

ORIGINAL ARTICLE**Prevalence of obesity among school going children**

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ABSTRACT:

Background: Globally, there is rising prevalence of overweight and obesity in both developing and developed countries. The present study was conducted to estimate prevalence of obesity among school going children. **Materials & methods:** This study was conducted on 400 college students. A predesigned questionnaire was used to collect the information such as name, age, gender, ethnic origin and their present weight (Kg) and height (m). Weight and height of all subjects were measured using standardized weighing machine and a height measuring scale. All subjects were subjected to BMI and was calculated by dividing a person's body weight by their height (weight [kg] / height [m]²). A following criteria was used- BMI of 30 - obese, a BMI of 25.0 - 29.9 - Pre-obese and a BMI 23 to 24.9 - overweight/pre-obese. **Results:** Out of total 500 subjects, 260 were males while the remaining were females. Out of 260 males, 26 were underweight, 110 were normal weight, 32 were overweight, 36 were obese and 18 were obese. Out of 240 females, 24 were underweight, 120 were normal weight, 38 were overweight, 44 were obese and 22 were obese. **Conclusion:** Obesity is increasing in today's life style. There is urgent demand of adopting healthy healthy food habits, lifestyles, and a physically active daily routine, among the adults to minimize dangers of the risks of developing chronic degenerative diseases.

Key words: Obesity, Risk

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INTRODUCTION

Globally, there is rising prevalence of overweight and obesity in both developing and developed countries. The rate of obesity has tripled in developing countries over the past 20 years as they rapidly become more urbanized, with increased consumption of high calorie foods and adoption of a more sedentary lifestyle. Some studies observed that first year university students have significant weight gain, followed by ongoing slow but steady increase in weight.¹⁻³

Overweight and obesity is a complex multifactorial chronic disease. According to the World Health Organization (WHO) overweight and obesity are excessive fat accumulation that presents a risk to health. Body mass index (BMI) is an instrument recommended to classify obesity, and BMI ≥ 25 -30 Kg/m² would be considered as overweight, and BMI >30 Kg/m² would be considered as obese. Obesity is a challenge at the university period as it is a transition from overweight status to obesity because of alternating physical activity and dietary patterns.⁴⁻⁷ The present study was conducted to estimate prevalence of obesity among school going children

MATERIALS & METHODS

This study was conducted on 200 college students. A predesigned questionnaire was used to collect the

information such as name, age, gender, ethnic origin and their present weight (Kg) and height (m). Weight and height of all subjects were measured using standardized weighing machine and a height measuring scale. All subjects were subjected to BMI and was calculated by dividing a person's body weight by their height (weight [kg] / height [m]²). A following criteria was used- BMI of 30 - obese, a BMI of 25.0 - 29.9 - Pre-obese and a BMI 23 to 24.9 - overweight/pre-obese. Community programs were arranged by the investigators utilizing the students to spread the information about the health effects of overweight and obesity along with the prevention strategies. All the results were summarized in Microsoft excel sheet and were analyzed by SPSS software.

RESULTS

Out of total 500 subjects, 260 were males while the remaining were females. Out of 260 males, 26 were underweight, 110 were normal weight, 32 were overweight, 36 were obese and 18 were obese. Out of 240 females, 24 were underweight, 120 were normal weight, 38 were overweight, 44 were obese and 22 were obese.

Table I: Distribution of subjects

Total – 500		
Male	Female	P value
260	240	0.59

Table II: BMI of subjects

Classification	BMI (Kg/m ²)	Total	Male	Female
Underweight	<18.4	80	26	24
Normal weight	18.5- 22.9	230	110	120
Over weight	23- 24.9	70	32	38
Pre- obese	25- 29.9	80	36	44
Obese	>30	40	18	22
Total		500	260	240

DISCUSSION

The prevalence of obesity and overweight among adults has drastically increased during the past decade. Anthropometric indices such as body mass index (BMI) and total body fat (TBF) analyses are used widely for assessing the physical well-being of adults. Worldwide, obesity and sedentary lifestyles have been involved in the aetiology of many noncommunicable diseases (NCDs) among adults. Recent reports suggested that there was a direct relationship between adolescent fatness and increased risk of cardiovascular diseases. Health-related fitness parameters were more dependent on the anthropometrical parameters in obese than in control adolescents.⁵ Cardiovascular disease is the leading cause of mortality among adults, and a systematic analysis of population health data revealed that, among the nine risk factors of heart attacks and strokes, six risk factors are modifiable, while three are non-modifiable risk factors; these include increasing age, male gender and family history of cardiovascular disease (CVD). The six modifiable risk factors that are the focus of current research for primary prevention are 1) increased blood cholesterol; 2) increased blood pressure (hypertension); 3) cigarette smoking; 4) lack of regular physical exercise; 5) type 2 diabetes, and 6) obesity.⁶⁻⁹ The present study was conducted to estimate prevalence of obesity among school going children.

Out of total 500 subjects, 260 were males while the remaining were females. Out of 260 males, 26 were underweight, 110 were normal weight, 32 were overweight, 36 were obese and 18 were obese. Peltzer K et al assesses the prevalence of overweight/obesity and its associated factors among a random sample of university students from 22 universities in 22 low, middle income and emerging economy countries. The study population was 6773 (43.2%) males and 8913 (56.8%) females, aged 16 to 30 years (mean 20.8 years, SD = 2.6). Body mass index (BMI) was used for weight status. Among men, the prevalence of underweight was 10.8%, normal weight 64.4%, overweight 18.9% and obesity 5.8%, while among women, the prevalence of underweight was 17.6%, normal weight 62.1%, overweight 14.1% and obesity 5.2%. Overall, 22% were overweight or obese (24.7%

men and 19.3% women). In multivariate regression among men, younger age, coming from a higher income country, consciously avoiding fat and cholesterol, physical inactivity, current tobacco use and childhood physical abuse, and among women older age, coming from a higher income country, frequent organized religious activity, avoiding fat and cholesterol, posttraumatic stress symptoms and physical childhood abuse were associated overweight or obesity.¹⁰

Out of 240 females, 24 were underweight, 120 were normal weight, 38 were overweight, 44 were obese and 22 were obese. Makkawy E et al assessed the prevalence of overweight and obesity among healthcare science college students at private university in Saudi Arabia. A validated, structured, closed-ended questionnaire was self-administered through the Monkey survey. All data were analyzed using SPSS. 401 students participated, in which 33.4% were male and 66.6% were female students; and the mean age was 22 years. The study showed that 23.7% of participants were overweight, and 11% were obese. The prevalence of obesity was higher among males. Family history of obesity and fatigue were risk factors for obesity. The healthcare Science College students showed a high prevalence of obesity and overweight.¹¹

CONCLUSION

Obesity is increasing in today's life style. There is urgent demand of adopting healthy healthy food habits, lifestyles, and a physically active daily routine, among the adults to minimize dangers of the risks of developing chronic degenerative diseases.

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