



METHODOLOGY FOR THE FORMATION OF PRIMARY PREVENTION OF PARASITIC DISEASES IN PRESCHOOL CHILDREN

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Resume The aim of the study was the method of formation of primary prevention of parasitic diseases in preschool children. The results of the research showed that in the main group of preschool children, where the program for teaching primary prevention of parasitic diseases was implemented, children with a low level of readiness were 4.06 times less than in the control group, among whose children the program for teaching primary prevention of parasitic diseases was not carried out - respectively, on average 18.53% (n=53) versus 75.19% (n=197). On the contrary, the number of children with an average and high level of readiness was higher in the main group - on average 59.09% (n=169) and 22.38% (n=64), respectively, against 23.28% (n=61) and 1.53% (n=4) in the control group

Keywords: parasitic diseases, helminths, children, nematodes, cestodes, trematodes, prevalence, prevention. preschool age, hygienic education.

Parasitic diseases represent a group of conditions caused by helminths and arthropods, with the parasite being an organism that lives at the expense of the “host,” adapting its life activity to the host’s physiology. At present, one of the important determinants of population health is socially determined diseases, including protozooses and helminthiases, which account for 99% of all parasitic diseases.

Parasitic infections have been among the most widespread human diseases since ancient times. Currently, more than 50,000 species of organisms live a parasitic lifestyle. Over 342 species of helminths and 18 protozoa cause human diseases, resulting in global parasitic invasiveness affecting around 2 billion people, of whom more than 80% are children. Preschool children and school pupils account for 90–95% of all cases of enterobiasis and 65.1% of ascariasis. The increasing prevalence of helminth infections worldwide is associated with extensive environmental





contamination by helminth eggs due to wastewater discharge, growing population migration, closer human–animal interactions, low socioeconomic living conditions, and weakened immune system function.

According to Kozlovsky A.A. (2015), the prevention of helminthiases can be divided into specific and nonspecific measures. Nonspecific prevention includes: maintaining a healthy lifestyle; adherence to sanitary and hygienic practices in families, educational institutions, and healthcare facilities; proper cooking of food; consumption of boiled, bottled, or filtered water; prevention of fecal contamination of the environment; appropriate care of domestic animals; early identification and timely treatment of patients. Specific prevention includes chemoprophylaxis of helminth infections in at-risk children, as well as children with persistent eosinophilia in blood tests (1–2 times per year, in spring and/or autumn).

Thus, analysis of recent literature demonstrates sufficient research on the clinical features, diagnosis, and treatment of parasitic diseases. However, studies on the combined course of parasitic and allergic diseases, immuno-allergic aspects of such pathology, as well as the development of primary prevention strategies for parasitic diseases, remain scarce. Therefore, research into preventive aspects of parasitic diseases in children remains highly relevant, with significant practical and theoretical importance.

Materials and Methods

It was established that in the system of preventive measures against parasitic diseases, a leading role belongs to hygienic education of the population. Particular importance is attached to educational institutions, especially preschools and schools, which can systematically and consistently provide hygienic training for children. Preschool institutions are especially important in laying the foundation of hygienic education among the population.

Preschool age is a critical period in which personality development and the foundation of physical health are formed. Comprehensive educational influence should be based on knowledge and consideration of age-specific features of child development. Between 3 and 7 years, children experience rapid growth and development, including morphological and functional maturation of organs and systems. Incomplete development during this period determines increased vulnerability and sensitivity even





to minor negative environmental influences, which may result in health deviations (Malysheva N.S., 2006).

Engaging staff from educational institutions in preventive programs enables the development of hygienic literacy from early childhood. Hygienic education should begin at birth and continue throughout life, as the most persistent habits (both beneficial and harmful) are formed in childhood. Hygienic education serves as the foundation of medical culture, a prerequisite for instilling healthy lifestyle behaviors in children and for preventing parasitic diseases.

