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**MOTIVATIONAL AND REGULATORY INSTRUMENTS  
OF VALEOLOGICAL EDUCATION**

*Shevchenko A.S.<sup>1-3</sup>, Shevchenko V.V.<sup>3,4</sup>, Shumskiy O.L.<sup>5</sup>, Brown G.W.<sup>6</sup>,  
Kucherenko S.M.<sup>3</sup>, Kucherenko N.S.<sup>3</sup>, Gavrylov E.V.<sup>7</sup>*

<sup>1</sup>Kharkiv National Medical University, Kharkiv, Ukraine

<sup>2</sup>Kharkiv Regional Institute of Public Health Services, Kharkiv, Ukraine

<sup>3</sup>V.N. Karazin Kharkiv National University, Kharkiv, Ukraine

<sup>4</sup>National Technical University "Kharkiv Polytechnic Institute", Kharkiv, Ukraine

<sup>5</sup>Simon Kuznets Kharkiv National University of Economics, Kharkiv, Ukraine

<sup>6</sup>International Public Health Institute, Berlin, Germany

<sup>7</sup>Hameln-Pyrmont Adult Educational Center, Hameln, Germany

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**ABSTRACT**

**Background.** The competence-based approach is a condition for the implementation of higher education in Ukraine and the world. The list of competences that must be formed in university graduates includes health-saving. But there are obstacles to fulfilling the requirements of the standards in the form of imperfect practical pedagogical realization of competence formation.

**Aim.** To identify motivational and regulatory tools of non-medical education, the use of which is approved in the scientific-pedagogical environment, regulated by the legislation of Ukraine and effective in achieving the result of forming valeological competence, provided for by the standards of higher non-medical education of Ukraine.

**Materials and Methods.** The research was conducted using the system analysis method and the bibliosemantic method. The research is based on twenty years' experience in forming valeological competence in students of non-medical universities in the city of Kharkiv by means of teaching special valeological disciplines. The study does not describe these empirical studies, but only uses their findings.

**Results and Discussion.** As a result of the theoretical research, it has been established that the competence principle of education is not actually implemented in higher education, and in the course of forming valeological competence in particular. This happens because of the lack of mechanisms for evaluating personal components of competences. It is proposed to consider the student's main motivation in forming valeological competence as his/her desire to be healthy. Individual and organizational regulatory tools of valeological education are defined. They are as follows: typical curricula and textbooks for valeological education of students at non-medical universities, development of criteria for recalculating the evaluation of forming motivation and other personal components of competences for assessment in ECTS points.

**Keywords:** *valeological competence, health-saving competence, "Health Pedagogy", "Fundamentals of Medical Knowledge and Health-Saving", higher education standards, competences formation assessment.*

**Introduction**

The competence-based approach is generally accepted in European and Ukrainian education in the last two decades [1; 2]. Theoreticians of peda-

gogy and practitioners of business, finance and production understand competences almost equally. Thus, the International Board of Standards for Training, Performance and Instruction defines competence as "the ability of a person to perform activities, perform tasks or work in a qualified manner" [3].

The competence-based approach is appropriate both for primary education in schools and higher education institutions, and for lifelong learning [4–7].

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**Corresponding Author:**

Shevchenko Alexander S. – MD, MM,E&P, Director of the Kharkiv Regional Institute of Public Health Services; 8, Rymarska str., Kharkiv, 61057, Ukraine.  
E-mail: as.shevchenko@knu.edu.ua

The competence-based approach is covered in detail in special pedagogical sources. During the practical application of theoretical pedagogical developments (for example, when setting educational standards), mechanical repetitions of definitions are often used and they are inconsistent with the content of the corresponding specialty standards [8–10]. This discords with the understanding of competency as the ability to perform variable practical tasks in life and career at a sufficient professional level, which is determined by cognitive abilities and skills, social interaction, motivation and will [11].

Competences, which are the subject of analysis and development, are divided by researchers into components, part of which corresponds to the cognitive component of the "knowledge–ability–skills" system, part – to the psychological component of motivation (applying competence in the practical sphere) and will (achieving the desired result from the application of competence) [12]. In the theoretical field, competences are well developed. But these studies continue, and the transfer of innovations into legislative practice is difficult, as evidenced by the imperfection of educational standards. At the next stage of practical implementation of higher education standards requirements, there are again difficulties in forming competences and assessing their formation. We will show these difficulties by the example of forming valeological competence in non-medical students [13].

