

## VALEOLOGICAL COMPETENCE OF NON-MEDICAL STUDENTS AS A TOOL FOR THEIR HEALTHY AND SAFE FUTURE LIFE

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### ABSTRACT

Forming valeological competence of non-medical higher education students is a topical pedagogical problem, which is evidenced by the lack of valeological competence definition in terms of its name and content in the regulatory legal acts of Ukraine and in national standards of higher education, requirements for the degrees of formation of this competence depending on students' educational level, the standard of valeological higher education. Existing textbooks of valeological disciplines are also imperfect. Putting into practice the state policy on preventing socially significant diseases with controlled and nominally controlled risk factors given the importance of both personal and public health, necessitates forming non-medical students' valeological competence. In the review paper forming Valeology as a science, attitude of society and scientific community to it, connection with the legislation of Ukraine on health and health-saving, different approaches to defining the essence of valeological competence, which is formed in the course of studying valeological disciplines, are analysed. A comparative analysis of certain aspects of forming valeological competence of students of medical and non-medical higher education has been carried out. The connections of valeological competence with the culture of health has been considered. It has been concluded that valeological competence is a tool for forming a healthy lifestyle and safe behavior. We also consider it necessary to improve the attitude of society and the scientific community to Valeology through a critical rethinking of the content of educational programs in valeological disciplines. And first of all, this concerns the relevance to exclude from them issues that failed the test in accordance with the criteria of evidence-based medicine.

**Keywords:** *Valeology, valeological culture, Health Pedagogy.*

### Introduction

Valeology is a health science (from the Latin valeo – "to be healthy, strong, robust", from the Greek λόγος – word, teaching, science), which covers numerous aspects of health-saving and health promotion (socioeconomic, medical, environmental and others). The origin of this research dates back to 1980 and is associated with the name of the Soviet pharmacologist Brekhman I. [1]. According to Wikipedia, Valeology is considered as

a pseudoscience [2]. In our opinion, the reason for such phenomenon is the existence of a large number of valeological programmes, textbooks and monographs with dubious issues that draw criticism from researchers and society [4–6]. For example, Reichert K. (2019) [5, p. 10] calls Valeology a "quasi-science" and puts it on a par with astrology, alchemy, numerology, wave genetics, dianetics, phrenology, and homeopathy. Yezhov S. attributes Valeology to "marginal teachings" [6, p. 66].

The problem of forming valeological approaches to a healthy lifestyle came under the spotlight of Amosov M., Apanasenko G., Bekh I., Bekhterev V., Bondarenko O., Brehman I., Vakulenko O., Venedyktov D., Shapovalova T. etc. in

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the 1980s [1; 7–14]. While this research field was being developed by the above researchers, there was no negative feedback from the representatives of scientific community. We associate this fact with the weight of their viewpoints, authority in the academic circles, and the chosen humanistic approach to theoretical research. Some scientists were skeptical about Valeology after the collapse of the Soviet Union because the valeological movement was joined by a number of "healers" whose activities were outside the boundaries of traditional medicine or directly contradicted it (for example, anti-vaccinators, urinotherapists, doctors of Eastern folk medicine, sorcerers and shamans). At the same time, the Ukrainian system of higher education ignored the negative and issued state diplomas in Valeology [15], and the subject "Valeology" was introduced into the curricula of secondary and higher education establishments [16]. In Ukraine, pharmacological and medical Valeology (Sanology) is a part of preventive medicine [17]. Doctors-sanologists are trained at institutions of medical postgraduate education [18]. But the state educational standard of Valeology does not exist yet [19], although there is a certain list of disciplines devoted to a healthy lifestyle.

Among valeological disciplines in Ukrainian educational institutions there are "Valeology", "Fundamentals of Life Safety", "Fundamentals of Medical Knowledge and Health-Saving", "Health Pedagogy", and others. In the light of the competence approach in modern education, a valeological (health-preserving) competence of non-medical students should be formed within these disciplines [20]. Some related disciplines (such as "Occupational Safety", "Fundamentals of Ecology", etc.) cannot be called valeological, because they do not consider all risks to human health, except for those that an individual encounters in industrial production or in terms of environmental pollution, etc. However, the study of these related disciplines also contributes to forming valeological competence and valeological culture, increases the ability to live fully and happily, actively study and work [21], because a person with poor health is considerably limited in his/her opportunities.

The interconnection between health and the ability to socialize, study and work effectively has been studied in the works by such authors as Boichuk Yu., Zamrozevych-Shadrina S., Kuksha N., Leshaft P., Makarenko A., Mikheienko O., Sukhomlynskyi V., Shostak I. [22–27]. In particular, Sukhomlynskyi V. emphasised that the main rea-

son for falling behind in education is poor health, and he called health-saving the most important task of an educator [28]. Makarenko A. used sports and physical culture to strengthen his students' health and reduce the manifestations of their deviant behavior. Therefore, in the modern medical sense valeological competence is health-related; it contributes to health preservation and health promotion.

