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Integration of medical knowledge into psycho-pedagogical practice

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Abstract. The method of the research was to identify promising trends in the use of medical knowledge in pedagogical and psychological activity in the context of emotional, physical and spiritual well-being of modern society. In the research, a SWOT-analysis was carried out, which identifies the main risks, opportunities, weaknesses, and strengths of integrating medical knowledge in psycho-pedagogical practice. Medical knowledge and its application to human personality through the activity of pedagogues and psychologists. The interpretation of the concepts of "medical psychology", "medical pedagogy", "integration" and their peculiarities in the modern world is described. Examples of the application of medical knowledge in psycho-pedagogical practice and their application are given. It is understood that the psychological-pedagogical represents a mutually interconnected system that combines theoretical and practical components with the disclosure of the essence of medical knowledge and the development of specific situations. The main functions, possibilities, and risks of pedagogical and psychological activity in the implementation of this process on the basis of modern and innovative technologies. Theoretical experience in the development of medical knowledge in psycho-pedagogical activity of such foreign countries as the United States, Great Britain, Germany, Italy, and the East of Korea). The following advantages of its application are identified: a great improvement of motivation for learning, formation of clinical thinking, skills and competences in education teachers, excellent learning of the required material, professional skills and competences, achievement of successful results in the formation of personal qualities of the student. In accordance with this, the consequences are the creation of a basis for the development of creative individuals, their training with the assimilation of medical knowledge to professional activity in the future and the understanding of the need for quality education throughout life. The conclusions provide information about the changes in the conditions of existence of the society, which were the result of mental, emotional, informational and ecological influence. The practical significance

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of the work is to improve the physical and mental health of children and adults, as well as to improve their educational and career success

Keywords: health and education; medical diagnostics; psychological support; transformation; experience of foreign countries; SWOT-analysis

INTRODUCTION

The pace of changes and transformations taking place in today's society requires reform and modernization of the education sector. The main objective of the reform is considered to be an efficient acceleration to compliance with international standards, increased mobility and opportunities for employment of education professionals. Therefore, the quality solution of health protection problems, namely the quality of medical assistance to citizens, requires excellent training not only of physicians, but also of psychologists and teachers. At the current stage of training of specialists, the main task of teachers of educational institutions is to cultivate interest in learning, which is a prerequisite for successful learning of information and knowledge. The priority task of modern higher education is to create conditions for quality training of a new generation of highly qualified specialists in various fields. In this case, today's teachers and psychologists must not only be competent in their field of professional tasks, but also have information in interdisciplinary spheres, especially medical knowledge. This knowledge is a necessary component of modern education, as it contributes to the creation of a safe and favourable environment for physical and psychological development of education students. The importance of transforming medical knowledge in the work of teachers and psychologists in modern institutions of higher education in accordance with international standards has been addressed by a few scientists.

O. Topuzov *et al.* (2022) and L. Shakhlina *et al.* (2023) found that the full-scale invasion affected the health of a significant number of people in Ukraine. Therefore, in the conditions of the current problem on the territory of Ukraine, it is important to have knowledge of providing medical assistance to each professional in his/her activity. Accordingly, knowledge about the health of the population, especially humanitarian and medical needs after their deoccupation will increase the planning of the health protection system. As noted by researchers V.V. Shablysty *et al.* (2023), in the conditions of the war situation in Ukraine, international organizations that provide medical assistance to war victims, such as "Medicins Sans Frontières", Oxfam, International Committee of the Red Cross, play a significant role. They, in turn, have the opportunity to share quality medical knowledge, which is relevant today, with other Ukrainian professionals.

Researchers Y. Haleta *et al.* (2023a) carried out the modelling of transferable education into individual regional strategic plans of old age development through pedagogical optimization, which formed a basic integration model that envisages the integration of education into regional

development systems. Other complex models were also developed to describe the stage of securing old growth with the use of modern educational methods. The results of the research provide an opportunity to ensure the development of education through the stages of the processes proposed in accordance with medical knowledge. M. Mintii *et al.* (2023) found that the current reform of education of teachers of psychologists should be based on the best pedagogical experience, the best educational practices, European competence structures and national values. System-wide reforms should be focused on quality content for teachers' professional development, safe learning environment, inclusiveness, and digitalization of education.

In order to ensure quality education and continuous professional development, teachers should involve students in self-discovery and self-development, developing not only professional skills, but also social and personal skills, as well as universal humanistic cultural education based on humanism. High moral values and medical ethics are important for the development of active citizenship among students and social intelligence (Valqueresma & Joaquim, 2021; Yuryk *et al.*, 2024). An important aspect of education should be considered the use of quality and relevant teaching methods, which are based on the theory of democracy. In the research by Y. Dzhygyr *et al.* (2023), the authors argue that the acceptance and sustainability of these reforms could be enhanced by making the decision-making process more efficient. The researchers J. Sanchez *et al.* (2024), believing that it is the very well-developed methodology of teaching that encourages all educationalists to synthesize, analyse and apply medical knowledge, except for the knowledge of ignorance. These higher-level thinking skills favour not only the improvement of test results, but also the deep learning of the subject.

