

ROLE OF PHYSICAL THERAPY IN THE TREATMENT OF OBESITY IN AGE 9-10

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Abstract: *This paper aims to identify the role and importance of physical therapy in treating obesity in young schoolchildren, because in our country, statistics on childhood obesity are becoming increasingly worrying, Romania finishing in third place in Europe in terms of number of obese children. The physical therapy treatments require some tests to determine the optimal weight by calculating its value with five folds fat, body mass index and exercise capacity assessment. In conclusion, obesity is a disease of modern society that associates feared complications and should therefore be taken seriously and treated.*

Key words: *physical therapy, therapeutic program obesity.*

1. Introduction

Obesity is a medical condition of nutrition and metabolism (contrast material) in which excess body fat accumulates, so that may have an adverse effect, adverse health, leading to reduced life expectancy and / or health problems. [1]

Obesity is an excess of fat in the entire body. A person is considered obese when body weight is 20% or more above normal weight.

"Obesity is a problem that children face increasingly more often. Lately, in addition to educational efforts of parents to teach them how to eat healthy and do regular exercise, children began to be treated obesity as adults." [2]

"Obesity occurs in children and adolescents when they have too much fat in the body and is usually caused by both excessive consumption of food and lack of movement.

Endocrine gland or genetic factors are considered the most common cause, but not only.

It is considered that genes are responsible for 25% -40% of cases of obesity, while the other is determined to a large extent by environmental factors. However, since both, genetic factors and the environment as well as play a role in obesity installation, it is difficult for it to be supported only by a factor." [3]

Obesity in childhood is particularly important for some reason, predict whether a child will be obese in adulthood and is linked to other complications. [4]

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Fig.1. *Childhood obesity*, [5]

"The children overweight or obese were more likely to remain obese as adolescents than children weak. Likewise, the more a child remains obese along with age, the chance that he becomes an adult obese. Adolescence in particular seems to be a sensitive period for obesity. About 80% of obese adolescents become obese adults.

However, it appears that obesity in childhood or adolescence increases the risk of poor health in adulthood, whether or not obese adult. The greatest long-term risk for childhood obesity is continuing to adulthood associated with numerous health risks and quality of life. Therefore, it is important to identify obesity and act in time to remove them before maturing children.

Obesity is influenced by three major factors: genetic factors, environmental factors and psychological factors."[6]

"Genetic factors, in families where neither parent is obese, a very small percentage of children are obese, while in families where one parent is obese, the percentage of children who gain weight is much higher and if both parents are obese, 70% of children will be prone to fattening.

The influence of genes is mediated by their effect on fat cells, homeostatic metabolic rate and values. Bodies of

people tend to make a higher proportion of calories in fat deposits, while in others, the amount of calories the body burns more in various metabolic processes, no matter how much they eat.

Psychological factors - that contribute to overeating include on the one hand, a number of constraints imposed on the person and, on the other hand, the presence of disturbing emotional feelings. Some people continue to be obese due food ingestion moments after the conclusion of the diet.

Since diet is a constraint conscious collapse conscious control is one of the factors increased intake of calories."[13]

"The fact that genetic influences justified only 30% of the variation in weight means that environmental factors have a huge influence.

Socioeconomic status has a significant influence on obesity, especially in girls. Longitudinal studies have shown that the origin of a family with low socioeconomic status is a strong risk factor for obesity.

Socio-economic factors are major influences on both energy intake and the energy use.

Increased food intake for many years believed that obesity is caused by metabolic causes obscure, even if food intake is normal. Double-marking method, however, water using hydrogen and oxygen isotope has shown that obese patients have higher energy, which in turn requires increased food grain intake. Moreover, this increased intake usually involves increased lipid intake that predisposes itself to obesity.

Sedentary life, so common in Western societies is an environmental factor that promotes obesity. Physical activity not only increases energy but also help regulate food intake. Animal studies have shown that physical inactivity contributes to obesity through a paradoxical effect on food intake. Although food intake

increases with increasing energy, food intake does not decrease in proportion to the reduction of physical activity below a certain level restriction of physical activity can increase food consumption in some people." [14]

2. Causes of obesity

Obesity is due to multiple reasons, such as:

- unhealthy diet;
- installation of certain diseases and medical treatments;
- improper lifestyle.

