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Study on the development of health-saving competence of future border guard officers

Дослідження розвитку здоров'язбережувальної компетентності майбутніх офіцерів-прикордонників

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Abstract

The paper presents a methodological system for the formation of health-saving competence of future border guard officers at higher military educational institution. The system is focused on the educational component of training and familiarizing cadets with the specifics and ways of forming this professionally important quality using the potential of interactive and research training methods. The article aims at justification, implementation and verification of the effectiveness of the methodological system during an experimental study in which 132 cadets aged 17-22 years took part, including 118 boys and 14 girls. The research methods used were: retrospective and comparative analysis, generalization, pedagogical observation, questionnaires and surveys, testing, expert assessments, experiment and methods of statistical assessment. At the end of the formative stage of the experiment, cadets of the


Анотація


У роботі розглянуто методичну систему формування здоров'язбережувальної компетентності майбутніх офіцерів-прикордонників в умовах закладу вищої військової освіти України. Аналіз системи сфокусовано на її фізичній та психічній складових, що передбачає увагу до освітнього компонента процесу професійної підготовки та ознайомлення курсантів із специфікою і напрямками формування зазначеної професійно важливої властивості, а також задіяння потенціалу інтерактивних і дослідницьких методів навчання. Метою дослідження було обґрунтування, впровадження та перевірка ефективності методичної системи під час експериментального дослідження, в якому взяли участь 132 курсанти Національної академії Державної прикордонної служби України імені Богдана Хмельницького, віком 17–22 роки, зокрема 118 хлопців і 14 дівчат.

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experimental group have a predominantly high (23,88 %) and average (55.22%) levels of health-saving competence. In the control group the indicators were 12.31% and 46.15%, respectively. It has been proved that the proposed methodological system allows to increase the motivation of cadets to preserve their health, its physical, social and mental (spiritual) components, improve their level of awareness of the importance of health in personal and professional life, improve the skills of health-saving activities.

Key words: health-saving competence, physical health, formation, border guard officer, motivation, research methods.

Introduction

The profession of a border guard officer is often considered an extreme one. The defenders of the Ukrainian border perform tasks that involve risk to life and often require maximum of their mental and physical strength. Today, border guards risk their health and even lives, protecting the freedom and independence of Ukraine from the Russian invaders, many of them need to restore mental strength and undergo rehabilitation. The urgent task of pedagogical research today is to outline the ways of forming the health-saving competence of future border guards, identifying the features of its physical and mental components, specifics of the educational process in the conditions of a higher military education institution.

Thus, the ways to preserve the servicemen's health, focusing on the importance of its physical, social and mental (spiritual) components, as well as finding pedagogical resources to improve future border guards' awareness of the importance of health in personal and professional life is an important pedagogical task. That is why we decided to perform the research of the problem of its formation among future officers of the State Border Guard Service

Важливими методами зазначеного дослідження стали ретроспективний та порівняльний педагогічний аналіз, узагальнення, педагогічне спостереження, анкетування та опитування, тестування, метод експертних оцінок, педагогічний експеримент та методи статистичної оцінки. Після закінчення формуального етапу експерименту курсанти експериментальної групи виявили переважно високий (23,88 %) і середній (55,22 %) рівні цієї компетентності. У контрольній групі ці дані були 12,31 % і 46,15 %. Таким чином, у результаті проведеного дослідження було виявлено, що запропонована методична система формування здобов'язбережувальної компетентності майбутніх офіцерів-прикордонників Національної академії Державної прикордонної служби України імені Богдана Хмельницького дозволяє підвищити мотивацію курсантів до збереження свого здоров'я, його фізичної, соціальної та психічної (духовної) складових, покращити рівень їхньої обізнаності про значення здоров'я.

Ключові слова: здоров'язбережувальна компетентність, фізичне здоров'я, формування, офіцер-прикордонник, мотивація, дослідницькі методи.

of Ukraine. Modern border guards have to be not only properly trained, to be in excellent physical shape, but also to have an appropriate level of formation of all components of health-saving competence.

The practice shows that even if the cadets take matters of physical fitness more or less seriously, they certainly do not pay due attention to developing of other components of their health, in particular, they do not understand the importance of taking care of their social and mental health. In view of this, formation of health-saving competence of future border guard officers is relevant and requires conducting a scientific research.

Literature Review

The first researchers who paid attention to the importance of teaching young people to take care of their health were J.-A. Komensky and I. Pestalozzi. They put forward the idea of the need to build an educational process based on natural conformity, taking into account the peculiarities of human nature and the laws of its development.

