



Modern Changes in the Model of Professional and Pedagogical Training of Medicines in the Context of European Integration Processes



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Abstract

Modern conditions of social development cause rethinking of the essence and goals of education, as a result of which the views on the professional activity of a specialist in the medical sphere and requirements to his personal qualities change. modernization of pedagogical conditions of future medical workers' professionalism formation is a requirement of modernity providing formation of competence and outlook professional characteristics of a future specialist, abilities to implement and improve his activity n Modernization of pedagogical conditions of future medical workers' professionalism formation consists in creating pedagogically comfortable, professionally-oriented educational environment; introduction of innovative educational technologies and interactive teaching methods; students' awareness of the role of professional competence in their activity, which is the result of the combined influence of needs and goals, motives and incentives, cognitive interests. An important stage of modernization of pedagogical conditions of future medics' formation is the creation of a pedagogically comfortable environment, including benevolent atmosphere, the situation of success, improvisation, which should become a trigger mechanism in a complex process of activation of future specialists' professional capabilities. in the comfortable environment, each subject changes himself, changes the situation around himself, fills the educational environment with new knowledge, experience, ways of activity, forms new needs.

Keywords

conditions of modernization of education;
institutions of higher education;
management in education;
model of professional and pedagogical training of physicians;
professionally-oriented educational environment;

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1 Introduction

In modern conditions of market economy, taking into account the impact of environmental factors and the negative effects of certain industries on human health, there are increasing requirements for the quality of training of future health workers, whose professionalism directly affects the future of a healthy nation, which is the key to a strong society and the successful development of the state. The teacher of a medical institution is a manager of the educational process at his/her managerial level. The managerial functions are always present in the teacher's activity because this is the essence of the pedagogical process based on the person-centered paradigm in education. The educational process, as a rule, is not only elaborated in detail but also managed.

In the context of modernization of education based on the Bologna Process, the problem of professional training of specialists is especially important. The increased interest of scientists and practitioners in professional training is due to the change in the educational paradigm - there is a transition from mass-productive forms and methods of teaching to individual-creative ones when a specialist with a formed need for professional self-education, capable of self-development and full self-realization in the chosen profession is prepared (Fleacă et al., 2016; Fatkullina et al., 2015).

To implement the activities of the State National Program "Education" (Ukraine XXI century), and by the Law of Ukraine "On Higher Education", National Doctrine of Education Development in the XXI century and by program provisions of the Bologna Declaration, the need to modernize vocational education and in the training of health workers to meet the needs of society for qualified specialists with quality professional and pedagogical training.

Analysis of recent research and publications

The works of Mykhaliuk (2015), in the aspect of disclosure of theoretical foundations of the formation of pedagogical mastery of young teachers at medical universities are devoted to the problems of preparation of future medical specialists. Disclose pedagogical mastery in the educational environment (Zyazyun et al., 2004).

A study by Chagovets et al. (2020), is based on a content analysis of a dozen platforms to improve professional learning by providing access to open resources, among them: Coursera, Edx, Udemy, MIT Open Course Ware, OpenLearn, Intuit, Prometheus, UoPeople, Open Learning Initiative, Open University of Maidan (OUM). They provide self-study and professional development courses, dissemination of authoring techniques in developing their own courses and promoting them on open platforms, etc.

Viznyuk (2019), argues that the humanization of the school and the organization of the educational process based on the personal approach requires a high level of personal maturity from the medical teacher, who can present himself to the applicants for education not as an impersonal functionary, the performer of professional duties, but as an original person, who has his position, who is open in expressing his feelings, emotions, and views. The National Doctrine of Ukrainian Education Development in 21st century (2002) determined the new priorities in education development, created the appropriate legal base, launched the practical reformation of education according to the State National Program "Education. Ukraine XXI century".

