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# Health and Safety of All Participants of Educational Process Are the Priorities of Modern Education System

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### Abstract

The paper presents Russian federal legal documents concerning saving of health and safety of all participants of educational process. However, the present system of education doesn't provide solution of these tasks, therefore about 85% of school leavers have various psychosomatic disorders and diseases. The modern school reforms are aimed not only on education process, but saving health of pupils, students and teachers. Authors proposed the definition of health saving activity and the main objectives of it. The most informative criterion for assessing the effectiveness of health saving activity in the education system is the level of participants' health. To estimate the human's health it was developed the electronic passport of health and health saving activity of school/institute based on principles of developmental physiology, psychology, and hygiene. To introduce them in educational process is necessary to form in modern teachers of new professional competencies, that are discussed in the paper.

## 1. Introduction

The national education system is in the conditions of innovative transformations. The organization of education with the expansion of educational and health saving components plays an important role in the education system. In the federal state educational requirements (FSER) noted that the integration into the content of educational activity the questions of health saving and strengthening of an educational component in this field allows to create an information field about factors which influence health, a healthy lifestyle, ecology, safety and form conscious, voluntary motivation on maintaining a healthy and safe way of life.

Health of the Russian population decreases, so the formation and protection of health of children, teenagers and youth as future of the country becomes the main direction of domestic policy of the state. In this regard the most promising line of work is the formation at the person of a new hierarchy of values, where their health and safety is a are prerequisites for successful self-realization of potential opportunities of the personality.

The educational organizations of different levels, where there is a formation and development of the personality, play a special role in the solution of these questions. Therefore the system of the organization of educational and training activities in these structures of education has paramount value for preservation and the development of students' health, a healthy lifestyle, the disclosure of individual creative abilities, the

formation of socially acceptable vital needs [1].

The main aim of this study is to present our experience in realization of the system preparing students of the pedagogical university and improvement of professional skills of teachers of schools for implementation in an education of methods of formation and preservation of health and healthy safe style of life.

## 2. Main Body

*Problems and Solutions.* Today the school is a social institution through which the entire population of the country goes in, that allows educational institutions to have the dominating impact on younger generation in all directions which are connected with health: education (competence to be healthy), upbringing (creating a culture of healthy and safe lifestyle) and health saving (healthy and safe educational environment).

However, the present system of education doesn't provide tasks to preserve the health and safety of subjects of educational process. Official data indicate that: 85% of school leavers have various psychosomatic disorders and diseases, more than 60% use psychoactive agents. Russia heads up the list of suicides in teenage age. Besides, the low level of preventing literacy of teachers and parents aggravates this influence [4].

There are a large number of legal documents, which are directed on the solution of questions connected with health and safety of all participants of educational process:

- National educational initiative «Our new school» of 04.02.2010;
- Decree of the President of the Russian Federation dated June 1, 2012 «National Strategy of actions in interests of children 2012-2017»;
- Federal Law «About education in the Russian Federation» dated 29 December 2012 № 273;
- The plan of actions for the modernization of general education in 2011 - 2015 years of 7 September 2010 № 1507-r;
- The order of the Ministry of Education and Science of the Russian Federation of 12.01.2007 No. 7 «About the organization of monitoring of students' health at educational institutions»;
- The order of the Ministry of Education and Science of the Russian Federation of 28.12.2010 No. 2106 «About the approval of federal requirements to educational institutions regarding health protection of students and pupils»;
- Sanitary and hygienic requirements and requirements to safety of the educational environment (SanPiN (Sanitary-epidemiological Rules and Norms) 2.4.2.2821-10).

At the first, we explore how teachers evaluate education reforms. It allows to see and understand how teachers are satisfied with the changes, whether they feel positive changes in their establishment, whether creative efforts and disorders are vain (Table 1).

*Table 1. Assessment by teachers of school reforms.*

How do you assess the progress of education reforms / (including in the field of health-saving?)	In Russia (at whole)	In educational organization of Novosibirsk State Pedagogical University
There are positive shifts	27,5% / (33,1%)	56,3% / (63,4%)
I don't notice essential shifts	32,4% / (21,4%)	17,7% / (10,1%)
It became harder and worse	23,5% / (18,3%)	11,2% / (2,7%)
I find it difficult to answer	16,6% / (27,2%)	14,8% / (23,8%)

These results disprove pessimistic moods of the pedagogical public in certain a sense. More than a half of teachers notice positive shifts in the educational establishment, including in the field of a health-saving.

