

HOW CHILDREN BECOME OBESE AT PRIMARY SCHOOL AGE

Preliminary communication

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Abstract

In comparison with the adults, the care about the children has more social and human essence (significance) because the good health during the years of growing is in the basis of health for the whole of life. The globalization in the life of children (computers) leads to decreased moving activity which affects negatively during the growth of the childish organism. On the other hand only in good health children can grow and develop like useful for themselves and for the society personalities. One change during the growth of children about which is talked during the last 15 years is the disturbed metabolism or the so called obesity. Contingent of the investigation are students from the second class (totally – 193; boys – 101; girls – 93) at school "St. Kliment Ohridski" and at school "Hristo Smirnenki" in the town of Haskovo on three stages. Realization of the investigation – measuring the BMI (body mass index) with analyzer „Tanita” model BC - 570,. The measurement of BMI was made at the beginning and at the end of the school year 2010/2011 also by oral inquiry. Collecting and processing the results from the investigation – measuring BMI of the students from second class at primary school – 2014. The investigation to define the BMI of students second class shows decrease of one percentage of children with normal weight and increase with one percent in the Graphs. For obesity which is alarming to us, at the same time the heavily obese children keep their percentage in girls and boys at the end of the school year. The percentage of obese students is from 8% to 15% and the heavily obese is big from 24% to 29% and the data shows clearly that the higher percentage is the one of the boys.

Keywords: *boys, girls, above norm weight, moving activity, physical education, intensive growth, healthy nutrition*

INTRODUCTION

On the other hand only in good health children can grow and develop useful for their own selves and for the society personalities. During the process of intensive growth of the childish organism, the advisable locomotion activity (physical education) could be used in the prophylactics and in the healing which are characteristic for the childish age deviations such as: spinal problems, cardiovascular system, disturbed metabolism very often expressed in obesity. Greater part of obese adults had obesity at childish age makes the prophylactics and healing basic priority of Ministry of Health, Ministry of Education and Science and Ministry of Youth and Sports. Which is more, all epidemiological investigations during the last decades show avalanche growth of the frequency of obesity on world wide scale not only in adults but also in children.

According to the World Health Organisation weight above the norm and obesity are defined as abnormal or too much gaining of fat tissue which are harmful to health. Medicine defines obesity as: „medical condition” in which the body fatness is collected to such a degree that it could have harmful effect on health”. Obesity leads to breaking the functions of the locomotion поява на гръбначни изкривявания (Mitova, Popova & Gramatikova, 2014) and as a epidemiological investigations during the last decades show avalanche growth of the frequency of obesity on world wide scale not only in adults but also in children.

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Medicine defines obesity as: „medical condition” in which the body fatness is collected to such a degree that it could have harmful effect on health”. Obesity leads to breaking the functions of the locomotion поява на гръбначни изкривявания (Mitova, et al., 2014) and as a sequence – lowering the arc of the foot. (Ignasiak & Kurowska, 1990). We can summerise that obesity is ill condition of the collected body fatness in organism which can cause a number of sicknesses.

Here to help can come generally developing exercises, which are: entertaining and not capricious from point of view material base – they can be performed in hall (Radoev, 2014a) as well as on terrain in nature (Aladzhov (Аладжов), 2012), (Stoinev (Стойнев), 2012a, 2012b). Performing generally developing exercises (Lekina, 2014) standing and squat (Radoev (2014b) and lead to improvement of the general physical preparation (Tvetkov & Tsankov, 2013) and coordinating abilities.

“Actually it is more important what happens after establishing that the percentage of childish obesity is about 25% and with children at age up to ten is about 30%. (Kostov & Kolev (Костов & Колев), 2006).

This serious problem makes parents weak. No matter what is the menu in the canteen, children prefer to take the queue in front of the kiosk and buy their favorite croissants, waffles and gas drinks ignoring the old street games, the generally developing exercises at home or in the stadium (Stoyanov, Zhechev & Tsvetkov (Стоянов, Жечев & Цветков), 1995) in the park (Radulov (Радулов), 1983), *which create conditions for development of the power (Ra-*

doev (Радоев), 2013) and motor abilities (Doncheva, Pacheva & Gramatikova (Дончева, Пачева & Граматикова), 2014). People deep in the problem are alarming that the children know what healthy way of nutrition is but do not show any wish to follow it. Why the old physical exercise early in the morning is forgotten and during the great break at school. It not only trains the the muscle power but also tonetises organism for the whole day (Wazni, 1997). This is very easy to do by implementation of physical pause (1 min) for every hour with execution of generally developing exercises (Petrov & Radoev (Петров & Радоев), 1989) without apparatuses (Lekina (Лекина), 2014), and with apparatuses – using the desk (table) for isometric exercises.

Actually there is a lot of common between childish obesity and watching TV. Except this, when children watch TV, they are put on the suggestion of the advertisements of different types high calorific food and snacks with high contents of sugar. Similar campaigns have great effect among them. The tendency for settled life is permanently established even in physical loading. Children more often do not wish to visit the classes in physical culture because sequence – lowering the arc of the foot of lack of motofunctional component (Peneva & Stoinev (Пенева & Стойнев), 2012). Finally the low physical load – hypodynamia (Tsvetkov (Цветков), 2012) and the consumption of different harmful foods increases the risk of obesity which leads to other deceases and holding back the psychological and mental development of students (Gluchkova, Popova, Glushkov & Gramatikova, 2014 Radoev (Радоев), 2013). All these facts are very warring because we are the people who can help to a certain degree the growing infants because they are our future and what is state without healthy young generation.

