



**ORIGINAL ARTICLE**

**OPEN ACCESS**

## **The Study of effect of Physical activity, watching TV and computer games in overweight and obesity in primary school students of Behbahan**

**Zohreh Hosseini Siahi 1, Mohammad Jafar Sana2**

1- Department Of Health , Behbahan Branch, Islamic Azad University, Behbahan , Iran.

2 - Department Of Food Industrial , Behbahan Branch, Islamic Azad University, Behbahan , Iran.

Email: [dr\\_mjsana@yahoo.com](mailto:dr_mjsana@yahoo.com)

### **ABSTRACT**

*Overweight and obesity is a health and nutritional problem in the world and Iran. The number of people with overweight and obesity is increasing in developed countries and developing countries, including Iran. Among the effective factors in overweight and obesity in children are genetic, and factors related to the environment, life style including inactivity children such as the overuse of computers ,watch TV for a long time and reduce opportunities to play outside the house. In this study randomly 60 girls with a BMI above the 95th percentile (as Obesity) and BMI greater than 85 and less than 95 (overweight) were selected and 60 girl students with a BMI of between 5 and 85 (natural) were selected randomly, the boys also randomly 60 patients with BMI greater than 95 and a BMI of less than 95 and more than 85 were selected and were selected 60 person with a BMI below the 85th percentile and more than 5. In this study that was carried out on primary school students of Behbahan showed that between case and control groups in both girls and boys there was significant in relation to intense physical activity per week, this means that is effective number of intense physical activity per week in the incidence of overweight and obesity in school children, girls and boys in Behbahan while between case and control groups in girls the difference was not significant In relation to the watching TV and using the computer, but differences was significant in boys group., this means that number of hours of watching TV and computer games are effective in the incidence of overweight and obesity among boys student in Behbahan.*

**Keywords:** physical activity, watching TV and computer games, overweight and obesity, primary school students.

Received 10.05.2015

Revised 30.06.2015

Accepted 01.07. 2015

### **INTRODUCTION**

Overweight and obesity is a chronic disease that its prevalence is increasing in developed countries and developing and has been a health problem. Nowadays overweight and obesity is considered a health problem in feeding the world and Iran [1]. On the other hand as most research have shown there could be a close relationship between overweight and obesity in childhood and adult [2]. On this basis can say that overweight and obesity in children will result in adult obesity in the future. This problem there is not only in developing countries but also in developed countries. This problem there is not only in undeveloped countries but also in developed countries. In a survey carried out in the United States in 2002 by Poniz kova et al. prevalence of overweight and obesity have been reported in 25 to 35% [3-4]. In a study carried out by Habiba Mozaffari et al to investigate the prevalence of overweight and obesity in girls primary school in Tehran in 1380, the prevalence of obesity 7/7 percent overweight 3/13 percent reported and totally 21 percent of students the target group were weighed more than normal. On the other hand, due to the complications of obesity, such as the effects of physical, psychological - social and medical such as heart disease - cardiovascular, diabetes, hyperlipidemia, liver diseases, respiratory diseases, central nervous system disorders, growth disorders, orthopedic disorders, anxiety, depression , low self-esteem and so the diagnosis of overweight and obesity in childhood is the most important. Since physical activity is an important factor in the control of body mass, there is a great desire to investigate the relationship between physical activity and the prevalence of overweight and obesity in children and adolescents.

In this cross-sectional study of boy and girl students were randomly selected in Primary Schools of Behbahan 60 girls with a BMI above the 95th percentile (as fat) and BMI greater than 85 and less than 95

(overweight), and 60 girl students were selected randomly with BMI between 5 to 85(as normal), this work was done in the case of boy students. Then were filled questionnaire assessing physical activity including questions regarding the intense activities and watching TV and computer times with ratings 1-3. Finally for statistical analysis was used of Computer software SPSS Version 17.

## METHODOLOGY

In this cross-sectional study, given that the target population of students in primary school Obesity and overweight boys and girls in primary education With Behbahan diagnosed and used by cluster random sampling method was selected. Since data collection is to be observed so was measured height of children under study by using tape mounted on the wall and their weight By using a digital scale and by using the BMI formula, body mass index was calculated for each student. Then, using standard curves of BMI percentile for age and sex is the body mass of each of the students was evaluated. According to the BMI percentile range was carried grouped weight As follows:

Less than 5 Underweight  
5 to less than 85 Normal weight  
85 to 95 Overweight  
Equal to or greater than 95 Obesity

In this study randomly 60 girls with a BMI above the 95th percentile (as Obesity) and BMI greater than 85 and less than 95 (overweight) were selected and and 60 girl students with a BMI of between 5 and 85 (natural) were selected randomly, the boys also randomly 60 patients with BMI greater than 95 and a BMI of less than 95 and more than 85 were selected and were selected 60 person with a BMI below the 85th percentile and more than 5. Case and control groups were matched for age With education base was completed at the end of parental BMI assessment questionnaire to statistical analysis software was used by SPSS version 17 and independent sample test.

