APPLICATION OF INNOVATIVE LEARNING TECHNOLOGIES IN A MEDICAL UNIVERSITY IS AN INTEGRAL COMPONENT OF THE EDUCATIONAL PROCESS

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Abstract. The article is devoted to the application of innovative pedagogical teaching technologies in the preparation of future doctors, the essence of concepts is considered: "innovation", "innovation", "andragogy" and examples of introduction of innovative technologies aimed at developing readiness of students for professional activity are given.

Key words: innovation technology, technology innovation, andragogical principles, innovation.

The subject of research. Ukraine's entry into the European educational space imposes significant requirements on the education system and the training of future specialists who are able to act effectively and adapt in a dynamic environment.

The main components of the reform of medical education, on which the Ministry of Education and Science and the Ministry of Health of Ukraine are working, are the development of the standard of medical education and the Concept of reforming medical education in Ukraine. The Concept emphasizes the perception by students of worldview and moral and ethical values, broad socio-humanitarian erudition and awareness of the multicultural diversity of modern life and the ability to abstract, logical, critical, creative thinking and the generation of new ideas, as well as analysis and synthesis and the ability to plan, organize and control their activities [14].

Educational standards are one of the most important tools for the modernization of higher medical education to overcome the deep contradiction between the ever-growing needs of the globalized world and the imperfect system of medical education, which should be able to implement an innovative model of medical training, Y. Barabash emphasizes [2].

In the course of the reform of higher medical education, the extremely important task of developing new methods and approaches to the training of doctors based on the modern requirements of the state's development has become an extremely important task for higher education institutions that train such specialists. The vector of professional training of future doctors is the combination of the educational process with the realities of practical life. Constant improvement and updating of the content

and technologies of training specialists based on the competence approach is an important problem of reforming the system of higher professional education.

The effective integration of innovative technologies into the educational process of a higher educational institution is relevant. Solving such a complex issue can only be done by higher education institutions that accumulate innovations of a different nature in educational activities.

Materials and methods. Various aspects of the professional activity of doctors were reflected in the works of such scientists: N. Artikuts, O. Bandurka, O. Vasylenko, N. Davydova, T. Leshchenko, O. Shevchenko, V. Vladimirova and others [3, 5, 9, 14, 15, 18].

Research on the introduction of innovative technologies into the higher education process has become the subject of attention of Ukrainian and foreign scientists. Separate aspects of the theoretical and methodological analysis of the introduction of innovative technologies into the educational process of a higher school of Ukraine during the training of highly qualified specialists are revealed in the scientific investigations of domestic scientists: V. Bigun, G. Klimova, A. Nikitin, I. Sinitsina, T. Yarovenko and others [4, 16, 17].

The aim. The purpose of the article is a comprehensive analysis of innovative approaches and justification of their introduction into the educational process in the preparation of future doctors.

The dynamic processes taking place in the world in recent years have affected the education system and set new organizational and programmatic requirements for the training of the future specialist. In connection with this, there was a need to find new paradigms for the development of medical science and practice and to develop the latest technologies, adequate to the challenges of the time. Today, innovative activity is the main direction of implementation of modernization reforms in education and one of the essential directions of transition to the model of innovative development of Ukraine as a whole. Innovative in the system of training medical personnel is the activity of improving and updating educational practice by creating, spreading and mastering new effective methods and means of achieving the set goal.

The innovative development of society determines the ownership of the technology of innovation as a necessary component of life and an important prerequisite for personal, cultural, professional and economic contacts. Therefore, educational institutions are the main link in the formation of innovative thinking of students, as it will serve them for further personal development and will be a guarantee of high competitiveness in the labor market. Innovating is the process of equipping people with the capabilities and knowledge of creative behavior that ensures survival in the competitive struggle. Innovating is based on the transmission of behavior about expanding the resources of personal influence on the situation at the expense of creative (creative) abilities, emphasizes V. Yakovenko [13].

