

Teaching Issues and Lectures

UDC: 378.016:613.88

**SEX EDUCATION AS PART OF THE VALEOLOGICAL DISCIPLINE
"HEALTH PEDAGOGY"****Shevchenko A.S.^{1,2}, Aliieva T.D.^{1,2}**¹*Kharkiv Regional Institute of Public Health Services, Kharkiv, Ukraine*²*Kharkiv National Medical University, Kharkiv, Ukraine*

The valeological discipline "Health Pedagogy" was developed and implemented in the educational process of Ukrainian higher non-medical education institutions in 2019. The discipline is intended for the formation of valeological competence, which consists in the ability to lead a healthy lifestyle, practice safe behavior and provide emergency assistance in critical situations. The medical component of the topic of sex education and family planning of the valeological discipline "Health Pedagogy" includes issues of safe and unsafe sex, fertility, prevention of unwanted pregnancies, infection with sexually transmitted diseases, abortion, anatomy and physiology of male and female genital organs, physiology of intercourse, contraception, normal and pathological pregnancy, childbirth, genetic aspects of fertilization and development of the embryo and fetus) and ethical issues of its teaching, which corresponds to the recommendations of the Ministry of Health of Ukraine and a number of authoritative international organizations. Retrospective evaluation of archival learning materials (tests and questionnaires) for the topic "Sex education and family planning" of valeological disciplines "Basics of Medical Knowledge and Health-Saving" and "Health Pedagogy" of 180 students of three Kharkiv non-medical higher education institutions, bachelor's and master's degrees, who studied during 2004–2024 and formed valeological competence at a high level according to the quartile evaluation system ($Q_4[75\div 100]\%$). It was found that 148 (82.2%) students formed the component of competence related to sex education and family planning at a high level ($Q_4[75\div 100]\%$), 32 (17.8%) – at the average level ($Q_3[50\div 75]\%$) ($p < 0.05\%$). It was concluded that the content, form of teaching, medical and psychological-pedagogical components of the topic on sex education and family planning of the valeological discipline "Health Pedagogy" allow forming the appropriate component of valeological competence at a high level.

Keywords: *valeological education, valeological competence, qualimetry, abortion, contraception, obstetrics and gynecology.*

**Цитуйте українською:** Шевченко ОС, Алієва ТД.

Статеве виховання як частина валеологічної дисципліни «Педагогіка здоров'я». Медицина сьогодні і завтра. 2024;93(1):97-112.

<https://doi.org/10.35339/msz.2024.93.1.sha> [Англійською].**Cite in English:** Shevchenko AS, Aliieva TD.

Sex education as part of the valeological discipline "Health Pedagogy".

Medicine Today and Tomorrow. 2024;93(1):97-112.

<https://doi.org/10.35339/msz.2024.93.1.sha>Archived (архівовано): <https://doi.org/10.5281/zenodo.12740294>

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Introduction

Valeological education is one of the effective forms of promoting a healthy lifestyle, which is carried out in the best environment for the reception of systematic educational information – the educational environment of higher education institutions [1–4]. The purpose of visits to educational institutions is the acquisition of knowledge, abilities, skills, and the formation of competencies. The age of most students (up to 25 years) is the best for perceiving and assimilating new information, as well as for personality formation and laying the foundation for good health and harmonious development throughout the entire future life.

Since 2019, a new valeological discipline "Health Pedagogy" (HP) has been developed and introduced into the educational process at the Ukrainian Engineering Pedagogics Academy (UEPA, Kharkiv) [5; 6]. It is based on the program of the discipline "Fundamentals of Medical Knowledge and Health-Saving" (FMKHS), which was developed and implemented in the work of the Kharkiv Regional Institute of Public Health Services (KRIPHS) during 2004–2024 and contains the same list of topics, as well as HP. The disciplines of HP and FMKHS are related, but there are several differences, which are reflected in *Table 1*.

