

# Prevalence of Obesity in Primary Schoolchildren

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The prevalence of childhood obesity has risen dramatically in the past several decades. This condition is still under diagnosed and under treated. This study was carried out in four schools of Hafizabad city to assess prevalence of obesity in school children aged 6-12 years.

**Key words:** Obesity, overweight, children, activity, complications

Evidence is now emerging to suggest that the prevalence of over weight and obesity is increasing worldwide, at an alarming rate. Both developed and developing countries are affected. Moreover as the problem appears to be increasing rapidly in children as well as in adults, the true health consequences may only become fully apparent in future<sup>1</sup>. Excessive body weight during childhood influences the development of several chronic diseases in adulthood<sup>2</sup>. Evaluation of obesity in childhood is important for several reasons. First it offers the best hope for preventing disease progression with its associated morbidities into adulthood<sup>3</sup>. Second, obesity has a negative impact on the self esteem of children and adolescents, which may have significant implications for long term happiness and success in life<sup>4</sup>. In all, directed sessions that emphasize healthy eating and exercise habits for children and their families may have lasting effects on the life style of these patients<sup>5</sup>. The aim of this study was therefore to provide current estimates of the prevalence of obesity among school children aged 6-12 years.

## Subjects and methods

This study was carried out in schools of Hafizabad. Study population was school children aged 6-12 years. Sampling done by selecting every 5<sup>th</sup> student aged 6-12 years in technique. 224 school children aged 6-12 years were examined & interviewed. Age recorded from school record. Weight was recorded in Kilograms by asking child to remove shoe, watch and extra clothing. Height measured in centimeters. Body mass index (BMI) calculated by formula  $BMI = \text{weight} / (\text{height})^2$ . Statistical analysis done by EPI6 programme on computer.

## Results

In this study 224 school children were included out of 1032 children of age 6-12 years, with median age 9.219 years with a median 9.00 and standard deviation 1.817. Weight of 224 children ranged from 15 - 55 kg with mean 28.031 with median 26 and standard deviation 7.476. Height of 224 children ranged from 104 - 165 cm with mean 132.124 median 131 and standard deviation of 11.041. Body mass index of 224 students was calculated by the formula:

$$\text{Outlet's index (BMI)} = \frac{\text{Weight (Kg)}}{\text{Height (M)}^2}$$

The BMI of 224 children ranged from 12.28 - 25.2 with mean 15.83, median 15.38 and standard deviation of 2.102 as show in Table:

Variable	Range	Mean	Standard Deviation	Median
Weight	15-55 kg	28.031	7.476	26
Height	104-165 cm	132.124	11.041	131
BMI	12.28-25.2	15.83	2.102	15.35

Nine out of the total 224 i.e (5.26 %) male students and 3(5.66%) female students were found to be obese. Total 12 students (5.4%) were obese irrespective of sex.

## Discussion

The etiology of obesity has been debated ever since it was first recognized as a problem. Both genetic and environmental factors contribute to its development. The theory that obesity is inherited is supported by the finding that obesity tends to run in families<sup>6</sup>.

Among the environmental factors resulting in an energy imbalance & causing weight gain are inappropriate eating habits and perhaps more important, inactivity<sup>7</sup>. A study was conducted to measure the prevalence of obesity in children in Pakistan 6 years back which showed the prevalence of obesity about 2.6% but in our study the prevalence of obesity is 5.4% indicating that the prevalence of obesity has doubled in past 6 years in Pakistan. The prevalence of obesity was found to be 9% in Swiss children by calculating body mass index (BMI)<sup>8</sup>. Given the high prevalence of obesity amongst children, primary and secondary prevention measures are needed to reduce the proportion of deaths due to chronic non-transmissible diseases in the coming decades.

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