Belyaeva (2015), reveals the pedagogical excellence of teachers at higher medical schools as a theoretical and practical problem in educational institutions. BODRUG (2011), points out the role of teachers' pedagogical excellence in the conditions of implementation of the Bologna Process. Marushchak et al. (2018), highlight the

Tsekhmister, Y., Inessa, V., Vasyl, H., Oksana, Y., & Serhii, D. (2022). Modern changes in the model of professional and pedagogical training of medicines in the context of European integration processes. International Journal of Health Sciences, 6(2), 972–986. <https://doi.org/10.53730/ijhs.v6n2.9440>

competency-based approach to student learning in medical higher education institutions. Wald (2015), reveals the transformation of professional identity in medical education (reflection, interpersonal relationships, sustainability).

Hedy (2015), contribute to the formation of professional identity in medical education among humanistic, sustainable physicians in the aspect of revealing the pedagogical strategy of connecting theory with practice. Sharpless et al. (2015), present students' reflections on the process of professional mastery formation in medical education in their work. STEWART et al. (2019), reveal conceptual models for understanding physician burnout, professional fulfillment, and well-being. Szuster et al. (2020), organize the learning process with elements of presence, resilience, and compassion in clinical education and implement an assessment of rehabilitation based on patient awareness of readiness to overcome relapse.

Spinelli et al. (2019), propose mindfulness training for healthcare providers and trainees in a meta-analysis of randomized controlled trials. Klatt et al. (2021), provides a strategy for creating organizational management to promote the well-being of medical professionals. Consequently, as seen from the above, shaping the identity of the future medical professional with a variety of backgrounds is quite relevant in the field of renowned scientists, research scientists of subspecialty as well as practitioners.

However, scientific research in the field of professional and pedagogical training of medical workers is insufficient. Therefore, this problem is especially relevant today, when a new dimension in reforming the professional training of future specialists in the creation of a new concept of humane education, close to life and activity. The professional activity of a medical worker requires a certain system of professional, psychopedagogical, and methodological knowledge, skills, and abilities that meet modern requirements for the professional training of specialists (Early & Winton, 2001; Hussein et al., 2016).

The article aims to cover modern changes in the model of professional and pedagogical training of medical workers in the context of European integration processes. The main objective of the study is to verify the effectiveness of the created model using a pedagogical experiment, which are inherent signs of technology and means of improving the readiness of medical professionals to perform their duties.

2 Materials and Methods

Creation of professionally oriented educational environment in a medical institution of higher education, adapted to the needs of future professional activity, promotes: establishment of humanistic interpersonal relations as a basic basis for the formation of the basis of professionalism of future medical workers; the use of individual, collective educational and practical tasks, stimulating the development of teamwork skills; combination of individual and collective forms of learning activities of medical students; constructing of professional-medical situations, stimulating the development of professional consciousness and communication culture of students as medical workers; development of future medical students' independence; acquisition of future professional experience, constant self-development aimed at the use in practice of the acquired special knowledge and performance of professional functions; including students into "improvised field of activity" in order to provide adequate actions, characteristic for medical worker profession; involvement of future medical workers into project activity, aimed at assimilation of program material and practical skills; strengthening of professional orientation of education; ensuring the relationship between the medical institution and the professional environment; search for new technologies for realization of cooperation of a teacher with students in the learning process for joint solution of professional tasks; development of methodological foundations for role behavior of future medical workers; increasing competitiveness and mobility of graduates of higher medical educational institutions.

Theoretical foundations of the study

The main purpose of education in Ukraine is recognized to create conditions for the personal development of the younger generation, capable of lifelong learning, creating and developing the values of civil society: to promote the consolidation of the Ukrainian nation, the integration of Ukraine into the European and world space as a competitive and prosperous state. Scientific and methodological support of the educational process

in medical institutions of higher education involves the creation of special organizational and pedagogical conditions, in particular - the modernization of the educational environment.

Pedagogical conditions are external circumstances that significantly affect the course of the pedagogical process, providing the achievement of successful results of the learning process, and aimed at improving the effectiveness of the pedagogical activity. Researchers believe that it is impossible to reduce conditions only to external circumstances, to a set of objects affecting the process, because the formation of personality is a unity of subjective and objective, internal and external, essence and phenomenon (Tsekhmister et.al., 2021a). The essence of pedagogical conditions is the synthesis of objective capabilities of the content of education, methods, organizational forms, and material capabilities, contributing to the solution of the pedagogical tasks.