J.-A. Komensky noted that children's health is a treasure more expensive than gold, that it is necessary to pay close attention to the health of children, because without it they will have no future (Comenius, 2012).

In Ukraine, A. Butovsky was one of the first to define such an educational task (Butovsky, 2009). The subject of G. Vashchenko's interest was the relationship between the human soul and body, the importance of physical activities for maintaining the strength of the spirit and forming character. He wrote that the physical activity of every Ukrainian is necessary for better service to good, God and Ukraine: "a Ukrainian should really relate to life, giving himself a business from its dark and light features. But as a Christian, he must believe in the victory of good over evil, truth over falsehood. Understanding the power of evil should stimulate its energy in the struggle for the victory of good." (Vashchenko, 1956).

Today, the problems of health preservation are studied by representatives of various sciences, in particular philosophy, theology, medicine, valeology, sociology, pedagogy, etc. Philosophers explore health as a value phenomenon, as a prerequisite for human self-realization, sociologists pay attention to social conditionality of human health, doctors – on obstacles to health, that is, diseases and their treatment.

Certain ways to increase motivation for physical activity among young people were studied by I. Mehmeti, V. Halila (Mehmeti & Halila, 2018; Komarnytska et al., 2019), young people's attitude to sports education – by C. Bessa, P. Hastie, A. Rosado, I. Mesquita (Bessa et al., 2022; Balendr, 2018). O. Mozolev et al. studied formation of physical readiness of cadets for professional activity under the conditions of quarantine (Mozolev et al., 2021). Griban et al., researched formation of health and fitness competencies of students in the process of physical education (Griban et al., 2021). K. Bargiel-Matusiewicz, R. Dziurla designed an anti-smoking educational program entitled "run for health" (Bargiel-Matusiewicz, et al., 2019). Also, L. Slyvka, H. Sivkovich, O. Budnyk, O. Tytun, A. Boichuk investigated the possibilities of forming a healthy lifestyle of students in English language classes, ways of systematic and purposeful inclusion of health preservation issues in the context of education (Slyvka et al., 2022).

The scientists I. Burlakova, O. Sheviakov, T. Kondes studied the health care competence in the context of physical, spiritual and intellectual self-development, emotional self-regulation and self-support. In their opinion, this competence also covers personal hygiene, caring for one's own health, sexual literacy, internal ecological culture, and ways of safe living. The authors focus on the importance of quality of life in society, harmony with other people and oneself, which, in their opinion, requires such psychological predictors as empathy, tolerance, communication culture, adaptability, adequate behavior in various life situations. For the proper formation of health care competence, the researchers suggest using modern approaches to determining the content of education, as well as the latest educational technologies, in the educational process (Burlakova et al., 2021).

The scientific community attaches increasing importance to such an aspect of health care competence as mental health. Educators and psychologists focus their efforts on finding ways to provide psychological support to people who are going through life crises. In particular, S. Bilozerska, I. Leshchenko, H. Cherusheva, V. Roksoliana, I. Ushakova study the psychological health of the personnel of educational and scientific organizations in war conditions, ways to improve the psychological state and mechanisms of protection against stressful situations, which are available for use even during hostilities (Bilozerska et al., 2022). N. Korylchuk, I. Vlasenko, I. Livandovska, S. Bokova & N. Demikhova defined theoretical and methodological principles of providing medical and psychological assistance in the conditions of armed conflicts: experience for Ukraine (Korylchuk et al., 2022). V. Overchuk, M. Smulson, O. Vdovichenko, O. Maliar, K. Vasuk considered the features of psychological assistance to the individual in situations of life crises using narrative practices (Overchuk et al., 2023). Researchers suggest using narrative techniques to provide psychological support to people facing life obstacles or crises, proving that such techniques can be an important tool for restoring psychological balance and psychological support in crisis situations.

Scientists suggest paying careful attention to the motivation of young people, to their physical education in order to find out the most important ways of proper physical fitness, to increase the effectiveness of forming a set of knowledge and skills related to maintaining health (Soroka et al., 2019; Balendr et al., 2019). Scientists are

unanimous that health is an important factor in the effectiveness of the professional activity of a border guard officer, the basis of his professional productivity, and a prerequisite for public well-being. Their research shows the relevance of forming the health-saving competence of future specialists in the process of their professional training. In contrast to the medical field of knowledge, which places more responsibility for the fight against diseases on the doctor, teachers are focused on preventing and minimizing diseases, exploring options for using the resources of the person himself to restore health, ways to improve the effectiveness of physical education, formation of responsibility for their health among young people.

