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THE RELATIONSHIP BETWEEN OVERWEIGHT IN CHILDREN AND ADOLESCENTS AND DIETARY HABITS

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Abstract:

This study investigates the relationship between overweight and dietary habits among children and adolescents, which is a major contributor to cardiometabolic risk factors. A total of 246 participants aged 7 to 18 years were examined, divided into a main group of 156 overweight children and a control group of 90 normal-weight children based on WHO Body Mass Index (BMI) criteria. A comparative analysis of daily diet, meal frequency, and specific food choices was conducted using a specialized questionnaire. The results revealed significant dietary violations in the overweight group, including a higher prevalence of skipping breakfast (23.08% vs 4.44%, $p < 0.001$), fewer daily meals with larger portions, frequent consumption of fast food (25.64% vs 14.44%), and a preference for excessively salty foods ($p = 0.018$). The findings confirm that unhealthy eating behaviors are directly associated with excess body weight in youth. Early detection and correction of these dietary patterns are crucial for preventing obesity-related cardiometabolic complications.

Keywords: *Overweight, children, adolescents, dietary habits, fast food, eating behavior, cardiometabolic risk factors, meal frequency.*

Annotatsion

The disruption of a rational diet among children and adolescents is one of the main causes leading to the development of excess body weight, obesity, and cardiometabolic risk factors [1,2]. An analysis of the eating behavior questionnaire completed by the study participants showed the presence of various dietary violations in the majority of the children [3,4].

Objective of the study: To conduct a comparative assessment of the daily diet regimen, meal frequency, and specific food choice characteristics in children with normal and excess body weight.

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Materials and methods:

A total of 246 children and adolescents aged 7 to 18 years were involved in the study. According to the World Health Organization (WHO) criteria for body mass index (BMI), the children were divided into two groups: the main group included 156 children with excess body weight (80 boys, 76 girls), and the control group consisted of 90 children with normal body weight. A special questionnaire method was used to study the characteristics of their daily diet. Statistical analysis of the results was carried out using Pearson's χ^2 criterion, with differences considered statistically significant at $p < 0.05$.

Results:

The results of the study showed that 83.74% of the participants regularly eat breakfast. However, it was proven that among children with excess body weight, the cases of not having breakfast at home (or skipping it) are significantly higher (23.08%) compared to children with normal body weight (4.44%) ($\chi^2 = 14.55$, $p < 0.001$).

When analyzing the frequency of daily meals, it was found that 38.89% of children with normal body weight eat in an optimal 4-meal regimen, whereas in children with excess body weight, this indicator was 23.08% ($\chi^2 = 8.387$, $p = 0.015$). Alongside this, a significant portion of children with excess body weight showed a tendency toward a decreased frequency of meals and an inclination to consume the main part of their calories 1-2 times a day in large portions. Regarding the evening meal, it was found that out of the total group, 184 children (74.80%) eat 2 hours before sleep, 50 children (20.33%) eat an hour before sleep, and 12 children (4.87%) eat immediately before sleep. In terms of gender differences, it was noted that boys with excess body weight have dinner later than girls (35% of boys and 22.37% of girls eat at 21:00). Regarding food choice characteristics, rare and episodic consumption of fast food in the normal weight group was 32.2%, while in the overweight group, it was only 16.67% ($\chi^2 = 10.346$, $p = 0.016$), whereas its frequent consumption (1-2 times a week or more) was 14.44% and 25.64%, respectively.

It was established that boys (30%) consume fast food more often than girls (21.05%).

Significant differences were also recorded in the consumption of salty foods: less salty food is more often preferred in families of normal-weight children (14.9 ($\chi^2 = 244$)), while in families of overweight children, this figure is only 4.49% ($\chi^2 = 8.058$, $p =$

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0.018). Overweight boys in 27.5% of cases and overweight girls in 11.84% of cases choose foods with an excessive salt content.

Conclusion. Excess body weight in children and adolescents is directly related to improper eating behavior. It was confirmed that in overweight children, the frequency of risk factors such as skipping breakfast ($p < 0.001$), increasing portion sizes due to a reduced daily frequency of meals ($p = 0.015$), high consumption of salty foods ($p = 0.018$), and a regular inclination towards fast food ($p = 0.016$) is significantly higher compared to children with normal body weight. Early identification and correction of such nutritional disorders are of great importance for individual prognosis and the prevention of the risk of developing cardiometabolic complications of obesity in children.

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