At the level of generalization, the understanding of the competences of Ukrainian legislators is satisfactory. Thus, according to the Law of Ukraine "On Education" [14], "competence is a dynamic combination of knowledge, abilities, skills, ways of thinking, views, values, and other personal qualities that determine a person's ability to successfully socialize, conduct professional and/or further educational activities". According to the Law of Ukraine "On Higher Education" [15], "competence is the ability of a person to successfully socialize, study, and conduct professional activities, which arises on the basis of a dynamic combination of knowledge, abilities, skills, ways of thinking, views, values, and other personal qualities". The educational process requires the student in Ukraine to be fluent in the language of study, to be ready to study throughout his/her life, regardless of the study profile, to develop information and communication, cultural competences, innovativeness, financial literacy, environmental competence, civic and social competences, "rela-

ted to ideas of democracy, justice, equality, human rights, well-being and a healthy lifestyle, with awareness of equal rights and opportunities". The law also provides for "other competences" defined by education standards. For example, competence in the field of natural sciences, engineering and technology, mathematical competence and others.

The National Qualification Framework of Ukraine [16] defines competence as "a dynamic combination of knowledge, abilities, skills, ways of thinking, views, values, and other personal qualities that determine a person's ability to successfully socialize, conduct professional and/or further educational activities". The Law of Ukraine "On Higher Education" defines competence as "a person's ability to successfully socialize, study, and conduct professional activities, which arises on the basis of a dynamic combination of knowledge, abilities, skills, ways of thinking, views, values, and other personal qualities". It is these definitions of competences that emphasize their key role in the preparation of a future specialist in the modern educational space, and cover all aspects necessary for forming competences. The provisions of these normative acts are the basis for a broad discussion of competences in the academic environment. Of course, the issues of motivation and practical application in pedagogical practice, especially in valeological education, require additional study. But in a generalized form there is everything necessary for the formation of competence.

The state of health of Ukrainian population indicates a low commitment of young people of university graduation age to a healthy lifestyle [17]. In our opinion, when applying the norms of the law on competence in the practical sphere of pedagogical activity, there are significant shortcomings that stand in the way of teaching young people safe models of behavior and a healthy lifestyle. So, for example, health-saving is a requirement of almost all standards of higher non-medical education. But institutions of higher non-medical education mostly do not have special valeological disciplines for the formation of valeological competence, and do not impose the duty of forming such competence on departments with related educational programs. If not, they set such a task to these departments, but do not control the result of forming valeological competence (health-saving competence) among graduates of non-medical universities [18]. In the absence of special valeological disciplines in a non-medical university, it is almost impossible to build an individual educa-

tional trajectory of valeological education [19] and there is no control of the content of health information through the filter of evidence-based medicine [20]. Therefore, at the level of practical implementing the requirements of higher education standards regarding the formation of valeological competence among graduates of non-medical universities, motivational tools for valeological self-education or regulatory management instruments should be applied. A similar practice exists in some known non-medical universities, but it is not generalized and translated into the field of pedagogical theory.

The **aim** of the study has been to determine the motivational and regulatory instruments of non-medical education, the use of which is approved in the scientific-pedagogical environment, regulated by the legislation of Ukraine and effective in achieving the result of forming valeological competence, provided for by the standards of higher non-medical education of Ukraine.

#### **Materials and Methods**

The research has been conducted using the system analysis method and the bibliosemantic method. The method of system analysis is applied according to the method of a large-scale step-by-step algorithm from the formulation of the problem to the final judgment, with the formation and verification of the preliminary judgment, with the feedback of the findings verification, but without the step of implementing the solution, which would involve empirical research. The bibliosemantic method was used to search for sources on PubMed, Google and Google Scholar, using relevant keywords in Ukrainian and English. The context of the study was higher non-medical education and the formation of valeological competence (health-saving competence) in graduates of non-medical universities. For medical higher education, in our opinion [21], there are other more complex mechanisms of health-saving competence formation, which is related to the topic of health in most academic disciplines of medical universities.

The study uses the conclusions regarding the development and introduction to educational programs of non-medical institutions of higher education in Kharkiv (V.N. Karazin Kharkiv National University and its institute – Ukrainian Engineering Pedagogics Academy, National Technical University "Kharkiv Polytechnic Institute") of valeological disciplines "Health Pedagogy" and "Fundamentals of Medical Knowledge and Health-Saving" during 2004–2024.

#### **Results and Discussion**

At the first stage of the research, we have additionally studied the competence approach in higher education, regardless of its direction, with an emphasis on the motivational component. We have found out that the competence-based approach is adopted in the educational systems of most countries. The definition of competency was found to be important, which is the ability to apply knowledge and action projects in practice and, at the same time, a tool for interpreting events that allows you to understand the situation, predict scenarios, plan and adjust your actions in accordance with the purpose of the activity [22]. It is obvious that a motivational component of competence is necessary to achieve the goal. Sushchenko O. et al. (2022) [23] propose to form professional competences in a university student in three stages:

1. to arouse interest in professional activity through conversations, discussions, role-playing games, cases;
2. to turn to the professional value orientation, which forms the image of an ideal specialist as the goal of the university student's education;
3. to form professional skills by solving situational tasks, cases, internships, and practical activities.