Teachers note that it is better to cook food at school; it is necessary to strengthen material resources, including on physical training. It is interesting that the senior teachers (length of work service from 15 to 25 years) estimate the course of reforms more positively, in comparison with young (length of work service till 5 years).

Young teachers don't have sufficient professional competence and most of them have a nihilism in the formation of a healthy and safe lifestyle [3].

Thus there is a question of need to solve these problems and evaluate the effectiveness of health saving activity at all stages, from training teachers in high schools to education management at the regional and federal levels [2, 5,10].

*Results.* Health saving activity is a system of standard and legal, organizational and administrative, scientific and

educational and methodical decisions which are directed on:

- creation of conditions for preservation and promotion of health of participants of educational process, the full personal development of students according to their individual capabilities and features;
- assistance to the educational organizations in ensuring achievement of personal, metasubject, subject results of educational activity according to requirements of FSER;
- assistance to moral, physical self-improvement and professional self-determination of senior students.

The main objectives of health saving activity are:

- to create conditions for the preservation and promotion of health, personal, intellectual and social development of students and other participants in the educational process;
- to conduct diagnostics and monitoring researches of level of physical and mental development, formation of culture of health and a safe way of life, conditions of the educational environment;
- to carry out the complex of psychological, pedagogical,

and medico-social help and support to students, pupils, their parents, pedagogical collective, administration of the educational organization for identification, prevention and overcoming of deviations in development, training and socialization of the child in the course of realization of FSER;

- to carry out educational activities for cultural development of a healthy and safe way of life;
- to promote distribution and introduction to practice of the educational organizations of the latest developments in the field of domestic and foreign psychology, pedagogics, physiology for the purpose of increase of efficiency of realization of FSER.

The most informative criterion for assessing the effectiveness of health saving activity in the education system is the level of health of participants of the educational process [5, 6].

We analyzed using questionnaires and medical cards the state of health of the first year students of pedagogical university (n=351). It has been revealed, that at first-year female students there is high percent of diseases of digestive system (24 %), the skeletal-muscle (18 %), diseases of kidneys and urinogenital system (13 %), cardiovascular (12 %) and skin diseases (10 %). The majority of male students consider, that at them is not present problems with health (78 %), however it was noted the diseases of respiratory system (8 %), the skeletal-muscle (8 %) and near 3 % diseases of nervous system and kidneys. As it is possible to see, girls in higher degree estimate presence of diseases while young men do not attach significance to this question. The given questionnaires have revealed adverse conditions on smoking and the alcohol use. The percent of smoking students is high enough. On the first course about 26 % of girls and 10 % of males are smoking. About 27 % of females and 26 % of males pointed using alcohol more than 1 time a month. Less of half of interrogated students always have breakfast and daily using hot food. Around 32 % of female students and 23 % of males regular eat fruits and vegetables, 10 % of males and 67 % of females sleep less than 6 hours a day, that finally can lead to increase of fatigue and deterioration of state of health. An irregular food intake, a lack of vitamins and microcells at dairy in the conditions of Siberia can lead to increase of diseases of digestive system. The wrong food, insufficient time of night rest affect also physical and intellectual working capacity of students. And in a complex with bad habits reduces the immune status of an organism of young men and girls. All interrogated students of pedagogical university came to the conclusion that is necessary in high schools, from the first course, to carry out the monitoring of health of students, but also to realize programs on formation of culture of health and health safe life style.

So first of all it was important to develop a methodology for the assessment of student's, pupils's, and teacher's health and its methodological support.

Our approach was based on the following principles:

- Health - is an integral state, including physical, mental and social nature of person, which ensure adequate

adaptation to conditions of life, opportunities for development and self-realization.

- Level of health can be estimated quantitatively if to assume as a basis the value of the reserve opportunities of an organism providing preservation of constancy of his internal environment during and following different types of activity and after stress.
- The human and its environment are a single entity which produce mutual influence on each other, so the health saving environment is an important factor that contributes to the preservation of health.
- The children are growing and developing, changing quantitatively and qualitatively, so indicators which characterize their health in ontogenesis are also changing.