However, the ways of increasing the motivation of future border guard officers to preserve health, the importance of its social and mental (spiritual) components, as well as pedagogical resources for improving the cadets' awareness about the importance of health in personal and professional life have not yet been sufficiently studied.

Hypothesis. The authors suggest that the experimental study will determine the factors that contribute to improving the quality of health-saving competence formation of future border guard officers in the process of professional training. *The aim* of the experimental study is to determine the factors of improving health-saving competence of future border guard officers in the process of professional training.

Material and methods

To determine the specifics of formation of health-saving competence of future border guard officers, the following theoretical methods were used: the analysis of literature on the problem and clarification of the scientific apparatus, retrospective and comparative analysis of the practice of health-saving. Based on the results of the analysis of scientific sources, its essence, content and structure are characterized, criteria, indicators and levels of formation are determined, and pedagogical ways of formation are justified. The health-saving competence of a border guard officer is understood as a specific personal property, covering the awareness of the importance of health for personal life and professional activity, the ability and skills of organizing a healthy lifestyle in the physical, social and mental (spiritual) spheres. To test the proposed conditions for the formation of health-saving competence of cadets, such a method of empirical research as a pedagogical experiment was chosen, covering the ascertaining and

forming stages. In particular, it included finding out the influence of the content of education, expansion of the experience of cognitive activity (in the form of knowledge and skills to act accordingly and solve specific problems of maintaining health) on the formation of the personally and professionally important quality.

Participants. The experimental study was attended by cadets who studied in the specialty "State Border Security", "Law enforcement", "Philology". A total of 132 2nd-year cadets (including 118 boys and 14 girls aged 17 to 22) took part in the formative stage of the experiment. Control group (65 cadets) and experimental (67 cadets) groups were created. The qualitative and quantitative characteristics of cadets (boys) and cadets (girls) do not have reliable differences, so these groups were chosen by the participants of the formative stage of the pedagogical experiment. Cadets boys and girls of these groups had a similar average score of academic performance, in groups according to the programs, the same number of classes was provided. The variable conditions that were tested during the formative stage of the experiment were the organization of training and, accordingly, pedagogical influences on cadets, both boys and girls.

The organizers of the experiment previously informed the participants about the working procedure. The cadets agreed to participate in the experiment, and their answers were properly evaluated and processed.

Organization of research. The formative stage of the pedagogical experiment lasted from September 2020 to April 2021. It was held at the National Academy of the State Border Service of Ukraine named after Bohdan Khmelnytskyi (City of Khmelnytskyi, Ukraine). During this time, empirical data were also collected and a large number of observations were made. The researchers recorded all the characteristics of the health-saving competence of cadets in accordance with the data of its structure, observing ethical principles and requirements for the confidentiality of working with private information. The management of the educational institution allowed us to record empirical data.

Procedures and tools. Various diagnostic methods were used to determine the state of formation of the components of health-saving competence. So, specially designed questionnaires, observation and expert assessment were used to study the state of formation of the motivational component of

health-saving competence among cadets. The questions of the author's questionnaire contained questions about the importance of health-saving competence for border guard officers, the interest of cadets in maintaining health, how cadets work on the formation of health-saving competence, etc. The method of expert assessment included studying the attitude of cadets to their health, taking care of proper physical condition (physical health), relationships with classmates, teachers, ability to resolve conflicts, skills of joint activity and cooperation (social health), as well as satisfaction with the choice of their profession, vision of life prospects, self-control skills (mental health).

In turn, the level of formation of the cognitive component of health-saving competence was determined using the method of unfinished sentences, the performance of test tasks by cadets and based on the results of conversations. In particular, according to the method of unfinished sentences cadets added sentences regarding the essence of health-saving competence, its components, and the specifics of its manifestation. Also, taking into account the requirements of modality and minimization of root-mean-square deviations, testing was conducted, covering three series of 20 tasks each. Each episode dealt with one component of health: physical, social, or mental (spiritual). The author's methods involved finding out how cadets know the conditions of saving health, that is the importance of physical culture and sports, the essence of social health, what are their life goals and programs, how they take care of their spiritual health, first of all, how they exercise self-control or experience failures. The tests provided for the same number of simple tasks and tasks of increased complexity, which were used to test cadets' knowledge about the specifics of maintaining health. Conversations with cadets on various aspects of health-saving activities, primarily on the peculiarities of a healthy lifestyle, were also important. Cadets explained the importance of health in the life of a person and society, the essence of methods for determining the level of physical, social and mental health, the importance of health training. We paid considerable attention to the cadets' knowledge of the factors of positive influence of a healthy lifestyle on the general state of the body, general characteristics of individual and public health, the essence of the concept of "healthy lifestyle", the basics of social and mental health, positive thinking and an optimistic outlook.

