

THE ROLE OF INFORMATION TECHNOLOGY IN THE PROFESSIONAL ACTIVITY OF A NURSE

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<https://doi.org/10.5281/zenodo.8356478>

Abstract. In recent years, computer technology has penetrated almost all spheres of human activity, including medicine. Under these conditions, computer science and information technology in medicine play an increasingly significant role in the professional activities of nurses.

Keywords: professional activity, information technology, nurse, informatization of society.

INTRODUCTION

Information technology used in nursing has enough advantages. They can improve the quality of care and educate nurses and patients. However, the implementation of information technology remains complex and involves changes at different levels: patients, nurses and medical organizations. Nurses are the main group of medical workers. Thus, the use of information technology by nurses can have an impact on their practice. The main purpose of this review of systematic reviews is to systematically summarize the best evidence on the impact of information technology on nursing care. The use of computer and information technology to support eHealth is becoming standard practice in healthcare. For nurses, the use of computer information technology provides quick access to important information about a patient's health or illness. Nurses use computers to support the work of caring for patients at work and at home. They may also use small portable computers, devices.

II. MAIN PART

Currently, the computer is an integral part of our life, therefore it is used in various fields of the national economy, and in particular, in medicine. A modern computer consists of three main parts: a system unit, a monitor and a keyboard, and additional devices - a printer, a mouse, etc., but in fact all these parts of a computer are "a set of electronic circuits".

The computer itself does not have knowledge in any software field. All this knowledge is concentrated in computer programs. It seems that one tape recorder is not enough to listen to music - you need to have cassettes with records, laser discs.

In order for a computer to perform certain actions, it is necessary to create its program, that is, a sequence of clear and detailed instructions in a language understandable to the computer, how to process information.

By changing the programs for the computer, you can turn it into a workplace for an accountant, designer, doctor, etc.

Information technology is an integral part of the modern world. In many areas of activity that have come along with development or have moved forward with it, it is impossible to do without them. The development of computer technologies allowed the society to approach the

problem of global informatization related to the rapidly developing integration processes that permeate all spheres of our activity: science, culture, education, production, management, etc. Informatization of society is a global social process, its characteristic feature is that the main type of activity in the field of social production is the collection, collection, processing, storage, transmission, use, production of information. modern means of microprocessor and computer technology, as well as various means of interaction and exchange of information. Internet-based information technologies, telecommunication networks and intelligent computer systems open up opportunities for free distribution of knowledge, various information and materials for the next generation.

He must face the need to adapt to the new social environment, in which information and scientific knowledge become the main factors determining the potential of society and its development prospects. The use of unified global information systems ensures the introduction of information technologies in education: a unified educational space is being formed, the need of a person to communicate and use common intangible resources, to understand and process large amounts of information is increasing.

The meaning of educational informatization is to create favorable conditions for free use of cultural, educational and scientific information for teachers and students. It should also be understood that the informatization of the educational sphere should precede the informatization of other spheres of social activity, because there are social, psychological, general cultural and professional conditions for the development of a new type of education. society is built.

Medical organizations are actively introducing automated information systems. Such systems allow the creation of an information base and the maintenance of a single patient database containing all information about ongoing diagnosis and treatment.

Work efficiency of medical workers is increasing. many mechanical operations are performed automatically (issuance of certificates, reports, test results, etc.), the labor costs of medical personnel are reduced.

Information technologies enable comprehensive analysis of data and optimization of decisions during clinical examination, examination, diagnosis and prognosis of diseases.

At the current stage, medicine needs the use of computers due to the large amount of data: in laboratory blood count, ultrasound examination, computed tomography, electrocardiography, etc.

E-medicine is a new opportunity for treatment, a new health industry based on the capabilities of information technology and developing an intelligent integrated environment that manages the provision of medical care to the population everywhere, and supports doctors, nurses and medical staff. the form of introduction of the newest diagnostic methods, treatment methods and possibilities into clinical practice. cooperation of doctors located in different geographical locations. Improving the computer literacy of a student of the Faculty of Medicine is necessary for the activation of work in his future professional activity.