Pedagogical conditions are conditions created by the efforts of the team to improve the learning process, it is a system of organically related mental and practical actions aimed at solving specific pedagogical tasks of training, obligatory for future specialists. As experience shows, professional training of future medical workers becomes more effective within a pedagogically comfortable professionally oriented educational environment. The pedagogical conditions include:

- 1) the unity of objective and subjective, inner and outer, essence and phenomenon;
- 2) expression of the relation of an object to the phenomena surrounding it and without which its existence is impossible;
- 3) the totality of objects (things, processes, relations) necessary for the emergence, existence, or change of a given object;
- 4) a set of external and internal circumstances (objective measures) of the educational process, on the implementation of which the achievement of the set didactic goals depends;
- 5) circumstances, on which the existence or change of something conditioned by them depends;
- 6) circumstances that contribute to the development of a person, the formation of his personality and ensure the effective and holistic implementation of the educational process;
- 7) a factor, i.e., the engine, the cause of any process of management organization in education;
- 8) a necessary circumstance, which allows the implementation, creation, formation of something or contributes to something, which becomes a cause, which generates another phenomenon and predicts its specificity, serves as a basis for action, incitement, motive, which leads to certain actions of a teacher-manager.

Management in education is a set of strategies, philosophies, trainings, methods, means, and forms of educational process management. On the one hand, management can be seen as a science that makes a significant contribution to the development of social relations and contributes to the realization of social needs, and on the other hand, as a process carried out by the management apparatus or a category of people using implementing a particular system of functions. In turn, this process is the object of study of management science to improve and adapt it to social needs.

CHAGOVETS et al. (2020), argue that at the present stage of the development of social life one of the leading branches of management becomes educational, which has its own specificity and patterns inherent only in it. Such specificity is due to the peculiarities of the subject, product, tools, and results of labor. *Management in education* is a set of principles, methods, organizational forms, and technological methods of educational process management, aimed at improving its effectiveness.

Specialists on the problems of educational management distinguish the following functions:

- 1) making a reasonable decision;
- 2) organizing the implementation of decisions made, creating the proper conditions for the effective work of the educational institution, each participant in the educational process, providing motives and incentives for their activities;
- 3) control over the execution of decisions.

The development of education management theory has caused a variety of interpretations of this phenomenon, due to which and in the practical activities of educational process management emerged such concepts as pedagogical management, didactic management, education managers, teaching and learning,

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teaching and learning processes. The main functions of management in education are defined as making a reasonable decision; organization of the implementation of the decisions made, creating the right conditions for an effective educational process, for each of its participants; providing motives and incentives for their activities; control of task performance, etc.

Pedagogical management is a set of principles, methods, organizational forms, and technological methods of educational process management aimed at improving its effectiveness. The purpose of management, actually, in education is to create an educational environment that works effectively and meets modern requirements, attractive to real and potential consumers. Pedagogical management develops within the framework of educational management, has its own specific function in connection with the performance of a special function - the creation of systems of management of pedagogical processes.

According to [Viznyuk \(2019\)](#), pedagogical management is a set of principles, methods, organizational forms, and technological methods of educational process management aimed at improving its effectiveness. According to the author, the educational process is a set of such components: educational-cognitive, educational-educational, and self-educational process. In our opinion, the most successful definition of the concept of "pedagogical management" offers the author, defining it as a set of principles, methods, organizational forms, and technological techniques of management of the educational process, which is aimed at improving its efficiency and quality.

The practical activity of a teacher as a manager of his level is well traced in the educational process of higher education institutions, working in an innovative mode. We are talking about the functions of pedagogical management in the teacher's activity in the conditions of his/her work with students when the teacher constantly uses new approaches in the organization of educational process, new technologies, and means of implementation of a person-centered system of education, which ensures the effectiveness of his/her work. It is known that active learning methods (problematic, heuristic) require much more time than traditional (verbal and reproductive) because they are not just teaching methods, but methods of organizing learning activities in the classroom ([Pant & Baroudi, 2008](#); [Figueiró & Raufflet, 2015](#)).

