Formation and Preservation of Students' Mental Health in the Process of Studying at Pedagogical Universities

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SUMMARY

Aim: The aim is to experimentally verify the methodology of self-regulation culture formation as an important element of professional training of future teachers of the humanities in the process of studying the author's specialized course referred to as "Fundamentals of Psychovaleology".

Materials and Methods: The research involved third-year students of pedagogical institutions of higher education aged 20 to 23 years in the number of 126 people (80 girls and 46 boys). The methods used included observation, questionnaires, psychodiagnostic methods for determining the level of anxiety, self-assessment of well-being, quantitative and qualitative analysis of the results in terms of self-regulation culture formation according to theoretical, practical and professional criteria.

Results: Experimental verification of the effectiveness of the developed methodology shows qualitative positive changes in the students' emotional well-being, in significant reduction of their anxiety, as well as in increasing motivation for active exercise

Conclusions: The developed methodology of self-regulation culture formation in future teachers can become a significant basis for the further formation of individual health preservation competence of students i. e. future teachers, their orientation to active physical education as well as fitness and health recreation activities, and can also be included in the system of implementation of professional standards for the training of students in pedagogical specialties, especially in terms of the development of their health preservation competence

Key words: self-regulation culture, psychovaleology, health preservation competence, individual health preservation competence, future teacher

INTRODUCTION

The problem of preserving the health of children and youth in modern conditions of development of Ukrainian society is of exceptional importance and relevance. It is the sustainable orientation of the individual towards physical culture and sports activities, the formation of the need for a healthy lifestyle that is considered today as one of the priority areas of education [1-3]. The strategic state measures in this direction include the implementation of the State Targeted Social Program for the Development of Physical Culture and Sports for the period up to 2024, the National Strategy for Recreational Motor Activity in Ukraine for the period up to 2025 referred to as "Motor Activity – Healthy Lifestyle – Healthy Nation", the National Program of Mental Health and Psychosocial Support (2022) and others. All of them in one way or another ensure the formation of a valuable attitude of young people to their own health, improvement of physical development and physical fitness, taking into account the requirements of

future professional activities, mastering quick methods of psychological support, awareness of the importance of maintaining the mental health of all participants in the educational process. For teachers and students who aspire to become teachers, the priority task is to lead a healthy lifestyle and provide an example of health preservation for high schoolers [4, 5]. Therefore, it is important to form health preservation competence of the future teacher as a system, as well as its integral component i. e. the competence of individual health preservation of the teacher.

The analysis of psychological and pedagogical literature shows that much attention is paid to the formation of valeological consciousness and valeological thinking [1, 4, 6]. According to scientists [2, 7], preserving the health of the population as a whole, maintaining working capacity and ensuring the active longevity of each individual are the priority tasks of modern social policy in many countries. Scientists associate the implementation of the idea of health preservation through the educational space with

the improvement of the content of teacher education, the development of effective criteria for determining its effectiveness [8]. Therefore, the most important indicators of the effectiveness of the educational process include health preservation competence formedness in future teachers, on the one hand, as a prerequisite for ensuring their professional longevity and predictability of the results of specialists' activities, and on the other – as the basis for preserving and promoting high schoolers' health. After all, numerous negative risk factors, which, unfortunately, often occur in the educational process, lead to a deterioration in the somatic and mental health of all its participants [9, 10].

In the context of professional pedagogical training, self-regulation culture, which lays the foundation for further professional success is one of the important indicators of individual health preservation competence of future teachers and an indicator of their readiness for health preservation pedagogical activities [6, 11]. The teacher's ability to self-regulation is considered as a necessary condition for the prevention of mental disorders and productive solution of professional problems, including in the management of the educational process [4, 12]. Self-regulation can also be considered as a tool of developing adaptability in the social and professional environment, which is the acmeological basis of pedagogical activities [13].

AIM

The aim is to experimentally verify the methodology of self-regulation culture formation as an important element of professional training of future teachers of the humanities in the process of studying the author's specialized course referred to as "Fundamentals of Psychovaleology".

MATERIALS AND METHODS

The research involved third-year students of the Faculty of Preschool, Primary Education and Arts; the Faculty of Philology and the O.M. Lazarevskyi Educational and Research Institute of History and Socio-Humanitarian Disciplines of the T.H. Shevchenko National University "Chernihiv Collegium" aged 20 to 23 years in the number of 126 people (80 girls and 46 boys). Two groups of interest were formed, which made up the experimental (EG) and the control (CG) groups, having an equal number of respondents (63 students).

