
FEATURES OF NEUROLOGY TEACHING TO INTERNS OF GENERAL PRACTICE - FAMILY MEDICINE

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Abstract: The training of highly qualified specialists in accordance with modern standards of providing medical care to the population, taking into account the modern level of development of medical science and practice, is one of the urgent tasks of the domestic health care system. Today's requirements require the training of specialists at a qualitatively new level. Having completed training at the undergraduate and postgraduate stages, each graduate should be ready to work to provide primary or secondary level medical care. This article describes the experience of using modern innovative technologies in teaching neurology to doctors-interns by specialty "General practice - Family Medicine". New technologies combined with traditional teaching methods to optimize the educational process, improve the efficiency and effectiveness of education, provides more effective training in neurology to practice general practitioner of doctors "General practice - Family Medicine" in terms of integration into the European educational space. The main principle of distance learning at the post-graduate level of education of a general practitioner - family medicine is independent purposeful work using modern information technologies, the effectiveness of which depends on a methodologically competently structured process by the teacher, the information and communication capabilities of the higher educational institution and the doctor. Interactive, innovative methods increase the effectiveness and efficiency of training, implement more effective training in neurology for the practical activities of a general practitioner - family medicine.

Key words: education, doctors-interns, neurology, distance learning.

1. Introduction

The training of highly qualified specialists in accordance with modern standards of providing medical care to the population, taking into account the modern level of

development of medical science and practice, is one of the urgent tasks of the domestic health care system. Today's requirements require the training of specialists at a qualitatively new level. Having completed training at the undergraduate and postgraduate stages, each graduate should be ready to work to provide primary or secondary level medical care. Today, the issue of staffing of health care institutions at the primary level of providing medical care, which according to modern requirements should be represented by doctors of general practice - family medicine, remains relevant. An important section in the training of a family doctor is neurology. This is due to the fact that almost 30% of patients are diagnosed with neurological pathology in the structure of diseases at an outpatient appointment at a family doctor. In addition, some acute neurological diseases belong to the category of emergency conditions, which are life-threatening and require the solution of issues not only of timely diagnosis, but also of adequate emergency medical care and organizational measures. According to the developed programs in the training of a family doctor and the requirements of qualification characteristics, the material that a family doctor must master is too burdensome, and the cycle of classes according to the program is only three weeks [1]. Among general practitioners, there is even such a concept as neurophobia. Although neurophobia is a long-standing problem, it has only recently been given the name [2]. In 1994, Jozefowicz, an American neurologist, described it as "a fear of the neural sciences and clinical neurology" held by medical students and doctors [3]. This fear can lead to paralysis of thinking or action. Fear of neurology and avoidance of the examination of the nervous system is not only a problem for hospital specialists. It pursues medical graduates when they go out to practice in the community. In interviews, general practitioners also expressed lack of confidence in managing other common neurological conditions, like Parkinson's disease and headache [4, 5, 6]. This all requires the introduction of innovative and integral pedagogical methods that will optimize opportunities for acquiring knowledge and forming special practical skills and abilities.

2. Analysis of literature.

Early diagnosis, treatment and prevention of diseases of the nervous system is the most important problem of modern medicine, the solution of which largely depends on the success of combating such socially significant pathologies as vascular (stroke, vascular encephalopathy, dementia), traumatic, infectious, metabolic lesions of the nervous system, pain syndromes of various localization, neurological complications of syphilis, AIDS and other infectious diseases. In Europe, neurological diseases are diagnosed in 1/4 of the population, and the costs of their treatment are 1/3 of the costs directed to medical purposes [7, 8].

The leading medical paradigm at present is early diagnosis and timely effective treatment of diseases of the nervous system, which allows to prevent their chronicity, slow down the progression and prevent (delay) the development of life-threatening complications [9,10]. In the conditions of the reform of the medical field in Ukraine, the issue of early diagnosis of nervous system diseases at the stage of insignificant

severity of their clinical manifestations, which requires in-depth knowledge and certain clinical experience of a neurologist, falls on the shoulders of general practitioners. In addition, a family doctor should treat patients with chronic diseases of the nervous system, provide first aid in emergency situations. That is why the training of general practitioners - family doctors need updating of programmatic and educational and methodological resources in order to adapt specialists to work in primary care, in rural areas, providing the appropriate level of knowledge and practical skills and abilities.