The goal of teaching disciplines is the formation of valeological competence in students, which consists in the ability to lead a healthy lifestyle, practice safe forms of behavior and provide emergency assistance in critical situations [7; 8]. Achieving this goal requires students to acquire new knowledge, abilities, skills, to form a conscious position regarding the rejection of

possible risks to health and compliance with recommendations on rational nutrition, work and rest regime, physical and mental activity, industrial, sports and household safety, safety sexual relations, vaccinations, fluorographic examinations, periodic medical examinations. Achieving this goal also requires high motivation regarding adherence to the chosen healthy lifestyle, refusal of offers to take prohibited psychoactive substances, smoking, alcohol abuse, consistent implementation of active actions in relation to the decisions made [9; 10], which corresponds to the cognitive, activity, motivational-value and personal components of valeological competence.

An important part of the discipline is sex education, which always causes mixed opinions in society [11–13], but it is undoubtedly considered useful among medical professionals and necessary for maintaining reproductive health, preventing the spread of Sexually Transmitted Diseases (STD), preventing unwanted pregnancies, reducing the number of abortions and reducing reproductive losses in the state [14–18]. However, the issues of evaluating the effectiveness of modern valeological disciplines for the formation of safe sexual behavior in students remain insufficiently studied.

The aim of study was to evaluate the medical and psychological-pedagogical components of the topic on sex education of the valeological discipline "Health Pedagogy" from the point of view of the effectiveness of forming safe sexual behavior of students of non-medical profile of education.

Materials and Methods

Our research was conducted retrospectively in institutions of higher non-medical education in Kharkiv (Ukrainian Enginee-

Table 1. Differences and common features of valeological disciplines "Fundamentals of Medical Knowledge and Health-Saving" (FMKHS) and "Health Pedagogy" (HP).

Characteristics	Discipline	
	FMKHS	HP
The institution where it was developed	KRIPHS	UEPA
Years of teaching	2004–2024	2019–2024
The profession of developers	doctors, psychologists	doctors, psychologists, teachers
Teacher profile:		
- minimum requirements	higher medical education, 4 completed training courses, completed special training for teaching of the discipline	higher pedagogical education, completed training in the discipline "Health Pedagogy" with an ECTS grade A (90–100), formed valeological competence at a high level
- optimum	higher medical education, 6 completed training courses; completed special training for teaching of the discipline	completed higher medical education, completed pedagogical education, completed special training for teaching of the discipline
Profile of students:	non-medical, 18 years (adult) and older	
Providing disciplines:		
- minimum requirements	biology	
- optimum	biology (including human anatomy and physiology), chemistry, physics, basics of life safety/valeology	
The preferred form of teaching	auditorium	remote
Components of disciplines' topics	- medical	- medical; - psychological and pedagogical

ring Pedagogics Academy, non-medical faculties of the V.N. Karazin Kharkiv National University, National Technical University "Kharkiv Polytechnic Institute"). The results of the formation of valeological competence and its component within the topic "Sex education and family planning" of students aged 18 (adults) and older were studied, which made it possible to avoid obtaining parental consent for teaching.

The materials of the archive regarding the study of the topic of sex education of 1,432 students of non-medical specialties

who formed valeological competence at a high level were studied ($Q_4[75\div 100]\%$) by the quartile method according to [19]. In order to randomize the sample and achieve a statistically significant result ($p < 0.05$) 180 questionnaire tests on the topic of sex education and family planning were randomly selected using the method [20], the distribution of which by higher education institutions, educational level, form of education, gender and age (presented in *Table 2*). The distribution is uniform and carried out in the following sequence:

Table 2. Distribution of a randomized group of students of higher education institutions in Kharkiv, who were trained in the disciplines "Health Pedagogy" (HP) and "Fundamentals of Medical Knowledge and Health Protection" (FMKHS), by institution, educational level, form of education, gender and age ($p < 0.05$).