Valeological competence is universal, necessary for every graduate of higher education institutions, regardless of a study profile [21; 29]. But without a specialised valeological discipline, a graduate of a non-medical higher education establishment can count on only a small level of valeological competence formation acquired thanks to disciplines related to Valeology that also depends on the initial level of knowledge in health and disease prevention issues [30].

There is a significant difference in forming the analysed competence of medical and non-medical students [31; 32], which lies in the fact that students of higher medical education acquire knowledge about health and diseases for their future professional medical activities. In academic circles the discussion of the methods of valeological competence formation has just started, but it is already clear that among students of higher medical education there is an unjustified transfer of the understanding of valeological competence to professional therapeutic and preventive activities [20; 33–35].

In the cultural traditions of many peoples, the desire to be happy is accompanied by the wish to be healthy. Health is one of the greatest personal and social values. The right to health care is guaranteed by the following articles: No.25 of the Universal Declaration of Human Rights, No.12 of the International Covenant on Economic, Social and Cultural Rights, No 6 and 24 of the Convention on the Rights of the Child; No.No. 10, 11, 12 and 14 of the Convention on the Elimination of All Forms of Discrimination against Women, European Social Charter [36]; No.49 of the Law of Ukraine "Constitution of Ukraine" [37]; No.6 of the Law of Ukraine "Fundamentals of the Legislation of Ukraine on Health Care" [38], No.283 of the Law of Ukraine "Civil Code of Ukraine" [39] and a number of other national legal acts.

Of the eight Millennium Development Goals defined by the UN [40], three are devoted to health issues, namely: reducing child mortality; improvement of maternity care; fight against HIV/AIDS, malaria and other diseases. The third

goal of sustainable development of the UN until 2030 is also the goal of health preservation [41], in particular ensuring a healthy lifestyle and promoting well-being for every person of any age [42].

In Ukraine, the term "Valeology" is widely known, while the terms "valeological competence" and "valeological culture" are more typical of scientific literature.

There exist various understandings of valeological competence. In particular, Yasynskiy V. and Zhydetskiy Yu. [43] believe that it is "a component of life competence that manifests in knowledge, values and motives, a valeological position, activities related to health improvement...". Pishchulin V. [44, p. 26] states that forming valeological competence of university graduates means to arm them with knowledge and form skills for a healthy lifestyle. Voronin D. [45] regards valeological competence as "a dynamic trait of the individual that allows to organise and regulate their activities, to evaluate their own behavior, the actions of others, to adhere to their personal beliefs, moral norms and principles despite the influence of external forces". Boychuk Yu. [46] describes the process of forming valeological competence as complex, gradual, continuous, aimed at acquiring knowledge, developing abilities, forming sustainable motivation, beliefs, and willpower against the background of a positive emotional attitude towards the goal of learning. Bondarenko O. and Adeieva O. [47; 48] believe that valeological competence is formed on the basis of a positive attitude to a healthy lifestyle.

We think that forming valeological competence means teaching a person to lead a healthy lifestyle, practice safe behavior and provide pre-hospital emergency care to victims under critical conditions [20].

In our opinion, safe behavior is the one that does not increase the probability of mechanical injuries, burns, frostbite, electric shock, radiation, poisoning, etc. more than the average statistical level of accidents. Dangerous behavior patterns relate to chemical addictions (tobacco smoking, use of drugs and toxic substances, alcohol abuse), unsafe sex (ignoring barrier contraception, frequent changes of sexual partners), sports injuries (in high-achieving sports, extreme sports, neglecting safety equipment), household injuries (unergonomic premises), industrial injuries (when working with moving mechanisms, neglect of safety equipment, lack of personal protective equipment), traffic injuries (when disregarding

traffic rules, driving vehicles in a state of fatigue, intoxication, under bad weather conditions and lighting, driving faulty vehicles), violence (criminal, military, family), poisoning (food, drug, carbon monoxide, methyl alcohol, contact with poisonous plants and animals), radiation (when using nuclear weapons, staying on territories, premises contaminated with radioactive nuclides, consumption of contaminated food and water, medical procedures and frequent long air flights), staying in a state of strong long-term stress (during conflicts, being in a combat zone).

Our viewpoint coincides with the opinions of other researchers [49–51], who emphasise that a safe model of behavior also includes the refusal of unnecessary hazards to health and life, namely: extreme and combat sports, scuffles, engagement in high-risk professions (with radiation, poisonous chemical and explosive substances, military service, law enforcement, fire safety, rescue, high-altitude and underwater work, etc.). Therefore, when forming safe behavior models, it is important not to neglect safety rules. But it is relevant to describe such behavior with the words "to take safety measures", "to avoid unnecessary risks", etc., that is, to avoid negative wording.