Management is a pedagogical activity. A good teacher is someone who knows exactly what he/she wants to achieve as a result of teaching students in his/her subject, section, or topic; someone who can set clear goals for a specific lesson for himself/herself and students; someone who can build a rational program to achieve these goals, know how to plan his/her own and his/her students' activities correctly; be able to effectively supervise the students' progress and absorption of the corresponding elements of information, analyze the effectiveness of the activity and make necessary corrections.

By its structure, qualitative pedagogical activity has long been no different from managerial activity, which includes: goal-setting (also includes predicting results); planning; creating conditions; constructing a group structure; stimulating coordination; controlling. Working in the management phase allows the educator to increase his competence. His thinking is no longer consumerist, executive, limited. New opportunities for identifying and overcoming stereotypes arise. The main thing is to change the style of thinking. The teacher must learn how to manage probable processes, influencing the result indirectly.

As Karamushchenko points out, the final product of the functioning of an educational organization is a "living" object, a personality - a social person involved in social relations, the actor (subjects) of these "relations". That is why the effectiveness of the educational process is determined by the formation of modern management relations, the growth of manageability of this process ([ZYAZYUN et al., 2004](#)). A comprehensive characteristic of a young professional can cover such components according to the implementation of management as a pedagogical activity of the present:

- 1) *cognitive-operational* (creative abilities, professional competence, high level of mastering the basics of basic education);
- 2) *motivational* (professional attitudes, interests, desire to engage in professional activities);
- 3) *psychophysiological* (business acumen, persistence, efficiency, poise);
- 4) *emotional-volitional* (emotional perception, initiative, self-control, professional optimism);
- 5) *evaluation* (self-assessment of one's professional training, optimal solution of professional problems).

A modern approach to the problem of professional and pedagogical training of medical workers involves the creation of a basic system of psychological and pedagogical and methodological knowledge, skills, and abilities to ensure:

- mastering the psychological and pedagogical regularities of professional training of a medical specialist;
- mastering of a modern complex of methods means and forms of training, covering all sides and stages of professional training of a medical worker;
- development of modern professional thinking, which allows solving professional problems in a qualified manner.

According to most researchers on the problem, in particular, [MARUSHCHAK et al. \(2018\)](#), defines the process of the leadership of complex probabilistic systems (learning group, learning environment, learning process) with the help of simple methods (derived from the cybernetic law of diversity, discovered by W. Emby) will not be effective. Cognition of the laws of interaction of the elements of these systems has as its ultimate goal to use them in practice at any level of the educational system, including the level of the study group ([Marushchak et al., 2018](#)).

Management of the process of development of pedagogical skills of clinical teachers in higher medical education is a sequential, step-by-step implementation of procedures of educational and cognitive activity, the objective necessity of which is determined by new approaches in organization of educational process, built on the personality-centered basis in the learning process, on changing the very position of a teacher as a manager of students' learning information. The teacher-teacher should build his pedagogical activity in the new conditions with the support of scientifically grounded management processes.

The main functions of management in education are defined as: making a reasonable decision; organization of the implementation of decisions, creating the right conditions for an effective educational process, each of its participants; providing motives and incentives for their activities; control of tasks, etc.

Consequently, *management* is a pedagogical activity. A good teacher is one who knows exactly what he wants to achieve as a result of teaching students in his subject, section, or topic; one who is able to set clear goals for a specific lesson for himself and students; one who can build a rational program to achieve these goals, that is, competently plan his activities and activities of students; one who can effectively monitor the progress and absorption by students of relevant elements of educational information, analyze the performance and make necessary ([Shimahara, 1998](#); [Zimmer & Matthews, 2022](#)).

