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Комплексный подход к здоровьесбережению школьников

Необходимость комплексного подхода к сохранению и укреплению здоровья школьников, обоснованию которого посвящена данная статья, обусловлена: во-первых, неблагополучным состоянием здоровья учащихся и его ухудшающейся динамикой; во-вторых, многообразием факторов, в том числе неучитываемых, которые оказывают влияние на состояние и динамику здоровья; в-третьих, односторонностью и фрагментарностью практики здоровьесбережения.

Предлагаемый комплексный подход имеет два измерения – горизонтальное и вертикальное. Горизонтальное измерение предусматривает выделение значимых аспектов здоровьесбережения, вертикальное измерение – его уровней.

Выделено и описано девять аспектов комплексного подхода к здоровьесбережению школьников: концептуальный, политический, нормативно-правовой, нормативно-технологический, медико-образовательный, социально-бытовой, «соучаствующий», просветительский, организационно-технологический. Особое внимание уделено признанию приоритетности здоровья учащихся, наряду с их обучением и воспитанием, их политическому и нормативно-правовому закреплению, организационно-технологической реализации. Также выделено пять уровней управления процессами здоровьесбережения: личностный, школьный, муниципальный, региональный, федеральный.

Ключевые слова: здоровье, здоровьесбережение, школьники, санитарно-гигиенические условия, комплексный подход, обучение, нормативно-правовое обеспечение

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An integrated approach to the health preservation of school children

The need for an integrated approach to the preservation and health promotion of school children, firstly due to low level of student health and its worsening dynamics; secondly, a variety of factors, including uncounted factors, that have an impact on health status and dynamics; thirdly, the narrowness and fragmentation of health preservation practice.

An integrated approach has two dimensions – horizontal and vertical. The horizontal dimension provides highlighting significant aspects of health preservation, the vertical dimension – its levels.

Nine aspects of an integrated approach to the health preservation of school children are highlighted and described: conceptual, political, legislative, technological, medical and educational, social, “co – participating, educational, organizational and technological.

Particular attention is paid to agreement that priority lies in the health of students, along with their education and upbringing, their political and legal consolidation, organizational and technological implementation. Also, five levels of health preservation management processes are highlighted: personal, school, municipal, regional, federal.

**Keywords:** health, health preservation, school children, sanitary conditions, an integrated approach, training, legislative support

**For Reference:**
Introduction

The health preservation of schoolchildren gains problematic nature [8]. According to the ministries of education and health, the number of potentially healthy graduates in the Russian Federation ranges from 10 to 15%. Experts note that more than 50% graduates already have 2-3 chronic diseases. Every third graduate has medical contraindications for military service, and only 15% of graduates can be considered as practically healthy people [9; 17].

Despite close attention to the problems of restoring the health of younger generation and existing laws, the number of healthy children, according to the Research Institute of Hygiene and Health Protection of Children and Adolescents of the Scientific Center for Children's Health of the Russian Academy of Medical Sciences, has decreased three times over the past 20 years. According to statistics, the prevalence of pathology and morbidity among children aged three to 17 years is increasing by four to five percent annually [11].

The disadvantage of state and dynamics of children’s health, including schoolchildren, motivates scientists and practitioners to understand the causes of such trouble, assess its scale, and determine the conditions and ways of resolving pending problems. These questions are posed and discussed in the publications of Garkusha N.S. [12; 13], Golovina O. V. [14], Semenkova T.N. [26] and others. Modern approaches to preserving and strengthening the health of schoolchildren are emphasized in the article by Tikhomirova T.S. [28]. Publications on health preservation factors — social-status, socio-cultural, regional and psychological become numerous (EV KKrukovich E.V., LVN Luchannikova V. N.) [17; 18].

It should be noted that the problem of health preservation of schoolchildren is relevant not only for Russia, but also for other countries, as evidenced by numerous foreign publications [3; 4, etc.] At the same time, certain areas of health preservation of schoolchildren, including hygienic ones, are of particular scientific and practical interest [1; 6], educational media [7], educational-differentiated [2; 5].

Taking into account the results of domestic and foreign studies and based on these results, we aim on the justification of an integrated approach to the health preservation of school children, highlighting and describing the elements (aspects) of this approach.

Materials and methods

The methodological line of the research is the analysis of legislative framework for the health preservation of schoolchildren, including the Federal Law "On Education in the Russian Federation" (No. 273-FL) [22], "On the Basics of Health Protection of Citizens in the Russian Federation" (No. 323-FL) [23], "On the sanitary and epidemiological welfare of the population" (No. 52-FL) [21]. In preparing the article were used the materials of sociological research in the Belgorod region (Mukhartov A.A., Voznyak I.V.) [19] and other Russian regions (Akhmadullina K.M., Zhuravleva I.V.) [10; 15].