M. Pytyn *et al.* (2019) and W. Al-Qerem *et al.* (2023) determined in their research the stages of complex medical and psychological assistance to individuals: identification of the source of the problem, work with members of the patient's parents, identification of the optimal method of medical and psychological assistance. All these knowledge professionals must receive at the institution of higher education for further successful work. The correct use of effective teaching technologies, which include medical knowledge, gives the opportunity to improve the physical, psychological, social and spiritual health of education students, as emphasised by scientist T. D'Isanto (2019). Education should be focused on enriching human capabilities and achieving positive psychosocial personal changes through the implementation of theoretical and practical

educational resources. Such technologies are specialized on joint work and include three main interrelated areas: educational, psychological and physical.

The aim of the article was to identify the importance and possibilities of integrating medical knowledge into psychological and pedagogical practice for the development of effective strategies for training and support of education students. In accordance with the set goal, the following tasks of the research were set:

- review of current approaches to the integration of medical knowledge, which are used in psycho-pedagogical practice;
- identification of factors and causes of integration of health aspects from the point of view of quality of education, health and general well-being of education students;
- formulation of practical recommendations for educators and psychologists on the integration of medical knowledge into their work, including teaching methods, approaches to psychosocial support and cooperation with medical professionals.

MATERIALS AND METHODS

To carry out the research on the submitted topic, various materials were used, which helped to make a good analysis and identify recommendations for the use of medical knowledge in professional activity. This required the use of different approaches and identification of the main aspects. Analyses of scientific world and Ukrainian literature allowed getting a broad understanding of the concepts of “integration”, “medical psychology”, “medical pedagogy”, identifying their main aspects and functions. The next stage is the identification of approaches that have already been implemented in the field of integration of medical knowledge. The study of theoretical concepts and models helped to create a comprehensive approach, which should be used in the practice of teaching. This included studying and identifying the significance of medicine in the foundations of the theories of pedagogy and psychology, as well as their points of intersection and interaction. Active information about the importance of education and health-saving technologies in education in accordance with the normative legal document, namely Law of Ukraine No. 651-XIV “On General Secondary Education” (2020), to identify three components of the simplification of education, firstly, education technologies, then health technologies and finally health education technologies.

The analysis of some medical knowledge was made in order to identify the importance and their role separately for any professionals, especially psychologists and teachers, in their own professional activity. In accordance with the information received, it was summarized and reflected medical aspects in the psychological and pedagogical perspective, among which physical health, psychological disorders, neurodevelopment, and psychosomatic links, and combined in different professions, in particular, the above-mentioned professionals. The assessment of the low benefits and the causes of the integration of medical aspects

in terms of the quality of education, health and general well-being of education students was made.

The theoretical foundations of the countries that are recognized as leaders in the field of mental health (USA, Great Britain, Germany, Italy, and East Korea) and are actively developing the field of psycho-oncology to improve the psychological state. The research is based on SWOT-analysis, conducted on the basis of identifying the current status of integration of medical knowledge in psycho-pedagogical practice in Ukraine. The analysis helped to identify not only strong sides and opportunities, but also weak sides and some threats, connected with the use and transformation of medical knowledge in the work of psychologists and teachers. Using these results, it is possible to develop strategies to improve the educational process, which will favour the improvement of the quality of education and health of students.

RESULTS

Integration as a process of forming a comprehensive rich and comprehensive picture of the world today has gained the status of the main methodological basis of education, as it is a reflection of the general quality of the postmodern information society. At the same time, it is impossible not to recognize the importance of scientific and pedagogical positions on this phenomenon, which will favour theoretical and applied development, especially technological, which will ensure not only material but also procedural aspects of training, education, professional and personal development of teacher-correctors.

Due to the progress of science and technology, the living conditions of mankind are changing rapidly. Mechanisms of physiological protection do not absorb high information pressure, psychoemotional pressure, environmental stress. In accordance with this, it is necessary to develop and implement new medical technologies that meet the needs of modern society, time and can be used in the practical activities of teachers and psychologists. The most promising direction of future medical care is a comprehensive approach to treatment, which organically combines the most effective methods of treatment to preserve health.