				Discipline →	
↓Other distribution parameters				HP	FMKHS
Educational institution, years, form of education	Educational level	Sex	Average age, years	n (%)	
NTU "KhPI", 2004–2019, auditorium	B	♂	19.1±1.0		11 (6.1%)
		♀			12 (6.7%)
	M	♂	21.2±1.3		11 (6.1%)
		♀			11 (6.1%)
					45 (25.0%)
V.N. Karazin KhNU, 2004–2019, auditorium	B	♂	18.8±0.7		12 (6.7%)
		♀			11 (6.1%)
	M	♂	20.4±0.6		11 (6.1%)
		♀			11 (6.1%)
					45 (25.0%)
UEPA, 2019–2024, remote	B	♂	19.3±1.1	24 (13.4%)	
		♀		22 (12.2%)	
	M	♂	20.6±0.9	22 (12.2%)	
		♀		22 (12.2%)	
					90 (50.0%)
				90 (50.0%)	90 (50.0%)
					180 (100.0%)

Notes: NTU "KhPI" – National Technical University "Kharkiv Polytechnic Institute";
 V.N. Karazin KhNU – V.N. Karazin Kharkiv National University;
 UEPA – Ukrainian Engineering Pedagogics Academy;
 B – Bachelors or the level corresponding to them until 2014;
 M – Masters or the level corresponding to them until 2014;
 ♂ – male; ♀ – female.

1. form of education:
 1.1. auditorium;
 1.2. distance learning (the forced transition from the classroom to a remote form of education was due to the beginning of the COVID-19 pandemic; after the end of the pandemic in May 2023, in the city of Kharkiv, which is under constant fire from the russian army, education remains remote) – distribution [1:1];
 2. educational level (bachelor's or master's) – distribution [92:88];

3. gender – distribution [men:women] was [91:89].

For the quantitative measurement of the quality of competence formation and its component, we used qualitative and factor-criterion analysis, which made it possible to determine the "weighting" coefficients of the measured parameters in an expert way [21; 22]. Questionnaire tests were used to assess the formation of competence components in general and within the topic of sex education. The test part made it pos-

sible to assess the formation of the cognitive (knowledge) and activity components (ability and skills) of the competence components, the questionnaire – the motivational-value and personal components. The calculation of the test and questionnaire results was performed using the licensed software Excel 2019 (Microsoft, USA). Average and standard deviation indicators ($M \pm m$), absolute and relative indicators [n (%)] with a confidence threshold of $p < 0.05$ were calculated.

To assess the formation of the motivational-value and personal components of competence, if the interviewees had permanent sexual partners, standard methods were used determining the spouses' communication skills on Navran L. (1967) and the level of sexual and behavioral adaptation of a married couple (Burtyanskyi D.L. & Kryshtal V.V. (1982) [23–25]. The harmony of the relationship, satisfaction with the partner (physical and emotional aspects), levels of sex safety (issues of the use of contraception, the presence of other sexual partners and the practice of sex with them), examination for the presence of sexually transmitted diseases [26–28]. To assess the cognitive component, questions were asked about the most common STD, barrier and hormonal contraception methods, anatomy and physiology of the male and female reproductive system, physiology of sexual intercourse, sexual orientation, pregnancy and abortion. To assess the activity component, questions were asked about the presence of sexual relations, the ability and skills to use contraception. To assess the motivational and value component, questions were asked about understanding the need for safe sex, the danger of abortion, and conscious parenthood. To assess the personal component, questions were asked about sexual preferences (orientation, number of sexual partners, practice of safe and unsafe sex), about the practice of testing for sexually transmitted diseases, genetic testing for family planning,

and about behavior in "emergency" situations, about sexual violence. Qualimetric "weight" (in %) was assigned to the answers to the questionnaire questions by an expert. The correctness of the answers to the test questions is determined according to the texts of the lectures of the discipline.

The list of questionnaire questions makes obvious the need for the respondent's openness, which can only be ensured by guarantees of confidentiality of the answers, which were provided in accordance with the description [29]. All participants of the study were informed about participation in the scientific study and gave voluntary consent to such participation. The research design and methods were approved by the ethics commission of the Kharkiv Regional Institute of Public Health Services annually at the first meeting in January 2004–2024.

Results and Discussion

The medical component of the topic of sex education and family planning is most covered in the lecture notes. The purpose of the lecture is to explain the content of modern sex education, ethical issues of its implementation. Issues of safe and unsafe sex, sexuality, fertility, prevention of unwanted pregnancies, STD infection, abortions, normal and pathological pregnancy are childbirth. Ethical issues of sexual life and taboos related to it are discussed.