The research used the methods of analysis and synthesis of literature, pedagogical observation, questionnaires, psychodiagnostic methods, quantitative and qualitative analysis of the results.

The methodology of self-regulation culture formation was developed for students of humanitarian specialties in order to acquire competencies in the theory and practice of self-regulation, the main components of which were determined by the corresponding aim, tasks, conditions of implementation, the necessary theoretical and practical content, a set of forms, methods and tools, criteria and levels of self-regulation culture formedness. The specialized course referred to as "Fundamentals of Psychovaleology" was the content basis of the methodology for self-regulation

culture formation [14]. The specialized course was designed for third-year students of the pedagogical university for one semester of study, a total of 60 hours, of which 32 hours are in-class learning. The educational material of the specialized course is combined into two content modules: "Formation of Mental Health" and "Preservation and Strengthening of Mental Health". Both modules are united by the cross-cutting concept of "mental health". The importance of this circumstance is explained by the fact that the mental state of a person is of great importance for a healthy full life, as it directly affects the ability of a person to learn, develop professionally, self-develop and be socially active. At the same time, much attention is paid to the formation of students' worldview beliefs about a healthy lifestyle as a way of life that is more effective than the activities of the medical industry related to the preservation and promotion of health.

The use of various forms (lectures, laboratory classes, workshops) and active teaching methods (dialogues, discussions, situational-communicative games, etc.) was one of the conditions for ensuring the practical implementation of the methodology. The professional orientation of the methodology was achieved by setting up students for systematic independent work in terms of optimization of their mental and physical condition, increase in their motor activity to prevent stressful conditions and maintain the general tone of the body.

In order to study the influence of self-regulation training on the change of students' individual sensitivity to stressors, the level of situational anxiety was determined by the method of Ch.D. Spielberger, adapted by Y.L. Khanin. At the same time, we proceeded from the fact that anxiety as a psycho-emotional state of a person characterizes his or her tendency to manifest emotional reactions of fear, fright, etc. in stressful situations. The optimal level of situational anxiety can be an indicator of a person's ability to control his or her psycho-emotional state.

To determine the effectiveness of the developed methodology of self-regulation culture formation in terms of its impact on the psycho-emotional state of students, the method of self-assessment of well-being (according to V.P. Ozerov) was used, according to which students had to evaluate their well-being on a 5-point scale: 5 – feeling better than usual; 4 – feeling good; 3 – feeling tired; 2 – feeling mild malaise; 1 – feeling sick.

The comprehensive assessment of the students' self-regulation culture formedness was determined by theoretical, practical and professional criteria. We developed the self-assessment map of theoretical knowledge, practical and professional skills formedness. The levels of self-regulation culture formedness were evaluated in points: high level was estimated at 3 points; average– 2 points; low – 1 point. The comprehensive assessment involved students who evaluated their theoretical knowledge, practical and professional skills and abilities to apply self-regulation methods. According to the same criteria and levels, the assessment of self-regulation culture formedness was carried out by the experts, who were teachers of valeological academic disciplines.

The self-regulation culture formedness was determined by the amount of changes that occurred in the learning process, which was statistically tested by Student's t-criterion.

RESULTS

According to the results of the study of the dynamics of situational anxiety indicators of students, it was found that the students of both study groups had almost the same anxiety indicators (Table 1) at the beginning of the pedagogical experiment, while this indicator decreased almost twice in the EG students at the end of the experiment, and it remained unchanged in the CG students. The difference between the indicators of situational anxiety in the EG students at the beginning and at the end of the research is 6.14 points and is significant (p<0.001), and in the CG students the difference is 0.45 points and is not significant (p>0.05). At the same time, the level of anxiety of students of both groups at the beginning of the experiment was on the verge of optimal and high, and it decreased to the level of optimal and low at the end of the experiment, and the level did not change in the CG.

The obtained results of the dynamics of the indicators of situational anxiety of students indicate that after teaching students of the EG the basics of psychovaleology according to the author's methodology, where they master the methods of self-regulation, there was a significant improvement in their ability to effectively resist stress factors due to the formation of psychological resilience, skills to counteract negative external factors. Instead, the results of the CG can be explained by the fact that students who do not have the tools of self-regulation can not always resist stressful factors.

The study of the level of well-being of the EG and the CG students showed significant differences between the comparison groups (Table 2).

