



Study to Assess lifestyle Practices of Overweight and Normal Weight Children in Selected School of District Hoshiarpur, Punjab, India

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LIFESTYLE is considered to be an important determinant of health and sickness. It has also a great role in growth and development of children. Some of the health problems are rooted in childhood habits and lifestyle. A number of factors contribute to becoming overweight. Genetics, lifestyle habits, or a combination of both may be involved. Genes help to determine body type and how body stores and burns fat. Studies have shown that a child's risk of obesity greatly increases if one or more parent is overweight or obese. Daily schedules are so jam-packed that there's little time to prepare healthier meals or to squeeze in some exercise. Children's dietary habits have been shifted away from healthy foods to much greater reliance on fast food, processed snack foods and sugary drinks. Now more than ever life is sedentary; children spend more time playing with electronic devices, from computers to handheld video game systems, than actively playing outside. Television is a major culprit. Children who watch more than 4 hours a day are more likely to be overweight compared with children who watch 2 hours or less.

KEY WORDS: NURSING, SURVEY, LIFE STYLE.

INTRODUCTION

Obesity is one of the most prevalent nutritional diseases of children and adolescents in many developed and developing countries. The World Health Organisation (WHO) has declared overweight as one of the top ten health risks in the world and one of the top five in developed nations. The persistence of obesity into adulthood depends on many factors, including the age at which the child becomes overweight, the severity of the overweight problem and the presence of obesity in at least one of the parents of the child. An overweight child under the age of three does not predict future overweight problems or obesity, unless at least one parent is also obese. The likelihood of an overweight condition or obesity will persist into adulthood increases with the advancing age. After an

overweight child reaches six years of age, the probability that obesity will persist exceed 50 percent.

Childhood overweight is the one of major health issues of modern civilization. It has been estimated that the health problems of adult obesity can be prevented if overweight is controlled in childhood itself. Childhood is a critical period for initiation of overweight and obesity and associated morbidity. Research over the past four decades suggests that childhood is a period when dietary and lifestyle patterns are initiated, that has implications for coronary heart disease and other morbidity risks in later adult life.

STATEMENT OF THE PROBLEM

A comparative study to assess lifestyle practices of overweight and normal weight children in a selected school of district Hoshiarpur, Punjab, India

PURPOSE

To assess lifestyle practices of overweight and normal weight children and provide guidelines to the children to adopt healthy lifestyle practices

OBJECTIVES OF THE STUDY

This paper has the following objectives:

- 1 To identify overweight and normal weight children in a selected school.
- 2 To assess the lifestyle practices of overweight and normal weight children.
- 3 To compare the lifestyle practices of overweight children with that of normal weight children.
- 4 To Identify the relationship of lifestyle practices of overweight and normal weight children with selected demographic variables such as age, gender, education of father, education of mother, occupation of father, occupation of mother, type of family, family income and mass media exposure.
- 5 To prepare guidelines on healthy lifestyle practices for overweight children.

LITERATURE REVIEW

A research study conducted had shown that every second adolescent in New Delhi fulfills the criteria of obesity. The study showed that 16-18% of the children were overweight/obese in 2004, but it had strikingly increased to 28% in 2006.

In two studies in 1981 and 1998 showed 9.6% prevalence of overweight and 6% prevalence of obesity among children between 10- 15 years of age in Chennai. A cross sectional study in India showed the prevalence of obesity and overweight among preadolescents as 11.1% and 14.2% respectively.

A cross-sectional study was performed to assess the prevalence of underweight, overweight and obesity on the basis of Body Mass Index and Body Fat Percentage in Hungarian School children. Prevalence of underweight, overweight and obesity were 5.1%, 18.1% and 7.4% for boys and 6.8%, 19.6% and 6.3% for girls respectively.

A study was conducted to determine trends in body fatness and obesity among Saudi Primary School boys using data from 2 cross sectional studies conducted in 1988 and 2005. The biggest increase was seen in the proportion of obese school boys aged 6-14 years (from 3.4% in 1988 to 24.5% in 2005). Findings indicated that rising trends in BMI, body fatness, central obesity, and prevalence of obesity among Saudi school boys over the last two decades.

