

Health saving as strategic direction of teaching staff training

El ahorro de salud como dirección estratégica de la formación del personal docente

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Abstract

The article examines the health of future teachers through the educational process. The relationship between trends in the development of pedagogical education with the unpreparedness of future teachers and teachers-practitioners to We came to the conclusion that health education - is the organization of training, which provides accounting for the capabilities and abilities of the individual, creates appropriate conditions for protection, preservation and individual abilities, maximum disclosure of physical, mental, spiritual and moral potential, achieving important personal goals for a healthy lifestyle. It has been confirmed that the practice of health education is formal, because high school teachers are not prepared for this type of activity. An indicator of the effectiveness of training future teachers for professional activities is their readiness for healthy education of young people. It is established that readiness for health education involves the ability to use knowledge of the theoretical foundations of health, mastering the methods of health, value orientations, the need for creative self-expression, evaluative-reflexive correction and prevention of factors that negatively affect the well-being of participants. This complex personal education in its development goes from low, medium to high levels, which differ in the degree of manifestation of criteria and indicators. It is emphasized that the health of young people is an important strategy for optimizing modern education and a prerequisite for its quality.

Keywords: health, health saving, health education, readiness for health through learning.

Resumen

Este artículo examina el ahorro de salud de los futuros profesores a través del proceso educativo. Las tendencias negativas en la formación del profesorado están asociadas con la falta de preparación de

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los futuros profesores y profesionales para la asistencia sanitaria a través de ayudas didácticas. Se ha demostrado que la práctica de la educación en salud es formal, porque los docentes de secundaria no están preparados para esta actividad. Un indicador de la eficacia de la formación de futuros docentes para actividades profesionales de protección y desarrollo de la salud de los jóvenes es la disposición de los futuros docentes para mantener la salud mediante ayudas didácticas. La preparación para el cuidado de la salud a través del aprendizaje se interpreta como una educación personal compleja, que tiene un efecto positivo en la calidad de la educación moderna.

Palabras clave: salud, ahorro de salud, educación para la salud, preparación para la salud a través del aprendizaje.

Introduction

Renewal of modern society on democratic and humanistic principles is possible only with the preparation of the younger generation with a high level of intelligence, professional qualifications, with such potential for spiritual, intellectual and physical health, which can solve innovative, strategic tasks. Health as a basis for solving social problems today and in the future addresses the problem of preparing a healthy nation, using education as an important source of development and health of student youth. Education today is designed to convey the vitality and healthy energy of young people, to be a real source of protection and preservation of their health. This highlights the problem of health as an important factor in optimizing training in the preparation of a healthy person, ensuring the level of his readiness for various types of professional work and a high level of his physical culture.

Methodical competent use of teaching aids, its health-oriented orientation today requires special attention of the modern teacher, his readiness to implement in pedagogical practice health-preserving resources of education in the upbringing of a healthy generation. Experience shows that the opportunities for physical education and sports are actively used to preserve the health of young people, but the opportunities for learning are not yet fully used. The system of education in different types of educational institutions focuses on providing knowledge, skills, abilities and personality qualities of professional and applied nature. But such an aspect of learning as its impact on the health of young students, the development of efficiency, physical endurance, its organization as a process aimed at maintaining the health of young students, using forms, methods and tools to overcome learning overload, fatigue, ensuring a stable attitude to overcoming difficulties is not the subject of special studies. The underestimation of health-promoting learning opportunities in the training of healthy youth can be explained by the unpreparedness of modern teachers for this aspect of pedagogical activity.

The problem of health saving has always been and is relevant. Both Ukrainian and foreign researchers have made a great contribution to its decision. Special attention should be paid to the scientific achievements of modern scientists, the subject of which was various aspects: the formation

of a culture of health and a healthy lifestyle of young people (Bondarenko, 2008; Voitenko, 1991; Grinyova, 2015; Dolynsky, 2011; Sviridenko, 2005: and others; Deforz, 2019); introduction of health-preserving technologies in the training of specialists (Barashkov, 2008; Kovaleva, 2004; Lukyanova, 2012; Smirnov, 2005; etc.); creation of a health-preserving educational space (Bezrukikh, 2004; Berezhna, 2012; Voronin, 2006; Serikov, 1997; Sidorchyk, 1997; etc.). Health issues have been investigated by Ambach (1996), Broadfoot (1992), Maslach (1997), Leiter (1997), Rescue (1995), Sellick (1996), Koval, Polyezhayev & Bezkhlibna, (2018), Bodnar, Mirkovich, & Koval (2019), Kvitka et al. (2019); Hutsaliuk et al. (2020).