However, there are other opinions that university students do not need to be motivated to study disciplines [24]. According to Zhukova O.A., which we share, the student's motivation should be the need to successfully pass the exam in the discipline and get the right to study in the next course / get a diploma of higher education, as well as acquire competencies at a level that will allow the university graduate to be competitive in the labor market [25–27]. In the case of valeological education, the main motivator should be the desire to be healthy [28; 29].

Competence-based approach in education has been developed by many scientists from different countries of the world: Andreiev A., Boichuk Yu., Briukhanova N., Delor Zh., Druhanova O., Gutmacher W., Ivanenko L., Kasych A., Komyschan A., Kovalenko O., Kreig L., Kornilov A., Lokshyna O., Luhovyi V., Luniachek V., Lutaieva T., Mak-Klelland D., Mertens D., Nahorna N., Nalyvaiko O., Nekrashevych T., Ovcharuk O., Savchenko O., Shtefan L., Shvedova Ya., Sliusarenko O., Talanov Zh., Zhukova O., et al. The results of scientific developments are summarized in the reports of scientists and politicians (for example, "Key Competences in Europe" (Council of Europe, 1996), "Education. The Hidden Treasure" (Inter-

national Commission on Education for the 21<sup>st</sup> Century, 1993), etc.), program documents (for example, "New Ukrainian School" (Ministry of Education of Ukraine, 2016), "DeSeCo" (Switzerland, USA, Canada, 1998) and others) and models (for example, in Dietmar Kur's Heidelberg Model of Key Qualifications, Bloom's Taxonomy (1956) [30] etc.). Assessment competence formation success is based on the principles of gradual achievement of higher levels of competence, each of which includes all previous ones.

The relationship between competences and educational standards has been studied in detail in European and North American scientific sources. Thus, Münch R. (2012) [31] states that since competences are skills, and standards describe the level of achievement applied to knowledge and skills, these two concepts are often equated. At the same time, the definition of the content of competences lasts for years. Since there are no definitions of competences that clearly reflect their content, their components are described in the context of standards [32]. Through the lens of health-saving, such components are often considered to be the absence of bad habits, protection from adverse environmental influences, and sufficient physical activity. But there are lots of methodological errors in the comparison of program learning outcomes with the goals of competence formation in the theoretical sense. Instead of preserving mental health, they consider spiritual development to be a component of competence, instead of the need for a fully balanced diet, they consider giving up fast food and GMOs. In practical activities, the teacher does not have time to analyze the shortcomings of the standard, and simply performs it in accordance with the program learning outcomes, if he/she uses the standard at all. Therefore, there are often opinions [33] on the identity of the competence content from the scientific and formal (legal) points of view. The disadvantage of equating competence with the standard of education is the subordination of the competence content to the standard of education. It is this fact that makes it difficult to correct erroneous definitions in education standards. Also, in the education standards in the form of learning outcomes, they try to include those components of competence that are easy to model and measure [34; 35]. They do not include motivational and personal components.

In various scientific and legal sources, competences have different definitions, names, and belong to different classification groups. The stan-

dards of higher education of Ukraine [36] define the competencies that the student is supposed develop in accordance with the study specialty and educational level ("Bachelor" or "Master"). We have not found a definition of valeological competence in general and by components in any regulatory act. In scientific sources, the definition and content of valeological competence, or health-saving competence, depends on the perspective of the researcher, his/her education and teaching profile.

Let us immediately expand the issue of limiting the context of our research to non-medical students only. The formation of valeological competence should be distinguished from the competences of those obtaining higher medical education – diagnostic, therapeutic and prophylactic competences aimed at patients [37]. The issue of the content of valeological competence and the success of its formation among non-medical students is considered insufficiently studied [38]. Olle ten Cate (2017) believes [39] that valeological competence in students of higher medical education is necessarily formed in accordance with the content of programs of academic disciplines and ethical attitudes of the future doctor. But doctors also need health-saving. During their training, medical students often show contempt for their own health, which affects their credibility with patients when trying to promote a healthy lifestyle. Medical education provides all the necessary information to the student about the content of a healthy lifestyle and safe behavior, but the pace of learning, information overload and constant stress simply do not allow to follow a healthy lifestyle program. In addition, in our opinion, for the formation of valeological competence, medical students do not need a separate valeological discipline.

Not only medical education can be tense and stressful. The need to work while studying at university, studying during war and pandemics, the mismatch of the level of secondary education with the chosen higher education, the choice of other difficult specialties (for example, learning foreign languages) can also prevent a non-medical student from leading a healthy lifestyle. Therefore, the motivational component of competences in overloaded students will be difficult to form and will require the student's psychological adaptability.

