THE ROLE OF SCHOOL IN PREVENTING OBESITY IN CHILDREN AND YOUTH

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S u m m a r y: The understanding of social and psychological aspects of obesity is very important. Child obesity is also a very significant problem - medical, social and psychological. Nowadays, a great deal of importance is attached to including various sources that help in developing the policy that prevents obesity (children should be regarded as the group of special significance). The present paper presents an example of an approach to preventing obesity in children.

K e y w o r d s: obesity, children, school.

OBESITY: A PROBLEM FOR CHILDREN AND YOUTH

Nowadays obesity is becoming a more and more serious social problem since the proportion of obese children, especially in developed countries, is increasing [1, 11]. Excess weight and obesity are the phenomena with the features of epidemics and concern both adults and children. All over the world c. 22 million of very young children, i.e. below 5 years of age, weigh too much [3]. The speed of growth of the phenomenon in the case of children and youth seems to be of equal importance. In many countries (also in Poland) during the last two decades the scope of the phenomenon has doubled [8]. The research carried out in a group of Polish children aged 7 to 9 showed that the problem of excess weight affects 15.8% of girls and 15% of boys [9].

There is also a growing number of reports indicating that child obesity may have a significant influence on a person's future life, including their social and emotional experiences, social development and the quality of life in general.

Being obese usually causes dissatisfaction stemming from experiencing the social rejection and marginalization of social contacts, which is often the person's choice resulting from the negative reactions of others [12].

From the point of view of pathophysiology, the phenomenon of obesity is not only the domain of medical studies but, more and more often, it is also the subject of interdisciplinary research such as psychology, pedagogy, sociology and anthropology. The main factors responsible for spreading the obesity problem are genetic factors and changes in the lifestyle [7].

Preventing child obesity is an especially significant issue due to a constantly increasing number of obese children [15]. There is also a growing number of reports indicating that child obesity may have a significant influence on a person's future life, including their social and emotional experiences, social development and the quality of life in general. Being obese usually causes dissatisfaction stemming from experiencing the social rejection and marginalization of social contacts, which is often the person's choice resulting from the negative reactions of others [12]. This problem seems to be particularly traumatic for children. The obese are socially rejected by their peers and - what is particularly distressing by adults. The childhood obesity is linked also to lower self-esteem and body-esteem, higher rates of depression, they blame themselves for their weight and other's negative behaviours and reaction to them [14].

HEALTH EDUCATION IN SCHOOLS

School education seems to be one of the most effective and most recommended preventive actions. A particularly important task of modern school is health education, that is, those elements of the school education program in which children and young people learn how to live in order to maintain and improve the health of their own and other people, create the environment conducive to health, and in the event of an illness or disability to actively participate in the treatment or rehabilitation, manage and reduce its negative effects [17]. An important part of such health education should be issues related to the fight against the obesity problem.

Unfortunately, the overweight and obesity in children and adolescents in Polish schools, are not seen in the society. The action taken in Polish schools to prevent these phenomena and to promote a healthy lifestyle among children and young people are not sufficiently effective, often inconsistent, random, ad hoc, and therefore ineffective, as evidenced by the growing problem overweight and obesity in children and adolescents schools [6].

In this situation, it seems a reasonable action to refer to the solutions used in other countries. Using the proven effective international solutions can be very helpful in the design activities in Poland.

The programme prepared by Kansas LEAN School Intervention Project, presented below, is the good illustration of the place and role of educational institutions in the obesity prevention [5].

I. Modify school lunch

Recording of nutritional content of menu items (e.g. measuring or weighing and recording ingredients), determining of nutritional content of products (e.g. requesting dietary information from food vendors), receiving of feedback (before and after modifications) on the percent calories in menu items and menu combinations, modifying food preparation techniques (e.g. rinsing cooked grown beef in hot water before serving), modifying products ordered from vendors (e.g. lower fat fish sticks), changing menu combinations to reduce fat percent calories in overall weekly menus, locating or assisting vendors to develop new products (e.g. developing products with the higher percentage of wheat flavour).

II. Provide nutrition education

Assisting teachers and administrators to integrate the American Cancer Society's (ACS)

nutrition education program, *Changing the Course* (CTC) into health units or core subjects, providing training for teachers on nutrition and using CTC (CTC included individual worksheets, food tasting, small-group activities, fields trips, and class-discussion), arranging for coordinators, community volunteers or foodservice employees to serve as role models and provide general assistance, facilitating field trips and special activities (e.g. supermarket tours, lunch at McDonald's), providing incentives for teachers to implement the curriculum (e.g. 100\$ for classroom materials).

III. Increase physical activity

Installing physical fitness stations in each classroom, which consisted of individual workbooks (e.g. readings on fitness, songs about nutrition) and optimal physical fitness activities (e.g. stretching, sitting, and reaching), initiating the noncompetitive incentive system based on students' personal goals (e.g. students earned class parties for using the fitness stations), training of PE teachers in how to increase the amount of time the students engaged in the cardiovascular fitness activities, providing lesson plans for PE teachers with the enhanced variety of physical activity (e.g. games, music and dance).

The first of the postulated directions of actions is the change of dietary patterns at school, especially these concerning lunch. It appears to be one of the most important preventive and corrective educational schemes. Planning the proper calorific value and assimilation meal is the chief goal of the presented programme. Teachers should fulfill this task through thematically workshops, involving the dietician who would point out the proper solutions in the educational process and, most of all, providing an example of own appropriate dietary patterns that would shape positive habits among the children.

The second direction of actions concerns providing the knowledge of dietary rules, the contents of particular products, the methods of resisting advertising and taking bigger portions. In addition, children should have a chance to receive some knowledge on this subject directly from doctors, nutritional specialists, people working in sales promotion, etc.