To determine the level of formation of the activity component of health-saving competence cadets were offered three special tasks. In this case, the approaches of O. Sergienkova, O. Stolyarchuk, O. Kokhanova and O. Paseka about the fact that objective indicators of the formation of skills and abilities are the correctness and quality of the action (absence of errors), the speed of operations or their sequence (external criteria) (Sergienkova et al., 2012). In particular cadets had to assess the state of their health using various methods, draw up a program of physical self-improvement, determine promising goals for self-development, develop educational actions in the form of lectures, conversations, round tables, games, trainings on the importance of physical culture classes and on issues of physical and mental self-improvement.

For the development of the pilot program, we used materials by S. Strashko (Strashko et al., 2006) regarding the specifics of human health, O. Vinda et al. (Vinda et al., 2003), I. Matiikiv (Matiikiv, 2012) on the formation of a life position and ideological self-regulation, A. Obukhovska and I. Tsushko (Obukhovska & Tsushko, 2015) on the formation of skills to overcome negative emotions and mental stress.

Statistical analysis. Special software "SPSS" version 21 was used for empirical calculations of data. The use of the Pearson criterion was important, in particular, it was used to determine the differences in the formation of health-saving competence of cadets of the control and experimental groups at the beginning and end of the formative stage of the pedagogical experiment.

Results

During the formative stage of the experiment, it was planned to expand the cadets' (boys and girls) understanding about the essence of health-saving competence and the importance of its physical, social and mental components in personal and professional life. In this case, it was taken into account that competence is formed on the basis of mastering the content of education, knowledge about the requirements of a healthy lifestyle, that is, the specifics of health-saving activities, through the formation of desire and motivation for a healthy lifestyle, a conscious attitude to one's health. Given this, we organized an optional course "Health-saving competence: significance for a border guard officer", which covered lectures, seminars and practical classes. During the elective course, cadets studied the history of formation and theoretical foundations

of health preservation, certain aspects of a healthy lifestyle of a border guard. They examined the history of perceptions of health as the highest value, as a social, economic and personal category, as well as the interpretation of health in alternative medicine. One of the modules of the elective course dealt with socio-biological health problems, features and rules of a healthy lifestyle, the culture of motor activity and human health promotion, and the specifics of health psychology. Another issue was the importance of physical exercise for maintaining the fullness of human life and achieving high-quality longevity.

We attached great importance to interactive teaching methods. In particular, during the classes it was organized discussion with cadets of the statements of famous philosophers and writers who helped to find out the essence of a healthy lifestyle. For example, the words of M. Amosov are still quite relevant today: "people go from health to diseases. I am campaigning for a regime of restrictions and loads"; "The optimal life is to live long and with a high level of spiritual comfort; "Health – an opportunity to live and work fully" (Amosov, 1990) and others. Methods of discussion and analysis of situations provided great opportunities for developing social health skills. Speaking about forms of teaching, we used work in small groups, organized individual work with subsequent discussion, and work using the "brainstorming" method. Cadets boys and girls talked about the difference in attitude to health and physical education classes at different ages, the importance of emotional health, a positive worldview and attitude towards themselves and people, the importance of overcoming life's difficulties, banal human laziness. For example, cadets commented on such words of the famous doctor, philosopher, pharmacist Avicenna about the importance of knowledge and work for a healthy life: "idleness and laziness not only give rise to ignorance, they at the same time are the cause of illness." Important for us were also the words of M. Amosov that "most diseases are not the fault of nature, but only of the person himself. Most often, a person gets sick because of laziness and lust, and often because of a lack of understanding." (Amosov, 1990). The cadets also explained the words of a well-known doctor that one should not rely only on medicine, because "it perfectly treats many diseases, but it cannot make a person healthy" (Amosov, 1990).