In its structure, quality pedagogical activity does not differ from managerial activity. The teacher of a medical institution of higher education is a manager of the educational process at his managerial level. The practical activity of a teacher as a manager of his level is well traced in the educational process of a higher education institution, working in the innovation mode.

Thus, a professionally-oriented educational environment is defined as a set of conditions through which a favorable climate is created to actualize the potential of all participants in the educational process, as a pedagogical reality with specially organized conditions for the formation of creative individuality of students and their self-realization, in which the relationship between participants in the educational process becomes a mutual communication, co-operation.

Designing of educational environment in a medical institution of higher education opens prospects for a new type of interaction of subjects of the educational environment of an educational institution. A variety of factors, which should be taken into account in the process of creating a design model, involves their comprehension and comparison, on this basis during the design there is a constant "spatial" resolution of contradictions, and an integral model of the environment is created.

Structural components of the educational environment are: subjective (for the development of cognitive processes and skills, assimilation of social experience it is necessary to have subjects who have it and transfer it through interaction, certain means, and technologies); social (formation and development of professional abilities, skills, competencies at the level of reproduction, reproduction); productive-activity (independent search, improvement of known actions, operations, creation of conditions); spatial-subjective (development of communication and actions - is impossible without experience of communication processes with other subjects, mastering of effective technologies in certain conditions).

The components of the educational environment that we use in the educational process include the latest forms of educational process organization: e-Learning - learning with Internet resources; m-learning - learning with mobile devices to provide reference medical literature; using Skype to communicate in distance learning

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mode; using open electronic educational resources and Microsoft Excel to organize open record of knowledge and create virtual groups on the cloud; Guidance - the development of information resources on the cloud and the system of pedagogical support aimed at supporting the individual: informing, counseling, information gathering, conversations, and online conversations, results in control - performance study, evaluation of achievements (the teacher is considered as a tutor). That is why one of the main tasks in modeling the activities of medical students is a radical change in the technology of the teacher, which takes place at the expense of creating a safe, barrier-free educational environment and requires its own tools (Sokolova et al., 2015; Atamanova et al., 2015).

The formation of personality properties is carried out in a cultural environment with common and local values, traditions, ideals, models of behavior, requirements; "the personality brings up the personality". According to H. Poliakova, in the educational environment, each subject changes himself, changes the situation around him, fills the educational environment with new knowledge, experience, ways of activity, forms new needs.

Thus, the *pedagogically comfortable environment* is a pedagogical reality that contains specially organized conditions for the favorable passage of the formation of professional individuality of the student, and opportunities for their self-realization, while the relationship between participants in the educational process becomes a mutual communication, collaboration. The necessary components of a pedagogically comfortable environment are a friendly atmosphere, a situation of success, improvisation (as an ability to focus the powers of the soul and mind, memory reserves), which should become a trigger mechanism in a complex process of activating professional capabilities of future nurses. In such an environment the interaction of a student with a teacher-mentor takes place, the possibility of forming an individualized educational trajectory is created.

The methodology of the pedagogical experiment

The staff of the Andrei KrupynskyiLviv State Medical College (LSMC) is trying to translate modern requirements for professional and pedagogical training of medical workers into their professional activities. This institution pays special attention to the problems of reforming medical education in Ukraine and is a leader in providing higher professional education to students of nursing and laboratory diagnostics. This institution pays special attention to the problems of reforming medical education in Ukraine and is a leader in providing higher professional education to students of "Nursing" and "Laboratory diagnostics". The teaching staff is co-author of standards for higher professional education for two specialties, creation of curricula, programs for various disciplines, textbooks, manuals, atlases, methodological recommendations, and other methodological support (Tri et al., 2022).

The teaching staff of the college has been working according to a modular rating system since 1993. Therefore, innovative changes and new realities of teaching activity were perceived by the staff as a new stage in the improvement of professional formation of a teacher, development of his professional, intellectual, moral, psychological-pedagogical, and research knowledge and skills. Considering modern trends in the development of education of future medics, changes in society, and requirements for graduates of medical schools, it is necessary to improve the professional and pedagogical skills of medical teachers. It is not always possible for a good specialist to be an educator, a good teacher of a discipline, a person who has close contact with students and is a positive example for them.