The third direction is creating chances for physical activity and intensifying the existing [4, 10]. It can also be pointed out that educational activity should pertain not only to children but also to teachers. This goal may be achieved through installing small gymnastics apparatuses, such as steppers, skipping-ropes, tennis tables, etc., in classrooms and places adjusted to that (gymnasiums and recreational rooms). It should be added that, apart from preventing obesity, increasing physical activity of young people plays a great role in preventing cardiovascular diseases. The available models, however, stress that the uncompetitive character of physical activity is the one that should be preferred in schools.

Only this kind of a programme which includes all the three dimensions of work and action may significantly contribute to reducing the risk of becoming obese as well as the risk of the chronic diseases such as diabetes and problems with the cardiovascular system [2].

CONCLUSIONS

It is necessary to point out that in the above suggestions there is no mention of body-weight reduction. It should be firmly stressed that the prophylactic programmes for schools, adressed to children and youth ought to focus on emphasizing the importance of healthy diet, physical activity, as well as the impact of these on one's health and well-being. These programmes should not include any contents expressing the necessity of staying slim and, in particular, reducing body weight since in this case they may encourage going on some drastic diets and other means of changing one's looks. The increase in the instances of bulimia and anorexia that can be observed in Western Europe, and also in Poland, seems to be connected with the skinny body cult and the fashion for losing weight. A famished teenager has become a symbol of the ideal of attractiveness seeked by fashion creators, and a gaunt business woman is the synonym of the woman of success who can control all the spheres of her life, starting from her appearance. In the Western culture we may observe a phenomenon not attested before, i.e. weightism. The notion relates to the dictatorship of skinniness, which is the consequence of the influence of mass media that propagate the skinny figure as the only acceptable and desirable - a new model of "beauty" [13]. The exposure to the unrealistic ideal of beauty results in some body image disorders among many people. As a consequence, their self-esteem becomes lower, which in turn may result in starvation diet. It especially pertains to young women for whom physical appearance is to a large extent the basis for the development of their ego and self-esteem [16].

Therefore, the aim of the above presented preventive schools' actions is stressing the importance of:

- a. healthy diet (i.e. avoiding too large quantities of vegetable fats, sugar, etc.);
- b. positive models of spending free time (e.g. avoiding excessive television viewing and spending long hours in front of the computer screen);
- c. physical activity (on the level suitable for one's developmental abilities);
- d. knowledge concerning understanding the information provided on food products labels, healthy ways of preparing and combining food, optimal meal times, etc.

REFERENCES

- Burke L.E., Wang J. Treatment strategies for overweight and obesity, J Nurs Scholarship 2011: 43, 368–375.
- Czelej D. Wpływ zmian warunków życia na rozwój chorób cywilizacyjnych. In: Tuszyńska-Bogucka W., Bogucki J. eds. Styl życia a zdrowie. Wybrane zagadnienia. Lublin, Wyd. Czelej 2005.
- Deckelbaum R. J., Williams C. L. Childhood obesity, The Health Issue. Obes Res 2001; 9: 239-243.
- Ells L.J., Campbell K., Lindstone J., Kelly S., Lang R., Summerbell C. Prevention of childhood obesity. Best Pract Res Clin Endocrinol Metab 2005; 19: 441-454.
- Harris K. J., Paine-Andrews A., Richter K. P., Lewis R. K., Johnston J. A., James V., Henke L. and Fawcett S. B. Reducing elementary schools children's risks for chronic disease through schools lunch modifications, nutrition education, and physical activity interventions. J Nutr Educ 1997; 29: 196-202.
- Informacja o wynikach kontroli realizacji zadań w zakresie zapobiegania nadwadze i otyłości u dzieci i młodzieży szkolnej, Najwyższa Izba Kontroli, Nr ewid. 149/2011/P/10190/KNO, Warszawa 2011.
- Jablow M. M. Anoreksja, bulimia, otyłość. Gdańsk, GWP 2000.
- Januszkiewicz P., Sygit M. Kluczowe problemy zdrowia publicznego: otyłość u dzieci i młodzieży, Zdr Pub 2005; 115: 88-91.
- Małecka-Tendera E., Klimek K., Matusik P., Olszanecka-Glinianowicz M., Lehingue Y. Obesity and overweight prevalence in Polish 7-to-9-year old Children, Obes Res 2005; 13: 964–968.
- 10. Mulvihill C., Quigley R. The Management of Obesity and Overweight: Analysis of Reviews

of Diet Physical Activity and Behavioural Approaches. London, Health Development Agency 2003.

- 11. Phillips F. Facing up to childhood obesity. Pract Nurse, 2012; 42: 14–17.
- 12. Puder J. J., Munsch S. Psychological correlates of childhood obesity, Int J Obes 2010; 34: 37–47.
- Sarwer D. B., Grossbart T. A., Didie E. R. Beauty and Society. Semin Cutan Med Surg 2003; 22: 79-92.
- Schwartz M. B., Puhl R. Childhood obesity: a societal problem to solve. Obes Rev 2003; 4: 57-71.
- Steele R. G., Nelson, T. D., Jealian E. Pediatric obesity: Trends and Epidemiology. In: Jealian E., & Steele R.G. eds. Handbook of childhood and Adolescent Obesity, New York, Springer 2008.
- Tuszyńska-Bogucka W. Determinanty anoreksji psychicznej – wybór stanowisk. Ann UMCS Sect D Medicina 2007; LXII, Suppl. XVIII: 427-431.
- Woynarowska B. Edukacja zdrowotna. Podręcznik akademicki, Warszawa, Wyd Nauk PWN 2010: 103.