RESEARCH APPROACH

A quantitative comparative research approach was adopted for this study.

Research design

For the present study, non- experimental research design was utilized to achieve the stated objectives.

Research setting

The study conducted in Shri Guru Harkrishan Public School, district Hoshiarpur, Punjab. This school was situated in Hoshiarpur city, total 860 children were studying in the School in 2010. Children were from Hoshiarpur city and nearby villages.

Population

The present study population comprised the children studying in Shri Guru Harkrishan Public School, District Hoshiarpur, Punjab.

Sample and sampling technique

Purposive sampling was adopted for the study. The total sample size was 60 children (30 overweight and 30 normal weight children).

Criteria for sample selection

Inclusion Criteria- Children of age group between 10 to 16 years were included in the study.

Exclusion Criteria

- Children who were not willing to participate.
- Children who were sick and not present at the time of data collection.

Data collection procedure

The data collection for the study was carried out from December 1 to December 15, 2010 in Guru Harkrishan Public School, district Hoshiarpur. Height and weight of children was assessed by using calibrated measuring instruments. Height and weight were measured in school setting in the morning. The average of the three measurements was used in the analysis. Weight was measured by a regularly calibrated weighing scale to the nearest 0.1 kg and height was measured barefoot by a portable stadiometer to the nearest 0.1 cm.

BMI was calculated by using the following formula:

$$\text{Body mass index} = [\text{Weight (kg)}] / [\text{Height (m)}]^2$$

After calculating BMI, boys and girls were identified as overweight and normal weight by marking BMI on charts (Body mass index for age percentiles- 2 to 20 years). These charts were developed by National centre for Health Statistics in collaboration with National Centre for Chronic Disease Prevention and Health promotion. (U.S.)

According to these charts,

Less than 5th percentile	Underweight
5th percentile to less than the 85th percentile	Healthy weight
85th percentile to less than the 95th percentile	Overweight
95th percentile or greater	Obese

After identifying overweight and normal weight children, life style practices assessed with the help of rating scale. The respondents spent 20-30 minutes to fill the tool.

MAJOR FINDINGS

The analysis of data revealed the following:

- Majority and equal number of children 13 (43.3%) in the age group 11-13 & 14-16 years were overweight and 14 (46.7%) of children in the age group 14-16 were normal weight.
- Majority of 24 overweight (80%) and 19 normal weight 19 (63.3%) children were male.
- Fathers of majority of overweight children 13 (43.3%) were educated up to senior secondary where as that of normal weight children 11 (36.7%) were up to matric.
- Mothers of maximum overweight children i.e.12 (40%) were qualified up to matric where as that of normal weight children i.e. 11 (36.7%) were up to senior secondary.
- Majority of fathers of both overweight children i.e.14 (46.7%) and normal weight children i.e. 19 (63.3%) were doing private job.
- Mothers of overweight children i.e. 27 (90%) & that of normal weight i.e. 26 (86.7%) were housewives.
- Equal number i.e. 21 (70%) of the overweight and normal weight children belong to nuclear family.
- Majority of overweight i.e. 16 (51.6%) and normal weight i.e. 15 (48.4%) children were having family income per month ($\geq 10,001$).
- Majority and equal number of overweight and normal weight i.e. 17 (56.7%) children were exposed to television.