Some of the emphases we have made in defining the content of health-saving and safe behavior are particularly important. For example, the incompatibility of a healthy lifestyle with alcohol and drug addictions. According to the WHO [52], non-use of psychoactive substances means a refusal to use them and a special (firm and conscious) attitude of the inadmissibility of experiments with psychoactive substances. Having such beliefs, an individual should never, regardless the circumstances, smoke or use narcotic substances for recreational purposes. Human behavior in various typical situations, when there is a hazard to health and life, is described by models, typical scenarios. The probability of risk to life and health in such situations is known thanks to statistical studies [53]. The number of people who abuse psychoactive substances is extremely high, and the consequences in terms of personal and population health, add to the financial burden on the health care systems of countries that is projected for decades to come. Therefore, any detailed analysis of the content of a healthy lifestyle concerns the non-use of psychotropic substances.

An indicator of a person's successful health-saving is his/her feeling of happiness. And there even exists such an opinion that effective prevention enables avoiding unnecessary communica-

with doctors. Instead, our understanding of a healthy lifestyle presupposes a person's mandatory rational interaction with medical workers, implementation of doctors' recommendations on mandatory health care measures, in particular on vaccination according to the national calendar of vaccinations, harmony of relations with the outside world (avoiding conflicts, excessive stress, detecting and timely regulation of emotional imbalance), refusal of unnecessary hazards that are not related to professional duties. Doctors and teachers agree that valeological competence allows you to treat your own health carefully, as well as other people's health, your students, strengthen health, and create a health-preserving educational environment [54]. Such an understanding borders on such competences of higher medical education students as diagnostic, therapeutic and preventive ones aimed at patients [55; 56]. But university students of absolutely all specialties need valeological competence first of all for their own well-being, as well as for good health.

Modern researchers consider valeological competence as a component of health culture. For example, Shostak I. [57] believes that health culture lies in the ability to lead a healthy lifestyle, correlates with the level of health, and should be used in sanitary and educational work as an integral part of the teacher's professional skills. Boychuk Yu. [58] calls valeological culture a part of general culture and emphasizes the unity of biological, psychological, social and spiritual factors that determine the way of life and the humanistic meaning of an individual's existence. Adeeva O. [48] considers valeological competence a component of the teacher's valeological culture, which indirectly affects public health through students. Melnyk Yu. [59] defines health culture as a set of pedagogical, medical, psychological, and philosophical knowledge, but it is important that such a definition applies to secondary school students of lower forms. The author believes that with age (as for high school students and university students), the value component and motivation are getting more and more important, and the culture of health becomes a multidimensional and complex phenomenon. The ways of its formation are also expanding. Bezugla L. [60] thinks that the formation of valeological culture is mostly influenced by students' autonomous work, in particular, their participation in recreational and rehabilitation processes. In this way, she emphasizes

the process of restoring health, forming commitment to a healthy lifestyle based on one's own negative experience of losing health. Instead, Bulych Ye., Hryniova M., Zhabokrytska O., Muraviov I., and Yazlovetskyi V. [62; 63; 64, p. 6, 7] believe that the object of Valeology is a mostly healthy person.

In case of considering valeological culture as a part of general culture, it is important to see the connection with education. In this regard, Kyrylenko S. [64, p. 8] thinks that the culture of health is an integrated quality of an individual and an indicator of his/her good breeding. The level of health culture, according to the researcher, correlates with the level of valeological knowledge and skills, as well as determines the behavior in relation to other people's health. Thus, determining the ability to lead a healthy lifestyle in the context of forming health culture requires the study of a wider range of issues concerning a person's interaction with other people.

### **Conclusions**

Within our research, we focus on competence, as the ability to realise the biological (genetic) potential of an individual to lead a healthy life, to cure existing diseases or reduce their manifestations, to prevent the appearance of new illnesses, injuries, and premature death. In view of this, we consider a person as a biological object with complex physiology, mental activity, high adaptation reserves, as well as with capabilities of self-regulation and prevention of self-destructive behavior. The study of valeological culture is the perspective of our further investigations.

Valeological competence is a tool for forming a healthy lifestyle and safe behavior. It is necessary to improve the attitude of society and the scientific community to Valeology through critical rethinking of the content of educational programmes in valeological disciplines. First of all, this concerns the relevance to exclude from them the issues that did not pass the test according to the criteria of evidence-based medicine.

### **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.

#### **Statement of Ethics**

The authors have no ethical conflicts to disclose.

#### **Data Transparency**

The data can be requested from the authors.



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