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EFFECTIVENESS OF THE COURSE "SIMULATION TEACHING" IN THE EDUCATIONAL PROCESS

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ABSTRACT

The article describes the process of simulation training and its specific aspects, which are important in medical education. Based on world experience, there is information on the work carried out in the framework of simulation training centers and courses, training for teachers and the effectiveness of the training course for students.

KEYWORDS: *Medical Education, Simulation Training, Training Course, Practical Skills*

INTRODUCTION

In order to increase the effectiveness of simulation centers in the integration of simulation training in the process of medical education, the curricula of medical education universities in the United States, Germany, England, Korea have included simulation courses - modules. and practical skills training laboratories have been set up, and the simulation training modules included in the curriculum are being taught effectively. A number of universities in the Russian Federation, in particular Specialists of Kazan State Medical University and Krasnodar State Medical University based on the results of several years of analysis have established separate departments to achieve stability in the introduction of simulation education, increasing the responsibility of teachers and students.

Purpose

Based on foreign experience, a course "Simulation training" was organized for professors and teachers of the Tashkent Medical Academy.

MATERIALS AND METHODS

The purpose of this training course is to inform the staff of the academy about the system of simulation education, its features and advantages, to teach the methods of simulation training and to apply them in the process of medical education.

120 pedagogical staff of the academy were involved in the pilot process. The course is designed for 18 hours and includes: history of simulation teaching in medicine, experience of simulation teaching in foreign countries, basic principles and concepts of simulation teaching, organization of classes using simulation methods, standardized patient, basics of team training, interdisciplinary training, professional skills objective assessment of the level, the principles of debrefing, management of the simulation center.

In the second phase of the study, in order to increase the responsibility for teaching practical skills important in the process of medical education and create opportunities for students to

use simulation technology, the course "Simulation training" was included in the curriculum "Medical" and "Vocational Education". was introduced into the educational process for.

CONCLUSION AND DISCUSSION

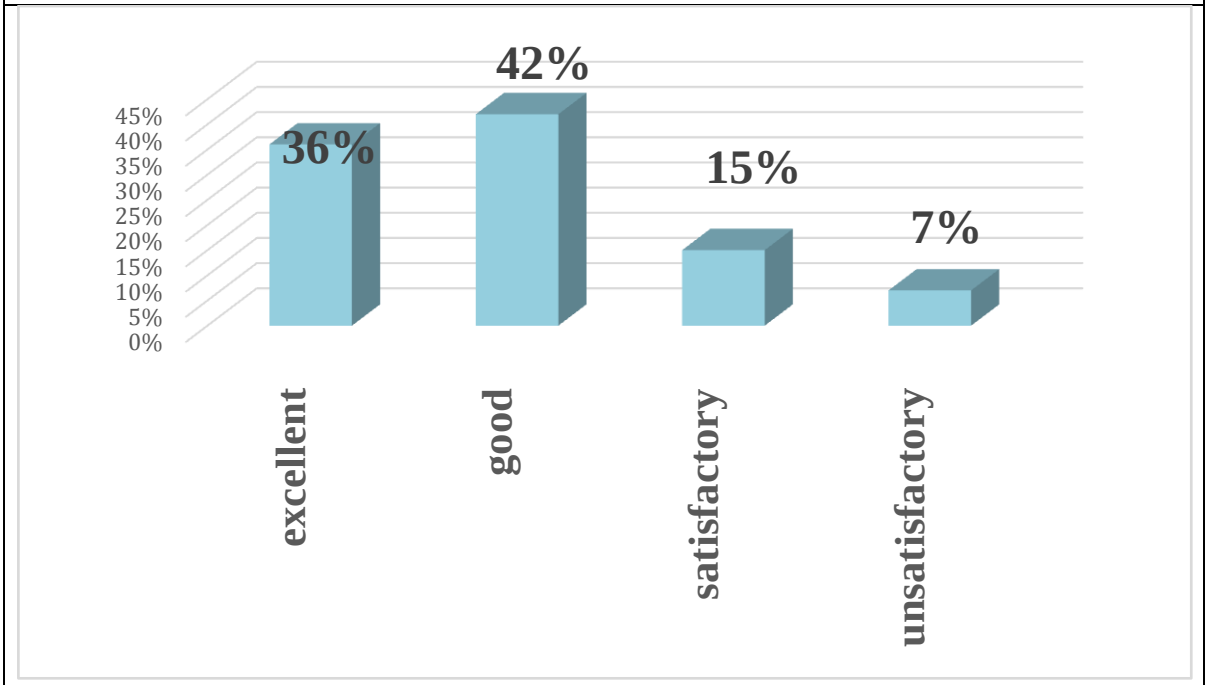
At the beginning of the course, teachers answered 20 test questions on basic knowledge and the results were evaluated on a 5-point scale (Figure 1).