Today, information technologies have become an integral part of the modern world, they largely determine the further economic and social development of mankind. In these conditions, the education system also requires revolutionary changes. The use of modern information technologies in education is one of the most important and stable trends in the development of the global educational process. In recent years, in domestic educational institutions, computer equipment and other means of information and communication technologies have become increasingly used in the study of most academic subjects.

High-quality teaching of disciplines cannot be carried out without using the means and opportunities provided by computer technologies and the Internet. They allow the teacher to better present the material, make it more interesting, quickly check the knowledge of students or listeners and increase their interest in learning. The teacher has the opportunity to receive the latest information, actively communicate with colleagues and students. Informatization has significantly affected the process of acquiring knowledge. New information and communication technologies of learning allow to intensify the educational process, to increase the speed of perception, understanding and depth of assimilation of huge masses of knowledge [11]

Information and communication technologies are aimed at training the personality of the information society, forming the skills to work with information, developing communication skills, forming research skills and the ability to choose optimal solutions, providing a large amount of quality information.

The main direction of improving the process of improving the qualifications of family medicine doctors at the stage of postgraduate education is the gradual introduction of modern forms of education. Internship is the first step to independent work as a doctor, therefore it is important to direct the efforts of a young specialist to self-improvement starting from this stage. Traditional methods of training medical interns are primarily aimed at acquiring and deepening knowledge through the transfer of information, followed by its implementation in specific professional actions according to a ready-made algorithm. Today, such an approach to the training of doctors is fully justified in connection with the transition of practical health care to the provision of medical assistance to the population in accordance with the protocols of the ICD. However, this teaching methodology does not contribute to the development of independent cognitive activity of interns, although the concept of distance learning as a new form of postgraduate education is based on this postulate.

Distance learning in the training of medical interns is an innovative organization of the educational process, which is implemented in a specific pedagogical system based

on the principle of independent training of a doctor and interactive interaction between a teacher and an intern [12,13].

The effectiveness of distance learning at the post-graduate stage of the education of doctors depends crucially on the following factors: effective interaction between the teacher and the doctor; established active feedback; qualities of the preliminary design of the distance education process and methods of managing it; developed didactic materials [14]. Modern computer programs allow for the transfer of knowledge and access to various educational information, and new technologies, such as interactive electronic training aids, multimedia content, and the Internet, contribute to the more active involvement of intern doctors in the training process. Interactive capabilities of information delivery systems make it possible to establish and even stimulate feedback, provide dialogue and constant support, which are impossible in most traditional training systems [15].

3. Statement of problem.

The complexity of studying neurology, the neurophobia of future family doctors pose a difficult task for the teacher: how to improve the process of teaching neurology, especially in modern conditions. The purpose of the article is to determine possible directions for improving the teaching of neurology to interns - future doctors of general practice-family medicine.

4. The main research material.

The course "Nervous diseases" is completed by general practice interns at the Department of Nervous Diseases, Psychiatry and Medical Psychology of the Bukovinian State Medical University (BSMU). The working curriculum for the training of doctors of general practice-family medicine provides 85 hours for the study of nervous diseases, of which lectures - 4 hours, seminar classes - 22 hours, practical classes - 59 hours. At our department, considerable attention is paid to theoretical and practical aspects of topical issues of neurology. In addition to classical forms of education (lectures, seminars, practical classes), such approaches as participation in clinical conferences, professor visits, independent work on monographic and periodical literature on neurology are widely used. The organization of practical training of medical interns requires special attention, since graduates of higher educational institutions, having a sufficient theoretical basis, often experience a shortage of practical skills of medical activity. In this regard, the staff of the department constantly work on the formation of such a teaching style, the essence of which is the activation of the intern's work, the development of clinical thinking, the motivation of the need to master practical skills, the ability to make decisions independently, the ability to formulate a diagnosis, to present a patient for consultation to a professor or to a council. Interns learn the basics of medical thinking in practice, going through all the stages of the medical and diagnostic process with its difficulties and mistakes directly on the example of a specific patient together with the teacher. In the event that there is not a