O. Dubaseniuk emphasizes that innovation as a systemic entity is characterized by integral qualities: innovative process, innovative activity, innovative potential, innovative environment. Innovation in education is the process of creating, introducing and spreading in educational practice new ideas, tools, pedagogical and management

technologies, as a result of which indicators of achievement of structural components of education will increase, the system will transition to a higher quality state [8].

An important link in the system of training future doctors is the improvement of such a system. Qualitative improvement of the qualification level of the future specialist is possible on the basis of the implementation of the activities of medical clinics in the educational and practical process of a higher educational institution. It was their activity that was organized in order to improve the quality of the practical component of the training of future doctors in order to eliminate the disparity between theoretical knowledge and the practice of its application. Ensuring the quality of medical education takes place on the basis of the latest pedagogical technologies developed on the basis of activity-based, person-oriented and competency-based approaches. Innovative learning technologies are aimed at the formation of professional competence in an organizational combination with innovative content. In the system of higher professional education, innovative processes are not just the introduction of something new. They are implemented as purposeful changes in the goals of the conditions, content, means, methods, and forms of activity, which are characterized by novelty, a high potential for increasing the efficiency of activity in general or in certain areas, the ability to ensure a long-term beneficial effect, consistency with other innovations. Innovative educational processes function in accordance with their inherent laws, I. Dychkivska claims [7].

One of the tasks of the medical clinic as a structural subdivision of the educational institution is the deepening of knowledge and the formation of the analytical structure of students' thinking, the ability to predict events and respond adequately to them. According to A. Galai, the medical clinic as a practical component of higher medical education is a special mechanism, system, and technology of medical training. The scientist notes that medical clinics are a special mechanism for promoting the quality of medical education, which is manifested in creating opportunities for students to practice in the medical profession during their studies, performing analytical and medical work [6].

It is worth emphasizing that advances in the field of information technology have made it possible to organize the educational process in a new way, which has significantly changed the roles of those who study and those who teach.
Educational and scientific and innovative activity is one of the types of educational activity and the main basis for the training of future doctors.

The established clinics became a base for the formation of practical skills, the organization of educational practice of students and charitable activities and contribute to the formation of an independent creative personality based on the implementation of modern methods of active forms of training of future doctors.

A. Galay emphasizes the improvement of the educational activity of the medical clinic of the higher educational institution, the justification of the ways of introducing the main educational components of the clinical movement into the educational process (by which the author understands the system of forms and methods of the activity of the medical clinic, which are related to the general tasks of higher medical education

in terms of the training of a specialist doctor and their implementation in the usual practice of the educational process of a higher education institution [6].

In the medical clinic, students get acquainted with the real problems of medical practice, directly apply the acquired knowledge, and form their professional and personal qualities as future doctors. In addition, clinical classes perform an important social function - they ensure the right of low-income and other socially vulnerable citizens to receive qualified medical care.

Considering the activity of medical clinics, which is an integral part of the educational process, it should be emphasized that the goal of such a clinic is the comprehensive development of a person as an individual, the education of high moral qualities, and the formation of the ability to make free social choices. Therefore, the result of a student's training in a medical clinic can be not only the acquisition of certain competence in the field of the doctor's professional activity, but also certain changes in the views of the individual, understanding of social values.

Students are adults, and in the modern scientific world, the importance of using androgogical principles of learning in the educational process is emphasized. Andragogy (from the Greek aner aindros - "adult man", "mature man", ago "lead") is a theory of adult education that studies the specific patterns of learning of knowledge and skills by an adult subject in the process of educational activities, as well as the peculiarities of the latter's leadership from a professional teacher. It is worth emphasizing that the main premise of andragogy, unlike traditional pedagogy, is that the leading role in the learning process is not played by the teacher, but by the student. The function of the tutor in this case is to assist the student in identifying, systematizing, formalizing his personal experience, correcting and supplementing his knowledge. Based on this, there is a change in the priority of teaching methods [1].

Let's dwell on the characteristics of the main andragogic principles of learning as scientifically based guiding norms of educational activity.

