

# Impact of Physical Education Program on Obese Children's of DAV Schools in the State Of Punjab

<sup>1</sup>Rajwinder Pal Singh Gill, <sup>2</sup>Dr. Ravi Kumar

<sup>1</sup>Research scholar, Department of physical, Guru Kashi University Talwandi, Punjab.

<sup>2</sup>Assistant Professor, Department of physical, Guru Kashi University, Punjab.

## ABSTRACT

Obesity in children's has been recognized as a significant health problem worldwide that requires inhibitory exertion. Prevention is best targeted at school going children, but relatively few research studies have focused on obesity among school going children's and most of those that have, were conducted in other states of India. Childhood obesity is emerging as a major health problem. The prevalence of overweight and obesity among children has reached epidemic proportions across the world. The aim of this study was to describe the impact of physical education program on obese children's of selected age group in the state of Punjab. This can be achieved by following objectives: To study the prevalence of obesity in school going children of class X standard.

**Keywords:** DAV Schools, Anthropometric Measurements, Punjab.

## I.INTRODUCTION

The last quarter of the twentieth century has seen childhood obesity emerging as an epidemic in developed countries and a cause of concern worldwide as it is being reported in significant numbers from nations previously considered poor or developing. It is no longer a problem of only the affluent countries.

The World Health Organization (WHO) describes Obesity as one of today's most important 'Public Health Problems', and has designated Obesity as a 'Global Epidemic' and also one of today's most neglected Public Health Problems. More than 1.4 billion adults 20 years and older are overweight. Approximately 35 million overweight children are living in developing countries and 8 million in developed countries. Thus, addressing obesity should be a priority. Overweight in adolescence is a marker of overweight in adult age, and is associated with the diseases such as diabetes mellitus and cardiovascular disease. A study conducted by Alok et al. in urban and rural areas of Surat city in the 14–16 years age group found the prevalence of obesity to be 12.8% in rural and 14.6% in urban adolescents. JP Goyal et al. conducted a study on the prevalence of obesity

in adolescents aged 12–15 years and RK Goyal et al. conducted a study in adolescents aged 12–18 years belonging to different socioeconomic status (SES) in Surat. The study data were collected to measure the prevalence of obesity in the adolescents aged 14–16 years and to review specific causes contributing to overweight and obesity.

## II. RESEARCH METHODOLOGY

The study consisted of two parts: 1) Cross-sectional survey of children in grade tenth DAV schools randomly selected from the state of Punjab. Data were checked for completeness and accuracy. Coded data were computerized and analysed by using IBM SPSS Statistics Version 25. The descriptive statistics were presented in frequency tables, range, minimum and maximum descriptive, mean, standard deviation and variance for boys and girls separately.