The multifaceted scientific research in the field of sociology of valeology of medicine on the formation of a healthy lifestyle of young people is noteworthy, but the problem of preserving and strengthening the health of the nation, which concerns the organization of health education, remains relevant today. Unfortunately, the consequences of the stressful impact of education on young students are widely studied, and the problem of the future teacher's readiness to organize a healthy educational process has not been properly studied. The future teacher must be prepared to carry out health activities aimed at preventing fatigue of young students, overcoming the negative effects of learning on their health, maintaining and strengthening their health during the organization of the educational process. In this regard, the problem of health-oriented orientation of education, finding ways to implement it in practice, reducing the effects of stressors, improving the socio-psychological climate in various types of educational institutions to improve, maintain and strengthen the health of young students becomes relevant.

Methodology

The purpose of the study is to theoretically substantiate and experimentally test the effectiveness of the system of training future teachers for health care through teaching aids in specially created pedagogical conditions. Participants in the study – students 1-3 courses (346 people.) And teachers (30 people) Bogdan Khmelnytsky Cherkasy National University, Cherkasy, Ukraine and Kryvyi Rih State Pedagogical University, Kryvyi Rih, Ukraine.

To solve problems at different stages of the study used the following methods: theoretical - analysis and synthesis, systematization, comparison and generalization of scientific and methodological literature to clarify the nature, content, structure, forms and methods of training future teachers for health education, identifying the level readiness of students to use educational opportunities in health care; empirical (questionnaires, testing, systematic observation, essays, simulation of event-role situations, pedagogical experiment) to develop the structure and stages of

preparation of students for health education; statistical methods for mathematical processing with the subsequent qualitative interpretation of results of experimental research.

Discussion

Significant factors that shape the health of young people are the system of education and training, the impact of the educational process on the health of a growing person, the rational use of teaching aids in maintaining health and preventing stressful situations that negatively affect well-being and mental mood participants in the educational process.

In order to solve the researched problem, we used a pedagogical experiment, which combined several stages: ascertaining, forming, diagnostic. At the stage of the observational experiment, the state of health of future teachers was analyzed, the influence of learning on the psychological well-being of students was studied. To find out how the assessment of educational activities and the nature of relationships in the educational process affect the well-being of students, their psychological state, a survey was conducted.

The factor influencing the psychological state of students during their studies is the level of interaction between students and teachers in educational work, which was indicated by 87,0% of surveyed students, but only 13,0% expressed satisfaction with this relationship, 32,0% noted partial satisfaction, these relationships, 42,0% believe that they are not satisfied with the relationship with teachers.

The data collected revealed a relationship between intense educational work and low levels of psychological and intellectual health. 89,7% of students indicated overload with study tasks; 37,4% noted fatigue after classes; 81,3% noted that their health had deteriorated during their studies at the university; 13,7% constantly experience psychological discomfort during training; 61,8% - experience stressful situations. Signs of fatigue are present – 40,2% of 1st year students and 35,1% of 4th year students. The majority of surveyed students (67,0%) said that they often need psychological support and help from teachers. Teachers (20,0%) believe that students do not need their help, but need to recognize their success.

The collected facts show that in the practice of the university there are relations in the system “teacher – student”, where the leader is the teacher, and students only follow his orders; in teaching, a monologue over dialogue rests. Avoidance of dialogic communication in the educational process students explain the teacher's fears for lack of authority in the group, lack of knowledge on the subject, which may become apparent during free discussion, exchange of views, the introduction of innovative approaches to teaching the discipline. At the stage of the observational experiment, the nature of students' attitude to health education was clarified with the help of a survey. The data obtained

indicate that future educators generally have a positive attitude to health education, preferring it to traditional (see Table 1).