If the child has problems or medical conditions such as hyperthyroidism, Cushing's syndrome, severe hormonal disorders or eating disorders, is prone to obesity. And some medical treatments for various disorders - depression, hypertension etc. - Stimulates appetite and slow metabolism functions, promoting weight gain and subsequent obesity.

Lack of physical activity in the child's program is one of the main causes of fattening and obesity in children. When the child is sedentary, an imbalance between the number of calories in the body and consumption introduced. When caloric intake is higher, forming layers that are deposited fat in different areas of the body, causing weight gain and predisposition to obesity." [7]

The concept of other authors, "child obesity affects the mind and soul. Physically speaking, obesity in children is manifested by lack of social interactivity and mental. Obesity affected children feel inferior social relationships, feel unable to maintain relationships with friends and have in common (practicing a sport). Even after some effort, children prone to obesity feel tired and barely breathing. The daily routine, find it too tiring and gives quite easy. Hypertension, high cholesterol, liver

or thyroid problems are not new to children affected by obesity.

Cultural factors, personal habits, your genetics and metabolism have an effect on treatment against obesity. Perhaps some think that would be very difficult to stick to a diet and adjust your lifestyle according to it." [8]

3. Effects on health

Obesity can lead to health problems occurring.

Problems can be in the joints or bones, installation, appearance of gallbladder disease, high blood pressure and the occurrence of high levels of fat or blood sugar.

"The adverse effects of obesity are:

- Obesity reduces life;
- Obesity can lead to the following conditions: abdominal hernia, varicose veins, flat feet, bronchitis osteoarthritis of the knees, hips and lumbar spine.
- Obesity leads to high wear and tear of the entire vascular system and therefore doubles the risk of heart attack or stroke." [14]

Appear and psychological effects that lead to poor self-esteem, inferiority complex appearance to others, which can lead to social isolation.

These children feel exteriorized, children rejected by their peers, so they get to trust them not to become irritable, totally removed from the social environment. [9]

"Obese children have low self-esteem are prone to anxiety have a negative view of themselves and may suffer from depression. Their lives are no longer able to look interesting. Develops fear of little ones less loved by parents them. I'm shy, introverted and even influence. Once adolescence, presents a greater risk of falling into the trap of drugs than their peers.

The emotional and psychological effects can have a huge impact on children's development and life in the years ahead."[10]

4. Kinetic intervention program

"Physical therapy has the means and may link with other areas to counteract this disease, obesity." [11]

Physical therapy intervention in the treatment of obesity by removing excess fat, knowing that exercise along with a proper diet every child helps in losing excess weight. For overweight children, physical therapy is very useful for weight loss and to maintain optimal body weight.

"The objectives of the overweight physical therapy are:

- Decreased body weight to ideal body weight;
- Toning the body, especially the abdominal muscles;
- Increase the body's ability to exercise;
- Improve breathing and increase lung ventilation;
- Improved physical and mental;
- Prevent the installation of other diseases caused by obesity;
- Prevention of gastric and intestinal hypotonic;
- Clearing related disorders.

Treatment of obesity through physical therapy may consist of a complex cardio exercises for removing water and fats in the body, muscle toning exercises in the pool. He recommends starting with a low intensity of physical activity which will burn fat, and gradually increase your physical activity intensity and will burn carbohydrates.

"Kinetic program in overweight children include a wide variety of simple exercises.



Fig.2. *Walk with short steps, N.A.*



Fig.3. *Jogging, N.A.*



Fig.4. *Gymnastic exercises with elastic ball, N.A.*

Simple exercises include walking options (Fig. 2) running variants (Fig. 3) and then use the objects exercises (Fig. 4), breathing exercises, and at the end of the lesson will use relaxation and breathing exercises to decrease gradually effort.

