

XXI INVESTIGATION CONGRESS

TITLE: CHILDHOOD OBESITY AS A LOW GRADE FACTOR

AUTHORS: Lauren Haas and Stephanie Llamas

ASSESSOR: Ana Julia Robles and Sandra Krüger

SCHOOL: CUAM Morelos

PARTICIPATING AREA: World Affairs

SCHOOL PROJECT

HYPOTHESIS: Obesity is one of the factors of which children have a low academic development.

OBJECTIVE: To prove obesity in children is a serious issue not only because it affects them in their health but also in an academic manner.

PREVIOUS RESEARCH:

CHILDHOOD OBESITY

In the last two decades obesity has gone up more than 30% in Mexico, the same that the USA. The WHO warns about a world obesity epidemic.

In Mexico, more than the half of the population has obesity. Besides being one of the fattest countries in the world, we are in the top ten of the countries with the greatest amount of people with diabetes, including children.

Causes

- Lack of adequate nutritional information for parents
- Fat food information in the media.
- Stimulate children with a candy or an ice-cream
- Try to compensate the parents' absence with fat food
- Lack of the implementation of an exercise program for children
- Lack of promotion of healthy food in school cafeterias
- The great increase of fast food restaurants
- Time children spend watching television
- Time children spend in the computer or interactive games

Obesity causes children to feel lack of self-confidence and self-esteem, social discrimination among schoolmates, fatigue, hypertension, and many other problems.

Prevention:

- To parents give them a good example.

- To teach the child not to compensate nor reward him/herself with food
- To have a fruit or vegetable on hand in case the child is hungry
- To teach the child to prefer water and natural fruit water instead of sodas
- To motivate the child to develop a physical activity
- Not to prohibit the child eating fat food, but to teach them these kind of food will give him/her problems in his/her health
- Not to do some other activity while eating (watch T.V.)
- Not to obligate the child to do a diet, but give him the arguments for him decide.
- To learn how to take care of ourselves since being a child can help us to stop several consequences overweight can cause.

THEORYCAL:

According to the National Nutrition Survey 1999, overweight and obesity are prevalent health problems in Mexican school-age children, particularly among girls, and positively associated with socioeconomic status, age, and maternal schooling. This is a major public health problem requiring preventive interventions to avoid future health consequences.

According to Mirentxu Oiarzabal, Chief of Pediatric Endocrinology Unit, Hospital Virgen del Camino de Pamplona, Spain, there have been significant changes in lifestyle. Nowadays children see a lot of television and lead a more sedentary life. The quality of playing is different because they now entertain with the computer and video games instead of doing exercise. Beside, fast food restaurants have replaced salads, vegetables and traditional food.

The endocrinologist Melchor Alpizar Salazar (specialist in endocrinology, diabetes and nutrition at the University of Southern California, US) made a survey in Mexico 2006 in primary schools with the purpose of knowing the prevalence of overweight and obesity between 6-12 year-old children, finding that:

- Obesity in third graders was notorious. From the 3700 participant children in the survey, the ones of 9-10 year-old were the most obese.
- School performance was affected by obesity and overweight. Finding that children who didn't had a breakfast as well as the obese ones had lower grades than healthy children who had a breakfast in home. So when they go to school their brain is still asleep because of the lack of glucose, besides at recess they commonly eat chips, sodas or candies. Something they could have learnt it from their own parents.

	Healthy child	Malnourished child	Over weighted child
	8.4	7.8	7.6
GRADES	Child Breakfast		Child fasting
	8.4		7.4

- Obesity and overweight is increased because of the successful selling strategy of fat food companies that include a kind of “surprise” such as little toys.
- The urban growth is causing that parks disappear from the cities, so children have nowhere to play, obligating them to distract with the television or the computer, which causes sedentary, which causes obesity.

METOTHOLOGY:

For our project, we decided to make a survey like Dr. Alpízar made in Mexico in 2006, to compare his results with ours. We will apply it in a federal primary school to identify which children are the most likely to be obese, if it is more common in boys or girls and if obesity and overweight has something to do with their grades.

We will weigh children from ages 8 to 11, and depending on their weight we will make a correlation with their grades.

Our survey will also include if children do some kind of exercise after school, or if they have a sedentary life.

RESULTS: In progress

CONCLUSIONS:

- We propose that the SEP implement information about diabetes, hypertension and obesity, how they present, treat and prevent.

SOURCES OF INFORMATION:

<http://www.obesidad.net/>

http://www.scielosp.org/scielo.php?script=sci_arttext&pid=S0036-36342003001000011

http://www.cdc.gov/HealthyYouth/physicalactivity/pdf/roleofschools_obesity.pdf

http://www.dur.ac.uk/ne.pho/view_file.php?c=564

Pineda Rojas Rogelio, “¡Hasta luego cachetoncitos!”, Yo con Diabetes, México, abril-mayo 2008, no.9, pp. 36-39