

FORMATION OF HEALTHY LIFESTYLE AMONG SCHOOLCHILDREN WITH OVERWEIGHT AND OBESITY

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Annotation. The problem of overweight and obesity in school children is considered. It is shown that the problem of child obesity underlie the development of many serious medical illness. It is introduced the analysis of publications on the problem of overweight and obesity in schoolchildren. It is defined methods for detection and possible non-pharmacological correction of the condition. The necessity of creating and putting into practice of long-term training programs to promote healthy lifestyle among schoolchildren are overweight or obese, to prevent the development of cardiovascular disease and other metabolic complications. Conceptually, it is determined the main directions of teaching and physical education students who are overweight and obese. It is shown that it is advisable to inform children and parents about the need to combine a balanced diet with exercise stress.

Keywords: obesity, overweight, healthy, lifestyle.

Introduction.

One of the most widespread diseases in the world is obesity. At present time, there are about 1 billion people with excessive weight and more than 300 million of people, suffering form obesity. By forecasts of World Health Protection Organization the number of suffering from obesity will steadily grow [9]. So, in the USA, over 16% of children have excessive body mass and the quantity of children and teenagers with obesity has been redoubled for the last 20 years in developed countries [10]. At the same time, too late revelation of child obesity takes place. So, not more than 5.5% of children with obesity of the 1st grade pass medical examination, though their quantity is 65% of all children with excessive body mass. About 60% of adult obesity origins from childhood and adolescence age and show clear trend to further progressing [20].

The urgency of child obesity problem is also connected with the fact that it is the base of development of many heavy somatic diseases, first of all insular diabetes of the 2nd type, athero hypertension, atherosclerosis of vessels and other [12]. At present time, such diseases are the main reason of mortality of industrially developed countries' population and kill annually 2.5 million of people. Epidemic character of excessive body mass and obesity spreading throughout the world acquire not only medical but also socially significant character and require great attention of the widest circle of specialists [19].

The research has been fulfilled as per the plan of scientific & research works of sports medicine department of National University of physical education of Ukraine.

Purpose, tasks of the work, material and methods.

The purpose of the work: to study influence of healthy life style on pupils with excessive body mass and obesity weight correction for grounding of demand in creation long-term training programs for decreasing of weight.

The methods of the research: comparative analysis of domestic and foreign literature.

Results of the research.

Numerous researches show that obesity is a poly etiological disease, which is realized in childhood under complex interaction of genetic and environmental factors [8]. Unfortunately, in our country there is no purposeful revelation of children with not only excessive body mass, but also with obesity that lead to late diagnosis and treatment of such state. Up to 70% of sick people come in sight of specialists only after 5-10 years since appearing of excessive fat mass. Most frequently, parents visit medical workers not in connection with excessive body mass of a child, but in connection with complaints, accompanying such state, which witness about complications of obesity, such as thirst, ache in legs, headache, unpleasant feeling in heart area, abnormalities of pubescence and etc. [1, 6].

Main diagnostic criterion of obesity is the presence of excessive fat mass. However, up to present time there have not been any simple and reliable method of fat mass's determination for children (for adult people bio impedance is such method) as well as there have not been any critical value of children's fat mass [13]. For revelation of children with excessive body and obesity body mass index mass (Kettle's index) is used, which is calculated by formula:

$$\text{BMI} = \text{body mass (kg)} / \text{height (m}^2\text{)}.$$

BMI, within the limits from 25 to 29.9, witnesses about excessive body mass and BMI higher than 30 means obesity. It should be noted that BMI gives idea only about general quantity of fat tissue, but does not permit to differentiate the quantity of subcutaneous and abdominal fat. Just abdominal type of obesity is the most dangerous for the development of metabolic syndrome, insular diabetes of the 2nd grade and arteriosclerosis [16].

As per the Agreed criteria, which were offered in 2007 by International diabetes federation (IDF), it is a rule now to estimate children's abdominal obesity by centile tables of waist circumference [5]. For determination of fat distribution's character indicator of waist circumference relation to hip circumference (WC to HC) is also used. With

girls' abdominal obesity this relation is more than 0.85, for boys it is more than 0.9. Both WC and BMI are quite authentic criteria of diagnostics of fat mass quantity [18].

Standard approach to treatment of obesity includes diet and physical loads that gives positive result in 50% of cases, but for majority of patients it has only a short term effect. As per "Global strategies on diets, physical activity and health", which were published World organization of health protection (WOHP) in 2004, with consideration of recommendations of Expert committee on obesity diagnostics and treatment, it is necessary to create clinical training programs, directed to steady reduction of weight. These programs shall include both: individual consultations and group trainings of correct eating behavior, healthy life style, which should involve the members of family. The main tasks of such training shall be: formation of steady motivation for gradual reduction of weight with further maintaining of the gained weight, for change of habits, way of life, increasing of personal responsibility for own treatment [7, 9].

The correction of pupils' excessive body mass shall be started from the complex of prophylactic measures, which must be directed to liquidation of harmful eating habits and formation of sound ones, to optimization of motion routine and order of day, stimulating of child's own motivation for healthy life style [3].

Unfortunately, in our country there is no service, which would deal with weight correction and formation of healthy life style of children, having excessive body mass and their parents. In children's polyclinics there are no specialists in diets, while district pediatricians must deal with a lot of other problems, requiring urgent solution. Children come to a specialist with already available obesity and even with its complications. Early excessive body mass's correction in childhood is a condition of health in adult age [2, 4].