The effectiveness of hygienic training and education of children is greatest when conducted within a system where its elements are interconnected and complementary in organizational, educational, and upbringing aspects. Thus, there is a need to reorient the educational system towards achieving a health-preserving effect of the teaching process, involving children in health-saving and health-creating activities.

The formation of a health culture in children is more effective if:

conditions are created for achieving a health-preserving effect in the educational process (compliance with hygiene standards in classrooms, implementation of preventive measures);

components of the educational process are qualitatively updated (improvement of teaching methods, development of health-preserving pedagogical technologies, realization of educational potential of subjects, system of extracurricular activities);

the child is actively engaged in the process of their own health creation.

For this research, preschool institutions in the cities of Bukhara (Bukhara region) and Urgench (Khorezm region) were selected. A total of 548 preschool children of both sexes were included. Of these, 286 children comprised the main group, while 262 children formed the control group. Both groups were representative, differing only in that the main group underwent implementation of a primary prevention program against parasitic diseases, whereas the control group did not.

The research was carried out by faculty members of Bukhara State Medical Institute and Urgench branch of Tashkent Medical Academy, who implemented the program for primary prevention of parasitic diseases.





The following methods were applied: analysis of domestic and foreign literature (medical, scientific, psychological-pedagogical, educational-methodological), as well as regulatory documents;

pedagogical observation and generalization of teachers' experiences in organizing and managing health culture development among children in relation to parasitic diseases; medico-pedagogical research in organized children's groups for evidence-based evaluation of the proposed educational program, analysis and synthesis of results; medico-social methods (interviews and questionnaires);

statistical methods (variational statistics).

The research was conducted in three stages:

1. Analytical stage – based on literature analysis and teachers' experiences, the current state of the problem was identified, the object and subject of research specified, a methodological foundation created, and a health culture development program developed as the basis for primary prevention of parasitic diseases.

2. Implementation stage – medical-pedagogical research was conducted to test the proposed health culture program, evaluating its effectiveness for primary prevention.

3. Generalization stage – statistical processing, systematization, and description of research data, followed by development of scientifically grounded conclusions and practical recommendations for implementation in health culture formation aimed at preventing parasitic diseases in preschool children.

Results: The findings demonstrated that preschool age is the most critical period for health formation, including primary prevention of parasitic diseases. Levels of health-preservation readiness among children were identified as low, medium, or high. Readiness levels were characterized by: basic hygienic and ecological knowledge as the foundation of health-preserving behavior; motivation for maintaining personal and family health; hygienic skills and their application in daily life; elementary ecological literacy and proper behavior in the natural environment; striving for self-improvement and cooperation.

Close collaboration with teachers enabled parents to properly raise their children. Continuous awareness-raising activities were conducted with parents, emphasizing the importance of adhering to hygiene rules at home, proper child care, measures of primary prevention of parasitic diseases, and reinforcement of hygienic habits.





The results demonstrated the interest of both teachers and parents in preserving and strengthening children's health, as well as fostering correct behavioral attitudes. However, surveys revealed a low level of hygienic and ecological literacy among teachers and parents, as well as a lack of systematic implementation of parasitic disease prevention measures, leading to reduced readiness of children for health preservation.

In the main group, where the primary prevention program was implemented, children with a low readiness level were 4.06 times fewer than in the control group (18.53% vs. 75.19%). Conversely, the proportion of children with medium and high readiness was significantly higher in the main group (59.09% and 22.38%) compared to the control group (23.28% and 1.53%). These findings are consistent with Malysheva N.S. (2006).

Conclusion The study demonstrated that implementation of a primary prevention program for parasitic diseases has a positive impact on the readiness level of preschool children for health-preserving behavior. Preschool age is a critical period for establishing foundations of health, hygienic literacy, and preventive awareness. Therefore, integrating preventive programs into preschool education is essential for reducing parasitic morbidity and fostering long-term health culture in children.

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