Sex education is described as the transfer of knowledge about the anatomy of the human genital organs, sexual reproduction (conception, fertilization, development of the embryo and fetus, childbirth), sex and intercourse, reproductive health, emotional relationships with a sexual partner, reproductive rights and responsibilities, family planning, contraception, birth control and other aspects of human sexual behavior.

It is emphasized that sex education covers all aspects of human sexuality, including the appearance of the naked body, diversity of sexual orientations, sexual satisfaction, values, decision making about sex,

communication, dating, relationships, STD, safe and unsafe sex. Students who intend to teach "Health Pedagogy" in the future are explained that when conducting classes with minors, the teacher must obtain consent to conduct lessons from the parents or legal guardians of the child (adolescent). That special delicacy should be shown when discussing menstruation, issues of sexual experience, contraception, abortion. That men's and women's sexual health deserve equal attention.

It is emphasized that sex and sexuality (especially female) is a socially taboo and stigmatized topic. Their discussion is often hindered by excessive shyness, superstitions, family and religious taboos. That sex education is designed to increase the level of sexual health, reduce the level of unwanted pregnancies and abortions, and develop sexual culture (prevent sexual violence, understand the principle of consent to sex).

Safe (protected) sex is defined as the sexual practices of people in which the risk of contracting venereal diseases and STD (such as HIV/AIDS) is minimized. Most often, the safety of sex is associated with the use of condoms during intercourse. Unprotected (unsafe) sex refers to sexual practices without safety measures, especially the refusal of condoms.

In practice, there is no such thing as 100% safe sex – the risk (however minimal) exists in all cases of sexual contact, so options for safe sex should be combined to achieve maximum effectiveness. But efforts to make sex safer have increased significantly since the beginning of the HIV/AIDS epidemic in the 1980s. The most well-known tool for safe sex, the condom, is both a means of preventing STDs as well as a contraceptive that helps avoid unwanted pregnancy. The student explains that sex with regularly examined and healthy partners who do not have extraneous sexual relations is the safest.

The most famous STD are discussed: HIV infection, syphilis, gonorrhea, trichomoniasis, hepatitis B and C, urogenital chlamydia, herpes, genitourinary mycoplasmas, genital candidiasis, cytomegalovirus infection, acute (papillomavirus) condylomas, molluscum contagiosum, inguinal (venereal) lymphogranuloma, gardenellosis, soft chancre. Some of these diseases are also classified as venereal (from the name of the ancient Roman goddess of love, Venus), but this name is used only in the countries of the former USSR.

When discussing pregnancy, it is reported that a normal pregnancy lasts 36–42 weeks. From the 43rd week, a delayed pregnancy is diagnosed, up to 35 weeks – a premature one. Termination of pregnancy between 23 and 36 weeks is considered premature birth, and abortion before 22 weeks. That abortion (lat. abortus – miscarriage) is the termination of pregnancy during its first 22 weeks, which can be artificial (with the help of surgical or medical intervention) or involuntary (miscarriage itself). The birth of a child after the 28th week of pregnancy is called premature birth. Abortion can be involuntary (miscarriage) and medical. Artificial abortion is carried out in the case of a woman's unwillingness or inability to give birth, is carried out for social and medical reasons (when there is a threat to the mother's life, risks of giving birth to a child with significant developmental defects, congenital malformations). Special emphasis should be placed on the fact that abortion cannot be a method of family planning, but the prohibition of medical abortions always increases the number of criminal abortions and increases maternal mortality.

It is reported about family planning that it allows you to prepare for pregnancy in the best way: to find out the genetic compatibility of partners, to determine the risks of having a sick child, to carry out full pre-conception preparation (for example, to

start taking vitamin preparations in advance that prevent violations of the folate cycle and the birth of a child with developmental disabilities [16]).

