

# Physical Activity a Determinant to Control Adolescent Obesity

## Abstract

**Objective:** Lack of physical activity, unbalanced diet and unhealthy lifestyles have lead to lifelong obesity. Obesity in Pakistani children and adolescents has also becoming an important public health problem due to changes in life style and other factors. Our aim is to determine relationship between physical activity and obesity in urban youth.

**Methods:** A Cross-sectional study was conducted from 01 June 2013 to 30 December 2013 in Hyderabad Pakistan. A total of 504 male and female students of class six to ten were selected through simple random sampling. They were interviewed by trained data collectors through obesity and physical activity questionnaire. Anthropometric measurements were done with calibrated instruments using the age and sex specific BMI cut off points according to WHO growth reference.

**Results:** The prevalence of overweight (> 85th Percentile) and obesity (>95<sup>th</sup> percentile) was 23% and 15% among the boys respectively whereas in girls the prevalence of overweight and obesity was 16% and 8% respectively. A significant proportion of girls (86%) and boys (85%) had abnormal waist to hip ratios. Mean of moderate physical activity 6.2 hours SD 5.9 and mean of hard physical activity 5.3 hours SD 5.2.

**Conclusion:** Promoting physical activity has become a priority because of its role in preventing childhood obesity and chronic disease. The determinants of the obesity lie within the home and school environment and the overall socio-cultural phenomena. Children are spending an alarmingly large part of their daily time on sedentary activities and having minimal physical activity.

**Keywords:** Body Mass Index; Prevalence; Adolescent; Waist Circumference; Physical activity; Statistical Package for Social Sciences; Communicable diseases

## Research Article

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## Introduction

According to world health organization approximately 1.6 billion adults (age 15+) were overweight, and at least 400 million adults were obese in 2005, at least 20 million children under the age of 5 years were overweight globally in year 2005 [1-2]. During last three decades the prevalence of overweight and obesity in children and adolescents has been tripled. Physical inactivity, unbalanced diet, and unhealthy lifestyles may have caused this lifelong obesity [3].

According to the last census, 32.5% population of Pakistan was living in urban areas [4]. Lack development and jobs in rural areas lead to mass scale migration towards cities. Pakistan has only 22% physically active adult population [4-5] which is due to urbanization and modernization of society along with changes in life styles. Promoting physical activity among children can help to prevent childhood obesity and related conditions.

Studies have shown that children who are physically fit perform better in school and on tasks requiring concentration. Obesity driven burden of disease is induced by inappropriate diets and widespread physical inactivity which can be addressed by increasing Physical Activity (PA). A study done in Australia mentions decline in fitness level between childhood and adulthood

was associated with increased obesity and insulin resistance. Programs aimed at maintaining high childhood physical activity levels into adulthood may have potential for reducing the burden of obesity and type II diabetes in adults [6]. Pakistan is among the countries which have high prevalence of obesity among boys and girls [7]. Pakistan is facing the double burden of diseases and obesity which is a major risk factor for a number of Non communicable diseases [8].

The modern world makes it very easy to out-eat exercise, and nearly impossible to out-exercise excessive eating [9]. But simply advocating for more physical activity is unrealistic so substantial changes in urban planning and diet are needed to counter menus of obesity. Despite an appreciation that physical activity is essential for the normal growth and development of children and can prevents obesity and obesity-related health problems, too few children are physically active.

A concurrent problem is that today's young people spending more time in sedentary pursuits, including watching television and engaging in screen-based games. Active behavior has been displaced by these inactive recreational choices, which has contributed to reductions in activity-related energy expenditure [10]. Walking to school provides a convenient opportunity for children to be physically active [11].