An analysis of staffing at the Andrei KrupynskyiLviv State Medical College found that almost 75% of teachers graduated from medical schools, while only about 25% had a pedagogical education. The contingent of teachers renewed due to the change of generations, many young doctors joined the ranks of teachers in 2006-2008.

The staff of the Andrei KrupynskyiLviv State Medical College faced many problems related to the "rejuvenation" of the staff, the professional reorientation of teachers, and the strengthening of professional and pedagogical training of specialists, as follows:

- the motivation of pedagogical training of a medical teacher;
- the needs of the medical teacher in mastering the basics of pedagogy, in particular, didactics;
- psychological readiness of the medical educator to engage in teaching and educational activities with young people;

- assimilation of methods of conducting theoretical and practical classes;
- methodological support for classes;
- use of technical means of training, interactive methods, the latest technologies to intensify the learning process;
- use of the Internet, computer technologies, modern textbooks, manuals for classroom and independent out-of-class activities;
- ability to assess the knowledge of students, to conduct a modular-rating assessment of knowledge according to the requirements of the Bologna process;
- the desire for self-education, improvement of pedagogical education.

A teacher, having solid knowledge of his subject, must also be an actor, a good orator, a comrade of a student, a person with different methods of conducting classes depending on the situation, has strong moral principles, is a humanist, an intellectual, a polyglot, has an aesthetic appearance, skillfully applies mimics, gestures, etc. In the aspect of solving the above-mentioned problem, the model of formation of a pedagogically comfortable educational environment for future medics is presented (Table 1).

Table 1
Model of professional and pedagogical training of a medical doctor in the context of European integration processes

Components of implementing management as a pedagogical activity of a teacher in medical education				
Cognitive-operational	Motivational	Psychophysiological	Emotional-volitional	Evaluation
Structural components of the educational medical environment				
Subject	Social	Productive-Active	Spatial-subjective	
Skills of professional and pedagogical training of specialists				
<ul style="list-style-type: none"> ▪ motivation of pedagogical training of a medical teacher ▪ the needs of the medical educator in mastering the basics of pedagogy, in particular, didactics ▪ the psychological readiness of the medical educator to teach and educate young people ▪ mastery of methods for conducting theoretical and practical classes ▪ methodological support of classes ▪ use of technical means of instruction, interactive methods, and the latest technology to intensify the educational process ▪ use of the Internet, computer technologies, modern textbooks and manuals for classroom and independent out-of-class activities ▪ ability to assess the knowledge of students, to provide a module-rating assessment of the knowledge, according to the requirements of the Bologna process ▪ desire for self-education, improvement of pedagogical education ▪ Thematic plan of the seminar "Professionally oriented educational environment as a condition for the formation of professionalism of medical workers". ▪ The content and essence of the concept "professionalism of medical workers" ▪ Professionally-oriented educational environment - a condition for an effective process of formation of medical workers' professionalism. ▪ Structure of professionally-oriented educational environment ▪ Conditions for creation of a professionally-oriented educational environment in medical institution ▪ Pedagogical interaction of teachers and students in conditions of the professionally-oriented educational environment of higher medical education ▪ Improvisation of clinical scenarios in the context of the professionally-oriented educational environment of a medical institution ▪ Interactive methods of education of future medical workers within the framework of the professionally-oriented educational environment of a medical institution ▪ Influence of educational environment on the formation of professionalism of future medical workers 				

Source: authors' own research

The model is designed with the possibility of its modernization, requires tools, and relies on technology. The basis for the design was the technology of the organization of the educational process of the famous teacher-innovator Sheyman V. In the end, the model is formalized as a sequence of technologies. The educational environment creates conditions for the development of not only the cognitive sphere of students (his cognitive processes and abilities), but also for his emotional, personal, spiritual, moral, and bodily (psychosomatic) spheres of his consciousness, and the subject of development during the training becomes consciousness itself. The formation of psychological properties of medical students, motives, abilities, knowledge, skills, business qualities is an indicator of the result of implementing the model of professional medical education.