On the basis of these principles we developed electronic health passports, which allow to carry out screening and diagnosis of various morphological, functional, and psychological parameters of the organism during ontogenesis under the influence of training factors and specific socio-ecological environment, and assess the level of health-promoting activities of educational organizations and to form recommendations for the correction of violations [7-9, 11].

For example, when studying health of students the following parameters of physical and mental health are estimated:

- physical development and functional reserves of an organism;
- physical fitness;
- psychophysiological indicators (level of social and psychological adaptation, different types of memory, attention, intellectual working capacity, the neurodynamic properties of nervous system allowing assess the state of nervous processes);
- a psychoemotional state (levels of uneasiness, resistance to stress, motivation to success, aggression; personal characteristics).

Each program is constructed taking into account the age and sexual and professional contingent of the examined persons.

So, the program of monitoring of teachers' health, along with control of physical and mental health, allows to solve and other problems, namely, to carry out a self-assessment:

- physical, psycho-physiological, personal, characterological, professionally significant qualities;
- the level of psychological climate in collective;
- attitudes to their own health;
- the degree of professional burnout.

It is clear that the list of the indicators used for screening of diagnostics of health can be adapted for each age group, educational institution depending on personnel and material potential and aim of study.

On the basis of computer testing results it is performed a model for prediction of health problems risks and deviant behavior, that allows timely to start correction using various forms of psychological and psychotherapeutic work, sports exercises and treatment.

Based on the proposed computer-based testing the individual electronic passport of human's health and health saving activity of educational organization is formed. This passport is characterized by the following advantages:

- Integrative approach to health as to the system state including indicators of physical and psychosocial levels.
- A computerization of all data that allows to create bank of health of various age, sexual and professional groups.
- The quantitative expression of indicators providing possibility of dynamic supervision and comparing the level of health of different groups, educational organizations, districts, etc.
- The relative simplicity of inspection which isn't demanding the expansive equipment.
- Transferability of the survey results via the Internet.
- Involvement of the subject in diagnostic process that increases his personal interest in preservation and development of health.
- Opportunity to predict risk of deviant behavior, in timely to reveal psychosomatic violations and to carry out their correction.

Implementation of these passports allows to solve some scientific and applied problems:

- To promote health in the learning process due to the correction of teaching and educational process and reasoned individual recommendations for the development of health based on the results of monitoring.
- To help in vocational guidance for conscious and adequate capacity of the organism in choice of profession.
- To carry out an assessment of health-saving activity of educational institution on the basis of the available conditions.
- To provide an individual approach to the organization of teaching and educational process taking into account psychophysiological features of each pupil and student.

This activity requires the formation from modern teachers of new professional competencies that will allow them to carry out the following functions:

- Systematic-activity, i. e., master such functions as monitoring the health of the participants of educational process and the health-promoting activities of educational organizations, correction and creating a culture of health among students.
- The competence-based, allowing to realize by each participant of educational process need to be healthy, to lead a healthy and safe life, to be improved in this case.
- Medico-psychological and pedagogical competences based on the development and introduction to practice of the criteria and methods of an interdisciplinary assessment of students' health and the educational environment.

To preparing such teachers we set up the master program aimed to give necessary knowledge and skills for implementation the theoretical data and electronic passport of health in schools. This master program includes such themes:

- the organization of health saving environment in

educational process;

- the working out programs of health formation using pedagogical, psychological and adaptive physical culture methods;
- the working out the individual educational trajectory for teaching;
- the organization of pedagogical researches on actual problems of formation and saving health and safety;
- monitoring of health of subjects of educational process (pupils, students, teachers);
- application of health saving, information-communication technologies in professional work;
- management of educational organizations from position of health saving and safe style formation.

Interest to this program from teachers and bachelors is high enough that allows to consider the possibility of fast implementation in system of educational institutions health saving activity.

### 3. Conclusion

Thus, the introduction in system of continuing education programs for monitoring the health and safety of pupils, students and teachers, using the electronic passports of human health and health saving activity of educational organization, modern teaching, including health saving technologies, preparing modern teachers with necessary competences in this field – all this can help in the realization of the tasks facing the modern education system.

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