For solution of this problem it will be effective to create Schools of correct eating or Schools of healthy life style, opening of which would be purposeful at children's polyclinics or at schools. Within the frames of Schools of correct eating it would be purposeful to deliver lectures for parents about health eating, to conduct role games with children, to organize meetings, at which children and their parents would exchange their experience, their own means for easing of passing to other diet. Competition ardour is also very important in the process of weight reducing as well as the possibility to see positive results of other children.

It is very important that not only children with excessive body mass but their parents as well would be professionally assisted [14]. Because, just in family incorrect life style of a child is embedded, e.g., just parents give example to eat after stress. Consoling the upset children, some parents give them something —tasty", without thinking that it can become a habit for all life and lead their child to obesity. The other harmful habit, which is formed in family, is eating while watching TV. With this conditional reflex "eating —watching TV" is formed. Besides while watching TV, child does not think about the quantity of the eaten. One more negative moment is the fact that TV commercials are rich with attractive for a child —harmful" food products. Very often the habit to eat watching TV is formed by his parents and if not to convince parents to get rid of such practice, it would be hardly possible to convince their child in it. One more important aspect of child's excessive body mass formation is monotonous hyper calorific family nutrition. Family nutrition and, consequently the nutrition of a child, are over satiated with easily digestible carbohydrates and satiated fats (confectionaries and sausage goods, sweet beverage, mayonnaise). It is necessary to convince parents to replace such food by fish, lentin meat, cultured milk foods, increase the quantity of vegetables and fruits in family nutrition.. Very often parents try to satisfy all caprices of their children and offer to them —harmful" products for him not to be hungry, if he refuses —useful" ones. The task of parents is to find such dish which would be simultaneously tasty and useful for their child, remembering that it affects the health of their child for many years in the future. Parents shall be familiarized with main conceptions about reasonable eating, about what proteins, fats, vitamins, carbohydrates and minerals are, in which products they are available and how many of the child's diet should contain depending on his age, self feeling and physical activity. Parents shall be able to attentively read information on labels of food products (life period, quantity of calories, proteins, carbohydrates, fats, presence of coloring agents, stabilizers and intensifiers of taste). So, for example, parents shall be informed that taste intensifier MSG can cause sight abnormalities of children [17]. Parents shall be able to estimate calorific value of different dishes, for example to understand that 200 kilo calories correspond to, approximately, half of cheeseburger or to 200 grams of milk porridge or 2 oranges or to 100 grams of boiled turkey. Parents shall be taught to calculate day norm of kilo calories' consumption for their child by formula:

$$1000+(100 \times \text{child's age in years})$$

If a child has excessive body mass then day consumption of calories shall be reduced by 10-15%. With this, fat content shall be not more than 25-30% of day calories content [15].

The parents with excessive body mass are recommended to diarize child's eating, with registration of the data about quantity and content of eaten dishes.. Parents shall plan the child's diet beforehand and compose his menu for every following day. For this purpose, approximate variants of breakfast, lunch, dinner, afternoon snack and supper, recipes of low calories dishes can be offered to parents. With keeping food diary it is necessary to clearly fix what was planned to be eaten in a certain day and what was eaten actually. In food diary it is necessary to honestly enter the eaten, between meals, candy or a handful of sunflower seeds. Keeping of such diary can be an amusing game for a child, for example with fulfilling of the accepted plan at the end of the day a child stick a sticker into diary and by the quantity of such stickers he can visually estimate his eating behavior during a week or a month. Special attention should be paid to behavior at somebody's place or at children's festivals with refreshments. Just at such measures frustrations are most likely.

Within the frames of Schools of correct eating and healthy life style it is purposeful to give to children and parents information about how to combine rational eating with dosed physical loads. Very often, children with excessive body mass are mocked by their classmates just at physical culture classes and it leads to the absence of their desire to attend such classes at all. As a result the schoolboy's existing hypodynamia still more aggravates and personal complexes start to form. Such children restrict their communication with the peers, all free from lessons time he spends at TV or computer that minimizes their motion activity. A kind of circulus vitiosus is created: for such children it is indicated to attend swimming pool, children sports clubs, take part in outdoor games in the air, besides academic physical culture classes, but under the criticism of physical culture teachers, coaches and their peers they still more shrink into themselves. In Schools of healthy life style such children could do therapeutic physical training with similar children and it would not cause any negative feelings concerning their appearance and physical abilities. Therapeutic physical training shall be carried out in a calm, friendly atmosphere, considering physical capabilities of such children and with gradual increasing of trainings intensity and duration. And only if diet therapy in combination with specially selected physical loads during 2,5-3 months turns out to be inefficient, for children with obesity medication can be prescribed [11].

Summary.

1. On the base of the conducted analysis of literature and other sources of information we offered conceptions of formation of healthy life style for pupils with excessive body mass and obesity.

2. We also have shown the need in creating of long-term programs on teaching healthy life style of pupils with excessive body mass and obesity for prevention from cardiac vascular and other metabolic complications and for raising of able-bodied population's lifetime.

In further researches it is planned to develop the program on formation of healthy life style for pupils with excessive body mass and obesity, considering age groups and with studying of weight reduction indicators in dynamics.

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Cite this article as: Palladina O.L. Formation of healthy lifestyle among schoolchildren with overweight and obesity. *Pedagogics, psychology, medical-biological problems of physical training and sports*, 2013, vol.3, pp. 39-42. doi:10.6084/m9.figshare.644982

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Received: 16.02.2013

Published: 31.03.2013