sufficient number of thematic patients on the clinical base, classes are conducted using situational tasks or simulation of professional situations, the scenario of which is developed in advance. For greater visibility, the department has created a database of educational films, electronic manuals and multimedia lectures, which are widely used during classes.

The systematic use of multimedia tools during classes contributes to the improvement of the sensorimotor sphere and motor components of human activity, the development of visual and auditory sensitivity, observation. Along with this, the use of information and communication technologies contributes to the development of perceptual attention, conditioning the emergence of involuntary attention, its stability and concentration. The use of computer-based teaching aids allows to increase the amount of audiovisual information for assimilation by students and interns, which in turn contributes to: the development of their thinking, the formation of a system of mental actions, and the ability to do independent creative work.

In our opinion, the independent project-research activity of the intern also plays an important role in the formation of the doctor's personality. In the process of training, interns create independent projects in the form of multimedia presentations. In order to achieve a successful result, interns need to think, find and solve problems independently, drawing knowledge from various medical fields for this purpose, they learn to predict the results and possible consequences of other options for solving the problem, acquire the ability to establish cause-and-effect relationships. The project method is important in the process of training medical interns, it is always focused on independent creative activity, on the development of critical thinking and the ability to independently construct one's knowledge and navigate in the information space.

The continuous process of improving the knowledge and skills of a doctor at the present time in the conditions of the rapid progress of modern medical technologies makes measures to improve postgraduate education extremely important. It should be noted that modern conditions require new approaches. In order to actively use new opportunities, the Bukovinian State Medical University has implemented and successfully used modern information and communication technologies to support the educational process. In Bukovinian State Medical University, the use of network information and communication technologies of learning based on the LMS "Moodle" has been introduced to provide students, interns and trainee doctors with electronic educational materials, organization and management of independent work, automated testing. Moodle (Modular Object-Oriented Dynamic Learning Environment) is a virtual learning environment or learning management system, the distribution of which is distributed free of charge under the principles of an Open Source license. With the help of this system, a student or an intern doctor can remotely, through the Internet, familiarize himself with the educational material, which is presented in the form of various information resources (text, video, animation, presentation, electronic manual), perform tasks and send the results of their execution to teacher check [7]. The learning management system "Moodle" contributes to the improvement and optimization of the process of preparing students and medical interns for training sessions, makes it more comfortable, accessible, controlled and effective. With the introduction of the BSMU

distance learning website and the Moodle system software complex, it became possible to organize independent out-of-class work of interns studying neurology, provide interns with the necessary educational and teaching-methodical materials, monitor independent work, etc. Note that these methods are applied in addition to traditional textbooks, atlases, educational and teaching-methodical manuals.

Within the framework of the used Moodle system software complex, lecture and testing modules are most widely used in our department. When creating electronic lectures, the leading idea was a logical and consistent presentation of the material and high visibility. By reducing the volume of the text and equipping it with illustrative material, it was possible to reduce the negative effect of reading the text from the screen. The individual work of each intern makes it possible to work asynchronously with the material, which allows the intern to control the depth of immersion in the topic, variably mastering the main and additional material.

5. Conclusions.

Using of innovative technologies in combination with traditional pedagogical methods allows to optimize the educational process and provides an additional tool for managing the training of interns. The main principle of distance learning at the post-graduate level of education of a general practitioner - family medicine is independent purposeful work using modern information technologies, the effectiveness of which depends on a methodologically competently structured process by the teacher, the information and communication capabilities of the higher educational institution and the doctor. Interactive, innovative methods increase the effectiveness and efficiency of training, implement more effective training in neurology for the practical activities of a general practitioner - family medicine.

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