

The Role of Teachers in Preserving the Health of Students and the Implementation of the School Medicine Project

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Introduction

The formation and protection of the health of children, adolescents and youth are the most responsible areas of work in the education system, since the formation and development of personality takes place there [1].

Therefore, the system of organizing educational and educative activities in educational structures of different levels is of paramount importance for the preservation and development of students' health, formation of healthy lifestyle beliefs, disclosure of individual creative opportunities, forming of socially acceptable life needs and prevention of psychosocial addictions [2,3].

Methodology and Methodic of the Study

In this regard, a number of regulatory and legal documents at the federal level have been developed and adopted, aimed at preserving and developing the health of students and pupils and creating health-saving conditions in educational organizations. Among these documents, the following should be particularly noted:

- National Educational Initiative "Our New School" (February 04, 2010);
- Decree of the President of the Russian Federation dated June 1, 2012 "National Strategy of Actions in the interests of children for 2012-2017";
- Federal Law "On Education in the Russian Federation" dated December 29, 2012 No. 273 (with amendments. 01.09.2020);
- Action Plan for the modernization of general education for 2011-2015 dated September 7, 2010 No. 1507-р;
- Order of the Ministry of Education and Science of the Russian Federation dated January 12, 2007 No. 7 "On the organization of health monitoring of students, pupils of educational institutions";
- Order of the Ministry of Education and Science of the Russian Federation dated December 28, 2010 No. 2106 "On approval of federal requirements for educational institutions in terms of health protection of students, pupils";
- Sanitary and hygienic requirements and requirements to the safety of the educational environment (SanPiN 2.4.2.2821-10);

- Federal Law No. 323-FZ of 21.11.2011 (as amended on 31.07.2020) "On the basics of protecting the health of citizens in the Russian Federation" (with amendments and additions, from 01.09.2020);
- Order of the Ministry of Education and Science of the Russian Federation No. 658 dated 16.06.2014 "The procedure for conducting socio-psychological testing of persons aimed at early detection of non-medical use of narcotic drugs and psychotropic substances".

Despite this, the modern education system does not fully ensure the fulfillment of the tasks of preserving the health and safety of the subjects of the educational process [4,5]. This is evidenced by official data: up to 85% of school graduates have various psychosomatic disorders and diseases, more than 60% use psychoactive substances, according to the number of suicides in adolescence, Russia came out on top in the world. "We are facing extremely alarming trends: at the age of 14, two-thirds of Russian children already have chronic diseases, half have disorders in the cardiovascular and respiratory systems; up to 40% of conscripts are unable to meet the minimum standards of physical fitness of military personnel," - Russian President Vladimir Putin said on March 13, 2013. at a meeting of the State Council.

All this dictates the need to integrate the efforts of medical professionals and teachers to form and preserve the health of students. In this regard, the issue of restoring school medicine in educational organizations is currently being widely discussed. However, the leading role in it is assigned to medical workers, without taking into account the potential of teachers for medical and biological support of students based on screening diagnostics and monitoring of their health in the dynamics of education. This article discusses the possibilities of teachers in the implementation of this component of school medicine.

The Results of the Study

A summary assessment of the situation allows us to identify the key factors determining the low level of health of all participants in the educational process [6]:

- lack of a conscious need for health and a healthy lifestyle;

- lack of necessary knowledge on health protection;
- insufficient level of wellness programs and primary preventive care.
- The consequence of this is the distortion of lifestyle, the spread of risk factors for diseases, the formation of addictive and self-destructive behaviors [6]. These include:
 - low level of motor activity;
 - unbalanced nutrition, which leads to a violation of the intake of nutrients, mineral salts and vitamins;
 - information overload associated with the intensification of training and irrational work regime;
 - a high level of psychoemotional tension, leading to increased anxiety, aggressiveness, disruption of communications, etc., which creates other psychological and psychosomatic problems;
 - loyal attitude to the use of alcoholic beverages;
 - widespread smoking;
 - introduction to the consumption of narcotic substances.
- Along with the factors of an unhealthy lifestyle, it is necessary to highlight the problems of the organizational and regulatory plans:
 - lack of a mechanism of medical and pedagogical cooperation in the preservation and strengthening of the health of students and pupils;
 - imperfection of the regulatory framework regulating the methodology and methods of monitoring the health of students and pupils;
 - low level of preventive literacy of teachers and parents;
 - poor use of the health-saving potential of the content of a number of educational programs (physical education, lifestyle, biology, etc.) due to the lack of interdisciplinary connections;
 - lack of systematic control over the dynamics of health, physical fitness and health-saving potential of the educational organization [1,7-9].

In this regard, there is a need to solve these tasks at all stages: from the training of teaching staff in universities to the management of education at the regional and federal levels [4,10-13].

First of all, let's define the concept and structure of health-saving activities in the education system.

Health-saving activity is a system of regulatory, organizational and managerial, scientific and educational-methodical solutions aimed at:

- creating conditions for preserving and strengthening the health of participants in the educational process, full-fledged personal development of students and pupils, taking into account their individual capabilities and characteristics;
 - assistance to educational organizations in ensuring the achievement of personal, meta-subject, subject-specific results of educational activities in accordance with the requirements of the Federal State Educational Standard;
 - promotion of moral, physical self-improvement and professional self-determination of high school pupils.
- The main objectives of health-saving activities* in educational organizations are:
- to create conditions for the preservation and strengthening of health, personal, intellectual, social development of students, pupils and other participants in the educational process;
 - to carry out diagnostics and monitoring studies of the level of physical and mental development, the formation of a culture of health and a safe lifestyle, the state of the educational environment;
 - to provide comprehensive psychological, pedagogical,

medical and social assistance and support to students, pupils, their parents, the pedagogical staff, the administration of an educational organization to identify, prevent and overcome deviations in the development, training and socialization of a child in the process of implementing the Federal State Educational Standard;

- to carry out educational activities for the development of a healthy and safe lifestyle culture.