The educational and methodical goal of practical classes is the formation of students' ability to determine the norm and pathology in sexual relations, the work of genital organs according to medical criteria; choose a sexual partner for marriage; to plan the birth of children; undergo preconception preparation for pregnancy.

To prepare for the class, students are given the task of studying the most important facts about the anatomy and physiology of the male and female genital organs, the most frequent malfunctions, and methods of contraception. Students are also offered presentations on the following topics:

1. anatomy and physiology of the female genital area;
2. anatomy and physiology of the male genital area;
3. physiology and pathology of intercourse, modern taboo phenomena;
4. family planning: physiological, psychological, genetic compatibility;
5. preconception preparation for pregnancy;
6. normal and pathological pregnancy. Preeclampsia, miscarriage, extragenital pathology;
7. medical abortions;
8. normal and pathological childbirth.

Students are also offered to perform exercises:

1. discuss the issue of intimate hygiene of men and women;
2. discuss how many children and at what age they plan to have;
3. simulate a conversation about intimate hygiene with their future students (with a boy and a girl).

The content of the topic meets the recommendations [30–31].

The psychological-pedagogical part of the topic on sex education of the discipline "Health Pedagogy" contains questions of

didactics, assessment of the perception of information on the topic. As it was mentioned in the section "Materials and Methods", the assessment of the results of the formation of valeological competence is based on the use of qualimetry and factor-criterion analysis, which allows to objectify the results of the formation of competences [19; 33–35]. The method is widely used in medicine. For example, the World Health Organization used qualitative measurement to determine the importance of factors that affect health (environmental – 20%, genetic (hereditary) – 20%, lifestyle – 50%, quality of medical services – 10%) [36].

Qualimetric assessment is a process of observing the transformations of a managed object to achieve the given parameters of its development (achieving a certain level of formation of valeological competence in a student of higher non-medical education), which involves comparing the result with a standard (reference model of competence). Most often, the process of evaluating learning results involves entering predetermined criteria and indicators into a special Excel table with programmable cells for automating the calculation [37].

Qualimetry (from the Latin "*quail*" – quality and the ancient Greek "*metro*" – to measure) is a field of scientific knowledge that studies the methodology of complex evaluations of phenomena and processes with the indication of the relationship between the qualitative and quantitative characteristics of their components [38]. Quantitative assessment of the quality of the educational process should first of all be carried out in relation to the competencies that the modern education system is aimed at forming [2]. Qualimetric methods allow to solve technical issues (for example, industrial production, architecture), staff performance evaluations, ratings of education seekers and universities. In preventive medicine, qualitative studies were conduc-

ted by Vedmedenko L., Kaptsov V., Kutyvi V., and Kucherenko V. Researchers who use qualitative methods in pedagogy study both individual competencies and the quality of educational services as a whole [39]. The ability to perform a qualitative assessment is included in the concept of qualitative competence, which includes organizational-management, control-evaluation, information-analytical and personal components [40]. Qualitative competence is the main assessment of the knowledge of higher education students.

In matters of health care, qualimetry allows you to determine the "weight" of each topic of valeological disciplines in the general process of evaluating the success of the formation of valeological competence [21]. In our study, the components of competence were chosen as cognitive, activity, motivational-value, and personal, the "weight" of each of which was determined by expert assessment to be equal to 25% (Table 3). The weight of the topic of sex education was determined to be equal to 6.

This total number of points was distributed among the four components of completeness with the rule that any component cannot "weigh" less than 1%. The calculation was based on factor-criterion analysis.

Factor analysis is based on the assumption that all changes in values are due to changes in hidden properties of objects (common factors) [41, p. 86]. The number of common factors should be smaller than the number of features by which they are measured. The level of significance of each factor (factor load) determines the degree of influence of the factor on the change of this characteristic. From the total large number of influences that any system undergoes, factor analysis allows you to single out the most influential factors that influence the formation criteria and arrange the correlation matrices. Factors determine the content of influences on evaluation criteria, therefore, in our factor-criterion model, the topics of the discipline "Health Pedagogy" are factors. In the theory of factor analysis, the strength of the correlation

Table 3. Reference qualitative model of valeological competence, formed with the help of the educational discipline "Health Pedagogy", with the defined qualitative characteristics of the topic "Sex education and family planning".

