

ISSN 2520-6990

Colloquium-journal №6(17), 2018

Część 3

(Warszawa, Polska)

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Artykuły przyjmowane są do dnia 20 każdego miesiąca.

Częstotliwość: 12 wydań rocznie.

Format - A4, kolorowy druk

Wszystkie artykuły są recenzowane

Każdy autor otrzymuje jeden bezpłatny egzemplarz czasopisma.

Bezpłatny dostęp do wersji elektronicznej dziennika.

Wysyłając artykuł do redakcji, Autor potwierdza jego wyjątkowość i bierze na siebie pełną odpowiedzialność za ewentualne konsekwencje za naruszenie praw autorskich

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« Colloquium-journal »
Wydrukowano w « Chocimska 24, 00-001 Warszawa, Poland »
E-mail: info@colloquium-journal.org
http://www.colloquium-journal.org/

UDC 61:378.147:004

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# INNOVATIVE TEACHING METHODS FOR IMPROVEMENT OF QUALITY OF CLINICAL TRAINING OF FUTURE DOCTORS IN UKRAINE

#### Abstract:

The article is devoted the questions of forming and development of information technologies in professional preparation of future doctors. This article helps future doctors to understand the usage of information techniques. Professional development is the main thing of this article and each morden doctor should have the skills to use this information techniques in his work and to be prepared to this work like a morden doctor.

**Keywords:** information technologies, future doctor, professional preparation

In the project of National strategy of development of education in Ukraine 2012 - 2021 was noticed that integration of Ukraine in outer educational space requires permanent perfection of the national system of education, search of effective ways of upgrading educational services, approbation and introduction of the innovative pedagogical systems, modernization of maintenance and organization of education, adequately to the world tendencies and requirements of labourmarket, providing of continuous long life education and studies, during all all of our life. By the law of Ukraine «About higher education», one of principles of Ukraine public policy in industry is principle of integration of the system of higher education of Ukraine in the world system of higher education at a maintainance and development of achievements and traditions of Ukrainian higher school [1].

Modern higher medical education development like the main purpose for the future doctors it is like necessity to their self-education and self-perfection. Presently a role and value of selection of content, methods and facilities of organization of higher professional education, which is instrumental in a reach level to the professional competence, that is sufficient for effective realization in further professional activities. Professional preparation of future doctors is directed on formation of specialists with the newest type of thoughts, which perceive socio-economic, changable technological informative realities of our environment and informative world view, which based on understanding of the role of information and informative processes in compatible human activity.

The use of information technologies in higher education was investigated in different ways. It was like solving definite decisions or set of tasks. At the same time, problem of application of modern informational technologies, the search and development of the most effective models of co-operation with information and communication technologies, systemically - methodical providing for the preparation of students in higher educational establishments to the application of infocommunicational technologies in future profession was not enough investigated [2].

At the same time there is a small amount of researches with the usage of IT in the system of future doctors preparation and methods of introduction this experience to foreign countries.

To expose the main theoretical use of information technologies in system of professional preparation of future doctors and give the practical recommendations for application of the newest information technologies in Ukrainian medical education.

There is a cirtain rhythm, rate and type of development in information and communication technologies (IKT), which is one of the industries that dinamically develop in the world, and in Ukraine. Information technologies more and more influences to both on economic and on everydays life of people. The achievement of stability of the economy growing and development of the most industries (energy, medicine, education, trade, financial sector, insurance) and also the state administration depends on the development of information technologies.

Also the modern period of development of society is characterized by strong influence of information technologies, which get to all spheres of human activity, provide distribution of informative streams in society, forming global informative space. They very quickly grew into the vitally important stimulus of development of not only world economy but also other spheres of human activity.

It is difficult to find a sphere where these is no information technologies. The leading areas for technologies are architecture, engineer, education, bank structure and certainly medicine.

Modern information technologies are used in health care, that is very comfortable and in last decades we can't life without them. And now in modern world the style and manner of a medical worker is changable this happens because of information technologies. Due to it medicine requires absolutely new lines today. In many medical researches simply it is not possible to treat without computer and the special software to him.

This process is accompanied by the substantial changes in medical theory and practice, which brought changes in preparation of medical specialists [1]. The life way of every person in our life coincide with doc-

tors and we trust them our health and life. And the appearance of medical worker and medicine in our days seriously changes, and this is because of development of informational technologies.

Today the role of information technologies in modern medicine becomes enormous. So, medicine and computer technologies two indissoluble concepts what connected together, and work together abroad and in our country.

For the last 20 years the level of computer application extraordinarily rose in medicine. Practical medicine becomes more automatically. The two main types of computer software are the system software and the application software. The system software provides the platform for users to install and run application software, and it's made up of multiple programs needed to run a computer system smoothly.

Information that was entered on the computer always organizes in a database, which is managed the application program of management of information and contains hospital charts, radiographs, digital photos, statistical accounting and different recordings. It is a calculation of treatment, results of researches, different family histories, exchange of information between computers. Difficult modern researches in medicine are unthinkable without application of the computing engineering. To such researches it is possible to take a computer tomography, tomography with the use of the phenomenon nuclear-magnetic resonance, isotopes researches. The amount of this information is enormous, that without a computer it would be unable to perceive it and process [3].