Table 1

The nature of students' attitudes towards healthy and traditional learning

| Type of training | The nature of students' attitudes to learning | | |
|------------------------|---|------------------|----------------|
| | Positive, % | Indifferently, % | Negative, % |
| Health saving training | 57,1 | 24,3 | 18,6 |
| Traditional education | 41,9 | 35,2 | 22,9 |

At the same time, 57,1% of surveyed students showed interest in health education, indifferent – 24,3%, negative attitude – 18,6%. Only 16,0% expressed a desire to receive information on methods and technology of health education. In addition, 25,0% of students surveyed believe that the predominance of the traditional approach to their training at the university does not stimulate the attitude to health care. The data collected indicate an underestimation in the learning process of factors that have health-preserving opportunities, and teachers ignore the reasons that negatively affect the health of students.

The data collected at the stage of the observational experiment confirmed the need to develop and implement an author's program of health care through teaching at the university. The subject of the author's program were program material, methods, didactic tools and forms of organization of educational work. This program is aimed at maintaining the health of the future teacher in the educational process, which is perceived as a subject of active learning activities and didactic procedures. The efforts of teachers are aimed at ensuring a healthy psychological climate, creating a situation of success in learning and conditions for active activities that allow to give the educational process a healthy orientation. The main tasks were:

- active participation of students in the development of individual strategy for maintaining their own health through learning;
- statement of problems and their solution by means of actions focused on the formation of a culture of intellectual work;
- use of various forms and methods of acquiring knowledge and practical skills of rational educational activity;
- creating psychological comfort: mutual assistance and support in learning, conflict prevention, overcoming difficulties, responsibility for their own actions and behavior;

- installation for the preservation of health, development of creative potential and professional development.

Solving these problems has led to a systematic and purposeful educational process to preserve and protect the health of future teachers. In this regard, Abdullina (1990) pointed to the need for systematic work to prepare students for health activities, creating a healthy psychological environment, the use of individual and group classes, which are aimed at resolving internal contradictions. These contradictions arise in situations of mismatch of requirements of adaptive level to mental possibilities of the student.

Health-preserving training is the organization of training, during which the account of possibilities and abilities of the person is provided, appropriate conditions for protection, preservation and strengthening of health of participants of educational process, development of their individual abilities, the maximum disclosure of physical, mental, spiritual and moral potential are created, achieving important personal goals for a healthy lifestyle.

During the implementation of educational work productive forms were used: presentations, video programs, trainings, scientific and practical seminars, master classes, creative laboratories and teachers focused on providing psychological comfort to each student, prevention of conflict situations, respect for their social status in the group. Aseev (1974) argues that the organization of learning cannot ignore the mechanism of internal human activity, spiritual and volitional organization and moral nature, which leads to finding ways to overcome all difficulties and prevent the causes that negatively effect on the psychological state of participants in the educational process.

The basis of the organization of education was the focus of all didactic and methodological tools, working conditions and well-being of students to preserve and develop the spiritual, moral and intellectual and mental health of future teachers. The criterion for the effectiveness of health education is the readiness of future teachers for health activities.

Readiness for health care through learning is a complex personal education, which involves the ability to use knowledge of the theoretical foundations of health care, mastering the methods of health education, value orientations, the need for creative expression, evaluative-reflexive correction and prevention of factors that negatively affect well-being participants in the educational process. As a complex personal formation, readiness combines motivational, cognitive, emotional-volitional, activity components in the structure (the structure in the generalized form is shown in Fig. 1).