In the course of study, students should learn to use the computer skillfully for educational, scientific, informational, diagnostic and therapeutic purposes.

The ability to use information technology is becoming one of the most important professional skills of a doctor. It can be said that many diseases cannot be treated without the use of computers. Computerization in medicine. Graduates will encounter the use of computers in their

work (and already in practical training) from the first days, and after a few years, medicine will not be able to work without computers at all. Medicines are usually needed to treat the patient.

A doctor must make a diagnosis to prescribe medication. In order to make a correct diagnosis, the doctor must have a lot of information about the patient (including objective laboratory tests: urinalysis, blood tests, radiography, ultrasound results and other methods of diagnosing the disease 'many lesser-known methods).

In order to fight the disease correctly and quickly, the doctor must know exactly how the drug affects this patient, what changes occur in his body and how effective the treatment is.

Also, the doctor needs to know a lot about the patient's health, past illnesses, living conditions, harmful factors that the patient faces in his life, etc. Another time-consuming process is paperwork. If you went to the doctor, you noticed that there is a nurse next to the doctor, who writes something: prepares documents. Medical records, including images, EKG data, EEG, etc., text, photographs, or other types of medical data, require significant resources to store and maintain.

In addition, the health care system itself is distributed, and therefore patient information may reside in different organizations. If the patient goes to another clinic or hospital, many things have to be done again.

So, what tasks can be solved with the help of a personal computer?

Maintaining an electronic database of patients with a complete history of applications and a list of medical services provided with their detailed content from the day of the first application. Fast contextual search of any information in the database.

With the help of ready-made templates: a) save the time of medical workers; b) standardization and algorithmization of descriptions of cases and studies.

Manage e-queues and e-meetings with experts.

Use electronic automated preparation of patient admissions, prescriptions, extracts, sick sheets and other standardized documents.

Create unified information networks from local (in the clinic) to global scale.

Use the Internet to access the latest medical information, establish professional relationships with colleagues, share experiences.

And these are just some of the obvious advantages of a personal computer.

The development of information technologies in medicine is inevitable, so students of medical colleges and universities should understand that a modern specialist must know a personal computer. A modern medical worker should make every effort to master computer technology. Today, the training of medical personnel cannot be imagined without the use of information technologies that offer tools and methods for solving medical problems.

The main purpose of using information methods in the professional activity of a medical worker is to optimize information processes in medicine through the use of computer technologies that increase the quality of public health protection. Medicine provides a complex task - methods, and informatics provides a complex task - tools - methods - technique-based tools - techniques.

The types of information technologies used are classified according to the following tasks
Processing of text medical documents.

Mathematical modeling in medicine (number processing technologies).

Creating and working with information systems (data processing technologies).

Creation of multimedia products (multimedia technologies).

Use of Internet services in medical practice (network technologies).

The above tasks fully reflect the following objectives:

In order to meet modern requirements and increase the effectiveness of special training for medical education, the following is necessary:

Teaching medical students the basics of computer literacy;

Creating an infrastructure that allows full use of computers and information bases of students and teachers in medical educational institutions, free use of the Internet;

Encourage the development of state-of-the-art multimedia teaching aids and courses by students and teachers and, where possible, make them available on the Internet.

Thus, the use of information technologies at the stage of training a medical worker is a necessary component of forming the information culture of a future specialist. The strategic directions of forming the information culture of students of medical colleges and higher educational institutions are as follows:

professional development;

the ability to work in an information and educational environment;

tolerance, courtesy, ability to cooperate;

willingness to self-educate throughout life;

the ability to apply knowledge gained in the field of information culture in practical activities.

III. Results

The use of digital and information technologies in the professional activities of nurses is practically not studied, while the need for the development of such technologies in nursing practice is very high.

