Obesity

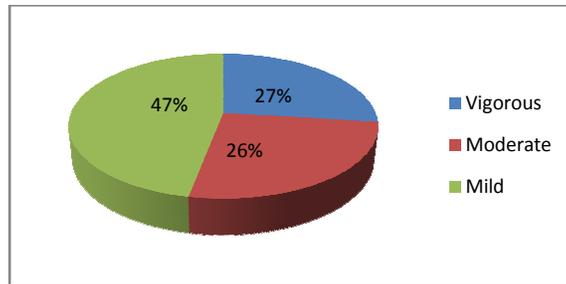


Figure 3: Percentage-wise Distribution of Grading of Physical Activity

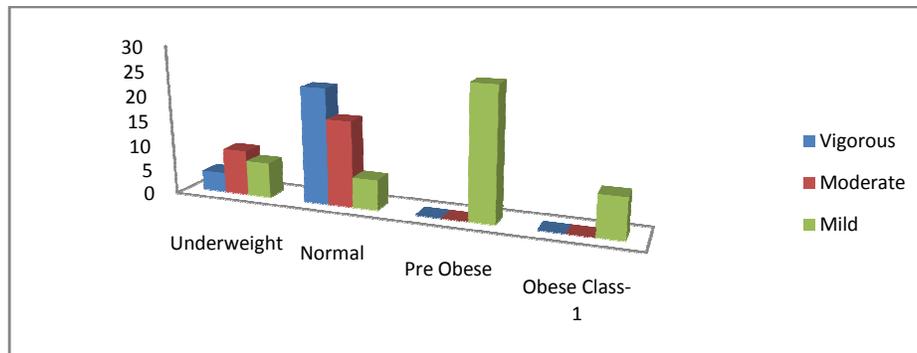


Figure 4: Relationship between BMI and Physical Activity

RESULT

Shows the Prevalence of Obesity, In that the 34% Subject are Obese and 20% are Underweight and 46% are Normal. Shows that the Distribution of subject according to the Grading of Obesity. In that 20% are Underweight, 46% are Normal, 26% are Pre-Obese and 8% are Obese Class-1¹ Shows that Distribution of subject according to the Physical Activity, In that 27% are Vigorous, 26% Moderate and 47% are Mild. Shows Relationship between Obesity and Physical Activity, In that In Underweight, 4 Subject are Vigorous, 9 are Moderate and 7 are Mild. In Normal, 23 Subject are Vigorous, 17 are Moderate and 6 are Mild. In Pre-Obese, 26 Subject are Mild. In Obese Class-1, 8 Subject are Mild. Overall Result of the Shows that More the Vigorous and Moderate Physical Activity, Lesser is the BMI.

DISCUSSION

The purpose of my study is to see the prevalence of obesity among medical students and its relationship between BMI with the physical activity. BMI (Body Mass Index), to evaluate the grading of obesity and also see the grading of physical activity, according to the International Physical Activity Questionnaire. The study shows that, there is a significant co-relation between the BMI (Body Mass Index) and Physical Activity. Overall result shows that the subject with mild physical activity, are obese and subject with vigorous and moderate physical activity are underweight and normal.

CONCLUSION

The conclusion of my study is that there is 34% prevalence of obesity showing, there is a positive correlation between the obesity and physical activity. And subject with mild physical activity are obese.

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