The term “integration” (Latin integer – integer, integration – renewal, filling, addition) means unity of the whole, unity of any element, and renewal (Aydınlar *et al.*, 2024). The integrative approach in education leads to the integration of educational content, i.e. to the completeness of its elements, to the appropriate unity, as the result of the integrative approach in pedagogy can be a sum of knowledge about different levels of the whole knowledge-reality. The process of integration presupposes the evolution of naturally and objectively existing links and the transition to a new quality. Integration in the field of humanistic education has practical philosophical, psychological, didactic and pedagogical prerequisites.

Medical knowledge is defined as the sum of information, methods, concepts, and skills related to individual health promotion, diagnosis, treatment, prevention of

disease and general well-being (Loyal *et al.*, 2023). They cover a wide range of scientific disciplines, including biology, chemistry, physics, psychology, sociology, and many others. Medical knowledge includes such elements as anatomy and physiology; pathology (diseases, their causes (aetiology), mechanisms of development (pathogenesis), changes in the organism); pharmacology (medicines and their effect on the organism); diagnostic methods (laboratory analyses, medical visualisation); treatment (therapy and rehabilitation); preventive medicine; hygiene and epidemiology; health psychology (study of psychological aspects of health and disease, influence of psychological factors on physical health, methods of psychotherapy and psychoprophylaxis); Bioethics (ethical issues in medicine, including medical research, organ transplantation, reproductive technologies and other aspects of medical practice) (Zavizion *et al.*, 2020). The above-mentioned knowledge is the basis for the work of health professionals, including physicians, nurses, pharmacists, and other health professionals. It is also important for education programmes aimed at increasing the population's awareness of health, preventing disease and promoting healthy lifestyles. Increasing medical knowledge contributes to improving the quality of life, reducing the incidence of disease and improving the general state of health of the population.

On the one hand, in the modern world there are scientific discoveries, scientific and technical developments, implementation of new technologies. All this favours the improvement of living conditions of the society, balanced nutrition, improving the efficiency of medical care, improving health, reducing morbidity, reducing the length of life and population. On the other hand, the kaleidoscopic speed of changes in living conditions leads to mental, emotional, informational and environmental impact. In particular, the human organism is unable to adapt and many new diseases in various forms occur. The number of chronic diseases is also increasing due to the deterioration of treatment (chronicity of acute conditions), and the fluctuation of viral and microbial factors. Highly effective medicines (mainly antibiotics, vaccines) and advanced surgical techniques help to cure and improve the lives of thousands of patients. However, it should be recognized that academic medicine has not solved essential fundamental problems of modern medicine. Another contradiction of medicine is the declared approach to the human organism as a whole system, the perception of the diseased organism as a single whole, rather than through the prism of the pathology of a particular organ. Today, in clinical medicine, there is no single comprehensive method of diagnostic. There is no single universal integrated method of diagnostics, which allows assessing the state of the organism as a single system of self-regulation. For the last time, there is a tendency to renew forgotten and unknown until now medical diagnostic methods in the whole world, especially in Ukraine. That is why the use of medical knowledge in psycho-pedagogical practice is of particular importance.

Knowledge about health, its basics and characterisation in education is important for several key reasons:

- knowledge of basic medical issues and first aid procedures can help teachers and other education staff to respond to emergencies and safeguard children and young people;
- understanding the aspects of health can help to create an environment conducive to the physical and mental well-being of students. This includes sensible planning of physical activity and the development of psychological approaches that support mental health;
- knowledge about health can help educators to identify early signs of health and mental health problems among students, respond to them more quickly and prevent further deterioration;
- health literacy helps teachers and other education staff to work with students with different health needs and to provide them with quality education and support;
- understanding of health issues enables teachers to work effectively with parents and health workers to provide the best possible support and care for children.

“Medical psychology” and “medical pedagogy” are disciplines that integrate the methods and knowledge of psychology and pedagogy with medical aspects to ensure successful support and care for patients in appropriate settings (Li & Li, 2024). It is important to be more specific about the interpretation of the above-mentioned concepts. Medical psychology – studies the relationship between the psychological state of individuals and their physical health. Medical psychologists provide psychological support to each patient who encounters a disease, trauma, or other medical problems. They help patients to cope with stress, depression, anxiety, and other psychological aspects of treatment. In its turn, medical pedagogy – studies pedagogical aspects of medical education and training in medical institutions. Medical pedagogues develop educational programmes, instructions, and methods of evaluation for the training of medical professionals. This knowledge also allows realizing pedagogical supervision of medical students of higher education institutions and residents during their practical training.