Results of the study

A comprehensive approach is fundamental for the study, the application allows us to identify ten significant aspects of the health preservation of school children (Figure 1).
1. The starting point in the structure of an integrated approach to health preservation is the conceptual aspect. It is highlighted and consider two main functions of comprehensive school – teaching and educating students. The list of these functions should be complemented by health-preserving. Increasing the value status of health preservation in society, its recognition as a priority function of the school, along with teaching and educating students — this is the conceptual meaning of an integrated approach to maintaining and strengthening the health of school children. It should be three key components in school: knowledge acquisition (education), upbringing and personal development, maintaining and strengthening the health of students.

2. The meaning of the next – political – aspect of health preservation is the most important task of the state and society to ensure the quality of education and preserve the health of children and the younger generation. In his Address to the Federal Assembly of the Russian Federation on March 1, 2018, the President of the Russian Federation V.V. Putin notes that “... today we are obliged to set ourselves a goal of a fundamentally new level. By the end of the next decade, Russia should confidently enter the club of the "80 plus" countries, where life expectancy exceeds 80 years ... At the same time, the duration of a healthy, active, full-fledged life should significantly grow, when a person is not restricted, and diseases are not locking you up."

These areas are defined by the Federal Law "On Education in the Russian Federation" (No. 273-FL), where the issues of forming a healthy lifestyle among students are reflected in 13 articles (No. 13, 28, 29, 34, 36, 41, 42, 43, 48, 66, 75, 84, 99). And Article 41 is called “Protecting the health of students”. It contains 11 clearly verified directions.

In the Decree of the President of the Russian Federation of April 25, 2019 No. 193 "On the assessment of the effectiveness of the activities of senior officials (heads of the highest executive bodies of state power) of the constituent entities of the Russian Federation and the activities of the executive authorities of the constituent entities of the Russian Federation" there is such an indicator as "the quality of education." It is important to understand and disclose what this indicator means. We believe that the quality of education should consist of three positions: the health of the child, knowledge of the subject and personal education.

3. Legislative aspect. Analysis of the existing legislation – the Constitution of the Russian Federation, Federal Laws "On Education in the Russian Federation" (No. 273-FL), "On the Fundamentals of Health Protection of Citizens in the Russian Federation" (No. 323-FL), "On the State of Sanitary and Epidemiological Welfare of the Population" (52-FL), federal state educational standards, the Plan of the main events until 2020, held within the framework of the Decade of Childhood, and others - indicates that one of the priority tasks of education is
to educate the younger generation in the spirit of a responsible attitude to their health and the health of others as the highest individual and social value.

Reality indicates that if a school is engaged in education and upbringing quite qualitatively, it cannot solve the issues of preserving the health of children professionally. And such indicators are not among the priorities for the director of an educational organization.

The Decree of the President of the Russian Federation of June 1, 2012 No. 761 "On the National Strategy of Action in the Interests of Children for 2012-2017" raised such topical issues for the education system in the Russian Federation as:

• provision of sanitary and epidemiological conditions for education in schools of the Russian Federation;
• introduction of health-preventing technologies into the educational process;
• improving control over the organization of baby food and its quality in educational institutions;
• reflection of the tasks of forming a healthy lifestyle in the framework of updating the federal state educational standards of general education;
• creation of conditions for physical activity, development of physical culture, increasing the availability of sports and others.

It can be concluded that the existing legal framework allows all interested structures to purposefully and systematically work to preserve and improve the health of students.

4. Normal and technical aspect. When opening a new kindergarten or school, you can hear the phrase that the educational organization meets “modern standards of health preservation” What does this concept include? What should be in a kindergarten or school (equipment, pool, methods) for it to comply with the standard? Taking into account such issues, we have to state with regret that in Russia there are no clear standards of health preservation, although in Article 41 of the Federal Law "On Education in the Russian Federation" are noted eleven areas.

It is important that health standards are recorded in federal state educational standards. At a round table on the topic: "Formation of a set of legislative changes that provide conditions for maintaining the health of schoolchildren", which took place on July 19, 2019 in the State Duma, the directions of health risks of schoolchildren in modern conditions were highlighted. Among them: conditions of training and education; the use of pedagogical technologies that have not passed the hygienic examination for health safety of students; digital environment for the life of children and means of its support; hypodynamia (lack of physical activity and its inadequacy to the needs of the child's body); unhealthy diet of children; behavior of children that is dangerous to their own health; organization of medical support for students; insufficient level of knowledge and competence of teaching staff in the field of protecting and promoting the health of students. All these indicators must be taken into account so that the educational organization can comply the "modern health preservation standards."

