

Principles of Pedagogical Monitoring of Health as an Element of Health-Creative Education

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Keywords: health, health criteria, principle, pedagogical monitoring, students, teacher

Abstract: This publication discloses an approach to the organization of pedagogical monitoring of the students' health in the general education system tested by the authors in their studies. The need to support the monitoring of students and teachers in the process of educational activities is due to the social significance of preserving and strengthening the health of the younger generation as one of the determining conditions for improving the quality of life. When determining pedagogical monitoring, the authors proceed from the interpretation of human health as the volume of personal vitality, which is given by nature at birth and used reasonably or unreasonably. This understanding of the definition of health allows us to include health in a set of indicators of a person's culture and consider its condition as a consequence of certain actions of a person in terms of preservation and strengthening. Pedagogical monitoring is provided through the implementation of two groups of principles. On the one hand, they regulate the process of organizing pedagogical monitoring. On the other hand, they contain requirements for the means used to diagnose the health of students. The study proves that students' participation in their health monitoring puts them in the position of subjects of recreational activities, and this is an effective way of forming their habit of taking care of their health.

1. Introduction

Among many other demanding challenges, the problem of preserving and promoting the health of students, almost throughout the history of the development of the education system, is one of the most actual. The importance of its solution to this problem does not require special evidence since human health is one of the global universal values, which determines not only the preservation but also the quality of life of the human community. At the same time, it is difficult to find a more controversial phenomenon than health. In Russia, this is a matter of personal concern for almost every person, and the health of the country's population, including children, is an object of attention to state authorities. According to M. M. Potashnik [18], for the education system, the level of health of students is one of the indicators of effective management of the quality of education.

The proof of the legitimacy of these provisions is the number of studies in various fields of science that are directly or indirectly devoted to the health issues of different categories of the population. A significant part of these studies is comprised of works that examine various aspects of the health of students in the system of general, secondary vocational and higher education, and develop approaches and methods for its preservation and strengthening, including through pedagogical means. The research is conducted by many scientists, such as N. P. Abaskalova [1], V. F. Bazarny [4], G. K. Zaitcev [8], V. N. Irkhin [9], V. V. Kolbanov [12], T. N. Levan [14], N. N. Malyarchuk [17], N. V. Tretyakova [21], Z. I. Tyumaseva [22], V. A. Fedorov [21], and others. These studies are devoted to the development of different approaches to the implementation of the idea of health-saving in educational organizations of general and higher education.

At the same time, there is no more difficult humanistic problem to solve than the preservation and promotion of the health a growing person during his education at school. In our opinion, this is explained by

the fact that human health is a phenomenon that is rather complicated for study and has an integral character since it organically combines two principles. In particular, this is a natural principle, which is given to a person by nature at birth as an attribute of life (according to V. V. Kolbanov) [12]. The second principle is cultural. The state of human health, according to generally accepted professional and public opinion, is more than 50% dependent on a person's personal efforts to comply with norms and rules of a healthy lifestyle. It follows that the preservation and promotion of human health can and should be taught, and the earlier this process begins, the more likely it is to achieve the best results.

However, in the process of teaching children to preserve health, another difficulty is found. The fact is that health, according to N. M. Amosov, is such a value that a person discovers only after he loses it [2]. The results of our empirical research show that children practically do not feel a lack of health. The degree of physical maturity and significant energy reserves are manifested in the high need of the children's body for movement. Therefore, with slight deviations in the state of health, their children are hard enough to put to bed.

This evidence allows to raise a number of health issues related to education. Namely, where, when, how, and who should teach children how to manage their health so that upon reaching physical maturity, they will be able and consciously, purposefully, and effectively maintain and strengthen their health.

2. Materials and Methods

In our study, the leading approach is the valeological approach. First, it restricts the study to consider only the health of a growing person. Second, it allows one to approach the assessment of children's health from the standpoint of individual norms for each subject. The variability of this norm depends on different circumstances (external and internal). Third, it makes it possible to consider health as a subject of pedagogical activity of a teacher. Fourth, it determines the choice of research methods, which include theoretical methods, such as analysis, synthesis, generalization, induction, deduction, as well as generalization of advanced pedagogical experience, observation, modeling, mental and pedagogical experiments.

3. Results

An analysis of different approaches to determining human health shows that this concept integrates the phenomena of two different spheres of human science and practice: (1) medicine, which studies health from somatics; and (2) education, the main task of which is to prepare a growing person for adult life through the formation of a basic personality culture, manifested in the ability of a person to consciously and responsibly control their behavior. Since the level and state of human health is determined, including the volume of his own conscious efforts, it is possible to consider health, on the one hand, as an indicator of a person's culture, and, on the other hand, as a factor determining the quality of human life.

The inclusion of the task of teaching students to preserve and strengthen their health in the number of pedagogical tasks raises a number of questions. Above all, this implies the readiness of teaching staff to solve this task. In the history of Russian education in the post-Soviet period, different modes of teaching students' health management were tested. Today it is known that in the conditions of the modern organization of general education, the most optimal way is to "include" education participants (students and teachers) in monitoring their health in the educational process during each academic day.

An analysis of studies on the problem of monitoring the health of schoolchildren shows that the subject of monitoring is mainly the state of physical health and physical development of children and adolescents and primarily medical diagnostic. Among such works can be called the research conducted both individual and collective (E. A. Afanasyev, V. N. Vasilyev, Yu. V. Terentyeva, I. A. Sennikova [3], R. T. Galeeva, V. I. Strukov, Yu. E. Allenova, G. V. Dolgushkina, A. N. Astafeva [5], O. V. Golovin, N. S. Konchits, S. P. Turygin [6], V. V. Gorelik, V. F. Pyatin [7], A. M. Kardangusheva [10], E. L. Kats [11], N. G. Kopylova [13], E. V. Lyubova, E. A. Boltacheva, N. V. Zhulan, S. V. Mikhailova [15], L. N. Makarova, N. I. Romashevskaya [16], A. N. Prieshkina, I. P. Flyanku, Yu. P. Salova, O. M. Kulikova [19], A. Yu. Serdyukov [20], and others).