Thus, cadets learned to identify life values, priorities in work and personal life, have a positive attitude to changes, and learn about the

elements of psychological literacy, positive thinking technologies, they also acquired the ability to have an optimistic perception of life and a focus on success. Cadets also got acquainted with the rules of a healthy lifestyle, determined health priorities among other values, and learned to take an active life position. Teachers also drew attention to the motivation to preserve their own health, the danger of alcohol consumption, and the inappropriateness of psychotropic substances. The subjects of discussion were the essence of addiction and the causes of dependent behavior, mechanisms of manipulation, the role of advertising in the acquisition of addictions.

According to the recommendations of O. Vinda et al., (2003) cadets learned to know themselves and other people more adequately, to determine the place of feelings, values, and addictions in a person's life. Important questions were about role struggle, managing feelings, internal stimuli of control, ways of constructive and destructive responsibility for one's life. Among the recommendations on how to quit smoking, teachers focused on how to express their feelings. To do this, they taught cadets verbal and nonverbal techniques for expressing negative emotions, improving their physical and mental state.

Of great importance for the formation of health-saving competence was the performance of research tasks by cadets. In this way, cadets acquired skills in solving complex health problems. To perform tasks of theoretical and practical research teachers offered cadets tasks that included observing and studying facts, analyzing and systematizing the results. Cadets, performing research tasks, learned more about history of the formation of views on health, features, for example, Tibetan philosophy of human health improvement, the contribution of Ayurveda to modern health science, philosophical views on health in ancient China, valeophilosophy of Ancient Greece and Rome, medical and biological sciences and philosophical concepts of the modern period, as well as about the physical, social, mental, spiritual components of health. Performing research work helped future officers learn how to solve complex problems of professional activity and health preservation. Of particular importance was the study by cadets of such problems as factors of formation of physical health, features of formation of social health, measures to maintain psychological health. Cadets studied the relationship between character traits, tolerance, intelligence and mental health, service

factors and officer health, studied methods of restoring health, the main ways to maintain physical and psychological health. Using a research approach, cadets learned new material about a healthy lifestyle not through memorization, but through research and solving complex health problems. The advantage of the research approach was also an increase in the intensity of cadets' assimilation of information about a healthy lifestyle, their relatively greater independence. Such work made it possible to significantly activate the cognitive activity of cadets, better understand the theory, learn how to apply the acquired knowledge in practice, and effectively solve complex health problems.

In general, the experimental work was complex in nature and provided for systematic measures of pedagogical influence for the formation of health-saving competence in future officers. For this purpose, a special elective course was organized to familiarize cadets with the essence of health-saving competence and the basic requirements of a healthy life. It was important to use interactive and research teaching methods to gain cadets' experience in health preservation and expand their understanding of a healthy lifestyle. Comparative results of the formation of all

components of health-saving competence of cadets at the end of experimental training are presented in Tables 1–4.

The results of the survey, observation and survey showed that the cadets of the experimental group significantly increased the indicators of formation of the motivational component of health-saving competence compared to the control group. Among them, there were 18.97% more people who support the need for an appropriate level of its formation. These cadets believe that they need knowledge about health-saving competence for a more productive organization of their lives, "a sense of fullness of life." They understand that "you need to worry about your health not when you are already ill or when you are already retired, " but in advance. Cadets of the experimental group became more interested in the problems of a healthy lifestyle and health preservation, and viewed related information on the Internet and in the press. They are ready to make efforts to preserve their health, do not want to neglect their health. In the control group, only 13.84% of those who have a high level of motivational component of health-saving competence were identified (in the experimental group – 25.37% of cadets).

Table 1.

Comparative analysis of the levels of formation of the motivational component of health-saving competence of cadets before and after the experiment (in %), n = 132 (CG – 65, EG – 67)

Levels	Criteria	Control groups				Experimental groups			
		At the beginning of the experiment		At the end of the experiment		At the beginning of the experiment		At the end of the experiment	
		Q-ty	%	Q-ty	%	Q-ty	%	Q-ty	%
High	Motivational	4	6.15	9	13.84	4	5.97	17	25.37
Average		25	38.46	33	50.77	27	40.30	39	58.21
Low		36	55.39	23	35.39	36	53.73	11	16.42

Significant changes of cadets of experimental group were revealed regarding the formation of the cognitive component, which are determined using the method of unfinished sentences, test tasks, and were based on the results of conversations. In particular, 23.88 % of cadets of experimental group who demonstrated a high level of formation of this component, provided a thorough answer to questions related to the essence and components of the officer's health-saving competence. They also more thoroughly revealed the question of the need for health-saving competence, the relationship between the health-saving competence of an officer and the success of his professional activity (in the control group, 12.31 % revealed these questions at a high level). The results also showed that the

cadets of experimental group compared to the control group, are more thoroughly guided in various aspects of health-saving competence, in particular regarding the features of a healthy lifestyle. They were able to more comprehensively reveal questions about individual concepts of health and its role in the life and development of society and people; the history of the development of health teachings, methods for determining the level of physical and mental health, the importance of health training and nutrition, as well as the harmful effects of alcoholism, tobacco smoking and narcotic substances on human health. Cadets of experimental group also noted the importance of regulating the psychoemotional state, constant physical and spiritual self-improvement.