The analysis of the test results showed that the students of both groups before the beginning of the pedagogical experiment had equally low indicators of their well-being, both groups were prevailed by students who assessed their condition at

the level of "feeling tired" indicator (the EG – 2.95 points; the CG – 3.07 points). The EG students significantly improved their well-being by 1.26 points (p < 0.001) after mastering the techniques of self-regulation during the specialized course referred to as "Fundamentals of Psychovaleology". Moreover, the vast majority of the EG students was characterized by the scores in the range of "feeling better than usual" and "feeling good". Also, the EG students noted their desire to increase the amount of motor activity i. e. various physical exercises, which indicates that students' mastery of self-regulation techniques contributed to the improvement of their emotional and general physical condition. In the CG, the indicators of well-being improved by 0.29 points, but the difference between the initial and final data was not significant (p > 0.05); most CG students assessed their well-being at the level of "feeling tired".

The comprehensive assessment of self-regulation culture formedness was carried out in order to summarize the results, where its criteria and levels were determined. The criteria for self-regulation formedness were theoretical awareness, practical competence of the future specialist in matters of self-regulation, his or her ability to model possible stressful situations in future professional activities and quick orientation in choosing a set of various methods of self-regulation, based on each specific situation, while showing a creative approach. Taking into account these criteria, the EG and the CG students were divided into 3 subgroups: with high, average and low level of self-regulation culture formedness (Table 3).

According to the developed criteria, three levels of adaptation and health effects were identified, which characterize the practical component of self-regulation culture formedness: high, average, low. Students who do not wait for outside help to resolve a difficult conflict situation and find the right solution have a high level. Students who have this level of self-regulation culture do not enter into conflict relationships, are able to organize their activity so that it would provide benefit to themselves and others and

Table 1. Dynamics of the indicators of situational anxiety of the EG and the CG students during the pedagogical experiment (M±m), points

Group	Stages of the experiment		Significance of the difference		
	Beginning	End	Difference	t	p
EG	42.32±0.76	36.18±0.57	6.14	6.44	<0.001
CG	42.29±0.68	41.87±0.63	0.42	0.45	>0.05

Legend: M: arithmetic mean; m: error in standard deviation; t: t-test value, p: the significance of the difference between the indicators of studied groups before and after the experiment

Table 2. Dynamics of the indicators of well-being in the EG and the CG students during the pedagogical experiment (M±m), points

Group	Stages of the experiment		Significance of the difference		
	Beginning	End	Difference	t	p
EG	2.95±0.10	4.21±0.09	1.26	9.37	<0.001
CG	3.07±0.11	3.36±0.11	0.29	1.86	>0.05

Legend: M: arithmetic mean; m: error in standard deviation; t: t-test value, p: the significance of the difference between the indicators of studied groups before and after the experiment

Table 3. Criteria and levels of students' self-regulation culture formedness

Levels of formedness		
High	**Average**	**Low**
Theoretical criterion		
Excellent knowledge of theoretical foundations of self-regulation.	Knowledge of theoretical foundations of self-regulation is satisfactory.	Fragmentary knowledge of theoretical foundations of self-regulation.
Practical criterion		
Confident application of various methods and tools of self-regulation to stabilize one's own psychophysical state. Successful achievement of adaptation and health effects.	Satisfactory application of individual methods and tools of self-regulation to stabilize one's own psychophysical state. Adaptation and health effects are not always achieved.	Uncertain application of the simplest methods and tools of self-regulation to stabilize one's own psychophysical state. Adaptation and health effects are practically not achieved.
Professional criterion		
High ability to model possible stressful situations in future professional activities, quick orientation in choosing a set of various methods and tools of self-regulation, based on each specific situation, while showing a creative approach.	Average ability to model probable stressful situations in future professional activities, satisfactory orientation in the choice of individual methods and tools of self-regulation.	Low ability to model probable stressful situations in future professional activities, poor orientation in the choice of the simplest methods and tools of self-regulation, or complete disorientation.
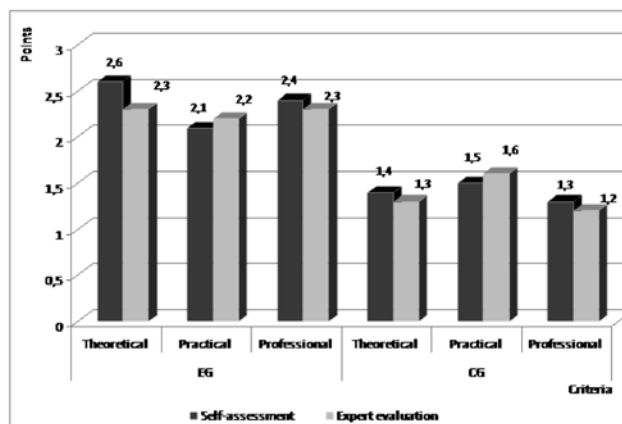
Figure 1. The level of self-regulation culture formedness in the EG and the CG students at the end of the pedagogical experiment, points