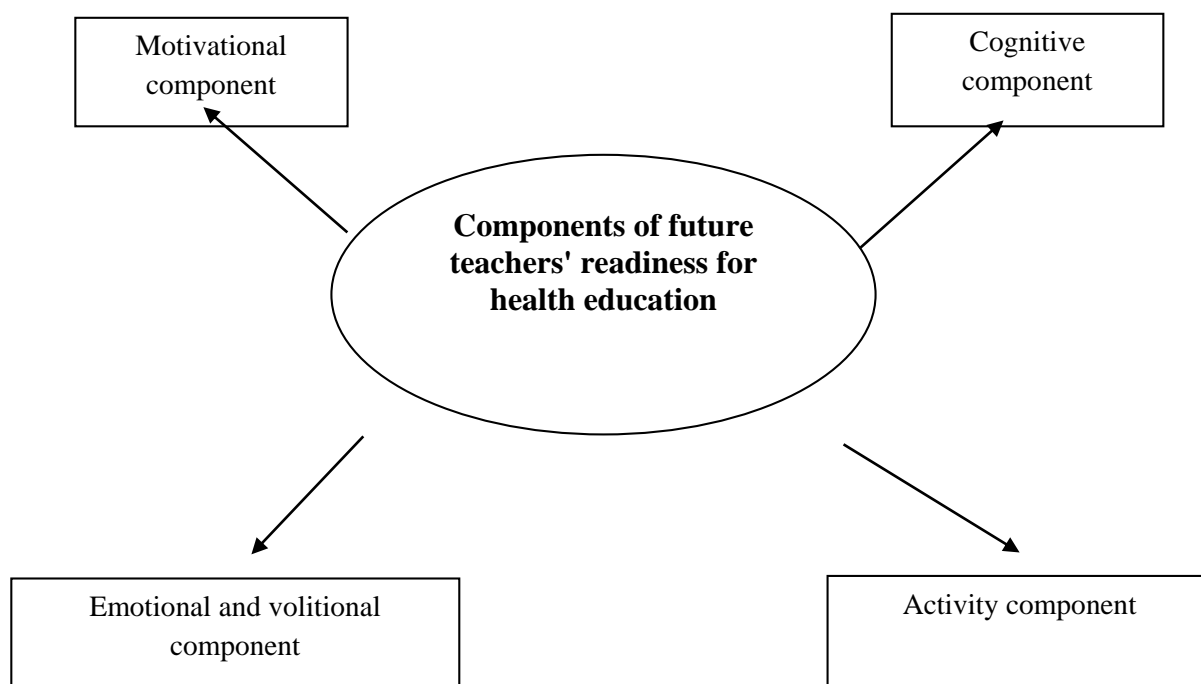


Fig. 1 Structure of readiness for health saving education

Each component of readiness is characterized by the corresponding criteria which allow to reveal dynamics of development of this difficult personal formation in the course of preparation of future teachers for practical activity. Each component of readiness is characterized by the corresponding criteria which allow to reveal dynamics of development of this difficult personal formation in the course of preparation of students for professional activity.

The readiness of future teachers for health education is formed through the ability to use knowledge of the theoretical foundations of health and healthy living, the development of evaluative-reflexive position, system of humanistic values, the need for creative self-expression and mastery of methods of involving students in healthy lifestyles. the process of stressful phenomena that negatively affect the well-being of its participants.

The readiness of future teachers for health care is a complex personal formation, the formation of which is gradual and takes place in its development at several levels (elementary, basic, sufficient, perfect). The success of the formation of readiness of future teachers for health is determined by a set of pedagogical conditions that would activate students in the process of learning to creatively solve educational problems based on their own capabilities and abilities, the need to work on maintaining their own health.

The preparation of students in university education involves – the effective use of scientifically sound knowledge about human health, means and methods of its preservation and strengthening for the fullest self-realization of interests, needs and opportunities in the process of professional development, socio-cultural and economic life (Yankovy et al., 2020). The future educator must be

ready to effectively manage the process of health care in education, when each of them will always feel happy; when there are only positive emotions in the soul; when everyone who learns will feel comfort, security and, of course, interest in learning (Mikhno, Koval, Ternavskiy, 2020).