5. Medical and educational aspect. An integrated approach to the health preservation of schoolchildren involves the interaction of educational and medical institutions. The issues of organizing medical support for children in educational organizations: the status of a school service provider, training teachers the skills of first aid and their implementation, the features of medical support in small and remote educational organizations – are relevant and important for the entire education system in the Russian Federation. Medical care in schools is carried out by medical organizations, the staff of which consists of medical workers (persons with medical or other education, working in a medical organization,
whose job responsibilities include the implementation of medical activities) (paragraph 13 of Article 2 of the Federal Law of November 21, 2011 No. No. 323-FL "On the Basics of Health Protection of Citizens in the Russian Federation"). The problems of labor activity of medical workers were also when they were part of the staff of educational organizations: low wages, difficulties with advanced training, maintaining the level of professionalism and pension. Similar problems exist now. At present, simply returning doctors to the regular staff of schools will not solve the accumulated problems. It is necessary to form a modern model of the activity of a medical worker at school, providing mechanisms for solving accumulated problems, conducting approbation, and then making a decision on organizational changes. Everyone understands that a medical office in a school cannot be equipped as well as a medical office in a polyclinic. However, a doctor at school must guide children from first to eleventh grades, monitor their health and schedule examinations with other specialists.

School health preservation must meet the needs of society, parents and students, use modern technologies, including digital medicine, and have adequate resources (personnel, material and technical, informational and others). And this is possible only with the joint cooperation of the Ministry of Education of the Russian Federation with the Ministry of Health of the Russian Federation.

6. Social aspect. An important "component" of an integrated approach to the health preservation of schoolchildren is the organization of high-quality hot meals for children in schools. The social significance of this "component" shows the adoption of relevant legislation at the level of the State Duma. It should be noted that number of Russian regions are responsibly and successfully addressing this issue. So, in the Belgorod region, on the initiative of the governor, each schoolchild is supposed not only to hot meals, but even a glass of milk and honey, if he has no medical contraindications. There are such practices in other regions as well. At the same time, it is fundamentally important that the child should not be made dependent on what kind of official the region is, good or bad, whether this issue will be resolved or not. Most children spend almost a full day at school. Therefore, it was necessary to bring this problem to the rank of federal importance. The organization of school meals in primary grades should be under the supervision of the state. Today these issues have already been placed under the control of the State Duma.

7. In an integrated approach to health preservation, it is useful to highlight the “co-participating” aspect, which shows the active participation of school teachers and students themselves in health preservation. Previously, a graduate of a pedagogical university possessed medical skills, now the system does not provide for this. At the same time, it becomes more and more evident that future teachers should acquire knowledge of first aid at a university and the ability to apply them in practice. Foreign experience is useful here. In many countries, portable defibrillators are installed in schools. They are placed behind glass, like a fire alarm button. But in order to use a defibrillator, a person must be trained. For many injuries and illnesses, assistance must be provided in the first 5-7 minutes, and an ambulance can travel for half an hour, especially in rural areas, where long distances and often bad roads. Even in Soviet times, in schools and pioneer camps, there were so-called orderlies from among the pupils who monitored the cleanliness of nails, ears, etc. This is one of the ways to immerse a child in a healthy lifestyle. Through the game of orderlies, they get used to brushing their teeth every day, to take care of themselves [16].

8. Educational aspect. One of the main factors in the health problems of schoolchildren is inadequate literacy skill in the area of maintaining and strengthening the health of students themselves and their parents. It is necessary to form in the child the need to be healthy,
to teach him this, to help him in an organized way in maintaining and developing health. It is important for the child to show that a healthy person is a happy person. That he should not smoke, use drugs or alcohol, do everything that will prevent him from living up to 80 years or more. It should be promotion of hygiene principles and health. The question of the health culture of schoolchildren is quite rightly raised in the scientific literature [12; 13].

9. Organizational and technological aspect. The success of the health preservation of schoolchildren depends on the development and implementation of new technologies in the educational space of students. Educational technology is developed by Academician Bazarny V.F. The essence of this technology is the integration of the artificial and natural structure of organizational behavior. The human skeleton was formed with the fact to stand and walk, or lie down predominately. For example, a person could sit down for a short period of time to rest on the way. Today we sit for 8 to 10 hours a day. Therefore, it affects the musculoskeletal system, the circulatory system and much more.

It would be appropriate to recall Pushkin A.S.: while studying at the Tsarskoye Selo Lyceum, he stood behind the desk; Gogol N.V. wrote only while standing (and the desk is a necessary element of a set of health-preservation furniture in the system of Bazarny V.F.). In the system of Bazarny V.F. it is necessary to write with a pen, because writing develops fine motor skills and affects certain parts of the brain. Typing on the keyboard does not have the same effect. Methodology of Bazarny V.F. is simple to comply and yields tangible results. With the support of the government of the Belgorod region, 350 out of 565 schools have introduced elements of the Bazarny V.F. This movement is spreading throughout Russia, but not systematically. Since the experience has turned out to be positive, and some leading educational institutions have already adopted it, I believe that it can and should be broadcast throughout the Russian Federation.