Abbreviated names of topics of the discipline "Health Pedagogy"	Components of competence				"Weight" of the component, %
	Cognitive	Active	Motivational-value	Personal	
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>a+b+c+d</i>
...					
13. Sex education and family planning	2	1	2	1	6
...					
"Weight" of the component, %	$a_1+a_2+...+a_{14}$	$b_1+b_2+...+b_{14}$	$c_1+c_2+...+c_{14}$	$d_1+d_2+...+d_{14}$	$a_1+a_2+...+d_{14}$
	25	25	25	25	100

between factors can be weak, but according to our calculations, individual topics of the discipline are more connected than others, and the strength of the correlation can be average. The general functional units of the covariance matrix, formed by the characteristics of factors with at least a medium correlation, can go beyond the discipline "Health Pedagogy" and belong to other disciplines: "Human Anatomy", "Human Physiology", "Fundamentals of Hygiene and Sanitation". This fact substantiates the need for additional training of non-medical education seekers in such disciplines. Today, questions of anatomy, physiology and hygiene are included in the content of the discipline "Health Pedagogy".

The qualitative "weight" of the topic "Sex education and family planning" (6%) in the total amount of fully formed valeological competence:

1. corresponds to the "weight" of topics such as "Safe use of medications" (6%), "Poisoning, exposure, occupational diseases" (6%) and "Blood and organ donation" (6%);

2. exceeds the "weight" of such topics as "Healthcare in education" (5%) and "Inclusive education" (4%);

3. is less than the "weight" of such topics as "Chemical addictions" (12%), "Emergency care" (10%), "Rational nutrition" (9%), "Physical culture, sports, work and rest regime" (8%), "Injuries. Domestic violence. Bullying" (7%), "Cardiovascular and pulmonary diseases" (7%), "Infectious and parasitic diseases" (7%), "Mental and psychological health. Professional burnout" (7%). It should be noted, however, that the topic "Chemical addictions" consists of three sections dedicated to the prevention of smoking, drug use and alcohol abuse. The correctness of the comparison of topics increases the same number of hours for their study, decreases the different number of correct answers of the reference model of the formed competence.

The topic of sexual education is one of the four topics in which students are asked the most personal questions, the answers to which the "Health Pedagogy" teacher must keep confidential. The other three topics are "Chemical addictions", "Injuries. Domestic violence. Bullying" and "Mental and psychological health. Professional burnout".

The transfer of basic medical information about diseases to non-medical students needs to be simplified [42; 43]: may be less detailed in comparison with the study of the same diseases in medical institutions of higher education. At the same time, the description of diseases should include pedagogical information about the peculiarities of understanding, memorizing and reproducing information of the educational discipline and the use of mind maps, questionnaires, mnemonics, information (cloud) technologies for this purpose, ethical issues of teaching, interdisciplinary connections, didactic support, issues of adaptation of the course to distance learning, means of quality control of education by discipline. The specifics of information transfer from medical workers to engineer-pedagogues, and from them to other non-medical students, should be taken into account. It is necessary to take into account also the requirements of the law to ensure individual educational trajectories for students who require it [44].

The study of archival materials of the educational process of 180 students selected for the study with a high ($Q_4[75 \div 100]\%$ on the quartile scale) level of formation of valeological competence showed that among the majority of students (148, or 82.2%) the component of competence related to with sex education, was also formed at a high level: $(Q_4[75 \div 100]\%) \times (T_{13}[6.0\%]) = (Q_4 - T_{13}[4.5 \div 6.0]\%)$, where Q_4 – 4th quartile; T_{13} – topic 13 of the discipline "Health Pedagogy" ("Sex education and family planning") (Table 4).

Table 4. The level of formation of valeological competence related to sex education, among 180 students of Kharkiv non-medical higher education institutions, with distribution by the discipline that was studied, educational institution, educational level, form of education, student's gender and age.