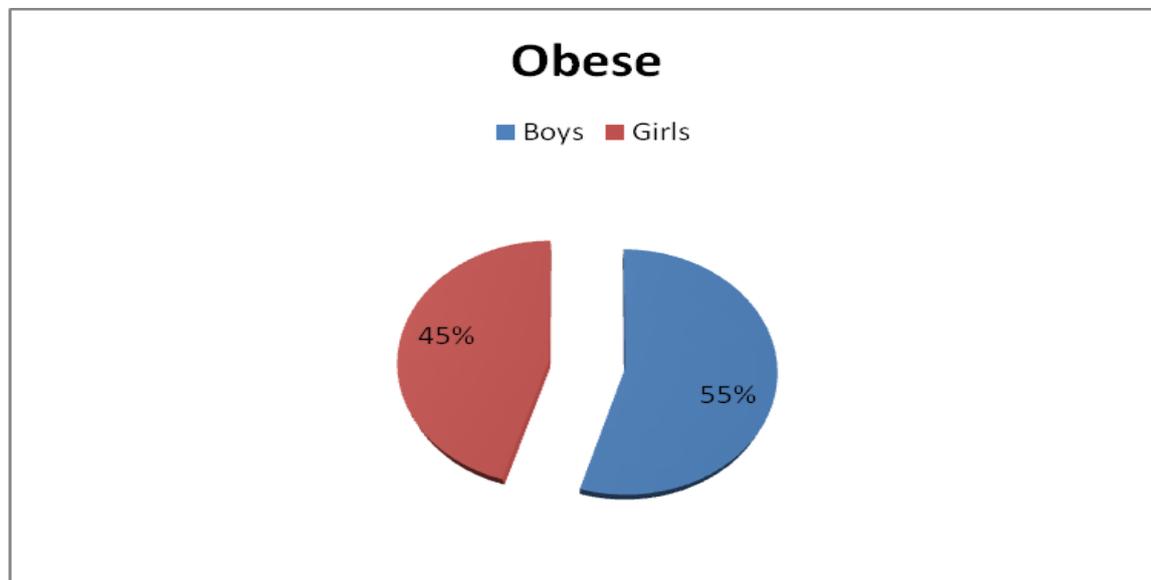
The school teachers from department of physical education personally took different anthropometric (height, weight, triceps, biceps, abdomen, suprailiac, calf and fat percentage) measurements at the examination room after instructing the students to take off heavy clothes. The sample size (N) of students is 150. One suitable weight balance measuring to nearest 0.5 kg was used. Students were weighed while wearing light school uniform. Suitable metallic meter scale measuring to the nearest 0.5 cm, fixed on the scale was used. Body Mass Index was calculated by dividing weight in kg by square height in meters.

## III. FINDINGS

Gender	Obese	Non Obese	Total
Boys	190 (14.75%)	1098 (85.24%)	1288 (100%)
Girls	157 (13.96%)	967 (86.03%)	1124 (100%)
Total	347 (14.38%)	2065 (85.61%)	2412 (100%)

As could be seen in the table no. 1, from the total number of screened sample 14.75% of the boys were obese, 13.96% of the girls were obese. The results also revealed that 85.24% of the boys were non obese in weight and 86.03% of the girls were in non obese in nature. Table number one shows the prevalence of obesity by gender among the school going students of class X standard.

Graph No. 1 (Percentage of Obese students by gender)



While obesity seems to be growing in children regardless of sex, it can be noted that there is a gender wise variation in the prevalence of overweight and obesity in children irrespective of the place as revealed in many studies done in Punjab. The present study also compares the sex wise variation seen in children. The prevalence of obesity among boys was found to be higher than that of girls as shown in Graph no. 1.

Table No. 2: Prevalence of overweight and obesity gender wise

Gender	Obese	Over Weight
Boys	190 (14.75%)	356 (27.63%)
Girls	157 (13.96%)	298 (26.51%)
<b>Total</b>	<b>347 (14.38%)</b>	<b>654 (27.11%)</b>

The results of table number 2 depicts that 14.75% of the boys were obese, 13.96% of the girls were obese as already discussed in previous table. When gender wise comparison in terms of over weight was made, it was found out that 27.63% of the boys were over weight and 26.51% of the girls were over weight.

It was also noted that out of a total of 2412 students class X standard screened, 1288 were boys, and 1124 were girls. The prevalence of obesity among boys was found to be higher than that of girls.

#### IV. CONCLUSION

This was the first study in the state of Punjab that has examined the height, weight, triceps, biceps, abdomen, suprailiac, calf and fat percentage measurements for childhood obesity and used qualitative methodology. The

prevalence of overweight and obesity in school children in the state of Punjab was lower than that reported amongst most children in the other states. This is important given the social changes that the community is undergoing and the rapid expansion of fast food outlets and western dietary influences. The focus group data provided important contextual information validated some findings from the cross sectional study and informs the development of future obesity prevention interventions appropriate to the local setting. With the diagnosis of overweight or obesity rising across the Punjab, the need for early interventions is critical. There is a clear need for the collective effort of government officials, parents and teachers to provide measures that enhance prevention, control and management of overweight and obesity among Punjab DAV school children. School nurses could make substantial changes by assessing, monitoring and providing health teaching for parents and their children.

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