To solve the problems of improving the professional and pedagogical level of medical teachers at the Andrei KrupynskyiLviv State Medical College takes the following measures: classes at the School of Young Teacher (familiarization with the educational institution, methodical room, programs of disciplines, forms of teaching, methodological support of theoretical and practical classes, registration of training documentation); advanced training courses at the Bogomolets National Medical University (the Department of Pedagogy has developed methodological materials of didactic nature for teachers in the system of medical training. They are: "Masterclasses" with the leading teachers of the methodology, teachers of the highest qualification category, teachers in scientific branches, the classes in the "Lecture hall of professional skill", where the young teachers can learn about the latest achievements in medical science and practice, the use of the newest pharmaceuticals, treatment technologies, diagnostic technologies, the newest pers. At the lessons of this school are the leading teachers of the Lviv region, the staff of the Department of Pedagogy of the Lviv National Ivan Franko University, methodologists, teachers at the college, researchers of the Lviv branch of the Institute of Pedagogy and Psychology of the National Academy of Pedagogical Sciences of Ukraine.

Teachers also conduct training sessions on issues of communicative cooperation, methods of preventing and resolving conflict situations, conducting game technologies, problem-based learning technologies, and methods of using interactive technologies in medical education. Such an integrated approach to solving the problems of improving the professional and pedagogical level of teachers in the system of medical staff training gives a positive result, namely: young teachers adapt to the new environment easier, medical teachers are systematically involved in the process of obtaining pedagogical knowledge, prepare for classes, work with educational literature, analyze it, participate in the discussion of pedagogical problems, express their thoughts, think creatively, debate, make independent prof.

3 Results and Discussions

We offer a 36-hour thematic plan for the seminar "Professional-oriented educational environment as a condition for the formation of professionalism of medical workers" on this topic:

- The content and essence of the concept of "professionalism of medical workers".
- Professional-oriented educational environment is a condition for the effective process of medical workers' professionalism formation.
- Structure of professionally oriented educational environment.
- Conditions for creation of a professionally-oriented educational environment in medical HEI.
- Pedagogical interaction between teachers and students in conditions of a professionally-oriented educational environment of higher medical education.
- Improvisation of clinical scenarios in the context of the professionally-oriented educational environment of the medical institution.
- Interactive methods of training future medical workers within the framework of a professionally-oriented educational environment of a medical institution.
- Influence of educational environment on the formation of professionalism of future medical workers.

Experimental work was conducted in the Andrei KrupynskyiLviv State Medical College. At different stages of the study, 477 students and 28 teachers at the medical college took part in it. After the seminar, a closed "blind survey" was organized, according to the results of which it was found that its work satisfied 97% of the

cognitive and methodological needs of the participants of the seminar - teachers of the medical institution involved in the pedagogical experiment. During the control cutoff, quantitative values of indicators of readiness for professional activity of students in the control and experimental groups were analyzed, which allowed establishing the appropriate dynamics of their levels.

Levels

	Confirmatory experiment	Forming experiment	Dynamics	Confirmatory experiment	Forming experiment	Dynamics
	Control group			Experimental group		
<i>High</i>	5	8	1,2	3	42	17,4
	2,00%	3,20%		1,30%	18,70%	
<i>Middle</i>	101	106	2	99	145	20,4
	40,1 %	42,10%		44,00%	64,40%	
<i>Low</i>	146	138	-3,1	123	38	- 37,8
	57,9 %	54,80%		54,70%	16,90%	

Figure 1. Dynamics of future medics' readiness levels for professional activity before and after the experiment (at %)

Source: authors' own research

The results of the experimental work showed positive changes in the levels of readiness of students in the experimental group: high level increased by 17.4%, medium - by 20.4%, low - by 37.8%. In the control group: the high level increased by 1.2%, average - by 2.0%, low - by 3.1%. To determine statistical reliability and establish the difference between the average values of the levels of readiness of future nursing junior professionals for professional activity in the control and experimental groups we calculated Student's t-tests. Statistical processing of the data was performed using Fisher's angular transformation criterion. Pearson's statistical significance criterion was used to check the probability of the obtained results. It was found that as a result of the experimental work the students in the experimental group had higher levels of readiness for professional activity, and the differences in these levels are not accidental and are a consequence of the implementation of appropriate pedagogical conditions.