1. Priority of learning independence. Independent activity is the main type of educational work of students.
2. The principle of joint activity. This principle involves the joint activity of the learner with the teacher, as well as with other participants in the planning, implementation, evaluation and correction of the learning process.
3. The principle of using the experience of the learner. According to him, the life (domestic, social, professional) experience of the learner is used as one of the sources of learning for both the learner and his colleagues.
4. Individualization of education. According to it, subjects of training jointly create an individual training program, oriented to specific educational needs and training goals, which takes into account the experience, level of training, psychophysiological, cognitive features of the student.
5. Systematic training. This principle provides for compliance between goals, content, forms, methods, means of education and evaluation of its results.
6. Contact learning (A.A. Verbytsky's term). Education, on the one hand, involves the achievement of vital goals for those who study, is oriented towards the fulfillment of social roles or personal improvement, and on the other hand, it is built taking into

account the professional, social, and everyday activities of the student and his spatial, temporal, professional, household factors (conditions).
7. The principle of updating learning results. This principle involves the immediate application in practice of acquired knowledge, abilities, skills, and qualities.
8. The principle of elective education. It consists in providing the learner with a certain freedom of choice of goals, content, forms, methods, sources, means, terms, time, forms, place of learning, evaluation of learning results.
9. The principle of development of educational needs. According to this principle, firstly, the evaluation of training results is carried out by identifying the real degree of assimilation of the training material and determining the problems without consideration of which it is impossible to achieve the training goal; secondly, the educational process is built in such a way as to form new educational needs in the subjects of education, which will be specified after achieving a certain goal of education.
10. The principle of learning awareness. It involves the awareness and understanding of those who study and those who teach all the parameters of the learning process and their actions from its organization [1].

It should be noted that the main goal of the educational process in the medical clinic is personal orientation, so that each student becomes a full-fledged, self-sufficient, creative subject of activity, this is innovation, since its essence is personal-oriented education.

I. Dychkivska focuses on the fact that the need for people who are ready to live in a constantly changing society, determined and capable of creating new things in their activities, called to life and stimulates and accelerates innovative educational processes, the emergence of which to a new level ensures stability and development of society [7].

The use of non-traditional teaching methods makes it possible to increase the efficiency of assimilation of educational material and contribute to the personal growth of the student and his creative development. Since familiarization with various types of medical information, working with medical documentation, medical assistance to various categories of low-income population, compiling medical documents, performing creative tasks that model future activities, preparing reports and articles in various scientific sources, as well as radio and television appearances on medical topics, give the student the opportunity to gain knowledge and acquire practical skills and see the results of their activities.

In scientific sources, it is noted that what is new in the educational process is not only ideas, approaches, methods, technologies that have not yet been put forward or used in such combinations, but also that complex of elements or individual elements of the pedagogical process that carry a progressive beginning , which allows to effectively solve the tasks of education in changed conditions and situations.

Compared to classical technologies, innovative ones are characterized by the subjective nature of the relationship between students and the teacher; dialogic, democratic and reflective style of interaction; group and collective forms of organization of the educational process; problem-based, searching and research

methods of learning; effective methods of obtaining and assimilating information, which are oriented towards search and thinking activity.

The use of technology of active and interactive learning methods (disputes, debates, case modeling, situational analysis; games for intensive learning, simulation games) in medical education contribute to the formation of skills and abilities; development of life values; creating an atmosphere of cooperation and interaction; development of communicative qualities. simulation of life situations, use of role-playing games, joint problem solving.

Research by American and European scientists confirms that interactive learning methods contribute to an increase in the rate of assimilation of educational material, because they affect not only the student's consciousness, but also his feelings and will, namely: lecture - 5% of assimilation, reading educational texts - 10%, video/audio materials - 20%, demonstration - 30%, work in discussion groups - 50%, practice through action - 75%, teaching others and applying the acquired knowledge - 90% of learning [11].

Interactive teaching methods are relevant in any educational institution. Unlike traditional methods, they are based on active interaction of participants in the educational process. This approach allows you to activate the educational process, make it more interesting for students. The term "interactive" comes from English, where "Inter" means "mutual" and "act" means to act. "Interactive" means to facilitate, interact or be in the mode of conversation, dialogue with anything or anyone. Therefore, interactive learning is, first of all, dialogic learning, during which the teacher and student interact.