And each medical establishment has a complex system that can be divided after the followings criteria:

- Medical systems, which include programs and decision that coincide t of doctors-specialists tasks, such as cardiologist, radiologist.
- Medical systems of medical statistics. It is like hospital informative systems [4].

The system of collection and calculation of information in modern medical centers must execute so many various functions, that it cannot be described, and try to automatize in short terms.

The classification of a native scientist A. A. Sbrueva was selected such types of information technologies: multimedia-technologies with the use of ebooks, multimedia-encyclopaedias, computer films, databases; gipermedia-technologies it is like a hypertext technology which gives a possibility to work with texts by a selection of key objects (words, phrases, pictures) and organizations of cross correlation between them; network technologies it is like telecommunication technologies: e-mail, TV conference; creative information technologies it is like cognitive computer graphics; hypertext; geographic information systems (GIS-technologies) [5,6].

The most important aspect of computerization depends on the formation of active vital position of students, attraction for the system of public relations. In this case the most substantial for future doctors is a capture of unusual and on principle new role position of computer users, which is socially ponderable. Therefore the especially important is having abilities and skills in info system, it is like the ability to withdraw and process necessary information from the certain area

of knowledge. It is a wide access to unknown information, possibility to analyze different information.

But most of the doctors of different specialities are used some information technologies just only after medical signs. The systems of digital sciagraphy and radiovideographs are the most wide-spread at the stomatological market. These digital systems allow in detail to learn the different fragments of tooth and parodonta, to increase or decrease the size and contrasty of images, the important thing is to save all information in a database and carry it if necessary on a paper by a printer. An electronic system of documents is modernized by an exchange of information into a stomatological clinic. Different degree of access of the doctors and patients, the compulsory usage of the system of enciphering for the code of all diagnoses, the results of inspection, therapeutic, surgical, ortodontics procedures enables reliably to protect any information.

Computer tomography is a widespread method of human organism studying, which the successive in conducted and very frequent measuring of internal skims. This information is written down in computer, which constructs a complete bulky image. Physical bases of measuring are various: x-ray photography, magnetic, ultrasonic and nuclear. Different devices, which provide measuring, scan-out, and a computer, that creates a complete picture is named a tomograph. A tomography is one of basic examples of introduction of new information technologies in medicine. Creation of this method without powerful computer would be impossible [7].

The important thing is also the use of modern information technologies in medical laboratory researches. The use of computer in laboratory of medical researches always lays the certain algorithm of diagnostics in the program. The base of diseases is created, where every disease is answered by certain symptom or syndrome. In the process of testing, using an algorithm, some questions always set to a man. Symptoms always choose up on the basis of the answers from maximally proper group of diseases. At the end of test this group of diseases is given out with a denotation in percent as far as this disease probably in this patient. Than the percent is higher, then the higher probability of the disease is. Nowadays some attempts were made to create such a system, which would give out not a few, but just only one diagnosis. But all of these are just only on the stage of development and testing. In general, for today in the world it is created over 200 computer-consulting

Computer photo x-ray is also a very important method of using informational technologies. There are three main components in software for digital x-ray installations, they include: the control module is a complex module of registration and processing x-ray images that includes a power of creating a formalized protocol, and the storage module of information containing a unit of information transfer on distance. Such a structure allows to obtain an image, process it, store on different media, and print on hard copies [8].

So, the modern trends of development of informational education are:

- ➤ the creation of a unified educational space;
- ➤ active introduction of new methods of training, focused on the use of information technologies;
  - ➤ synthesis of traditional and computer learning;

- ➤ the creation of advance educational system.
- ➤ the emergency of new directions of activity of the teacher – the development of information technology training and software systems; change to the scope of activity of the teacher: from "loudspeaker" knowledge of the developer of new technology (on the one hand, increases its creativity, and with another – requires a high level of technological and methodological training).
- rightharpoonup formation of system of continuous education as a universal form of activities aimed at continuous development of personality throughout life [9].

Informatization of education requires the implementation of higher education innovation in the content methods and forms of professional training of future doctors with new formation, the creation of a powerful information infrastructure in higher medical education institutions with a strong internet interactive computer teaching learning environment, the introduction of Internet technologies, communication networks (global, national, local) [10].

The concept of usage of informational techniques of higher education provides a comprehensive approach to creating an information environment that must integrate traditional and new information technologies that meet modern requirements of education. This is only possible on the basis of comprehensive analysis of the situation in the use of information technologies in higher professional education. In the context of our study of special consideration requires the application of information technology in higher education. The problem of forming an integrated consideration of the phenomena is one of the most important in the training of future doctors.

The use of modern information technologies in training future doctors creates the conditions of formation of professional skills of the individual that meet the requirements of the present time.

Using innovative teaching methods with information technologies leads to better assimilation of material by students, promotes interest, broadens the mind, creative art, forms a well-developed clinical reasoning, and develops a sense of the need for collective cooperation and responsibility, offers a horizontally oriented interdisciplinary integration in educational process allows to form skills and abilities in an integrated approach, and most importantly – improves the quality of clinical training of future doctors.

The result of the implementation is the ability to create their own approach to obtaining, analysing infor-

mation and forming integrated insights and experiences; the formation of clinical thinking; the ability to defend their point of view in intelligent space with light and perception alternative ideas to combine future doctors around the solution of specific clinical problems, to build constructive relations in the group; understanding the need for cooperation, the formation of creative personality; awareness of the need for constant creative search.

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