Modernization of the educational environment also took place by adapting it to modern requirements for the professional activity of medical workers according to world standards was directed to the educational and industrial practice in a medical institution of higher education. According to the Regulations on the practice of students in higher educational institutions of Ukraine, the practice of students is unknown component of the process of training specialists in higher educational institutions (Tsekhmister et al., 2021b). It promotes the inclusion of students in “an improvised field of activity” to provide a professional atmosphere for the development of practical skills and abilities, as improvisation is the highest artistic ease, in which “the hand seems to lead the thought itself and is created and picked up and evaluated by the author only after the fact”. The main task of improvisation is to put students in a creative position, to achieve from them impressive creative results, non-temporal thinking, and perception.

Preparation of the development strategy for the Andrei Krupynskyi Lviv State Medical College for 2020-2024 is conditioned by the qualitative renewal of education content, which consists in the necessity to bring it in line with European standards, the needs of modern life, and the demands of society regarding quality and accessible education. The priorities for the development of the educational institution are:

- formation of a high level of information culture of each participant in the educational process;
- ensuring the right of applicants for education with developmental disabilities to receive an appropriate level of basic education by their abilities, capacities, taking into account individual physiological and mental characteristics;
- ensuring early socialization and preparation of such students for the appropriate level of basic education through a specially organized educational process;
- providing qualified methodological and advisory assistance to families, parents, or persons in loco parentis in the supervision, upbringing, and education of students with special needs;
- provision of comprehensive pedagogical, psychological, correctional, and developmental assistance to students in need of correction of physical and mental development;
- formation of civic position, self-esteem, willingness to work, responsibility for their actions.

The strategy determines the main ways of development of the educational institution. It directs the teaching staff to the implementation of the value priorities of the individual, to meet the educational needs of physicians, to create a developing and safe environment. The development strategy of the institution is aimed at the values of personal development, variability, and openness of the educational system of the institution determines the modernization of factors affecting the quality of the educational process, the content of education, forms and methods of training, and education, monitoring and evaluation system, management decisions, the mutual responsibility of all participants of the educational process. The strategy is a set of methodological, logistical, and managerial sections with the identification of ways of their implementation. It takes into account as much as possible the needs of the pedagogical, coeducational, and parental teams of the institution.

The main results of the educational institution development strategy will be the improvement and modernization of the modern educational environment of the institution, systemic positive changes, increasing the level and quality of education for students with special pedagogical needs. The strategy allows to development of strategic and priority areas of the institution for the coming years in cooperation with the international community of postmodern space.

4 Conclusion

Modern professional training of future employees is impossible without modernization of the educational environment, which is one of the main conditions of their effective training and involves the creation of innovative systems of professional formation, taking into account the changes envisaged and their impact on the future professional activity in the field of health care.

In connection with the aggravation of the urgency of the problem of health protection and promotion, new requirements arise for the content and quality of training of future doctors with a high level of formation of professionally significant traits and creative potential, capable of qualitatively and conscientiously performing

their professional functions and social role. The need for correct accents in the training of medical students to form professional culture and professionalism, interrelated socially valuable traits, most of which are formed in the process of professional training, is actualized.

Thus, the following forms of work aimed at improving the pedagogical skills of clinical teachers at the medical school proved to be effective and efficient: scientific-methodological seminar “Pedagogical technologies for forming the bases of future doctors' professionalism”; monthly masterclasses, methodical meetings; open lectures, seminars, and practical classes; authors' methodological recommendations and developments in the educational process of the medical college to introduce interactive forms and tools for the formation of future doctors.

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