Figure 1. Basic knowledge of educators

The simulation training course was conducted in 3 stages: assessment of basic knowledge using test questions, the main content of the course, simulation technologies, skills training (using a special program), final test control. A workshop on practical skills A separate training was organized with the participation of foreign experts on the application and improvement of training simulation teaching methods, the development of new approaches during the training, and the final test process was conducted (Figure 2).

In the first entrance test, 8% of employees received an excellent grade and 22% received an unsatisfactory grade. According to the survey, the most successful employees participated in conferences and seminars on simulation technology in foreign countries, and 22% of teachers have no knowledge of these teaching methods at all.

Figure 2. Final control results



The training course was conducted online on the basis of a special electronic program based on animation and a virtual approach. It is noteworthy that during the course there is access to all handouts on the topics, and at each stage there is an opportunity for the listener to independently assess and review their knowledge. After passing each topic, complex test questions as well as situational questions were required to be answered with an analytical approach. Thematic presentations were created using innovative methods and encouraged the development of creative approaches and skills in the learning process.

At the end of the training course, each test specialist was given 50 test questions. According to the results of the final control, 36% of teachers received an excellent grade, and 7% of staff received an unsatisfactory grade. A positive result of 0.92 points was observed on the difference between the initial knowledge (average 3.15) and the final indicator (average 4.07) .

On the basis of a questionnaire conducted between professors and teachers at the end of the course, it is necessary to organize the course as purposefully as possible in clinical disciplines, to expand the possibility of direct application of stimulation technologies in teaching practical skills, to discuss situational issues. opinions and suggestions were formed.

The relevance of the course depends on the nature of the teacher's professional and pedagogical creativity and the level of its development, the effectiveness of innovative methods applied to the process of medical education. The transition to new paradigms of education is manifested not only in innovative approaches to the development of theoretical knowledge of students, but also in the methodological framework that allows to ensure the same process, as well as the introduction and improvement of innovative technologies.

The purpose of teaching the elective subject "Simulation training" is to strengthen the theoretical knowledge of future doctors and create conditions for them to acquire practical skills that are important for the provision of medical care to the population. At the same time, it is necessary to train highly qualified specialists in accordance with the purpose by teaching them the skills of emergency medical care in emergencies observed in the activities of the family doctor and developing their clinical analysis skills.

The main objectives of the training were:

- teaching the basic principles of interaction with patients, the psychological characteristics of the behavior of patients with acute and chronic somatic diseases, the principles of professional ethics;
- to teach patients the basic rules and sequence of anamnesis and objective examination;
- to provide guidance on the principles of formation of the approximate and final diagnosis, the plan of laboratory and instrumental methods of examination used in family and clinical practice;
- To provide emergency medical care in relatively common emergencies, to teach the conditions of pulmonary heart resuscitation, the correct choice of physician tactics.

During the training course, special attention was paid to the duties of a nurse, nursing, internal medicine, pediatrics, surgery, obstetrics and gynecology, and emergency situations. In particular, information was provided on early diagnosis and emergency care of cardiovascular and respiratory diseases, physical examination of patients and adherence to the principles of interpersonal communication.

