
What actions can schools take to prevent childhood obesity in the USA?

There has been a large increase in the number of children who are obese in the USA in last three decades. According to Cunningham (2014), the percentage of overweight children increased from 4.2% to 15.3% in 1963 and 2000 respectively. Obesity is a disease in medicine which we can measure as overabundance[1] weight of the body. It is believed that the main causes of this illness are caloric imbalance and lack of physical activities (Dehghan, 2005). Robinson (2001) states another possible reason is television viewing. Exacerbation of being overweight in childhood can lead to the more serious illnesses in the adulthood like hyperinsulinemia, poor glucose tolerance, and diabetes (Lobstein, 2004). Consequently, the aim of this paper is to evaluate the following ways to prevent this disease at school: lunch programs and programs of physical activities.

The first possible solution for schools to prevent childhood obesity in the USA is a healthy diet based on the balance of calories. The school lunch programs have the potential to have a great influence on children's and young adult's diets because they eat a considerable part from their total food intake per day (Gleason and Sutor, 2001). The SNDA-III study (Gordon and Fox, 2007 cited in Story, Nanney and Schwartz, 2009) presented that in spite of the fact that U.S. schools mostly provide school meals that meet the standards for key nutrients, such as protein, calcium, vitamins A and C, and iron, only approximately one-third of them meet the USDA standards for total fat. Minimizing fats following the recommendations of the Dietary Guidelines for the United States can lead to a reduction of excess calories. The minimum number of calories in food for students of elementary schools should be 664, and for students in the secondary school should be 825 (Gordon, 2007 cited in Story, Nanney and Schwartz, 2009).

Another solution to prevent childhood obesity is a program of physical activities. Physical activity can be described as caused by the contraction of skeletal muscles, any movement of the body that consumes body energy above the basal level (Bauer, 2011). In the 2008 Physical Activity Guidelines for Americans, the U.S. Department of Health and Human Services (HHS) supposes that children should spend at least 60 minutes a day to exercise. The main part of this exercises should be filled by moderate- or vigorous-intensity aerobic physical activity (Bauer, 2011). First of all, these two solutions will be compared with efficiency.

According to Brown and Summerbell [3], a number of studies conducted to prevent obesity are rising. From 1990 to 2005, 23 studies were carried out. During the year from 2006 to 2007, another 15 studies were identified. The amount of studies conducted in secondary schools is growing. For example, in the first studies, only 6 out of 23 schools were secondary schools. However, the experiments have participated 15 schools, 7 of them were secondary schools. An approximate one-third of the studies based solely on diet, one-fifth of the study based on physical activity and 9 of 20 studies combined healthy food and physical activity. In 2004, the Institute of Medical Sciences and Social Protection at the University, on behalf of the National Institute for Health and Clinical Excellence (NICE), conducted a series of surveys on the prevention of obesity. According to these experiments, the results showed that a combined option in the form of healthy food and exercise can help to prevent obesity in the long term and showed significant changes between control and intervention BMI. Whereas separately the

school diet and physical training programs give only a short-term effect.

The next criteria for evaluation are feasibility. For example, we will take the results of a two-year study - Teens Eating for Energy and Nutrition at School (TEENS) that was conducted in 16 schools of Twin City, Minnesota and metropolitan area from 1997 to 2000. The aim of the study was to increase the amount of fruit and vegetables and reduce the number of foods containing large amounts of fat in school meals. Although there were some successes in the intermediate time; however at the end of time no noticeable changes were detected. As positive sides, we can note the effect on the choice of food. Thus, assuming the favor of children to a less caloric meal than to more high-calorie foods. Despite this indicators, the quantity of food consumed was not affected by this teaching.

According to certain data in the school curriculum of primary classes of American schools, approximately 100 minutes per week are devoted to exercises of physical education (PE). However, it is believed that the amount of moderate and vigorous physical activity (MVPA) received during these education does not meet the recommended standards. The results of Go For Health (GFH) study show that the time spent on MVPA can be increased from less than 10% to more than 40% of the total class time. By the end of the experiment, an ordinary student in schools where there was an intervention spent approximately 16 minutes on the total time of PE on MVPA, or in other words, 80 minutes for a week. The noted should be the fact that during this intervention, which lasted for two years, one worker almost completely engaged in teaching PE teachers. This study is a confirmation of the feasibility of introducing physical learning into the school curriculum (Bruce, 1991).

In conclusion, the aim of this essay was to evaluate the school lunch program and physical education by effectiveness and feasibility to prevent childhood obesity in the USA by schools. While both solutions are quite feasible separately, if we talk about effectiveness, then a long and good effect can only be provided by joint implementation in schools. Therefore, perhaps the best way to prevent childhood obesity in American schools is to introduce a healthy diet and physical exercises to a school schedule.