

NUTRITIONAL PROBLEMS AMONG SCHOOLCHILDREN

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Abstract

The purpose of the review is to analyze and summarize the data available in the literature on the actual nutrition of schoolchildren in different subjects of Uzbekistan and abroad. In many regions of the country, there is insufficient consumption of the most biologically valuable foodstuffs: meat and meat products, milk and dairy products, fish and fish products. In many regions of the country, there is insufficient consumption of the most biologically valuable foodstuffs: meat and meat products, milk and dairy products, fish, eggs, vegetable oil, potatoes, fruits and vegetables, with excessive consumption of bread, pasta and pasta. The nature of nutritional disorders in the population is often regionally specific. The main provisions of the review are the reasons leading to nutritional disorders of children in educational institutions. Numerous studies have found that many children have already formed irrational stereotypes of food choices by the time they start school.

Keywords: Schoolchildren, violations in nutrition organization, nutritional status.

Introduction

The nutrition of schoolchildren throughout the whole period of schooling remains unbalanced. The imbalance explained by irrational selection of foodstuffs used both at home and in the educational environment. The deficiency of vitamin intake with food has a combined, year-round character, found not only in winter-spring, but also in summer-autumn periods of the year. Therefore, the general situation considered as a massive year-round polyhypovitaminosis combined with deficiency of essential trace elements. This circumstance may be associated with low material wealth, lack of understanding of the principles of selecting products for ration formulation and difficulties in observing the principles of rational nutrition due to social conditions in the regions. The organization of schoolchildren's nutrition is programmable, as it does not depend on the child's desire and taste habits; it directly depends on the educational institution and parents. Studying the causes of these violations will allow us to develop a system of social and preventive measures to improve it. This requires the development of a unified system of socio-hygienic monitoring of the organization of nutrition of the child population at the regional level with annual in-depth analysis of data. Each period of growth and development of a child characterized by its own peculiarities, specificity of physiological and metabolic processes, as well as the influence of current social factors. The beginning of schooling is a critical period for a child. First, there is a transition from a stable daily routine, dietary regimen, developed in preschool educational institution, to





independence and adaptation to the mode of learning at school. The child gets an opportunity to choose food products and to form his/her own diet from their own diet. During the period of general education, the organism schoolchildren's organism experiences increased stresses, both mentally and physically, which is associated with energy expenditure and high consumption of nutritional substances. Organization of rational nutrition of pupils during their stay at school is one of the key factors of maintaining their health and learning efficiency, since children spend 6 to 8 hours daily in an educational institution. Inadequate nutrition for schoolchildren is unacceptable, as it can affect the ability to learn, affect health and learning. A change in dynamic stereotype leads to tension of adaptation mechanisms and reduction of functional capabilities of schoolchildren's organism, which aggravated by the impact of unfavorable factors, including those caused by lifestyle, irrational consumption of basic foodstuffs, and violation of dietary regimen. Insufficient provision of schoolchildren with the necessary nutrients has resulted into the increase in the prevalence of functional deviations in the state of health of students by 85%, chronic diseases – by 84%.

The issues of organization of nutrition of school-age children given attention in the period of formation of school hygiene in the late XIX and early XX centuries. The issues of nutrition remain relevant today. According to the results of numerous studies, it established that many children already by the beginning of by the beginning of their schooling; many children have formed irrational stereotypes of food choices. In addition, the widespread popularity and availability of fast-food enterprises, which often have special “children's menus”, lead to an increase in the number of children's food choices. Child malnutrition and under nutrition have become one of the largest global social problems in the world today. Growing inequality, conflict, climate change, rising food prices and increased consumption of unhealthy foods are exposing millions of children to food insecurity. According to the June 6, 2024 United Nations Children's Fund (UNICEF) Child Food Poverty Report, 440 million children under 5 years of age worldwide are undernourished, of whom 181 million live in severe child food poverty. This means that every fourth child (27%) suffers from acute malnutrition in early childhood.

Among 92 countries participating in this study, Uzbekistan ranked 26th in terms of the number of children living in acute food poverty with 11% (511,000 children aged 0-5 years). For Central Asia, Turkmenistan registered 4% (5th place), Kyrgyzstan 12% (27th place) and Tajikistan 34% (78th place). European countries are almost absent from the list. The exceptions are the countries of the Balkan region, with Serbia at 2%, Montenegro at 7%, Northern Macedonia at 11% and Albania at 18%. In China, the world's second largest economy with a population of almost 1.5 billion, 10% of children live in severe food poverty. Child food poverty defined as the inability of children to access and consume nutritious and diverse food during early childhood (i.e. the first five years of life).