- The relationship between overweight and normal weight children was found statistically non- significant.
- Mean score of physical activities and dietary habits of normal weight children was higher (30.33 & 48.1 respectively) than that of overweight children (27.83 & 47.73 respectively) where as that of recreational activities of normal weight children was slightly lower (33.1) than that of overweight children (33.43).
- The differences between mean scores of life style practices of overweight and normal weight children were not statistically significant. Thus, the assumption was false i.e. weight gain in overweight children was not due to inadequate lifestyle practices.
- Mean scores of life- style practices of overweight children were lower (120.25, 132.46 & 135.15) than that of normal weight children (132.50, 134.75 & 134.93) among the age groups 8- 10 years, 11-13 years & 14-16 years respectively. The differences between mean scores of physical activities of overweight and normal weight children according to age were statistically non- significant.
- Mean scores of life- style practices of overweight male and female children were lower (134.79 & 120.83 respectively) than that of normal weight male and female children (137.47 & 129.45 respectively) and was found significant at $p < .01$.
- Overweight children had higher life- style practices' score (148) than that of normal weight children (124.5) whose fathers were educated below matric whereas overweight children had lower life- style practices' score than that of normal weight children whose fathers were educated up to matric and senior secondary. It was found statistically significant at $p < .01$ in case of overweight children. Thus, father's education had an impact on lifestyle practices of overweight children.
- Mean score of life- style practices of overweight children was lower (137.17) than that of the normal weight children (137.33) whose mothers were graduated and above whereas mean score of life- style practices of overweight children was higher (138.25) than that of the normal weight children (129) whose mothers were educated below matric. It was found statistically non- significant both in case of overweight children in normal weight children.
- Overweight children had lower life- style practices' score (130.11 & 130.36) than that of the normal weight children (139.8 & 133.16) whose fathers were doing government & private jobs respectively whereas overweight children had higher life- style practices' score (138.33 & 137.25) than that of the normal weight children (138 & 133.80) whose fathers were farmers & doing other jobs

respectively. The difference between mean scores of occupation of fathers of overweight & normal weight children was found non- significant.

- Mean score of life- style practices of overweight children was lower (132.07) than that of the normal weight children (135) whose mothers were housewives whereas life- style practices' score of overweight children was higher (131.33) than that of the normal weight children (128) whose mothers were doing government jobs. It was statistically found non- significant in case of both overweight and normal weight children.
- Overweight children had lower life- style practices' scores (133.22 & 131.48) than that of normal weight children (138.11 & 133) who belong to joint family & nuclear family respectively. It was statistically found non- significant.
- Mean score of life- style practices of overweight children was lower (129.78 & 130.19) than that of normal weight children (134 & 135) with family income more than Rs.5,000 & Rs.10,000 per month respectively where as mean score of life- style practices of overweight children was higher than that of normal weight children with family income less than Rs.5,000 per month. There was no significant relationship between life- style practices and family income per month.
- Overweight children who were exposed to television, had slightly higher life- style practices' score (133.82) than that of normal weight children (133.53) whereas those overweight children who were exposed to and newspaper/magazines and internet, had lower life- style practices' score (134.50 & 127.44) than that of normal weight children (136.13 & 135.4) respectively. The difference between mean scores of mass media exposure of overweight & normal weight children was found non- significant.

CONCLUSION

From the findings of the study the following conclusions were drawn:

- The differences between mean scores of life style practices of overweight and normal weight children were not statistically significant. Thus, the assumption was false i.e. weight gain in overweight children was not due to inadequate lifestyle practices.
- Age, mother's education, occupation of father, occupation of mother, family income per month, mass media exposure had no impact on physical activities of overweight and normal weight children. Gender of children had an impact on physical activities of overweight and normal weight children which was

statistically significant at $p < 0.05$ level. It was also concluded that father's education had an impact on physical activities of overweight children which was statistically significant at $p < 0.05$ level.

RECOMMENDATIONS

Based on the findings, the following recommendations are offered for future research:

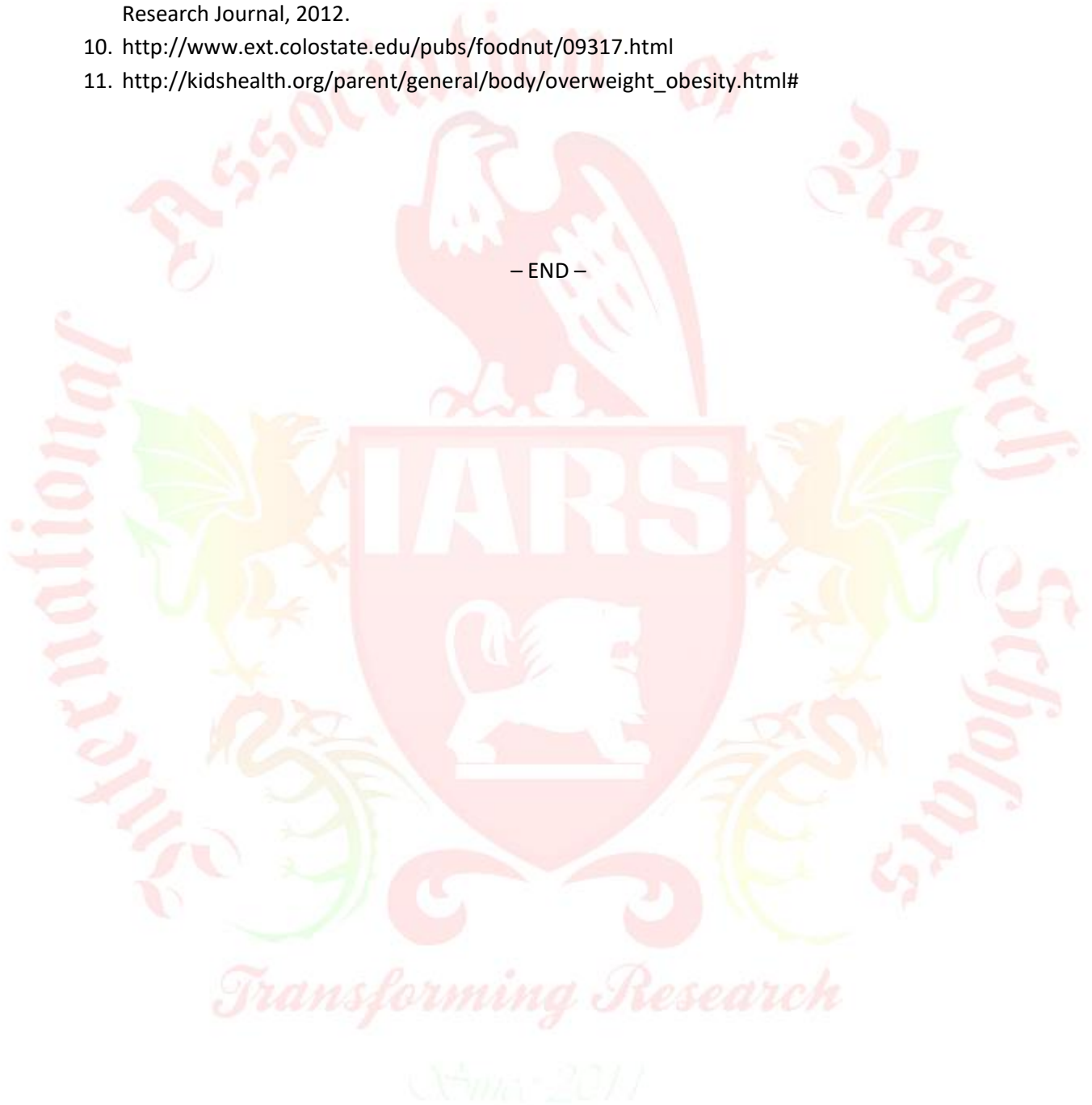
- The study can be replicated with different population on a large sample to validate and generalize its findings for a large population.
- Similar study can be conducted on different population and in different settings in urban and rural area.
- A study can be conducted to determine the relationship of socio- economic status of family with obesity in children.
- A study can be conducted to determine the relationship of sedentary lifestyle with obesity in children.
- A study can be done to compare dietary patterns in overweight and normal weight children.
- A quasi- experimental study can also be conducted to assess the effectiveness of self structured health education on prevention of obesity in children.

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– END –





Certificate of Recognition

This certificate is awarded to

Bhuanesh Shukla

in recognition of his contribution

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