Purpose - to study the current state of the problem of using digital and information technologies in the professional activities of hospital nurses when caring for seriously ill patients with limited mobility. Material and methods. A survey was conducted of 579 nurses caring for seriously ill patients with limited mobility regarding the use of digital and information technologies in their professional activities.

The analysis of the results was carried out by the methods of descriptive statistics. Results and discussion.

Almost half of the surveyed hospital nurses (43.4%) do not use digital and information technologies in their professional activities. Nurses often work with monitoring systems: heart rate, blood pressure, glucose levels, brain activity, sleep (36.8%), they often use diagnostic systems and rapid analysis systems (17.4%).

From information technologies, the unified medical information automated system (UMIAS) is more often used (73.1% of respondents). Conclusion. The introduction of information and digital technologies into the practice of nurses working with seriously ill patients with limited mobility is an important area for improving professional activities.

College graduates in their work (and already in practical classes) with the first days they are faced with the use of computers in their work, and after for several years, medicine will not be able to do without computers at all.

In order to cure the patient, medicines are usually needed. In order to prescribe medication, the doctor must make a diagnosis. In order to correctly diagnose, the doctor must have a lot of

information about the patient (including objective laboratory tests: urine test, blood test, X-rays, ultrasound results and many others, less well-known ways to identify the disease).

In order to be right and quickly fight the disease, the doctor needs to know exactly how the medicine works on given patient, what changes occur in his body and how effective treatment. The doctor should also know a lot about the patient's health, about the transferred diseases, about living conditions, about harmful factors with which in your life the patient encounters, etc.

Another time consuming process is paperwork. If you ever went to a doctor, they noticed that next to the doctor is a nurse who writes something: draws up documentation. Greater resources are needed to maintain and store case histories, containing pictures, ECG data, EEG, etc., texts, photographs or other types of medical data. Moreover, the healthcare system itself is distributed, and therefore patient data can be in different organizations.

If a patient goes to another clinic or hospital, much have to be done again. The computer allows you to automate this work and the physician must take full advantage of this opportunity.

The software package is designed to automate workflow in medical institution by creating software terminals (workstation) in any structural divisions:

reception department, medical departments, laboratory and diagnostic centers, administration, support units (pharmacy), etc.

1. Permanent storage of the patient's electronic medical history with the ability to search and view the results of analyzes, studies, consultations, as well as case histories avoids duplication expensive diagnostic studies;

2. Maintaining an electronic record for an appointment, for research, for tests, etc. allows you to most effectively distribute the working time of the staff, equipment, special services and units;

3. Operational control of the employment of the bed fund in accordance with the plan hospitalization contributes to maximum hospital occupancy and uniformity in the organization of the treatment and diagnostic process;

4. Prompt generation of summaries of admitted patients and portioners allows you to reduce the loss of products during the organization of medical nutrition in hospitals.

Thus, information technology makes it possible to get rid of routine work, and focus on the needs of the patient.

IV. Conclusion

Physicians no longer spend so much time on paperwork, examination of the patient, therefore, the productivity of their work is growing, and this means that wages will also go up.

The automated workplace of the nurse is intended for improving the efficiency of the daily work of nurses on duty institutions. The computer allows you not to rewrite the same data over and over times and find the information you need in a convenient way. It's very convenient that documents do not need to be distributed or forwarded to their destination. If received some information about the patient, they will be present in all documents where there are corresponding columns, which means that most of the work has been done filling out for

Many specialists enter data into the electronic medical record and these other specialists use the data as needed. For example, in duties of the nurse on duty is included every day to view all stories diseases and write out from them all the prescriptions made by the attending physicians

to every patient. At the same time, the case histories themselves are in different offices of specialists, they must be collected and reviewed.

The manipulation nurse sees all appointments sorted by time, wards, keeps records of the performed manipulations.

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