Describing the significance and promise of the organizational and technological aspect of health preservation of schoolchildren, it should be noted that deteriorating health is linked to the lack of motor activity. From the first years of study, it decreases by 50% and further continues to fall steadily. TV, computer, static school workload, daily “jail time” for homework – this is the day of most modern schoolchildren [27].

10. Continuing the characterization of an integrated approach to the health preservation of schoolchildren, let us turn to its managerial aspect, which unites all others, giving them a certain integrity. Moreover, this integrity is manifested not only "horizontally", i.e. integration of various components, for example, educational and municipal, but also "vertically", i.e. through functional-targeted integration of hierarchical levels of government – federal, regional and municipal. The appropriate option looks like this: at the federal level, should be included instruments that will stimulate, facilitate and promote the introduction of a system of children's health preservation. And the regional and municipal levels should work on implementation.

The discussion of the results

In a number of Russian regions – in the Komi Republic, Krasnoyarsk Territory, Belgorod, Moscow, Rostov Regions, Moscow and others – there are wonderful examples of purposeful systematic work to improve the health of students, to form their need for a healthy lifestyle. Various health-preserving technologies are widely introduced into the practice of educational institutions by enthusiastic teachers. Educators-innovators unite in public
organizations. In order to solve the problems of preserving the health of children, it is necessary to form a separate federal project to preserve and strengthen the health of pupils of preschool educational organizations and students of general educational organizations within the framework of the national project "Health" or the national project "Education". The indicator system of this project should be focused on achieving such real indicators as increasing the number of children of the first health group, decreasing the number of children with chronic diseases, reducing the morbidity of students and other indicators.

It is necessary to include the indicator "Dynamics of the state of physical and mental health and physical fitness of students and pupils" in the list of indicators for assessing the effectiveness of the executive authorities of the constituent entities of the Russian Federation on the basis of uniform criteria. State authorities of the constituent entities of the Russian Federation and local self-government bodies should ensure the creation of a favorable social environment for children and young people at the place of residence, actively involve territorial public self-government and all civil society institutions in this work.

The issues of improving the conditions of education in general education institutions should be reflected in the strategy of socio-economic development of municipalities. It is necessary to support projects aimed at improving the health of schoolchildren, introducing health-preserving technologies and promoting a healthy lifestyle, educational activities in terms of immunization through preventive programs, educating young people about a competent attitude to immunization and understanding the benefits of vaccination.

In concluding, let us pay attention to two difficulties that hinder the application of an integrated approach to the health preservation of schoolchildren. First, the biggest challenge the school faces is that it does not adequately care of the student’s health. It is lost because of five lessons a day and then they try to compensate with two physical education lessons a week. It is obvious that the system must be changed: health-saving technologies must be included in the entire educational process. At one time, desks were different in height, now in most educational organizations they are the same. In some schools, thanks to enthusiasts in their field, there are positive processes: have been purchased self-regulating desks. But it is not a fact that the teacher will really regulate it in accordance with the growth and needs of the child. It is almost impossible to verified if the teacher is keeping track of students' posture, classroom lighting, etc. Secondly, the impact of the training load on the young organism. When a child does not have the opportunity to rest, it is useless to talk about maintaining health. Much had been done all over the country: gyms are being built; stadiums are opening. Everyone can do physical training: the sports grounds are open until nightfall, there are sports complexes in the courtyards. But if the child is overwhelmed, then he simply does not have time for sports. Therefore, it is necessary to somehow change the very system of schoolwork in order to compensate for excessive loads.

**Conclusion**

1. It is useful and promising to use an integrated approach to preserving and strengthening the health of schoolchildren, including nine aspects (conceptual, political, legislative, normal-technical, medical and educational, social, “co-participating”, educational, organizational and technological) and five levels (personal, school, municipal, regional, federal).
2. The basic principle of applying an integrated approach to the health preservation of schoolchildren is its awareness and recognition as a "component" of the three – tiered goal of school education, along with teaching and upbringing.

3. It is important political and legislative consolidation of health preservation of schoolchildren. The development of federal and regional health preservation standards is required.

4. It is advisable to develop various formats of medical support for the health preservation of schoolchildren, taking into account age, gender, psychological, regional and other characteristics.

5. It is necessary to purposefully form a culture of health preservation both among students and among teachers, including sanitary and hygienic education.

6. An important aspect of the health preservation of schoolchildren is the organization of school meals for students. Particular attention should be paid to the rational organization of the educational space of schoolchildren, taking into account the existing natural limitations, its material, technical and technological support.

7. The success of an integrated approach to the health preservation of schoolchildren depends on the inter-level coordination of tasks and functions, i.e. coordination of actions at the personal, school, municipal, regional and federal levels.

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