↓Other distribution parameters				Discipline →	HP	FMKHS	
Educational institution, years, form of education	Educational level	Gender	LCF(13)	n (%)			
NTU "KhPI", 2004–2019, auditorium	B	♂	HL		7 (3.9%)*		
			AL		4 (2.2%)*		
		♀	HL		10 (5.6%)*		
			AL		2 (1.1%)*		
	M	♂	HL		9 (5.0%)*		
			AL		2 (1.1%)*		
		♀	HL		9 (5.0%)*		
			AL		2 (1.1%)*		
					HL	35 (19.4%)*	
					AL	10 (5.6%)*	
					Total	45 (25.0%)*	
	V.N. Karazin KhNU, 2004–2019, auditorium	B	♂		HL		8 (4.4%)*
AL				4 (2.2%)*			
♀			HL	9 (5.0%)*			
			AL	2 (1.1%)*			
M		♂	HL	8 (4.4%)*			
			AL	3 (1.7%)*			
		♀	HL	7 (3.9%)*			
			AL	4 (2.2%)*			
			HL	32 (17.8%)*			
			AL	13 (7.2%)*			
			Total	45 (25.0%)*			
UEPA, 2019–2024, remote		B	♂	HL			21 (11.7%)*
	AL			3 (1.7%)			
	♀		HL	18 (10.0%)*			
			AL	4 (2.2%)			
	M	♂	HL	20 (11.1%)*			
			AL	2 (1.1%)			
		♀	HL	22 (12.2%)*			
			AL	0 (0.0%)			
			HL	81 (45.0%)*			
			AL	9 (5.0%)			
			Total	90 (50.0%)*			
			HL	148 (82.2%)*			
			AL	32 (17.8%)*			
			Total	180 (100.0%)*			

Notes: NTU "KhPI" – National Technical University "Kharkiv Polytechnic Institute";
V.N. Karazin KhNU – V.N. Karazin Kharkiv National University;
UEPA – Ukrainian Engineering Pedagogics Academy;
HP – valeological discipline "Health Pedagogy";
FMKHS – valeological discipline "Fundamentals of Medical Knowledge and Health-Saving";

* – $p < 0.05$;

B – Bachelors or the level corresponding to them until 2014;

M – Masters or the level corresponding to them until 2014;

♂ – male; ♀ – female;

LCF(13) – the Level of Competence Formation in topic 13 of the discipline "Health Pedagogy" ("Sex education and family planning");

HL – High Level (4th quartile [75÷100]%)

AL – Average Level (3rd quartile [50÷75]%).

So, all other students formed this component of valeological competence at an average level (Q₃[50÷75]%) according to the quartile evaluation system.

The ratio of the number of students who studied [HP:FMKHS], who achieved a high level of competence formation in the component of sexual education and family planning, was [81:67] (that is, it was 1.21 times greater when studying HP), which indicates about better assimilation of the material and its transformation into competence. We explain this fact:

1. greater visibility of didactic material when studying the topic of sex education (watching video films about contraception, abortions, high-quality presentation);

2. greater trust in confidential communication privately online compared to confidential communication during classroom training (less fears that random participants in the educational process will hear candid answers to confidential questions);

3. the absence of the need to conduct classroom classes, which is mandatory when conducting practical classes on the topic "Emergencies".

The high proportion of students who failed to form the component of valeological competence on the topic of sex education and family planning is explained by the list of questions we have laid out for assessing the personal component of competence. In

the presence of voluntary abortions or the practice of unprotected sex during the last year before the survey, it is impossible to get a high score.

Conclusions

The medical component of the topic of sex education and family planning of the valeological discipline "Health Pedagogy" contains a description of the content of the topic (safe and unsafe sex, sexuality, sexual orientation, fertility, prevention of unwanted pregnancies, infection with sexually transmitted diseases, abortion, anatomy and physiology of male and female genital organs, physiology of intercourse, contraception, normal and pathological pregnancy, childbirth, genetic aspects of fertilization and development of the embryo and fetus) and ethical issues of its teaching (norms of human sexual behavior, taboos, stigmatization and discrimination, confidentiality of student surveys). The content of the medical part of the topic of sex education and family planning corresponds to the recommendations of the Ministry of Health of Ukraine, the United Nations Population Fund, the United States Agency for International Development, the Research and Training Institute JSI Inc., the Harvard T.H. Chan School of Public Health, presented in the materials of the projects "Together for Health" (2007), "Women's Health and Family Planning", "Women's Health of Ukraine" (2014).