Children living in extreme child food poverty are those who eat only 0-2 types of food per day. Children living in moderate child food poverty are those who eat only 3-4 types of food per day. Children not living in child food poverty are those who eat 5 or more types of food per day. According to the study, 84 million (46%) of the 181 million children in severe food poverty live in the poorest households, the remaining 97 million (54%) - live in middle-income households. It is noteworthy that low household income is not always the main factor in food poverty. In its





study, UNICEF identified three causes of acute food poverty: deterioration of the food environment, inappropriate feeding practices and lack of family income. According to experts, child malnutrition affects all children, especially in early childhood the consequences can be sad. Because lack of food during this period leads to lack of nutrients that are very important for the growth and development of the child. The effects of malnutrition in early childhood can have lifelong consequences: these children perform worse in school and have fewer opportunities to earn money as adults, increasing the risk of their households falling into poverty

Current situation and existing problems in Uzbekistan

For Uzbekistan, the problems of poverty alleviation are of particular importance, as the country's population is growing annually and against this background, there are such factors as national traditions and stereotypes (having many children, several families living together in one household, holding pompous weddings and ceremonies, etc. The need to adapt to climate change, possible risks and environmental problems, limited land and water resources, and the instability of the world economy. Nevertheless, in recent years Uzbekistan has taken active measures to address the problem of poverty. Important steps taken to improve the socio-economic situation in the country. Thanks to these efforts, over the period from 2021 to 2023, the poverty rate according to national monetary criteria reduced from 17.0% to 11.0%, including child poverty from 21.5% to 13.7%. Monetary poverty measured by the ability of households to purchase a minimum set of consumer goods. In addition, the President of Uzbekistan, speaking at the 75th session of the UN (September 23, 2020), proposed to hold a regular UN session dedicated to poverty reduction and to organize a Global Summit on this topic. However, despite the positive changes in this direction, Uzbekistan still has problems of malnutrition among the population, including young people, which affects the indicator "Child Food Poverty" (11% of children in the age of)

Suggestions and recommendations

First, accelerate the adoption of the National Strategy "Population Health - 2030", taking into account the recommendations set out in the WHO, UNICEF and UN reports, as well as in the Global Nutrition Report 2022. Within the framework of this strategy, it is advisable to envisage a set of measures aimed at promoting a healthy lifestyle among children, as well as ensuring a healthy and nutritious diet for young children.

In addition, the strategy should implement special programs aimed at providing qualified medical and nutritional advice, conducting preventive examinations and raising public awareness of healthy nutrition. Secondly, in order to adjust children's nutrition based on their health, it is necessary to create a "Smart Nutrition" section in the BEBBO application developed by UNICEF and the Ministry of Health using artificial intelligence capabilities. This section should make it possible to analyze data on the child's development depending on his/her age (weight, height, level of fats and vitamins in the blood) and provide parents with individual recommendations on the correct nutrition of the child. To implement this project, it is advisable to cooperate with international organizations, such as UNICEF and the World Food Program, and use their experience. Thirdly, it is necessary to study foreign experience in organizing targeted (for children from low-income families) free school meals for students. For example, French President Macron



included the provision of €1 school lunches in his plan to eliminate poverty, including malnutrition, and directed these benefits to feeding children in need. In the U.S., the National Strategy on Hunger, Nutrition and Health updated in 2022 to include an expansion of free school meals. As a result, children from families at or near the poverty line became automatically eligible to use meal benefits.

According to foreign experts, school meals encourage children from low-income families to stay in school and parents not to take them out. Free meals in schools free parents from the need to plan lunch expenses and save about 10% of the income of socially vulnerable families. For reference: Uzbekistan started to pay attention to the organization of free school meals from the 2022/2023 school year. In accordance with the "New Uzbekistan Development Strategy for 2022-2026", this experience tested in the Republic of Karakalpakstan and Khorezm region. However, due to limited budgetary resources, the practice of organizing free meals in schools in other regions of the country been fully implemented.

Conclusion

As a review of the literature shows, problems in the organization of school-age children's nutrition found both in Uzbekistan and abroad. As the literature review shows, there are problems in the organization of school-age children's nutrition both in Uzbekistan and abroad: lack of essential nutrients (complete protein, vitamins and minerals) products - sources of essential nutrients (complete protein, vitamins and minerals), high consumption by children of products - sources of simple carbohydrates, saturated fats (sugar, cereals, vitamins and minerals confectionery, pasta, bakery, sausages). The organization of schoolchildren's nutrition is programmable, since it does not depend on the child's wishes and taste habits; it depends directly on the educational institution and parents. Consequently, the problem of rationalization of schoolchildren's nutrition, bringing diets in line with physiological needs in food and biologically active substances requires today managerial decisions in terms of organization, systematization and standardization of nutrition in the conditions of educational institutions; development of a unified system of nutrition and nutritional support for schoolchildren in educational institutions;

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