General medical psychology studies the main laws of psychology of the injured person. At the same time, it is the study of somatopsychic and psychomatic processes, and medical mysteries, which is a duty, ethics (medical deontology). Medical psychology includes information about individuality of persons (character, temperament), the development of stages of ontogenesis and volitional processes. The organization of psychological medicine should be based on the neuroscientific approach. Aspects of this approach are:

1. Principles of positive psychiatry for enhancing human potential;
2. Preventive psychology – prevention of psychopathological influence on people;
3. Identification and management of the consequences of psychopathology that go beyond the human capital of workplaces and organizations;

4. Increasing the potential of human capital of the organization on the basis of the findings of neuroscience, positive psychiatry, principles of renominal psychology, principles of management, quantum physics and principles of philosophy of mind;

5. Maximization of human potential and productivity, impact on organizational creativity and entrepreneurship.

Medical knowledge plays an important role and is an important tool for any psychologist in his/her professional work. The main component, which includes medical knowledge in the work of a psychologist, should be considered firstly the importance of understanding of psychological disorders, because this knowledge, their signs, causes and possible methods of treatment help psychologists to identify and work with patients who have problems. Further, it is necessary to understand medical history and treatment, because it can affect mental health and behaviour (knowledge about taking medicines or other medical procedures that can affect mental health). Awareness of the physiological aspects of psychology (chemical balance in the brain, the role of skin hormones in the emotional state and other physiological processes) helps psychologists to understand and work effectively with patients. In the work of a psychologist in psycho-pedagogical activity, it is important to have a close cooperation with medical professionals to solve problems in learning and use of medical knowledge. In turn, medical knowledge helps psychologists to provide support and counselling to people who are recovering from serious illnesses or medical procedures. In

other words, the above-mentioned components of medical knowledge provide effective and comprehensive support to each patient in his/her psychological well-being.

When analysing the work of a teacher, the process of integration of medical knowledge in professional activity is also important for this professional. Medical knowledge can be useful for teachers in the following aspects:

- knowledge of the physiological and psychological processes of child development taking into account the age category helps teachers to create the right conditions for learning, development and respond to their needs;

- first aid skills are of paramount importance, as Ukraine is under conditions of full-scale invasion and basic medical knowledge will be only useful for the teacher in case of minor injuries or general medical situations;

- informing about the child's general health condition helps to identify any potential problems and provide appropriate support;

- with understanding of emotional processes, it is possible to influence more effectively on the emotional state and behaviour of education students;

- understanding of medical aspects also helps teachers to communicate with parents and guardians about health issues and the development of education students.

In accordance with the designation of the above-mentioned main aspects of the inclusion of medical knowledge in the practice of teachers' work, Table 1 is compiled, which reflects this knowledge in psychological and pedagogical practice.

Table 1. Medical aspects and their reflection in psycho-pedagogical practice

Health aspects		Reflections in the psychological and pedagogical practice
Physical health		Taking into account the physical health of education students when planning the teaching regime and physical education activities
Psychiatric disorders	Creation of individual approaches to education and training of education students with mental disorders	
Neurodevelopmental		Application of neurodevelopmental knowledge for optimization of methods of education and development in education students
Psychosomatic links	Identification of the relationship between physical health and mental state for the development of a comprehensive approach to the psychological support of education students	

Source: compiled by the authors

Medical psychology is growing, increasingly developing in conjunction with medicine and using the results of psychology not only for diagnosis, treatment, and prevention of diseases, but also for social and labour rehabilitation of patients. The interest of medical psychology lies in providing support to people in order to prevent psychosomatic disorders and reduce acute traumatic reactions. Realization of the integration of medical knowledge in pedagogical and psychological activities is possible on the basis of modern and quality technologies, which are aimed at the improvement of education and accordingly perform the main functions:

- quality learning of the material, improving accessibility and efficiency of education;
- formation of professional skills and competences,

clinical thinking among students of education;

- achievement of quality results in the formation of personal qualities of each student in the conditions of creating the basis for the full-fledged development of a creative and successful personality;

- preparation of low knowledge, especially medical knowledge, for professional activity in the future and understanding of the necessity of education during the life of each individual.

In accordance with the analysis of the above-mentioned information, a SWOT-analysis was carried out, which identifies the strengths and weaknesses, threats and opportunities for the use of medical knowledge in the work of psychologists and teachers (Table 2).