At the beginning of the experiment, the percentage of students who showed basic and basic levels of readiness for health education exceeded the percentage of students who showed sufficient and perfect levels of readiness for this type of education. Thus, the perfect level was 4,2%, sufficient – 16,7%, basic – 29,3%, alimentary – 49,8%. The system of research training, conducted in experimental groups, provides a dynamic level of readiness of future teachers for health in a positive direction. Thus, in the experimental group, the perfect level was 12,6% against 4,1% at the beginning of the study. The number of students with a sufficient level of readiness has more than doubled – 50,8% against 16,8%. The number of students with a basic level of readiness for health education has sharply decreased – 16,6% against 49,8%.

In the control group, there are also changes in the level of readiness from elementary to basic. But these changes will not start so much and are explained rather by objective factors of the general development of the person while studying at university. Thus, the number of students with an elementary level of readiness decreased to 45,8% from 49,8%. With the basic level of readiness, the number of students increased, but not significantly – 33,3% against 29,3% of the data of the observational experiment. Sufficient and perfect levels of readiness after the end of the research work were found by 16,8% and 4,1% of students, respectively, which is equal to the results of the cut after the observational experiment. Thus, the students of the control group have an elementary level of readiness for health care through teaching aids.

Analysis of the effectiveness of the research program in shaping the readiness of future teachers for health care through teaching suggests that the objectives of the study are solved by systematic and purposeful actions of teachers and compliance with pedagogical conditions, among which the most effective were: providing positive motivation; mastery by future teachers of the theoretical foundations and technology of health care in the learning process. The inconsistency of actions of teachers and students has a negative effect on the results of research work. It is established that the rational organization of the educational process of health orientation, creating an atmosphere of emotional comfort and psychological security of each student has a positive effect on the formation of the motivational component of readiness. The future teacher develops a lasting interest and readiness for health in the learning process. Increasing students' knowledge of the theory, methodology and technology of health education provides a sufficient and perfect level of the cognitive component of readiness. In the conditions of orientation of educational process on preservation and protection of health of its participants methodical means of level of development of emotional sphere and volitional qualities of future teachers which stimulate process of acquisition of constructive, communicative,

organizational skills, reflective abilities, create an opportunity to solve educational problems on preservation and health development. This improves and develops the activity component of the readiness of future teachers for health in the learning process.

The use of active forms and methods in the educational process (interviews, discussions, debates, role-playing situations and business games, storytelling, making, happying, etc.) contribute to the fact that the student becomes an object in the subject of active learning activities. Active actions stimulate his desire for creativity, awakens curiosity, interest in research, the use of innovations in practice, provides opportunities for free choice of actions, pedagogical support and psychological security. Participation in various forms of learning develops self-confidence in solving educational problems, the need to maintain and develop mental health. The collected data (see Table 2) show the positive dynamics of all components that make up the structure of readiness of future teachers of health care through teaching aids.

Table 2

Levels of readiness of future teachers to health saving by teaching aids after completion of the formative experiment (in%)

Components of readiness of future teachers for health care by means of training (CG-171; EG-174 persons)

| Level | Motivational | | Cognitive | | Emotionally strong-willed | | Activity | |
|------------|--------------|------|-----------|------|---------------------------|------|----------|------|
| | CG | EG | CG | EG | CG | EG | CG | EG |
| Elementary | 33,3 | 16,7 | 25,0 | 8,3 | 12,5 | 12,5 | 8,4 | 5,3 |
| Base | 37,5 | 33,3 | 54,1 | 37,5 | 62,5 | 41,7 | 58,3 | 20,4 |
| Sufficient | 25,0 | 16,7 | 16,7 | 41,7 | 25,0 | 37,5 | 33,3 | 47,3 |
| Perfect | 4,2 | 33,3 | 4,2 | 12,5 | 0,0 | 8,3 | 0,0 | 27,0 |

Table 2 shows that there have been changes in the motivational component. The elementary level was found in the formation experiment only in 16,7% of students in the experimental group. The level of theoretical knowledge of future teachers about the essence, content, methods and technology of health care through teaching aids has significantly increased. According to the results of experimental work, only 8,3% of students in the experimental group showed an elementary level of knowledge. The data also show that students in the process of performing the tasks of the experimental program have acquired the necessary skills and abilities for health through teaching aids. Thus, in the experimental group with a perfect level of development of the activity component of readiness, based on the results of the formative experiment, 27,0% of students were identified. The

number of respondents with an elementary level of activity component of readiness decreased in the experimental group to 5,3%. The indicators of the emotional and volitional component of the readiness of future teachers for health care through teaching aids have also increased: 8,3% of students have found a perfect level, 37,5% - a sufficient level of development of this component.