The main characteristic of interactive methods is that they are a special form of cognitive activity and the educational process is organized so that almost all students are involved in the learning process, have the opportunity to understand and reflect on what they know and think. At such classes, there is an opportunity to apply research processes, business games, work with documents, various sources of information, and use creative tasks. Such teaching methods contribute to the formation of students' motivation to study material and independent creative thinking.

O. Pometun emphasizes that the organization of interactive learning involves modeling life situations, using role-playing games, joint problem solving based on the analysis of the circumstances and the relevant situation. It effectively contributes to the formation of skills and abilities, the development of values, the creation of an atmosphere of cooperation and interaction [10].

On the example of use in the activity of a medical clinic, various technologies and methods are used, but the priority in educational activities is given to interactive methods that contribute to the effective development of professional skills in the process of modeling and simulating future professional activities.

Let's dwell on the characteristics of some methods. The case method, which is the main element of the pedagogical technology of the case study, which involves the analysis and solution of real problem situations. The problem situation is created by the teacher, and its solution is carried out during the joint activity of the teacher and students. It is necessary to try to have students formulate the problem situation and find

a way to solve it and analyze the results. The positive of this method is that the student becomes an active initiator of creative ideas and their constructive solution, in this connection, the ability to organize activities and choose forms of achieving results is formed, making maximum use of students' desires and abilities.

The round table method is used to discuss complex theoretical problems and share experience. The formulated topic needs its analysis and justification in various legal aspects. It is desirable to invite practicing specialists of various fields of knowledge to these classes. Students should prepare reports and speeches that are listened to in advance. After their discussion, analysis, commenting, and exchange of opinions are carried out. It is necessary to ensure a meaningful and comprehensive analysis of the problem, avoiding its superficial discussion.

Discussion is one of the methods of communicative learning. The essence of this method is the exchange of students' opinions on a certain material. They share both their own thoughts and rely on the opinions of others. When introducing the discussion, it is necessary to create favorable conditions for the activation of students, which will affect their creative imagination, to ensure a reasonable, meaningful solution to the problem. In addition, students in practice learn to clearly and clearly express their thoughts, using already acquired knowledge from one or another field of medicine. The discussion contributes to the formation of teamwork skills and the ability to respectfully perceive the positions and opinions of other students. It is worth noting that there are different types of discussions. Such types of discussions as "brainstorming", debates have become independent learning methods.

Brainstorming (attack) is an extremely intensive process of generating students' ideas and an important method of implementing theoretical knowledge in a practical aspect. This method is especially relevant for collective discussion and hypotheses, information search.

Researchers emphasize the importance of active learning methods, the use of which involves the implementation of training technologies in the educational process.

The word "training" comes from the English "to train", which means "to teach, to train, to train." The use of training in educational activities contributes to the formation of abilities and skills and the expansion of experience.

During the training, informal, relaxed communication is created, which opens up many options for development and problem solving to students. Training methods make the learning process interesting and not burdensome. Unlike the traditional ones, training forms of education fully cover the entire potential of the student: the level and scope of his competence (social, emotional and intellectual), independence, ability to make decisions, to interact. Students' communication during the training includes two components: content and process. The content of the training is the topic (ideas, questions, regularities of phenomena) studied during the class. The training process is how training students interact during training, what atmosphere they create, what roles they play, how they influence each other.

The training method consists in how training is organized (discussion, work in small groups, etc.), how the process of assimilation of the training content takes place [12].

The introduction of interactive methods into the educational process directly in the activities of the medical clinic significantly improves students' conscious assimilation of professional information and promotes the development of creative thinking.

Conclusions. Thanks to innovative methods, knowledge is transferred from the theoretical to the practical sphere. The application of innovative learning technologies in the medical clinic, which have become an integral component of the educational process, solves the problem of practical training of future doctors. It is interactive technologies that are widely used in the developed countries of the world and make a significant contribution to the development of the education system. Based on the above, we can state that the inclusion of active forms of learning in the educational process significantly affects the development of mental, creative abilities, personal qualities and professional orientation of the future doctor.

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