Table 2. SWOT-analysis of medical knowledge integration into psycho-pedagogical practice

Strengths	Weaknesses
- improving the results (improving the development of education students, especially those who require an individualized approach through medical peculiarities); - integrated approach (the combination of psychological, pedagogical and medical aspects contributes to the development of integrated programmes of support for education students); - preventing possible problems (early detection of medical problems can help to avoid serious negative consequences for the child's development).	- heterogeneity of medical data (medical data can be difficult to access, which complicates their integration into psycho-pedagogical practice); - lack of knowledge of all teachers (psychologists and pedagogues may not have sufficient knowledge and this makes it difficult to use them in their work); - necessity of cooperation (active cooperation with medical professionals).
Opportunities	Threats
- development of innovative approaches (development of innovative, new methods of psychological and pedagogical support); - improvement of professional competences (improvement of medical knowledge can increase professional competence and efficiency of work of specialists); - additional resources and support for special-needs education providers.	- insufficient consolidation of data (lack of uniform systems of accounting and exchange of medical information can complicate the process of integration of medical knowledge into practice); - limited resources (lack of human and financial resources can complicate the implementation of medical knowledge integration); - ethics and privacy (health information exchange is linked to privacy and ethical issues that can cause conflicts and restrictions).

Source: compiled by the authors

In terms of practice in foreign countries, the field of medical knowledge and psychology for oncological patients is becoming more and more relevant every year. Countries recognized as leaders in the field of mental health, such as the USA, Great Britain, Germany, Italy and East Korea, are developing the field of psycho-oncology to improve psychological well-being. In these countries, despite good medical services and a well-designed system of annual preventive check-ups, the incidence of cancer remains very high, and its rates are increasing every year. Each of these countries has its own unique approaches and innovations in the field of mental health, which can be used as examples for improving mental health systems in other countries. For example, the USA has a significant development of telemedicine and mobile add-ons for psychological support, and there is a significant emphasis on scientific research in the field of neuropsychiatry. There is also a highly developed infrastructure, including large psychiatric hospitals and specialized clinics, and a high level of funding from the state and private organizations. In Germany, there are programmes of rehabilitation and integration for people with mental health problems; psychosomatic approach, which integrates treatment of mental and physical health. In South Korea, state programmes for the prevention and treatment of behavioural depression are gaining popularity; psychiatric telemedicine is developing; significant investment is being made in research into neuropsychiatric disorders. As for the health protection system, it is determined by the growing number of specialized medical centres and psychiatric hospitals; increasing awareness of the public about the importance of mental health. In line with the above information, it is important to pay attention to the policies, strategies, innovations, and structure of the health system in order to understand how these elements

contribute to the effective provision of care and support for people with mental health problems (Keller *et al.*, 2024).

The medical psychology profession attracts professionals not only with basic psychological knowledge and the ability to select and apply psychological interventions, but also with the aspects of treatment of chubbiness, principles of promenade therapy and chemotherapy, general knowledge of the peculiarities of chubbiness of the course is also obligatory. Integration of medical knowledge into pedagogical knowledge can be carried out in conjunction with the formation of health protection technology. One of the problems of modern Ukraine is health protection of the young generation. At this time, it should be noted that despite the great respect of people, the health condition of education teachers is constantly getting worse. According to the relevant data, the number of healthy children in Ukraine varies from 4 to 10%. Currently, 36 per cent are in poor physical health, 34 per cent are below average, 23 per cent are average, 7 per cent are above average and only 1 per cent are good (Yuryk *et al.*, 2024). In connection with this, the issue of finding quality educational technologies, where the preservation of students' health is a priority in the educational process, is renewed. This became possible due to the "National Doctrine of Education Development", the main task of which is to cultivate in people a sense of responsibility for their own and other people's health, which is the highest personal and social value. Law of Ukraine No. 651-XIV "On General Secondary Education" (2020) regulates the development of students' personality, the development of skills and abilities, ensures full health and physical development for each student. At the current stage of education development, technological approaches are increasingly being implemented, which are differentiated by their quality characteristics (ensuring the final result and shaping the future educational process).

The term “health-saving technology” is a set of principles, techniques, and methods of educational activities that supplement traditional educational and educational methods and give them the signs of health with the use of medical knowledge by teachers. This concept is derived from the interpretation of health-saving technology as an educational phenomenon and from modern approaches to

the designation of educational technology in general, has objectives, content and developed methods of teaching healthy lifestyle, aimed at solving health problems in the education system. In accordance with the interpretation of the concept, the following components of the simplification of these technologies in the process of development and education of those required are shown in Table 3.

Table 3. Components of health-saving technologies

Compositional elements			
Composition 1: Educational Technology Management	Psychological supervision	Ensuring sanitary and hygiene standards	Introduction of pedagogical technologies
Composition 2: Implementation of health-improving technologies	Physical education lesson	Physical culture and health activities	Dynamic pauses and physical fitness activities
Composition 3: Approval of health education technologies	Integration of medical knowledge	The lesson “Health Protection”	Integration of the subject into the content of other subjects

Source: compiled by the authors

The formation of health-saving technology is an important component of modern education, because it is aimed at supporting and improving the health of education students and teachers themselves, and the important elements are identified, according to J. Sánchez *et al.* (2024):

- needs assessment and analysis (risk identification and health assessment);
- development of health promotion strategy (identification of specific objectives of health promotion activities, development of a programme of measures);
- integration into the educational process (implementation of project work, organization of sports events);
- upgrading the qualification of teachers and psychologists (seminars and trainings, exchange of experience on the basis of interactive platforms, involvement of experts from the medical field);
- psychosocial support (counselling, group support for people with similar problems);
- monitoring and evaluation of the effectiveness of the work (systematic monitoring of the health status of those in need to determine the effectiveness of the implemented measures).