As a result of mastering the theory of health care through teaching, conducting a system of training, modeling educational dialogues, debates, discussions in class, role-playing, students began to better navigate communication situations, analyze the conditions of health care through learning, justify the solution of serious learning problems. arguments, they have developed the ability to anticipate, the ability to predict their actions and the actions of others in order to reduce stressful situations in the learning process. Future educators, taking an active part in discussion, debate, dialogue, have learned to act independently in psychological situations, defend their own views, formulate problems, seek extraordinary solutions, work on self-improvement, and as a result achieve significant success in health. Creative tasks and situations, widely used in research, stimulated students' activity, independence, interest in solving health problems through teaching, creating psychological comfort for each participant in the educational process.

Conclusion

The experimental program of student training has confirmed its importance for the formation of the readiness of future teachers for health care through teaching aids. The collected facts allow us to say that provided a positive motivation in the implementation of health education in practice, due to the focus of the higher education process on training future teachers for health, mastering the theoretical foundations and technology of health education, methodological support for the formation of this complex personal education makes it possible to significantly increase the level of readiness of future teachers to maintain and develop health through learning.

References

- Abdullina, O. A. (1990). *General pedagogical training of teachers in the system of higher pedagogical education: For ped. specialist. higher. educational institutions*. Berlin: Volk and Wissen. http://pedlib.ru/Books/2/0131/2_0131-1.shtml
- Ambach, G. (1996). Standards for teachers: potential for improving practice. *Academe*, 3(82).
- Barashkov, S. A. (2008). Formation of the readiness of university students for health-preserving activities during vocational training. *Pedagogical sciences*. Samara. <https://www.dissercat.com/content/formirovanie-zdorovesberegayushchei-kompetentsii-u-studentov-pedagogicheskogo-vuza>

- Berezhna, T. (2012). Creating a healthy school environment as a way to preserve and enhance student health. *school*, 2(1). http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?I21DBN=LINK&P21DBN=UJRN&Z21ID=&S21REF=10&S21CNR=20&S21STN=1&S21FMT=ASP_meta&C21COM=S&2_S21P03=FILA=&2_S21STR=rsh_2012_1-2_11
- Bodnar, S., Mirkovich, I., & Koval, V. (2019). Human capital development in Ukrainian education system by means of language integrated teaching. *Contemporary dilemmas-political education and values*, 7(14). <https://doi.org/10.46377/dilemmas.v29i1.1852>
- Bondarenko, O.M. (2008). Formation of valeological competence of students of pedagogical universities in the process of professional training: author's ref. dis. for the degree of Cand. ped. Sciences: specialty 13.00.04 "Theory and methods of vocational education". K.
- Broadfoot, P. (1992). Teaching and the challenge of change educational research in relation to teacher education. *European journal of teacher communication*, 15(1-2), 45-53. https://www.researchgate.net/journal/1469-5928_European_Journal_of_Teacher_Education
- Deforz, H.V. (2019). Promotion of a healthy lifestyle during the teaching of the discipline "Basics of Health". Proceedings of the First All-Ukrainian Scientific and Practical Conference "Health and Society". 31-35. <http://vmurol.kr.ua/?p=9491>
- Dolynsky, B.T. (2011). Theoretical and methodical bases of preparation of future teachers for formation of health-preserving skills and abilities at younger schoolboys in educational process: dis. ... Dr. ped. Science: special. 13.00.04 "Theory and methods of vocational education". Odessa. <http://dSPACE.pdpu.edu.ua/bitstream/123456789/1902/1/%D0%94%D0%BE%D0%BB%D0%B8%D0%BD%D1%81%D1%8C%D0%BA%D0%B8%D0%B9>
- Grinyova, M., Dudka, I. (2015). On the question of the importance of a healthy environment in higher education. *Pedagogical Sciences*, 140. https://www.cuspu.edu.ua/images/nauk_zapiski/pedagogy/140-v1.pdf
https://vspu.edu.ua/content/specialized_academic_council/doc/2018/Byzenko_I/dis.pdf
<https://www.amazon.com/Rescue-Mission-Childrens-Association-Nations/dp/1856971759>
- Hutsaliuk, O., Storozhuk, O., Zhovnirchuk, Ya., Zaiarniuk, O., Kartsyhin, D. (2020). Public administration and legal regulation effectiveness in the field of health care in the context of sustainable development. *Revista Genero & Direito*, 9(2), 599-613. <https://doi.org/10.22478/ufpb.2179-7137.2020v9n2.50820>
- Kovaleva, O. I. (2004) Personally-oriented teaching of students of modern universities as a factor of health preservation (thesis dissertation). Stavropol.

