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SOS – OBESITY IN CHILDREN

Theoretical
article

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Abstract

The current challenge of prevention and fighting obesity in children looked at by specialists in the social, medical and psychological areas is also treated by specialists in sport and physical education.

Having been underestimated for a long time, overweighting and obesity represents a real threat known by the International Health Organization that classifies it as „global epidemic”. This really is a global problem: there were 1.6 billion overweight people in the world in 2005 (out of a total of 6.671 billion people), out of which at least 400 million are obese and the IHO estimates that in 2015 there were 2.3 billion overweight people out of which 700 million are obese.

Obesity among children is more and more often seen at much younger ages with twice to four times the expected weight for an average child. Moreover, in Romania the number of obese primary school children have doubled in the late eight years, as written in a report given by the Institute of Public Health-as Rubin Munteanu, specialist in general surgery.

Introduction

The effect generated by modern life due to urbanization and interdictions which limit children's need for moving, the lack of a logical motivation regarding physical activity in clubs and schools, children's state of health all represent problems that need great and constant efforts in the scientific research field in order to be solved.

A person gets through many important stages in life until they become adults. Through their life people suffer transformations, changes, quantitative and qualitative modifications gathered under the general idea of „development”.

It has been stated that children and young people grow up extremely fast. New generations grow taller and heavier faster and more quickly than the old ones.

Some phenomena in their organisms unfold in a more intense way: both sexes undertake a perceivable psychical maturation, puberty appears earlier.

No need to deny the positive aspects of this phenomenon, one can state that there are some negative ones as well, and they are holding back, stagnation or even a disorder in the development of the body.

Doctors warn us about this disease which is not contagious. They are the first to observe this phenomenon. They find out and treat the disasters an advanced overweight can cause: diabetes, biliary disorders, high blood pressure, dyslipidaemia, addiction to insulin, hard times when breathing, apnea during sleep, arthrosis, osteoporosis, a high level of cholesterol, back pains, various types of cancer (colon, blood, uterus, liver, stomach, pancreas and prostate)

These diseases are not typical of obesity but the risks you take are much bigger in this case.

Reduced physical activity leads to less and less active children. This lack of physical activity can be caused by long hours in front of the TV, computer or any other sedentary activities that modern technology offers. Children who spend more than 10 hours weekly watching TV have more chances to become overweight.

Nowadays Portugal is the only state in the EU that admitted obesity is a chronic disease (Geissler C., Power H., 2005).

According to a survey on weight problems it is believed that these problems appeared during childhood because, after the Revolution in 1989 on the Romanian market there were a lot of sweets, which combined with a total lack of physical activity led to the situation when 50% of the Romanians are overweight and obese, 65% of the whole world population live in countries where the risk of dying of obesity is higher than the risk of dying of malnutrition and the medical costs for an overweight person are 25% higher than for a person of a normal weight.

The majority of obesity situations are prevented if the person takes action in the exact moment of noticing they have some more kilos, which means being overweight. Family doctors play an important role in this respect. How? During a routine check-up the doctor can tell whether there are weight problems and will have a remedy for it or he will simply send the patient to a specialist.

Depressions associated with a sedentary life led to health problems (high blood pressure, knee joints problems, heart disorders and interruption of sleep). The ‚European Journal of Obesity’ states that overweighting and obesity generate 35% of cardiovascular diseases and 55% of high blood pressure problems. Moreover they are in favour of some types of cancer that may appear (breast cancer, endometrium cancer) and represent an important cause of depression as they highly affect your self-esteem.

Running, action games and swimming are the most effective.

Corina Tifrea mentioned in her book called, ‚Jogging, Health, Endurance, Beauty’ that the most effective type of effort during losing weight periods is the cyclical one, meaning running, swimming, cycling (CorinaTifrea, 2008). The length of a training session should be of minimum 30 minutes, at least 3 times a week.

Surgical treatments (gastric sleeve, gastric by-pass and gastric banding) have a success ratio of 90%, explains Rubin Munteanu, general surgeon, specialised in laparoscopic surgery in the ‚Queen Mary hospital.

1. More and more chubby schoolchildren

Another research made public during the European Congress on Obesity in 2012 showed that remedial therapy is essential in treating obese children up to the age of 16.

2. Myths about Overweighting

Overweighting and obesity also have hormonal roots, more precisely neuro-hormonal ones but these in turn are strongly influenced by sedentariness and incorrect nutrition.