To form health-saving technologies it is necessary to use physical activity, proper nutrition and stress management (relaxation techniques and meditation, creating comfortable zones of rest and comfort). Having analysed the current state of integration of medical knowledge and technologies, the authors of the article identified practical recommendations for psychologists and teachers regarding the use of knowledge in their work, which includes training methods, approaches to psychosocial support and cooperation with medical professionals. The main methods include the use of integrated and innovative programmes that include the basics of medical knowledge in practice for teachers and education providers (e.g. first aid). Although modern education is digitalized, there is a lack of use of multimedia resources and project-based learning, which have significant advantages over traditional education. It

would also be beneficial to request medical professionals to conduct some useful seminars, which form practical skills. It is also valuable to create teams that include teachers, psychologists, nurses, and doctors to discuss and solve health problems of education students. Such regular consultations and discussion of specific cases, planning of interventions and correction of educational programmes.

Equally important is the identification of approaches to psychosocial support, namely: knowledge about mental health (teachers and psychologists must be familiar with the basic aspects of mental health, recognizing symptoms of stress, anxiety, depression and other conditions), creating a safe environment (providing a safe and supportive environment for students, (providing a safe and supportive environment for students to talk openly about their problems), individual counselling (providing individual counselling for students who require additional psychosocial support, including referrals to medical professionals on demand). Integration of medical knowledge into the work of teachers and psychologists is an important factor in the all-round development of students. This allows creating a more harmonious and supportive educational environment, which ensures not only academic development, but also physical and mental health. Integration of medical knowledge into the educational process not only improves the health of the student, but also favours the harmonious development of the personality. This ensures the formation of an informed attitude to one's health, the development of important life skills and the creation of a healthy educational environment. Health management methods, which are implemented in educational institutions, create conditions for the all-round development of children and young people, and favour the improvement of success and quality of life.

DISCUSSION

The survey revealed the facts of insufficient use of medical knowledge in psycho-pedagogical practice. The study reveals that there is a lack of attention to the practical stages

of applying medical knowledge. Such practice will allow using information about medicine effectively in the work of psychologists and teachers. Modern researchers differently interpret the impact of medical knowledge on psychological and pedagogical activity, which requires discussion of the problems.

In general, the research of L.M. Yan Klaveren *et al.* (2024), is devoted to medical psychology, specifically, to the use of medical knowledge in psychology and provides a variety of thoughts and positions, which relate primarily to the concept of “medical psychology” (specifically, their essence), features and priorities of development. The results obtained are consistent with the data of the author’s analysis. W. Wang *et al.* (2023) identify that among the sciences that develop modern approaches to the study of human personality, especially prominent is medical psychology, which focuses on the study of pathological psychiatric conditions and processes, which include one physical and psychological symptoms. In particular, the thoughts of the above-mentioned author agree with the thoughts of the author of this research. The author recognizes that modern medical psychology has a methodological and methodological apparatus, with the help of which it is possible to get good recommendations, which are necessary for successful analysis of the state and treatment of various diseases, as well as it is able to adapt and change, can ethically and socially justifiably influence people’s thinking in order to normalize living conditions, psychological environment of employees and other population groups, logical organization of low-level activities, which includes education and training of adults, children and young people.

The findings of the article are in line with experimental and theoretical research in the field of medical psychology and enrich psychology, pedagogy, and medicine with relevant results, and the application of their applied insights extends to psychologists, health professionals, educators, social workers, teachers and a significant number of other professionals who are engaged in psychological and pedagogical professional activities, according to I. Sundukova *et al.* (2024). The use of medical knowledge in psychology includes psychomatic disorders, psychological peculiarities of patients, psychological aspects of behaviour, methods of psychotherapy and psychology of treatment and diagnostic process. Each of these stages was studied by various researchers. In particular, F.T. Adebuseye *et al.* (2024) focus their attention on the ability to find certain regularities in complex pathological processes, which is one of the forms of cognitive activity of a person, on which all the laws of general medical knowledge are extended, as it was identified by the authors of the article. Correct diagnosis is the most valuable in the work of physicians, psychologists and is an active cognitive, purposeful and creative process. This type of intellectual work is called clinical thinking. Clinical thinking, developed by experienced researchers, is one of the basic elements.