## RESULT

Results obtained from evaluation of physical activity in the students investigated have come in Tables 1 and 2.

**Table 1: Comparison of the mean and standard deviation physical activity in case and control girl students**

The study group and type of activity	The number of samples	Mean	Standard deviation	Sig.
Frequency intense physical activity per week in groups of obesity and overweight students	60	2.35	./709	./042
Frequency intense physical activity per week in group of normal students	60	3.21	./752	
Hours of use of TV and computer per day in groups of obesity and overweight students	60	2.35	./684	./698
Hours of use of TV and computer per day in group of normal students	60	2.15	./755	

**Table 2: Comparison of the mean and standard deviation physical activity in case and control boy students**

The study group and type of activity	The number of samples	Mean	Standard deviation	Sig.
Frequency intense physical activity per week in groups of obesity and overweight students	56	2.07	./684	./035
Frequency intense physical activity per week in group of normal students	56	2.93	./759	
Hours of use of TV	56	2.30	./601	

and computer per day in groups of obesity and overweight students				.029
Hours of use of TV and computer per day in group of normal students	56	3.11	./679	

## DISCUSSION

Overweight and obesity is a health and nutritional problem in the world and Iran. The number of people with overweight and obesity is increasing in developed countries and developing countries, including Iran. Among the effective factors in overweight and obesity in children are genetic, and factors related to the environment, life style including inactivity children such as the overuse of computers, watch TV for a long time and reduce opportunities to play outside the house.

In Alborzi mehnesh study and Et al, among the factors studied in obesity and overweight girl students, factors that directly correlated with obesity and overweight including watching TV, VCR, CD and computer games during the week and weekend ,duration of walking home to school and the level of daily physical activity was associated Conversely with overweight and obesity in girls investigated [5].

In Azady study et al [6] in adolescents with normal-weight amount of exercise of moderate intensity and widely was significantly more than obesity adolescents.

The Rahmani-Nia et al study results showed there is a significant difference between the amount of watching TV and doing computer games in obesity and low weight boy student. Also between the amount of doing computer games and watching TV and physical activity levels, fat mass, mass without fat and BMI, there was a significant correlation [7].

In this study that was carried out on primary school students of Behbahan showed that between case and control groups in both girls and boys there was significant in relation to intense physical activity per week, this means that is effective number of intense physical activity per week in the incidence of overweight and obesity in school children, girls and boys in Behbahan while between case and control groups in girls the difference was not significant In relation to the watching TV and using the computer, but differences was significant in boys group., this means that number of hours of watching TV and computer games are effective in the incidence of overweight and obesity among male students in Behbahan.

## REFERENCES

1. Kelder SD, Perry CL, Klerr KI, Lytle LL.(2006). Longitudinal tracking of adolescents physical activity, and food choice behaviours. Am J Public Health 1994; 84:1121-6
2. WHO (World Health Organization).( 1997). Global strategy for non-communicable disease prevention and control. WHO/NCD/GS/97.1.
3. CDC (central disease control and presentation) (2008) . over weight and obesity – trends.
4. CDC (central disease control and presentation) .( 2008 ) Over weight and obesity ,obesity preralence.
5. Alborzi Mehnash, M, Kymaigr, M, Rashidkhani,B, (2009).the association between overweight and obesity with some lifestyle factors in the third grade to fifth grade students in region 6 Education in Tehran. Quarterly Journal Food Nutrition Science and Food Industry, Sixth year No. 3.
6. Aazady, A., et al,(2007). The obstacles and support physical activity in Adolescents With Obesity and overweight,Summer 20(50):29-41
7. Rahmani-Nia, F. et al., (1994).Study of watching TV and computer games of low weight and obesity boys and its relationship to physical fitness, physical activity level and body composition ,Quarterly Journal Biological and Sports Sciences, No. 5.

## CITATION OF THIS ARTICLE

Zohreh H S, Mohammad J S. The study of effect of Physical activity, watching TV and computer games in overweight and obesity in primary school students of Behbahan. Bull. Env. Pharmacol. Life Sci., Vol 4 [8] July 2015: 26-28