Without questioning the necessity and expediency of diagnosing the state of health of schoolchildren with medical means, we believe that the formation of schoolchildren's habits of taking care of their health is possible for changes in their state of health, for reactions of their body on the influence and change of various external and internal factors. In our opinion, pedagogical monitoring provides a complete solution to this problem. In particular, we mean the inclusion of all subjects of the educational process in constant monitoring of their health in the process of performing their main activities: educational and pedagogical, respectively. Under the goal of pedagogical monitoring, we consider, first of all, the identification by students of their individual health norms. Second, this is the formation of their attitude to health as a personal and public value. And finally, increasing their activity in preserving and strengthening their health is also the goal of pedagogical monitoring.

The principles of pedagogical health monitoring defined by us correspond to two conceptual foundations of our study: (1) the concept of organizing a health-creating education; and (2) the definition of the concept of human health as an indicator of an individual personality culture developed by us. By health-creating concept, we mean education, which is a purposefully organized pedagogical process, ensuring the formation (preservation, maintenance, strengthening, and growth) of the health of students and teachers in conditions of their interaction during each academic day. We define the concept of human health, based on the etymology of the word "health," as the volume of vitality that a person receives from nature at birth, and which he/she uses reasonably in the process of his cultural, consciously managed life (preserving, maintenance, strengthening and growth). Thus, a healthy person is a person who realizes the value of health for life and has the habit of purposefully "engaging" in his health. Such a person has certain actions aimed at preserving and restoring his/her strength (physical, mental, intellectual, and spiritual). Therefore, the goal of teaching children how to manage health is to formation their habit of caring for their health. With this approach, participants in the educational process become active creators of their own health, the state of which can, to some extent, be considered an indicator of the culture of the subject's relationship to himself and to the world around in all its diversity.

Pedagogical monitoring of the health of students and teachers as participants in the educational process is based on two groups of principles: (1) integration, complexity, and correlation (govern the process of organizing pedagogical monitoring), as well as (2) simplicity, accessibility, safety, and effectiveness (contain requirements for the means used to diagnose health).

The principle of integration regulates the process of obtaining the most objective idea of the state of human health, which is possible only with a comparative analysis of objective and subjective health indicators. Full implementation of this principle is ensured if each person continually monitors health indicators in order to maintain positive results and correct negative ones in the future.

The principle of complexity allows the subject to simultaneously monitor and correlate all processes occurring in his body: (1) somatic (bodily activity and various, observable physiological processes) and (2) mental (emotional changes).

The principle of correlation is related to the problem of health norms. According to our concept, the inherent variability and dynamism of a person are one of the specific properties of health. Being an attribute of life (a process that takes place over time), health also has a procedural character. At each moment, qualitative characteristics of the set of health indicators will be different from characteristic at any previous and subsequent moments. On the one hand, this is explained by the universally recognized uniqueness of each person, and therefore by the uniqueness of the norm (level) of his health. On the other hand, the limited norm for each specific person in each specific period of his/her life, characterized by a unique set of objective and subjective factors for each person.

Consequently, the statement about the need to establish an individual health norm (its limitations) for each individual person in each specific period of his life is justified. This is the starting point for establishing a personal level of human health at every moment of his life. Moreover, health dynamics are monitored using these "points." Moreover, a decision is made on the actions necessary for recovery. The principle of correlation allows one to monitor the dynamics of health by correlating the data of several different diagnostics for a certain period of time. Correlation of all these data will enable us to draw a fairly objective

conclusion about the health status of subjects at the moment of his life, taking into account that a person can be healthy only in certain living conditions.

The principles of the second group regulate the selection process diagnostics by a person for self-monitoring of his/her health condition, guided by the criteria developed by us. Thus, a person can monitor, first of all, body energy (which is the person's working capacity or its quick recovery). Second, one could monitor the psycho-emotional balance (mental balance), reflecting the level of a person's psychological health, which is manifested in his ability to maintain or restore a balance between excitement and inhibition, between tension and relaxation. Third, constructively positive thinking also could be monitored with our developed methodology.

4. Discussion

The process of pedagogical monitoring of the principles of integration, complexity, and correlation is especially important for the growing organism of school-age children. In this time, their most intense psychophysiological development takes place, and the foundations of personal readiness for health-creating activity are laid. This is an indicator of the personal culture, the assessment of which is available by pedagogical means. The principles of simplicity, accessibility, safety, and effectiveness serve as criteria for the selection of ways and methods of health tracking. They can be easily mastered by every person who is normally and adequately aware of him/herself, who is in a strong and sober mind. Second, they are easy to use, i.e., they do not require any complicated special equipment and long training by the person himself. Third, they can be used by each person consciously and voluntarily, which is a guarantee against any, not even deliberate, violent interference in his psyche. Fourth, the principles make it possible to obtain sufficiently reliable information about the state of the observed system, function, or organ of the body.

5. Conclusion

The monitoring of human health described above is pedagogical in nature. First, it allows students and teachers to include in the observation of their health, which contributes to the formation of a useful habit (taking care of their health). Second, it directs both those and others towards maintaining the health of the people around them, and above all, each other. Third, it stimulates an increase in their activity not only in the direction of preservation and strengthening health but in relation to their main labor (educational) activity. Fourth, it becomes a factor in the organization of health education, the central line of which is the orientation of all education participants to health, the quality of which is directly correlated with the quality of human life.

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