Modern diagnostics must meet several requirements, namely, clear and sometimes individualized in a specific

case, to identify the specifics of the disease experience and the nature of each patient. It should be created in such a way that its structure has prognostic indicators of disease and meets the requirements of the dispensary. An important aspect of the use of medical knowledge in psychology is psychosomatic medicine, which is an interdisciplinary field, which understands the mutual influence of the mind and body and is useful for clinical practice. One-sidedness of organological view in medicine in the 20th century by means of experimental and clinical researches, which included not only specific functional and structural changes in specific organs and systems, but also psychological symptoms. Psychosomatic disorders are more frequent than neurotic ones, as identified in the study of V.O. Belous *et al.* (2018). The results correspond with the study of O. Bilyakovska *et al.* (2023) and I. Isaieva *et al.* (2024), who believe that one of the most important problems of medical psychology is working with patients who have different life problems, people who are in crisis situations. The author of the research supports this idea and adds that psychotherapy is the main and valuable form of psychological help. It is a type of treatment aimed at changing the nature of behavioural reactions of individuals, the subject’s experience, and in the result, also on the activity of the functional system of the organism in accordance with the effect on psychology during the patient’s conversation with a psychologist, the study states.

Problems of medical pedagogy require special consideration. problems. Medicine and medical knowledge is both an art and a science, which can improve and ruin people’s health. Everything depends on how the complex of necessary knowledge is transferred to future professionals. H.E. Chow and Q.H. Chew (2021) recognize that medical education is about providing students with a shared experience of the art and practice of medicine. This is achieved primarily through all-inclusive interaction with patients. The clinical educator uses lectures, simulations, laboratory sessions, small group training and technical sessions (e.g. ultrasound diagnosis) to fully integrate into clinical experience. On the one hand, medical knowledge is learnt at the university level and, on the other hand, at the school level. However, both teachers and students need to be aware of what should be communicated to the appropriate audience and how to work together with higher education teachers and students, take the position of researchers Y. Haleta *et al.* (2023b). Medical pedagogy is also connected with important aspects of medical education – spiritual and professional. However, as recognized by W. Al-Qerem *et al.* (2023), that through teaching, research and clinical obligations, professors, and staff have relatively little time for pedagogical activity. In addition, the lack of active social interaction hinders the development of teamwork and communicative skills that would prepare future professionals for effective, comprehensive care of patients and interprofessional, multidisciplinary practice.

The authors of the article found that the academic cooperation of the modern world is starting a continuous

integration of pedagogy into medical education, which is also pointed out by researchers L. Hollenstein and C. Brühwiler (2024). This is done in order to orientate future medical professionals towards successful treatment, professional satisfaction, commitment to medicine, competence and vitality, as well as the emergence of productive innovations. The findings of the studies of J.G. Couto *et al.* (2024) and J. Vázquez-Díaz (2024) supplement the ideas of the author and confirm that in modern medical education, pedagogical approach is based on the balance and integration of the principles of autonomy, kindness towards patients. The main indicators are autonomy – the duty to protect and support a certain choice of patients; benevolence – the commitment to influence the appropriate behaviour and act in the right interests of the patient's health and society; absence of malicious intent – the pledge not to harm; fair decisions; encouragement of opportunities to improve life. Today, the term “correctional pedagogy” is also being considered, in which professionals often need medical knowledge. Correctional pedagogy investigates the psychophysiological peculiarities of the development of children with physical and psychological developmental disorders, the regularities of their education, teaching and training, as identified by T. D'Isanto (2019). This includes the activity of special educational and educational institutions and preschool educational institutions, correctional classes (compulsory classes, compulsory pedagogy), speech therapy centres, and special preschool groups for children with disabilities, which are engaged in solving general educational tasks.

Summarizing the above-mentioned information, it can be stated that the research is of great importance, because the expansion of medical knowledge is extremely necessary in medical and even psychological and pedagogical activities. It is connected with the development of medicine, the development of modern technologies and the development of new trends of folk and non-traditional medicine. The use of medical knowledge in practice by educators and psychologists ensures the process of integration and development of society in general. The process of integration presupposes the degeneration of naturally and socially existing links and the transition to a new quality. Integration in the sphere of humanistic education has practical philosophical, psychological, didactic and pedagogical conditions. In the last years, there is a tendency to integration of medical knowledge in psycho-pedagogical activity in Ukraine and in the world. That is why the use of medical knowledge in psycho-pedagogical activity is of particular importance.