The psychological component of competence can be measured only with the help of standard psychological surveys [40], which are not provided for by the European Credit Transfer and accumulation System (ECTS) system for evaluating

academic results. Instead, the components of cognitive competence ("knowledge–ability–skills") can be assessed with standard tools. In practical activities, the teacher does not have time to complete additional questionnaires, which can be used to assess the level of motivation, values, personal ability to achieve the results of practical activities using the developed competence. Also, teachers do not have instructions for converting the results of psychological tests into ECTS scores. Therefore, either forming these components of competences is evaluated "by eye" or is completely ignored, which violates the principle of competence training.

As well as the assessment of competence formation in the educational process, human activity in the social environment is often considered in four dimensions: affective-emotional, motivational, cognitive and volitional. The component of competence in human activity is interpretive, as it allows one to understand the situation, predict scenarios, plan and adjust one's actions in accordance with the goal of the activity. Motivation to action gives meaning to efforts spent on achieving a goal, strengthens a person's will. But the core of the activity corresponds to its cognitive content. Psychologists Kuhl J. & Heckhausen J. made a great contribution to the development of the cognitive function understanding [41; 42]. It was they who considered competence in relation to the motivation of activity and the desire to complete any project. To implement the action plan, the goal must have a certain value and subjective meaning. The performer must also possess the technical and practical skills and tools necessary to achieve the goal. Motivation is supported by the expectation of success. The operational abilities of the performer depend on the success of self-control (control of actions, attention, motivation, especially when the performer faces difficulties or failures) and self-regulation of his/her own emotions, thoughts and actions carried out under their influence. Therefore, in our opinion, motivation can be evaluated by changing the behavior model or quantitative increase in professionalism. The motivational and value component as a result of training can be improved to a large extent, even if the student started the formation of competence from a very low cognitive level (for example, due to low-quality secondary education).

Conversely, a small cognitive gain with a high cognitive result (when a student has a high-quality secondary education, makes little effort to study, but still gets a high result in ECTS scores) may

indicate low motivation. Therefore, to evaluate individual learning outcomes, we suggest using qualitative models of competence formation [43] and including them in higher education standards along with a list of relevant programs' learning outcomes. The latter should describe the criteria for evaluating the formation of motivation and other personal components of competences. We suggest that the assessment of forming competences is carried out in parallel with the assessment of the academic success of training in ECTS points, or include the assessment of forming motivation in the general assessment of the ECTS, listed according to the clear criteria of the education standard. Individual success in the formation of competence should be monitored by the student and the teacher in real time, throughout the entire training. This approach will allow building individual educational trajectories.

Regulatory tools are also needed at the organizational level of valedological education. Among the measures of their use, we propose to include the creation of special valedological disciplines in the curricula of non-medical universities for forming valedological competence of graduates to meet the requirements of higher education standards. Regulatory tools in this case are typical curricula and textbooks of valedological education for non-medical universities, qualitative models for evaluating the formation of competences, and criteria for recalculating the evaluation of the formation of motivation and other personal components of competences for evaluation in ECTS points.

### **Conclusions**

The competence-based approach is a prerequisite for modern higher education. The list of competencies is defined in the Standards of Higher Education of Ukraine. Their formation is an undeniable directive for teachers. But the Standards of Higher Education do not contain instructions for evaluating the formation of competencies. The practice of evaluating the academic success of students in ECTS consists in evaluating the cognitive components of competencies in the "knowledge–ability–skills" system. Assessment of personal components (motivation, etc.) is not carried out and is not recalculated into ECTS points, which violates the competency principle of education.

Based on our experience of developing and assessing the formation of valedological competence in non-medical students of Kharkiv universities during the 2004–2024, we claim that there are motivational and regulatory tools for the formation of this competence. The main motivation for forming

valeological competence is the understandable desire of every student to be healthy. An additional motivation is the need to successfully pass an exam or pass in the valeological discipline. Regulatory tools of valeological education are proposed by us at the individual and organizational levels. At the individual level, regulatory tools based on the compliance of the learning outcomes with the reference qualitative model will contribute to the constant monitoring of competence formation by the student and the teacher in real time and will allow building individual educational trajectories.

At the organizational level, the regulatory tools of valeological education are typical curricula and textbooks of valeological education for non-medical universities, qualitative models for evaluating the formation of competences, and criteria for recalculating the evaluation of forming motivation and other personal components of competences for evaluation in ECTS points.

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### Prospects for Future Research

These perspectives consist in the study of the tools for forming valeological competence, which is used to restore emotional balance and resolve conflicts, increase stress resistance, and prevent professional burnout of teachers and students.

### DECLARATIONS:

#### Disclosure Statement

The authors have no potential conflicts of interest to disclosure, including specific financial interests, relationships, and/or affiliations relevant to the subject matter or materials included.

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The authors have no ethical conflicts to disclosure.

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