During the last years are observed scared attempts of the state to limit the growing obesity of children at primary school. Truly this could bring to visible results introducing compulsory healthy breakfast during the big break and stopping buying at the so called kiosks in school, selling harmful food to students, increasing the number of classes in physical education and out of class generally developing exercises (Lekina, 2014; Radoev & Angelov (Радоев & Ангелов), 2014), from different and differentiation of the training units (Lekina (Лекина), 2010), of the sports technical level (Serafin, Maronski & Kornecki, 1990).

The parents are also responsible for the right nutrition and the moving activity of their kids although in the conditions of heavy economic crisis as it is all over the world and with us, every parent tries to ensure good future of his kids and forgets that not everything in this world is money and the health of the kids money cannot buy. In their opinion the greatest dangers for the health of children is the nonbalanced nutrition, lack of movement and the long time in front of the TV sets or computers. In many of the cases the parents are to blaim because they do not give good example to their kids in this respect. Sammarising we can declare that another typical Bulgarian feature appears. The Bulgarian does not recognise the apparent problem the lack

of motive activity, decreased muscle and submuscle coordination (Serafin & Siemenski, 1990) and the healthy nutrition which lead to serious changes of the childish organism and to harmful impact of obesity.

The conclusion is that the Bulgarian on the whole has not well enough culture of nutrition and moving activity. The greater part of the population is under criticism, and even if having them, they do not want to apply in practice. Unfortunately we pass all this to our children who copy everything as they see it. In order to have positive results we must unite the institutions and the parents as well because children are our future.

Realization of the dominant functions of the physical education and sports are necessary for one better and more private community. (Naumovski, 2014). In accordance with the discussed problems connected with health and physical education we put the aim to investigate the level of obesity in students from primary school, the reasons for its growth and possible decisions to manage with this negative social phenomenon. Object of the present work is obesity among students at primary school and the established by us internal structural relations of obesity by gender and age, by body max index in students from the second and third class we defined as object of the investigation.

METHODS

Contingent of the investigation are students from the second class (totally – 193; boys – 101; girls – 93) at school “St. Kliment Ohridski” and at school “Hristo Smirnenski” in the town of Haskovo on three stages.

1. Investigation of literature resources connected with the problem – 2010.
2. Realization of the investigation – measuring the BMI (body mass index) with analyzer „Tanita” model BC - 570, preliminary loading the data of the investigated person (height, age, gender) after which the student (boy or a girl) steps on the fixed for the purpose places bare feet on the analyzer and for five seconds is defined the condition of the student (normal, obese or heavily obese) in percentage. The measurement of BMI was made at the beginning and at the end of the school year 2010/2011 also by oral inquiry.
3. Collecting and processing the results from the investigation – measuring BMI of the students from second class at primary school – 2014.

RESULTS

After the investigation at the beginning of the school year 2010 on Table1, we establish that 66,7% of the girls are with normal weight and the rest 33,3% are distributed 8,6% obese and the most alarming to all of us 24,7% are heavily obese. At the end of the school year after the second investigation is observed more alarming results when the percentage of the students with normal weight falls to 65,6%, while the percentage of the obese grows to 9,7%, but the heavily obese keep their percentage 24,7%.

Table 1. Percentage of body weight at the beginning and end of school year

Sex	Start of school year			End of school year		
	Second grade – girls, 10.2010.			Second grade – boys, 5. 2011.		
	Normal weight	Obese	Heavily obese	Normal weight	Obese	Heavily obese
Girls	66,7	8,6	24,7	65,6	9,7	24,7
Boys	57,4	13,9	28,7	56,4	14,9	28,7

On Graf. 2 is shown the condition of boys second class at the beginning of the school year 2010 when the results are rather embarrassing - 57,4% of the boys are with normal weight 13,9% are obese and 28,7% are heavily obese. After the second investigation at the end of the school year the boys with normal weight decrease with one percent to 56,4% on behalf of the increase of obese to 14,9%, but the heavily obese keep their percentage to 28,7% from the beginning of the school year.

CONCLUSIONS

As final discussion we can summarize the following:

1. The investigation to define the BMI of students second class shows decrease of one percentage of children with normal weight and increase with one percent in the Graphs. For obesity which is alarming to us, at the same time the heavily obese children keep their percentage in girls and boys at the end of the school year. The percentage of obese students is from 8% to 15% and the heavily obese is big from 24% to 29% and the data shows clearly that the higher percentage is the one of the boys.

2. From the obtained data we can summarize that the obese students from the second and the third class is about 13%, nearly half from the investigations made 2009, 2010 and 2011 when it was established that the percentage is about 30%. Alarming is the statistics about obese students – about 29% in comparison with investigations made during the previous years – 20%.

3. From the conversationally made inquiry it was established that the students have negative attitude to sport. The results of the obese students are more difficult to reach because they feel more uncomfortable in comparison with the other children. Large scale media campaign is highly necessary for the benefit from the Physical education and sport on state level.

Recommendations

1. The Ministry of Health, The Ministry of Education and the other ministries related to the problem have to discuss and vote increase of the classes in physical education and sport at primary school age as well as to improve the sports bases and equipment in order to satisfy the hunger for moving of the students from the hours spent on one and the same place, sitting on the desk or in front of the computer.

2. Parents, students and teachers should regularly visit (every three months) lectures, presentations, seminars and discuss the problem obesity with specialists with pictures, video materials introducing and touching each of us who are responsible for the health of our children and it is our duty to prevent them from the accelerating speed of growing obesity at primary school age.

3. Limitation of harmful and dangerous food for the children. The food should be healthy as it is done nowadays at school, at home and in nature in combination with moving activity.

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