CONCLUSIONS

Integration of medical knowledge into psycho-pedagogical practice is a very important aspect of modern education and training. Considering the complexity and complexity of children's development, especially with special educational needs, ensuring harmonious development and successful socialization requires medical, psychological, pedagogical and academic knowledge. Integration has

gained the status of the main methodological principle of education, as it reflects the general character of postmodern information society. This favours theoretical and applied development, especially technological development, and provides not only material but also procedural aspects of education and training, professional and professional development and self-development of professionals in psychological and pedagogical activity. Medical knowledge is necessary for these professionals in the effective implementation of their methods.

Firstly, medical knowledge allows teachers and psychologists to better understand the physical and psychological condition of education students, which becomes the basis for the development of individual educational programmes. Knowledge of the peculiarities of the nervous system development helps, for example, to adapt educational material and methods to the individual needs of pupils and students. In addition, information about the disease and its impact on the educational process favours the creation of a safe and comfortable educational environment. On the other hand, the integration of medical knowledge favours early diagnosis and immediate intervention. Understanding the medical aspects of development allows teachers and psychologists to identify the disorders and provide the necessary professional help. In addition, the combination of medical and psycho-pedagogical knowledge favours the professional development of teachers. The inclusion of courses in basic medicine, neuropsychology, and other complementary fields into the curriculum helps teachers to better understand their students and respond more effectively to their needs. Furthermore, this integration increases the level of cooperation between different experts. The team approach, which includes physicians, psychologists, teachers and social workers, ensures a comprehensive approach to the development of the child, which takes into account all aspects of life and health of the child. That is why the integration of medical knowledge into psychological and pedagogical practice is an important element of building an effective educational system, which ensures the all-round development of the child and adaptation to society. This not only improves the quality of education, but also ensures a healthy and happy childhood for all children and people. In the research, SWOT-analysis was carried out, which identifies the main risks, opportunities, weaknesses, and strengths of the integration of medical knowledge in psycho-pedagogical practice. The biggest risks include: lack of consolidation and exchange of medical information, use of medical knowledge in practice, and limited resources of teachers and psychologists. Opportunities include the development of innovative approaches, additional resources, and improvement of professional skills.

Important conditions require from each person psychological patience, tolerance, care, and resilience. In the life of each individual, there is a need to be honoured and to keep the appropriate assistance in difficult life situations. Nowadays, the need for psychological support for solving serious life problems, favouring self-realization and

disclosure of individual potential has become especially urgent. The study was limited to a minimum sample of states, which were considered in the article. A promising area of research is integrative medicine, which can be carried out by professionals in psycho-pedagogical activity.

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CONFLICT OF INTEREST

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Інтеграція медичних знань у психолого-педагогічну практику

Анотація. Метою дослідження було визначення перспективних напрямів використання медичних знань у педагогічній та психологічній діяльності у контексті емоційного, фізичного та духовного благополуччя сучасного суспільства. У дослідженні проведено SWOT-аналіз, що визначає основні ризики, можливості, слабкі та сильні сторони інтеграції медичних знань у психолого-педагогічній практиці. Розглянуто медичні знання і їх застосування на людську особистість через діяльність педагогів та психологів. Визначено трактування поняття «медична психологія», «медична педагогіка», «інтеграція» та їх особливості у сучасному світі. Наведено приклади застосування медичних знань у психолого-педагогічній практиці та їх пристосування. З'ясовано, що психолого-педагогічна представляє взаємопов'язану систему, що поєднує теоретичну і практичну складові з розкриттям сутності медичних знань і розв'язанням конкретних ситуацій. Окреслено основні функції, можливості та ризики педагогічної та психологічної діяльності при реалізації даного процесу на основі сучасних та інноваційних технологій. У дослідженні подано теоретичний досвід у розвитку медичних знань у психолого-педагогічній діяльності таких іноземних країн, як США, Велика Британія, Німеччина, Італія та Південна Корея). Визначено такі переваги застосування: вагоме покращення мотивації навчання, формування у здобувачів освіти клінічного мислення, навичок та умінь, відмінне засвоєння потрібного матеріалу, професійних умінь і навичок, досягнення успішних результатів у формуванні особистісних якостей студента. Відповідно до цього, наслідками є створення основи для розвитку творчих особистостей, їх підготовки із засвоєнням медичних знань до професійної діяльності у майбутньому й розумінням необхідності у здобутті якісної освіти впродовж усього життя. У висновках подано інформацію про зміни умов існування суспільства, які були наслідком розумового, емоційного, інформаційного та екологічного впливу. Практичне значення роботи полягає у покращенні фізичного та психічного здоров'я дітей та дорослих, а також на підвищення їхнього навчального та кар'єрного успіху

Ключові слова: здоров'я та навчання; медична діагностика; психологічна підтримка; перетворення; досвід зарубіжних країн; SWOT-аналіз