Less than 5% of the obesity cases that come and see a doctor have a classical endocrine cause such as: hypothyroidism or malfunctions of the suprarenal gland, explains Adrian Copcea, specialist in nutrition and diabetes at ‚Asteco” Medical Centre in Cuj-Napoca.

A young person without any genetic threatening of getting overweight can maintain a healthy weight only with the help of a balanced diet.

Overweight consists of fat storage in a person's organism whose weight grows because of this, exceeding the ideal weight with at least 15-20%.

This fat storage is not only an esthetical flaw but it also represents a high risk for some bad illnesses such as atherosclerosis and its consequences.

There are more than 1 billion overweight adults in the world, more than those suffering of malnutrition who are in a number of 800 million, says an IHO report. At least 300 million people are obese. In China, Japan and in some African countries the percentage of obese people is small, under 5%; in some urban areas in Serbia the number exceeds 75%.

In the USA, 30% of the adults are considered to be obese - around 60 million people.

Obesity progresses among children as well. In the world there are 22 million obese children under the age of 5. Infant obesity tends to grow alarmingly in the EU, where 14 million children are overweight and their number increases on a yearly basis with 400.000. A survey made by the Bucharest Institute for Public Health shows that non-endocrine obesity among the four graders was of 1.16% in 2001, reaching 3.6% in 2008 and among the 8th graders it raised from 1.7% to 3.4%. Obesity is less found among the 12th graders - in 2001 it was of 1.4% and in 2008 of 2.8%.

3. In Romania:

➤ Approximately 30% of the population suffer of obesity; 20% are overweight.

➤ The number of overweight children is 18% bigger in the last 10 years.

➤ The most affected are people between 15-64 years of age. Source: nSanitary Statistics and Determination Centre which is a department of the Ministry of Public Health

➤ 40% of the children are overweight

➤ 60% of the adults are overweight and 30% are obese; the percentage of obese men is of 27% and that of women is of 29%. Source: Endocrinology Society

➤ 7.7% of the total male population is obese

➤ 9.5% of the total of female population is obese

➤ A study made by Eurostat (the European Statistics Agency) – obesity is a risk factor for approximately 75% of modern illnesses; one of three Romanians is overweight

➤ One of four Romanians is obese

In Romania there are more than 3.5 million obese people; only 10% of these get a medical check-up only 1% of them are included in a national program against obesity – study realised by the Abbot Laboratories Company. Every year approximately 280.000 death among the adults are registered in the USA having obesity as the main cause.

The number of obesity cases among the primary school children has doubled in the last 8 years. According to the study realised by the Bucharest institute of Public Health, the main reason for this situation is the unhealthy life style of the school children: more snacks during one day, meaning sweets, chips and very rarely fruits. Overweight children's and teenagers' food consists of eating fast food, sweets, fizzy drinks. The study shows

that there is a fast growing of obesity among the primary school children, if in 2004 non-endocrine obesity was of 1.6%, in 2012 it raised up to 3.6%.

4. Factors that lead to obesity

➤ There is a strong bound between mother's obesity both the one previous to pregnancy and the one during pregnancy and the obesity of the child

➤ Lower weight at birth compared to the gestation age. Because of some intrauterine malnutrition associated with a rapid growth in weight after birth, the child could be obese, metabolic syndrome, DZ

➤ Higher weight at birth leads to obesity risk. The new-borns with obese mothers are more frequently macrozomial and on long term they become obese (Cretu A, Popescu D., 2014)

➤ The children of an upper gestation age maybe caused by their mother's dependence on insulin and glucose intolerance, have a future risk of obesity

➤ Positive family background favourable to obesity. The children with obesity from their early years have a great risk to become obese adults, almost 80% for those of them whose both parents are obese and 40% for the children with only one obese parent (Gidding, 2005)

➤ Rapid growth in weight in the first 4-6 months. A fast weight growth is associated with an obesity risk in childhood, with a great adipose mass and with a distribution of this mass at the abdominal level – in children's case.

➤ Lack of natural food. AAP recommends breast feeding as a protection factor against teenage obesity. The risk of obesity lowers proportionally with the breast feeding period (up to 9 months); each month of breast feeding helps lowering the risk of obesity with 4%

➤ Inappropriate artificial food. Too many proteins in the first year of life is thought to be a factor of risk for the future development of obesity and the overstressing of the undeveloped organs. The proteins in the cow milk particularly stimulate massive IGF release.

Food in critical periods: precocious variety before the age of 4-6 months, hyper caloric, rich in sugar, hyper protein food, less fibres.

