

SUMMARY

The influence of selected motivational factors on the amount of consumed fruits and vegetables by children aged 6-12 years in the school canteens

Introduction:

As in other countries, including Poland, studies in recent years have shown an increase in the incidence of children and adolescents with excess body weight. Obesity is a growing global health problem, obese children are more likely to become obese adults. Children's eating behavior is strongly linked to their food preferences. Numerous studies have shown that vegetables are the least favorite food and having children try disliked, unknown foods is not sufficient to increase consumption. Habits can eventually be formed through repeated exposure, making it a promising way to increase children's consumption of fruits and vegetables in the future. In the available Polish and foreign literature there are few reports on the effects of different kinds of motivational incentives on changing eating behaviour in children and there is no information on the effectiveness of those activities. Therefore, it is reasonable to carry out a detailed analysis of the motivational incentives among children in primary schools.

Aim of study:

The aim of the study was to assess the impact of selected motivational incentives that have influence on the amount of consumed fruits and vegetables by children aged 6-12 years in school canteens.

Attention was also paid to the influence of factors such as: gender, parents' BMI, parents' education, children's membership in a sports club, time spent in front of the computer and television by children, the taste preferences of children on body weight in the study group.

Materials and method:

The test group consisted of 106 students, all children attending for school lunches in the school in Podkarpackie region. The control group matched for age and sex accounted for 110 students from randomly selected primary school in the Podkarpackie region.

The experiment in canteens has been divided into three two-week periods performed in accordance with the methodology of the study *Determinants of eating behaviour in European children, adolescents and their parents. Standard Operating Procedure on School canteen experiment* conducted under the auspices of I.Family.

The basic anthropometric parameters: body weight, body height were measured three times. Among the parents and children they were distributed questionnaires: 'Food and beverage-preference questionnaire', 'Childrens questionnaire for parents', 'Determinants of child nutrition questionnaire for parents'.

Statistical analysis of the test results was performed by means of the statistical package Statistica PL 10.1, assuming the most commonly used rules for test probability values (p).

Results:

Between the period before the experiment and period of activities motivate children to eat vegetables, there is a statistically significant difference in the incidence of eating salads at lunch. After the experiment, frequency of eating salads slightly decreased, but the change was not statistically significant ($p = 0.2044$), so the effect of motivational activities was stable. Statistically significant correlations were found for factors such as: parents' body mass index, time spent in front of the computer by children and parents' education.

In the test group were 31.1% children with overweight and obesity. A statistically significant correlation that affects the occurrence of excessive weight was for the parameters: the child's sex, time spent watching television by children.

Conclusions:

1. Motivational incentives in the school canteen in the research group has brought results in terms of increased fruit and vegetable intake during dinner. After disabling factor incentive effect has been maintained.
2. Significant impact on the consumption of fruit and vegetables in the school canteen were: parents' body mass index, time spent in front of the computer by children and parents' education.
3. Overweight and obesity in the study group had every third child. Excess body weight occurred significantly more common among boys than girls.
4. Time spent in front of TV significantly increased risk of overweight and obesity among children.
5. The highest score in the study of taste preferences among children obtained ice cream, fruit juice, bananas, lemonade, chocolate cream, fruit yogurt, cake and chips.
6. Products from the groups fast food and salty snacks and sweets were the lowest rated by children with obesity.

Keywords: children, healthy eating, motivational incentives, overweight and obesity