

ASSESSMENT OF THE ACTUAL NUTRITION OF CHILDREN AND ADOLESCENTS TAKING INTO ACCOUNT REGIONAL PECULIARITIES

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Abstract

A hygienic assessment of the actual nutrition of children and adolescents is given, taking into account regional characteristics. Deviations in the structure of diets were noted

Keywords: schoolchildren, adolescents, health, nutrition.

The organization of rational nutrition of children and adolescents is one of the key factors in maintaining their health status, harmonious development and learning efficiency [3,16,10]. Due to the fact that the relationship between health and nutrition is now generally recognized [8,14,15,16], it seems relevant to identify nutritional risk factors that affect the formation of the health of the younger generation.

The purpose of the study was a comprehensive assessment of the actual nutrition of children and adolescents.

Materials and research methods Schoolchildren 7-17 years old (831 people) of 4 general education schools of the Nurabad district of the Samarkand region and 2 schools of the city of Samarkand were examined.

The assessment of the actual nutrition of children and adolescents was carried out using the 24-hour reproduction method in combination with the analysis of the food composition of the menu layouts. The balance of the diet was assessed by the values of the consumption of basic nutrients, energy and compared with the "Norms of physiological needs for energy and nutrients for various groups of the population of the Republic of Uzbekistan" (Recommended norms for energy needs for different age and sex groups of children SanPiNUz No. 0347-17). When analyzing the health indicators of children and adolescents, the classification of diseases of the WHO Regional Office for Europe was used, according to which diseases in the etiology of which the nutritional factor plays a leading role include diseases of the endocrine system, eating disorders and metabolic disorders (class 4 ICD-X; E00-E90), including diabetes mellitus (E10-E14) and obesity (E66); diseases of the blood and blood-forming organs (class 3; D50-D89), including anemia (D50-D64); diseases of the circulatory system (class 9; I00-I99), including diseases characterized by high blood pressure (I10-I15). Nutritional status was assessed on the basis of somatometric signs: Quetelet body mass index (BMI), waist circumference / hip circumference index (WC/HC);

Results and discussion

As a result of the research, it was found that the actual nutrition of schoolchildren aged 7-14 is unbalanced and deficient, due to the characteristic irrational hierarchy of food packages. In the structure of nutrition, attention is drawn to the low consumption of dairy products, fish and fish products, and eggs. The consumption of milk by 7-10-year-old children was reduced by 45-53.6%, cottage cheese - by 82.8-90.5%, at 11-14 years old - by 50.3-57.5% and 97%, respectively. The need for meat was satisfied in children aged 7-10 years by an average of 69.1%, in 11-14 years old - by 76.4%.

The number of schoolchildren with signs of increased nutrition decreased slightly from 7 to 14 years of age: from 10.2% to 7.8% in boys, and from 13.6% to 12.9% in girls. At the same time, when determining the characteristics of the tissue composition of the body of students in terms of body fat and muscle mass (relative and absolute), an asymmetric, namely, right-sided distribution in 14-year-old boys of such somatometric indicators as absolute body fat mass (AFBM), relative fat body weight (BWBM), absolute muscle mass (AMBM), relative muscle mass (RBW), indicating the predominance among them of persons with low parameters of the characteristics under consideration. Thus, the number of students with lower indicators of body fat mass relative to the indicated averages for AFBW was registered in 60.8% and for BWB - in 57.9% of cases, respectively. It was also found that 14-year-old boys with AMMT and OMMT values below average were 6.7% and 8.3%, respectively, more than schoolchildren with high values of lean body mass. These data indicate that at the time of puberty among boys there is a predominance of persons with lower parameters of both absolute and relative body fat and muscle mass. According to a comprehensive clinical and laboratory examination of students of secondary schools in the Nurabad district, schoolchildren aged 15-17, it was revealed that in 40.5% of cases the girls were overweight (according to BMI), obesity of I and II degrees - 24.6% and 5.8% respectively. The average level of BMI in the group of girls of secondary schools of Samarkand was $28.9 \pm 7.1 \text{ kg/m}^2$, in the group of schoolgirls 7-10 years old - $24.1 \pm 6.5 \text{ kg/m}^2$.

In the groups of boys studying in secondary schools in the Nurabad district and the city of Samarkand, the average BMI was $22.1 \pm 5.9 \text{ kg/m}^2$ and $23.5 \pm 5.5 \text{ kg/m}^2$, respectively.

The presented data on the state of the nutritional structure and nutritional status of the examined schoolchildren showed the formation of a negative trend in the studied parameters. Evaluation of the actual nutrition of students revealed violations of the basic rules of rational nutrition, a low level of nutrition culture.

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