✓ During childhood obesity grows the risk of getting ill at an adult age regardless the fact that the adult is an obese person or not (Jacotot B, Le Parco J.C.,2008)

✓ On long term, the highest risk for childhood obesity is to continue being obese even when you are an adult, associated with numerous risks regarding health and the quality of life. That is why it is of high importance to identify obesity on time and getting rid of it as soon as possible.

✓ Some of the health problems that may appear in obese children are diabetes, pancreatitis, cardiopathy, liver problems, breathing problems and orthopaedic problems.

✓ The immediate consequences of obesity during childhood are psycho-social like. Obese children are not self-confident and are not satisfied with their physical appearance.

✓ At the same time these children are inclined to have lower results in learning and to be socially isolated.

✓ Research showed that those children who suffer from obesity think this illness is a physical disability that is more prominent than losing a leg.

✓ Obesity tends to be found more often in lower social classes, in families where the educational level is very low. The first step required to be taken is educating the parents as far as the food is concerned and teaching them about the advantages of a more active life style. Secondly, another successful step would be involving schools, teachers, nutritionists, psychologists, local sporting and parents associations, catering companies, medical staff, representatives of public and private areas. From people in charge with creating greener open spaces which can be dwelt and used as sport areas, to shops that decide to sell healthier supplies everybody can change something.

✓ Infant obesity – what specialists say about it

✓ Family environment is not a good example for children. The little ones cannot discriminate between healthy and not healthy food so they tend to become dependent on products which are poor in essential nourishing ingredients.

✓ The sources of obesity are complex and involve biological, genetic, cultural and behaviour factors. Basically, obesity appears when someone eats more calories than they can burn.

5. Obesity and Media

The mass-media concept refers collectively to all media technology which are used for mass communication as well as for social organizations that control these technologies.

The turning point was 5000 years ago when some kind of alphabet was invented in ancient Mesopotamia and in Script era which started in 1445. In that year Johannes Gutenberg designed a print that initiated a revolution of technology. From that moment on, the mankind has been changed irreversibly by the mass ,communication era' which continuously influenced different aspects of our lives: religious, political, scientifically, social and not in the last place health and familial problems.

Inventing interactive mass-media began in 1832 when the baron von Schilling Canstatt designed the telegraph, opening a gate to successively developing more inventions that extended on a large scale in the 20th century. This is the reason why mass-media affects human health and play some of the most important roles in the process of epidemiologic transformation. One of the most

negative effects on children health is the high risk given by the exceeding weight.

Obesity in children and teenagers grew significantly in the last decades and has become a major problem of public health.

A very important study on children and teenagers speaks about a question-answer relation that resulted in a growth of 2% of obesity for each hour spent in front of the TV.

The study realized by Viner and Cole showed that watching TV for long hours in childhood represents a major risk of overweighting in adult life.

The way we eat is affected not only when we watch TV or stay in front of the computer but also by the contents of the programs we watch. Studies showed that children who listen to music tend to eat less than those who watch TV or play on the computer.

Another series of studies showed that the mix between watching TV programs and overweighting is significant even when the social and economic status or family tendency of exceeding weight or the level of physical activity are taken into account. Nutritional profile models classify food products taking into account their nutritional components, disease prevention and the benefits these have on our health (health promotion).

Conclusions

1. According to the IHO and the Council of Europe the percentage of infant obesity is between 15-32% in Europe, with an average of 24%. This ratio is unfortunately growing, numerous studies showing a negative relation between the time children spend watching TV and the unhealthy growth from the nutritional point of view.

2. Some longitudinal studies that are well conceived, such as the Framingham Study for children, provided proof that the time children spent in front of the TV have grown and represents a risk factor regardless what overweighting growth might predict.

3. In the last 8 years, statistics have shown that the number of obese children in our country has doubled, reaching over 12.000 cases registered in doctors' medical records. The most of them, meaning 11.000, come from urban areas.

4. In the western countries from almost 40.000 commercials per year, approximately 4.500 – 7.500 are about unhealthy food products.

5. Children aged between 6 and 7 tend to watch commercials as a way of having fun. Advertising influences children's regular diet aged between 2 and 11 years old and similarly being exposed to commercials is associated with the adipose tissue.

6. Food products which are rich in sugar and toxic fats mixed with the reduced physical activity are the main causes of obesity which, in turn, is the most important cause of some chronic diseases such as type 2 diabetes, heart diseases, high blood pressure, brain accidents and some kinds of cancer.

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