would be productive and of high quality. Their behavior is confident, mood is good, they are characterized by high efficiency and result orientation. The average level of self-regulation culture is observed in students whose emotions often prevail, and a person can not immediately master the situation in which he/she finds himself/herself. Students with this level sometimes enter into conflicts, although they know some ways to solve them and are mostly able to get out of difficult situations. Their behavior is mostly confident, they have good mood, satisfactory performance and are characterized by result orientation. A low level is a characteristic feature of hot-tempered and conflictual students who often get into difficult situations and cannot find a way out of them on their own. Such students do not know ways to resolve conflicts and do not have effective communication skills. Their behavior is uncertain, their mood is unstable, their performance is low and they have a low commitment to results.

The comparative analysis of the EG and the CG results shows qualitative changes in the level of self-regulation culture formedness in the EG students (both in terms of self-assessment and expert evaluation) for all the main criteria with a high degree of reliability ($p<0.001$) (Figure 1).

DISCUSSION

According to the scientists [8, 9, 13], the psychological culture of the teacher is unthinkable without the culture of feelings, without the emotional and volitional sphere of his or her personality. The latter implies the ability to love, consciously control one's emotions, regulate one's actions and behavior, control oneself, create a positive emotional mood and a favorable psychological climate, understand the feelings of the high schooler, etc. Professionalism of a teacher is a set of psychophysiological, mental and personal changes that occur in a person in the process of mastering knowledge and long-term activities, which provide a qualitatively new, higher level of solving complex professional problems [6, 8]. In the study of various aspects of pedagogical and educational activities of future teachers, the phenomenon of self-regulation is considered as an important component of professional and pedagogical competence and as a significant factor in the success of educational and pedagogical activities [15]. Self-regulation of a personality is considered as the process of initiation, support and management of various types and forms of external and internal activities aimed at achieving the goals set by the subject; as the ability of a person to control himself or herself on the basis of the act of his or her behavior and his or her own mental reactions [11, 12].

The results of our experimental work revealed the effectiveness of the developed methodology of self-regulation culture formation in future teachers of humanities in the process of studying the author's specialized course referred to as "Fundamentals of Psychovaleology", which is confirmed

by qualitative positive changes in the emotional well-being of the EG students and a significant reduction in their level of situational anxiety.

The level of self-regulation culture formedness in the EG students, in contrast to the CG ones, has increased by all criteria: theoretical, practical and professional. Thus, according to the theoretical criterion, the increase in self-esteem of the EG students can be explained by the fact that the knowledge gained gave them more confidence in their preparedness for self-regulation. According to the criterion of practical formedness, which is characterized by the ability of students to apply a set of self-regulation methods to stabilize their own state, there were positive changes in students' behavior: they began to behave more confidently during the classes, actively, well controlled themselves in different situations modeled by the teacher, confidently used self-regulation tools. According to the criterion of professional formedness, which is characterized by the ability of students to model a variety of possible stressful situations in future professional activities, quickly navigating the choice of a set of self-regulation methods, based on each specific situation, while showing creativity, there were also positive changes compared to the CG. The results obtained complement and extend the findings of scientists in the field of mental and physical health [16-18].

CONCLUSIONS

It was found out that the specialized course referred to as "Fundamentals of Psychovaleology", where the EG students learned methods of self-regulation, contributes to the formation and preservation of their mental health. In practice, this was manifested in the ability of students to creatively apply a set of methods and tools of self-regulation both in the learning process, where various unexpected situations were simulated, as close as possible to real life, and during pedagogical practice, where the general level of competence of individual health preservation was monitored, one of the integral characteristics of which is the capacity for self-regulation.

The developed and tested methodology of self-regulation culture formation in future teachers in the process of studying the academic discipline referred to as "Fundamentals of Psychovaleology" has proved its effectiveness and can become a significant basis for the further formation of individual health preservation competence of students i.e. future teachers, their orientation to active physical education as well as fitness and health recreation activities, and can also be included in the system of implementation of professional standards for the training of students in pedagogical specialties, especially in terms of the development of their health preservation competence.

Prospects for further research. It is planned to investigate the relationship between the indicators of mental and physical health of students who have mastered the course referred to as "Fundamentals of Psychovaleology".

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Conflict of interest:
The Authors declare no conflict of interest

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