"Physical therapy is one of the most suitable methods of losing body fat and maintaining ideal body weight, beneficial to both children and adults." [12]

Preventive and curative measures that can help children prone to obesity are as follows:

- Avoiding excessive consumption of liquid calories high degree of child nutrition. Many children daily drink too much fruit juice and carbonated liquids;
- Limit consumption of food like fast food;
- Watch your portion sizes consumed at each meal. A common problem of overweight children is that the portions are too big;
- Children should not be forced to eat the entire amount. To learn to eat healthy, they need to know to stop when you are tired and even a little before;
- Encourage daily physical activity should also be a priority, walks with parents or grandparents, playing out of the house, cycling, team sports;
- Limit TV and computer time granted and avoid eating during these activities;
- Communication and discussion on healthy eating are important but excessive insistence on the notion of "calorie", "fat" and "diet" in general can frustrate the child and lead to imbalances;

It is essential for the parent to be a model for the child with a healthy diet

and daily physical activity performed. [2]

5. Conclusions

Independent genetic factors, and so on, there is insufficient evidence to support the fact that regular exercise performed by sport decreases in body fat percentage and related risk factors of cardiovascular disease, diabetes, or certain types of cancer.

Obesity is a disease of modern society that associates feared complications and should therefore be taken seriously and treated.

References

1. <http://ro.wikipedia.org/wiki/Obezitate>. Accessed: 29.03.2014, h 22.06.
2. <http://www.eva.ro/dietafitness/dieta/obezitatea-la-copii-articol-3009.html>. Accessed: 29.03.2014, h 22.13.
3. <http://www.mamica.ro/obezitatea-la-copii/>. Accessed: 29.03.2014, h 22.17.
4. <http://www.desprecopii.com/info-id-933-nm-Obezitatea-la-copil.htm>. Accessed: 29.03.2014, h 22.28.
5. https://www.google.ro/search?newwindow=1&biw=1347&bih=605&tbm=isch&sa=1&q=semnul+obezitatii&oq=semnul+obezitatii&gs_l=img.3...78679.83224.0.83976.10.10.0.0.0.128.917.7j3.10.0....0...1c.1.38.img..8.2.216.17216IDL7iI#facrc=_&imgdii=_&imgrc=iSe sTb8OWQfCYM%253A%3B3ZzGeIJxDdlFTM%3Bhttp%253A%252F%252Fwww.ziaruldeiasi.ro%252Fapp%252Fgetthumb.details.php%253Fid%253D47505%2526w%253D640%2526h%253D480%3Bhttp%253A%252F%252Fwww.ziaruldeiasi.ro%252Fstiri%252Fobezitatea-la-fete-provoaca-o-pubertate-precoc--29655.html%3B307%3B381., Accessed: 29.03.2014, h 22.44.

6. http://www.paginamedicala.ro/articole/Obezitatea-la-copii_15/. Accessed: 29.03.2014, h 22.50.
7. <http://www.copilul.ro/pediatric/alte-boli-de-copii/Cauzele-obeziatii-la-copii-a625.html>. Accessed: 29.03.2014, h 23.09.
8. <http://www.imparte.ro/Ajutor/Protectia-copilului/Obezitatea-la-copii-si-efectele-asupra-sanatatii-116.html>, Accessed: 29.03.2014,h 23.19.
9. <http://ziarullumina.ro/sanatate/cauzele-si-consecintele-obeziatii-la-copii>, Accessed: 30.03.2014,h 20.31.
10. <http://www.utilecopii.ro/articole/bolile-copilului/efectele-grave-ale-obeziatii-asupra-sanatatii-copiilor/10467/>, Accessed: 30.03.2014,h 20.37.
11. <http://www.scribd.com/doc/92694517/Kine-Tot-Era-Pia-in-Combat-Ere-A-Obezitatii>, Accessed: 30.03.2014,h 20.43.
12. http://www.kinetoterapie-cluj.ro/informatii-despre.asp?info=Kinetoterapia_in_supr_ponderabilitate_si_obeziata, Accessed: 30.03.2014,h 20.54.
13. <http://www.eva.ro/psihologie/situatii-si-sfaturi/influenta-factorilor-genetici-si-psihologici-asupra-obeziatii-articol-21705.html>. Accessed: 30.03.2014,h 21.54.
14. <http://www.scribube.com/medicina/LU-CRARE-DE-DIPLOMA-Corelatie-i3464217.php>. Accessed: 30.03.2014,h 22.29.