Table 2.

Comparative analysis of the levels of formation of the cognitive component of health-saving competence of cadets before and after the experiment (in %), n = 132 (CG – 65, EG – 67)

Levels	Criteria	Control groups				Experimental groups			
		At the beginning of the experiment		At the end of the experiment		At the beginning of the experiment		At the end of the experiment	
		Q-ty	%	Q-ty	%	Q-ty	%	Q-ty	%
High	Cognitive	3	4.62	8	12.31	3	4.48	16	23.88
Average		23	35.38	30	46.15	25	37.31	37	55.22
Low		39	60.0	27	41.54	39	58.21	14	20.90

Regarding the activity component it was found out that cadets of experimental group were able to perform tasks at the highest level that characterized their health-saving skills. They were able, firstly, to more thoroughly assess the state of their health using various research methods, secondly, to characterize the methods of regulating their own emotional state and overcoming stressful situations, and, thirdly, to create a program of psychoprophylactic and educational actions in the form of lectures, conversations, round tables, games, trainings. Among the cadets of experimental group there were 13.06% more people than the control group who have a high level of knowledge

of the main methods for diagnosing the level of health and can characterize ways to maintain a healthy lifestyle. According to the results of completion the tasks by cadets, it was found out that 22.39 % of cadets of experimental group were able to characterize at a high level the features of emotional and volitional regulation of behavior, regulation of their own emotional states and overcoming stressful situations, showed the ability to select individual means and methods for developing their physical and personal qualities (only 17.77% of them were identified in the control group).

Table 3.

Comparative analysis of the levels of formation of the activity-based component of health-saving competence of cadets before and after the experiment (in %), n = 132 (CG – 65, EG – 67)

Levels	Criteria	Control groups				Experimental groups			
		At the beginning of the experiment		At the end of the experiment		At the beginning of the experiment		At the end of the experiment	
		Q-ty	%	Q-ty	%	Q-ty	%	Q-ty	%
High	Activity-based	5	7.69	7	10.77	2	2.98	15	22.39
Average		21	32.31	27	41.54	23	34.33	35	52.24
Low		39	60.0	31	47.69	42	62.69	17	25.37

In turn, the data in Table 4 confirm that at the end of the formative stage of the experiment, cadets of the experimental group have a predominantly high (23,88 %) and average (55.22%) level of health-saving competence. In the control group

the indicators were 12.31% and 46.15%, respectively. In this group, the percentage cadets with a low level of Education health-saving competence, it is 41.54% (20.64% more than in the experimental one).

Table 4.

Comparative analysis of the levels of formation of health-saving competence of cadets before and after the experiment (in %), n = 132 (CG – 65, EG – 67)

Levels	Criteria	Control groups				Experimental groups			
		At the beginning of the experiment		At the end of the experiment		At the beginning of the experiment		At the end of the experiment	
		Q-ty	%	Q-ty	%	Q-ty	%	Q-ty	%
High	Average value	4	6.15	8	12.31	3	4.48	16	23.88
Average		23	35.39	30	46.15	25	37.31	37	55.22
Low		38	58.46	27	41.54	39	58.21	14	20.90

Further, to check the effectiveness of work on the formation of health-saving competence of future border guard officers, we conducted a statistical

analysis of the results obtained using the Pearson criterion (table. 5).

Table 5.

The level of formation of health-saving competence of cadets of the control and experimental groups according to the average values of criteria (at the end of the experiment), n = 132

Levels	i	n^e_i	n^t_i	$n^e_i - n^t_i$	$(n^e_i - n^t_i)^2$	$(n^e_i - n^t_i)^2 / n^t_i$	$(n^e_i)^2$	$(n^e_i)^2 / n^t_i$
High	1	8	6	14	196	32.67	64	10.67
High	1	16	10	6	36	3.60	256	25.60
Average	2	30	-22	8	64	2.91	900	40.91
Average	2	37	-22	15	225	10.23	1369	62.23
Low	3	27	-22	5	25	1.14	729	33.14
Low	3	14	-6	8	64	10.67	196	32.67
	Σ	132		X	X			205.22

So, $X^2_{EMF} = 205,22$.