The most informative criterion for evaluating the effectiveness of health-saving activities in the education system is the level of health of participants in the educational process [6,14]. Therefore, first of all, it seemed important to develop a methodology for assessing human health and its methodological support.

Our approach is based on the following principles: 1) health is an integral state that includes the physical, mental and social essence of a person, ensuring his adequate adaptation to the conditions of life, opportunities for development and self-realization. This definition is based on the idea of the integrity of the organism and the unity of its systems, which characterize the capabilities and abilities of the individual to satisfy their biological, spiritual and social needs with perfect adaptation to external environmental factors and social conditions; 2) the organism and its habitat are a single whole, which determines their interaction, therefore, the health-preserving environment is an important factor contributing to the preservation of health; 3) the level of health can be quantified if we take as a basis the value of the reserve capabilities of the body, ensuring the preservation of the constancy of its internal environment during various activities and after different loads; 4) the child's body grows and develops, that is, it changes quantitatively and qualitatively, therefore, the indicators characterizing its health also change in ontogenesis. Each of the health levels can be assessed by objective criteria, which are characterized by the following parameters:

- 1) *Physical (somatic) health* determines the capabilities of the body and includes genetic, biochemical, morphological and functional indicators characterizing the level of physical development and functional reserves of the body (anthropometric data, the state of various organs and systems, especially cardiorespiratory, at rest and after physical exercise, endocrine status, etc.);
- 2) *Mental (mental) health* includes an assessment of neuropsychic processes (the level of socio-psychological adaptation, various types of memory, attention, mental performance, neurodynamic properties of the nervous system); characteristics of the psycho-emotional state (levels of anxiety, stress resistance, motivation for success, aggressiveness; personal characteristics), which allows the body to realize its needs and desires;
- 3) *Socio-moral (spiritual) health* determines the fulfillment of a person's duties, compliance with moral, ethical and legal norms, which is assessed by the goals set, values and ideals identified, behavior in various, especially critical, situations.

To assess the health-saving activities of an educational organization, it is also important to evaluate the state of socio-ecological and sanitary-hygienic conditions of the learning environment and life that affect human's health.

To characterize health, an integrative approach is important, taking into account the complex of all parameters [15,16].

Based on these principles, electronic health passports have been developed that allow to provide screening diagnostics of various

morphological, functional, and psychological parameters of the organism in ontogenesis under the influence of learning factors and a specific socio-ecological environment, as well as to make recommendations for correcting the identified disorders [17,18].

It is clear that the list of indicators used for screening diagnostics of health can be adapted for each educational institution, depending on the personnel and logistical potential. On the basis of computer testing, a model to predict the risk of developing health disorders and deviant behavior is made, which gives possibility to begin timely correction through various forms of psychological and psychotherapeutic work, physical education and treatment.

As a result of the proposed computer testing, an individual electronic passport of human's health is formed, which is characterized by the following properties:

- an integrative approach to health as a systemic condition, including indicators of physical, mental and social levels;
- computerization of all data, which allows to create a bank of health of different groups;
- quantitative expression of parameters, which provides the possibility for dynamic observation of the subjects and comparison the level of health of various groups, educational organizations, districts, etc.;
- relative simplicity of the survey, which does not require expensive equipment;
- the possibility of transmitting the results of the survey via the Internet;
- involvement of the subject in the testing process, which increases his personal interest in the preservation and development of health;
- the ability to predict the risk of deviant behavior, timely identify psychosomatic disorders and carry out their correction.
- The implementation of these passports allows us to solve a number of scientific and applied tasks:
 - to contribute to the preservation of health in the learning by correcting the educational process and providing individual recommendations for the development of health based on the results of monitoring;
 - to help pupils in professional orientation for a conscious and adequate choice of profession according to their interests and capabilities;
 - to assess the health-saving activities of an educational organization based on the existing conditions;
 - to provide an individual approach to the organization of the educational process, taking into account the psychophysiological characteristics of each pupil and student.

Such activity requires the formation of modern teachers with new professional competencies related to the medical, psychological and pedagogical assessment of the health of students and the educational environment. Therefore, it's necessary to include in the programs for students of pedagogical universities such disciplines as "Developmental anatomy and physiology", "School hygiene", "Fundamentals of medical knowledge and a healthy lifestyle", "School Medicine". Children's health centers established in all regions, equipped with the necessary medical personnel and equipment, could provide great assistance to teachers in conducting monitoring studies and forming health passports. Unfortunately, such activities now are not realized. As a result, a temporary student of pedagogical university and teacher found himself between two departments that are responsible for different indicators of a child's development - the level of knowledge, skills and abilities, on the one hand, and health, on the other. As a result, more than

80% of school graduates become physically and/or mentally sick.

Conclusion

The methodological justifications and approaches presented in the article for health monitoring make it possible to implement one of the main tasks laid down in the Law on Education - to conduct an objective assessment of the health of subjects of the educational process and the effectiveness of health-saving activities of educational organizations. The use of the described approach gives possibility to obtain a dynamic characteristic of the physical and mental health of pupils, students, and the educational environment for making appropriate management decisions and carrying out corrective measures necessary to improve health-saving activities and improve the health of all participants involved in the educational process.

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