



USE OF SIMULATION TEACHING METHODS IN MEDICAL EDUCATION

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Article history:	Abstract:
Received: 28 th August 2021 Accepted: 21 st September 2021 Published: 23 rd October 2021	This article discusses the issues of improving education based on the functional, technical and technological capabilities of modern medical information and raising the existing professional training of students to a new level of quality in communication technologies in the preparation of future secondary medical staff for professional activities.
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Medical education has been focused on practical activities for a long time, but this event was carried out due to the decline in the level of formation of professional skills of graduates. This situation did not serve to increase the professional skills and competencies of the medical staff, to improve the knowledge of a person throughout his life, and to increase the need for self-education.

The dynamics of the development of medical education in vocational education allows teachers to improve their professional skills in order to implement new and more complex activities, focus on creating tools and ways to implement new concepts of medical education, develop new approaches to medical knowledge, development of effective forms and methods of medical education, designing new pedagogical processes, creating conditions for students to use all their capabilities and abilities, achieving a reduction in the time spent on acquiring professional skills. As a result, the visual form of education is evolving.

At the present time, the development of medicine, creating some opportunities for students are an important measure in medical schools. According to foreign experiences, there are several types of innovative technologies, and there is an opportunity to study various medical procedures, experiments, practical skills, various surgical procedures and emergency simulations.

Development of professional training of secondary medical staff through simulation models means working on the basis of functional, technical and technological capabilities of modern medical information and raising the existing professional training of students to a new level of quality in communication technologies.

Today, simulation education is one of the main ways to teach practical medical skills and develop practical competencies in developed countries.

By analyzing the studied scientific sources, we were convinced that the treatises of our great ancestor Abu Ali Ibn Sina also contained the first instructions on the use of simulation methods. For example, in teaching the technique of repositioning bone fragments in cases of bone fractures, the ceramic vessel was broken into relatively large pieces, which the student had to collect in the form of a whole vessel. [1].

Simulation education is based on the methodological recommendations of specialists in simulation training in medicine, the effective work of the training-simulation laboratory with practical support, the practical training of students, assessment of knowledge and skills, development of specific clinical decision-making skills, as well as application of best international practices.

Features of the introduction of simulation methods and tools in the education system in medical education (medical fields) Cooper J.B., Taqueti V.R. [2], Aebersold M., Titler M.G. [3], Lucas A.N. [4], Gaba D.M. [5], Alinier G. [6], Balkizova Z.Z. [7], studied by G.S. Agzamova, Z.F. Umarova, A.A. Usmankhodjaeva [8] and others.

According to E.M. Ibragimova, simulation and simulation training are based on problematic situations, which describe the conditions of action of participants in the situation, develop professional activity, gain experience in solving professional problems, develop the ability to analyze and solve problems [9].

In medical education, other teaching methods are less effective comparing to imitation and simulation training, and many scholars believe that the imitation situational training activates the future nurse's mental activity, develops analytical and critical thinking skills, and the ability to express their own opinion, develops components of practical competence.

Simulation in medical education is a real modeling tool, a modern way of forming and evaluating practical skills, while simulations on a clinical situation or a particular physiological system can be in biological, mechanical, electronic and virtual form.

Simulation methods include in education:

- imitation of practical activities through simulators and mannequins;
- use of simulation tools in problem solving situations;
- internship in a game style, playing official roles;
- business game.

Simulation classes help to perform a variety of professional tasks, to form practical skills, to develop and improve the professional orientation of the future nurse. The use of simulation techniques help to develop specialist's attention and their memory in the preparation of professional activities, specialists develop attention, ie focus, memory. It also helps to remove communication barriers when working with patients.

Advantages of the simulation methods we use:

- creation of conditions for imitation of the professional environment when mastering the techniques of performing nursing services in accordance with the standards (formation of general and professional competencies necessary for the implementation of practical activities);
- development of practical skills without compromising the health of the patient and ensuring their infectious safety during manipulation;
- shortening the adaptation period of the young specialist in the "introduction to practical activities" and others are the most relevant in the process of forming the practical skills of the future nurse.

Based on the analysis and scientific theories, we came to the following conclusion: The purpose of simulation education is to develop educational effectiveness and practical competencies through the application of innovative technologies in the teaching of medical sciences - the implementation of relevant practical skills in simulation models.

Tasks of simulation training:

1. Analysis of the process of mastering the theoretical part of the medical sciences through the application of various areas of innovative technologies;
2. Teaching and application is part of the practical skills of the science of therapy in the educational process through the implementation of simulations.

The system of medical education in innovative technologies in the country, in particular, the role of simulation centers and the peculiarities of their importance are studied in the teaching process.

Establishment of Simulation Centers in the medical colleges are aimed to improve the practical skills and practical competencies of students and the repetition of practical exercises, manipulations. The establishment of simulation centers plays an important role in the training of specialists, which in turn increases the quality of medical care.

The main results of learning through simulation technology:

1. Organization of the algorithm of actions to be taken in critical and emergency situations;
2. Assist prospective medical staff in overcoming the psychological barrier to patient care;
3. Developing the leadership skills of students based on simulation technology in the process of education;
4. Different types of specialists have to organize working in one team.

Today, there are a variety of simulation training devices are available to train medical professionals that are distinguished by the quality, cost, and training capabilities of the simulation.

Improvements in individual and team performance have also been proven in medical simulators in the preparation of surgery, analgesia, and ambulance teams. Organizing a single system in the medical simulators has not been developed yet in the learning process. However, at the present level there is a tendency to assemble simulators available in a medical or research-educational institution into a single training unit. The advantages of such a scheme are obvious: staffing specialized in the organization of training and maintenance of equipment, reduction of operating costs due to the availability of a single set of consumables, the ability to organize team training, providing area for installation of large simulators (for example, ambulance crews for trainers).

Simulation education should be implemented at almost all curriculum levels in medical education. However, studying specific forms of implementation requires a long experience.

These days, the relevance, effectiveness, and safety of simulation training have been recognized. One of the main tasks of leading medical professionals, medical teachers and developers of simulation medical education is to create a unified system of using simulation education in the system of continuous medical education. According to many leading experts in the field, the most optimal and common form of accomplishing this task is to create these training simulation centers.

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