Let's define the number of degrees of freedom: $\nu = 2$. Using the tables of critical values of the corresponding criterion, we will determine the critical point X^2_{kr} by significance level $\alpha=0.05$:

$$X^2_{kr} = 6,00$$

Considering that $X^2_{EMF} = 205,22 \geq 6,00 = X^2_{kr}$, we can consider the results of the formation of health-saving competence of future border guard officers according to the average values of criteria, in the control and experimental groups at the end of the experiment as statistically reliable. The differences between the two distributions can be considered significant if χ^2_{EMF} reaches or exceeds $\chi^2_{0.05}$, and especially reliable if χ^2_{EMF} reaches or exceeds $\chi^2_{0.01}$. In general, such data confirm the effectiveness of implementing the author's method of forming health-saving competence of future officers. Comparison of the results obtained indicates the expediency of using methods, tools and organizational forms of training for the formation of this personal property.

Discussion

The results of the study indicate the importance of pedagogical efforts to expand young people's ideas about the role of health in personal and professional life. The influence of the content of education and expanding the experience of cognitive activity (through the elective course "Health-preserving competence: importance for a border guard officer", the use of interactive methods and research tasks to solve specific health-preserving problems) on the formation of the specified property has been confirmed. So, the appropriate selection of the education content allowed to enhance the knowledge about the

requirements of a healthy lifestyle, specifics of health-preserving activities, formation of desire and motivation for a healthy lifestyle, a conscious attitude to one's health, and the whole idea of cadets about the essence of a healthy lifestyle, as well as the importance of physical, social and mental components of health. The results of the pedagogical experiment confirmed the expediency of the proposed ways, content and means of learning, which is evidenced by the discrepancy in the results of the formation of health-saving competence obtained in the experimental and control groups before and after the experiment.

The research conducted by I. Burlakova, O. Sheviakov, T. Kondes (Burlakova et al., 2021) helped reveal health-preserving competence in the context of physical, spiritual and intellectual self-development of a person, considered the health-preserving competence as a holistic unity of physical, spiritual and intelligent components. It is about the importance of young people's attention not only to the physical component, but also to what can be covered by the concept of the quality of human life: the importance of a harmonious life with oneself, with other people and society. There is also a common vision regarding the need to find new approaches to determining the content of education, in particular, raising the awareness of young people about the essence of a healthy lifestyle and ways to achieve harmony in professional and personal life.

The research of the authors L. Slyvka, H. Sivkovych, O. Budnyk, O. Tytun, A. Boichuk unites the idea of the possibilities of the educational process for the formation of a healthy lifestyle of students, of the pedagogical potential

of the content of education for expanding the awareness of young people about the importance of preserving all components of health (Slyvka et al., 2022). The results of this study proved the importance of informational and persuasive methods to familiarize young people with the requirements of a healthy lifestyle. As a rule, it is almost impossible to force people to smoke less, give up alcohol and other destructive practices by violent methods. In this case, methods of persuasion are more appropriate and effective. It is with the help of interactive teaching methods, during contact learning sessions, conversations and discussions, that young people can be introduced to positive examples of health care, inclined to make important decisions about taking care of their health. In this, the study also agrees with the one conducted by V. Overchuk, M. Smulson, O. Vdovichenko, O. Maliar, K. Vasuk (Overchuk et al., 2023). In our case, narrative practices were invaluable as a tool for restoring psychological balance and psychological support. In this way, cadets could decide on life values, priorities in work and personal life, acquire necessary basics of psychological literacy, learn the importance of an optimistic perception of life and readiness for life's difficulties.

Since the research was carried out in one educational institution, in further scientific papers it is advisable to increase the sample, which can give more reliable results. It is recommended to organize the experiment on a relatively larger scale, among other educational institutions. It is also necessary to track the results of the experiment in the future, a few years after the cadets have graduated from the educational institution, to find out their views on various aspects of health care activities. This would allow, among other things, to develop more precise recommendations on pedagogical ways of increasing the readiness of young people to use health-preserving practices.