The psychological-pedagogical component of the topic contains didactic questions (forms of classes, educational materials, tests, questionnaires, control questions, exercises, description of methods of didactic adaptation and content within the topic) and expert materials on the qualitative assessment of the formation of the components of valeological competence.

According to the results of such an evaluation of a randomized group of 180 students who studied valeological disciplines "Fundamentals of Medical Knowledge and Health-Saving" and "Health Pedagogy" in three institutions of higher non-medical education during the years 2004–2024 and formed valeological competence at a high level according to the quartile evaluation system, it was established that 148 (82.2 %) also formed the competence component re-

lated to sex education and family planning at a high level ($Q_4[75\div 100]\%$), 32 (17.8 %) – at the average level ($Q_3[50\div 75]\%$) ($p < 0.05\%$). We explained the fact of a relatively high number of students who did not achieve a high level of competence formation on the topic of sex education and family planning by the clarity of the didactic material and the absence of the need to conduct classroom classes on this topic, as well as greater trust in confidential communication during distance learning.

The content, form of teaching, medical and psychological-pedagogical components of topics on sex education and family planning of the valeological discipline "Health Pedagogy" allow forming the corresponding component of valeological competence at a high level.

Conflict of interest is absent.

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СТАТЕВЕ ВИХОВАННЯ ЯК ЧАСТИНА ВАЛЕОЛОГІЧНОЇ ДИСЦИПЛІНИ «ПЕДАГОГІКА ЗДОРОВ'Я»

Валеологічна дисципліна «Педагогіка здоров'я» розроблена та впроваджена в освітній процес закладів вищої немедичної освіти у 2019 році. Дисципліна призначена для формування валеологічної компетентності, яка полягає у спроможності вести здоровий спосіб життя, практикувати безпечну поведінку та надавати невідкладну допомогу при критичних станах. Медична складова теми статевих виховання та планування сім'ї валеологічної дисципліни «Педагогіка здоров'я» містить питання безпечного та небезпечного сексу, фертильності, запобігання небажаним вагітностям, зараженню хворобами, що передаються статевим шляхом, абортів, анатомії та фізіології чоловічих та жіночих статевих органів, фізіології статевого акту, контрацепції, нормальної та патологічної вагітності, пологів, генетичних аспектів запліднення та розвитку ембріону та плоду) та етичних питань її викладання, що відповідає рекомендаціям Міністерства охорони здоров'я України та низки авторитетних міжнародних організацій. Проведене ретроспективне оцінювання архівних матеріалів навчання (тестів та анкет) до теми «Статеве виховання та планування сім'ї» валеологічних дисциплін «Основи медичних знань та здоров'язбереження» та педагогіка здоров'я» 180 студентів трьох харківських немедичних закладів

вищої освіти, освітніх рівнів бакалавр та магістр, що навчалися протягом 2004–2024 років та сформували валеологічну компетентність на високому рівні за квартильною системою оцінювання ($Q_4 [75\div 100]$ %). Було встановлено, що встановлено, що 148 (82,2 %) студентів сформували компонент компетентності, пов'язаний із статевим вихованням та плануванням сім'ї, на високому рівні ($Q_4 [75\div 100]$ %), 32 (17,8 %) – на середньому рівні ($Q_3 [50\div 75]$ %) ($p < 0,05$ %). Було зроблено висновок, що зміст, форма викладання, медична та психолого-педагогічна складові теми про статеве виховання та планування сім'ї валеологічної дисципліни «Педагогіка здоров'я» дозволяють формувати відповідний компонент валеологічної компетентності на високому рівні.

Ключові слова: валеологічна освіта, валеологічна компетентність, кваліметрія, аборт, контрацепція, акушерство та гінекологія.

Надійшла до редакції 14.01.2024

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