- <https://www.dissercat.com/content/lichnostno-orientirovannoe-obuchenie-studentov-sovremennykh-vuzov-kak-faktor-sokhrannosti-zd>
- Kvitka, S., Starushenko, G., Koval, V., Deforz, H., & Prokopenko, O. (2019). Marketing of Ukrainian higher educational institutions representation based on modeling of Webometrics Ranking. *Marketing and Management of Innovations*, 3, 60-72. <https://mmi.fem.sumdu.edu.ua/en/journals/2019/3/60-72>
- Maslach C., & Leiter M. P. (1997). *The truth about burnout: How organization causes personal stress and what to do about it*. San Francisco, CA: Jossey-Bass. https://www.ozon.ru/context/detail/id/1734183/?utm_source=livelibru
- Mikhno, I., Koval, V., Ternavskiy, A. (2020). Strategic management of healthcare institution development of the national medical services market. *Access journal, ACCESS Press*, 1(2), 157-170. [https://doi.org/10.46656/access.2020.1.2\(7\)](https://doi.org/10.46656/access.2020.1.2(7))
- Rescue, M. (1995). *Planet Earth : A children's education of Agenda 21*. London: UNICEG.
- Sellick, D. (1996). Learning to use the mirror: Reflection and teacher education. *Education today*. Vol. 46(4). <https://unesdoc.unesco.org/ark:/48223/pf0000124945>
- Sidorchik, S.V. (2008). Development of a professional in conditions of negative changes in the health-preserving environment: author. dis ... for the degree of Cand. ped. Sciences: specialty 19.00.13 "Developmental psychology, acmeology (psychological sciences)". M. <http://www.dslib.net/psixologia-razvitja/razvitie-professionala-v-uslovijah-negativnyh-izmenenij-zdorovesberegajuwej-sredy.html>
- Smirnov, N.K. (2005). Health-saving educational technologies and health psychology at school. M.: ARKTI. <https://upr.1sept.ru/article.php?ID=200501112>
- Sviridenko, S. O. (2005). Formation of students' skills and abilities of a healthy lifestyle. Theoretical and methodological problems of education of children and students: coll. Science. wash. Zhytomyr: ZhSU Publishing House. <http://eprints.zu.edu.ua/28620/1/6.PDF>
- Voitenko, V.P. (1991). *Health of the healthy. Introduction to Sanology*. Kiev.: Health. http://www.library.univ.kiev.ua/ukr/elcat/new/detail.php3?doc_id=165253
- Voronin, D.E. (2006). Formation of health-preserving competence of students of higher educational institutions by means of physical education: dis. for science. degree of Cand. ped. Science: 13.00.07. Kherson. <http://www.disslib.org/formuvannja-zdorov-jazberihajuchoyi-kompetentnosti-studentiv-vyshchychkh-navchalnykh-zakladiv.html>
- Yankovyi, O., Koval, V., Trokhymets, O., Karpenko, M., Matskevich, Y. (2020). Economic assessment of investment on the basis of production functions. *Turismo: Estudos & Práticas*, 2. <http://natal.uern.br/periodicos/index.php/RTEP/article/view/1310>