The study was limited by several factors. First of all, by the fact that the participants of the experiment were representatives of one educational institution and that could affect the level of generalization. Secondly, the methodology of the research encompassed questionnaires, the method of incomplete sentences, testing, expert evaluation, conversations, performance of tasks, although it did not provide detailed written answers of young people regarding various aspects of health care. Analysis of such answers could strengthen the credibility of the findings.

Conclusions

The relevance of the study is determined by the need to outline the ways of forming the health-saving competence of future border guards, primarily its physical and mental components. At this age, young people do not always understand the meaning of health as the highest value, the specifics of health psychology, do not pay attention to the importance of maintaining the completeness and quality of human life. In the pedagogical aspect, it is necessary already during the training of cadets in a higher educational institution to increase their motivation to preserve health, as well as to identify pedagogical resources ensuring familiarization of future border guards with the importance of social and mental (spiritual) components of health.

Based on the analysis of the results of the formation stage, it was found that cadets of experimental groups began to take a more responsible attitude to their health and the health of other people, paying more attention to working with information about a healthy lifestyle, improve, maintain and promote health, apply a set of technologies to relieve psychoemotional tension, master the skills of introspection, self-assessment and elements of physical and emotional self-improvement. The cognitive component of their health-saving competence has significantly increased. They found out the features of a healthy lifestyle, that is, the specifics of health-saving activities, the need for a responsible attitude to their health, constant health care. Cadets (boys and girls) also paid attention to the need for physical and spiritual development, they learned how to create an algorithm for the formation, preservation and development of health, individual health programs, and apply a set of technologies to relieve psychoemotional tension. Such differences can be explained by the fact that during the experimental training, they had the opportunity to become more thoroughly acquainted with the problems of a healthy lifestyle and health preservation, mastered the necessary techniques and methods for improving their industriousness, restoring mental and psychological balance.

Cadets of experimental group also learned to identify long-term plans for their professional development, to see the positive aspects of various life situations. Organization of research work of cadets of experimental group it allowed to teach them how to process large amounts of necessary information, find the necessary solutions to health problems. In contrast no significant changes in levels of the formation of

health-saving competence were found in the control group. In this group positive changes in the formation of health-saving competencies do not reach the level of statistical significance, they are the result of the entire educational process in an educational institution. In general, the results of the formative stage of the pedagogical experiment confirmed the expediency of the proposed ways of forming health-saving competence, the content and means of training, which is evidenced by the discrepancy in the results of the formation of health-saving competence obtained in the experimental and control groups before and after the experiment.

Taking into account the fact that cadets (boys and girls) during the training period do not fully realize the importance of health saving and health-saving competence. It is important to familiarize them with the importance of maintaining health, motivate them to health-saving activities. In the pedagogical aspect the primary subject of consideration should be health-saving and health-saving technologies for personal development in the educational process. Even at the stage of initial professional development, cadets (boys and girls) should understand the importance of health preservation to ensure harmonious spiritual and physical development. The purpose of health-saving education (training and upbringing) should be to prepare cadets for a full and harmonious active life.

In order to form the health-saving competence of future specialists and their motivation for health-saving activities, it is necessary to expand the understanding of the essence of health-saving competence and the importance of its physical, social and mental components in personal and professional life by means of elective courses. In this case, it is important to take into account that competence is formed on the basis of mastering the content of education, knowledge about the requirements of a healthy lifestyle, that is, the specifics of health-saving activities. In turn, with the help of interactive teaching methods, it is advisable to teach cadets to determine their life values, priorities in work and personal life, and to form the ability to have an optimistic perception of life. To develop cadets' (boys and girls) health-saving skills, it is also necessary to use the potential of research tasks. By studying, systematizing and analyzing the facts, cadets (boys and girls) will be able to learn more about history of the formation of views on health, features of various health improvement systems, that is learn new material about a healthy lifestyle

not through memorization, but through research and solving complex health problems.

Prospects for further development

Further research can specify the pedagogical possibilities of influencing young people and increase their level of responsibility for their health. The study of this problem can be carried out in the following directions: 1. Increasing the scope of the study: it is important to cover a larger number of educational institutions, to compare the health care awareness of a larger number of students. 2. Study of health-saving practices of representatives of civilian youth and cadets: it is important to find out the daily components of young people's concerns about their physical, social and mental health. 3. Analysis of the impact of psycho-traumatic factors: it is advisable to reveal the awareness/readiness of young people to protect their health in wartime conditions. These studies can expand the pedagogical possibilities of forming health-preserving practices of young people.

Conflicts of Interest

The authors declare no conflict of interest.

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