The main purpose of this course is to teach practical skills at the level of automation, which are important in the training of future family doctors to provide high-quality medical care to the population in a timely manner and included in the qualification description of specialists. , gastric sounding, injection procedures, immobilization, hemostasis, cardiac and pulmonary auscultation, pharyngoscopy, ophthalmoscopy, rhinoscopy, ECG acquisition and analysis, external obstetrics and bimanual examination, pediatric anthropometry, Apgar scale assessment, arterial blood pressure measurement, pulse and determination of respiratory rate, thermometry, etc.

During the experimental trial, 36-hour practical classes were organized for 4th year students of the Faculty of Medical Pedagogy and simulations.

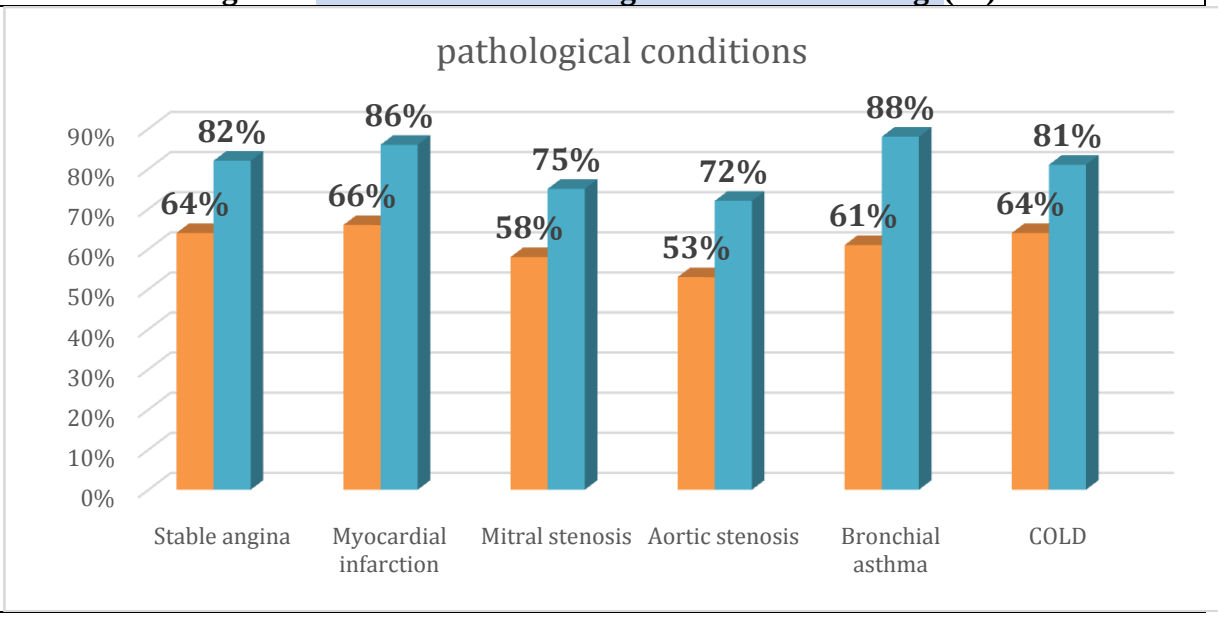
During the course, students spent 6 days undergoing rotation in interpersonal communication, internal medicine, pediatrics, obstetrics, surgery and emergency care, learning practical skills using simulation technologies (dummy, mannequin, phantom, robot and virtual patient).

The final control of the training course assessed the level of theoretical knowledge and practical skills in situational situations on a 100-point scale.

Theoretical knowledge was assessed using special computer technology "Virtual patient AcademiX 3D Pathology3D constructor".

Theoretical knowledge of students was identified in the activities of family physicians in relatively common diseases, such as myocardial infarction, stable angina, mitral stenosis, aortic stenosis, bronchial asthma, chronic obstructive pulmonary disease (Fig. 3).

Figure 3 Indicators of mastering theoretical knowledge(%)

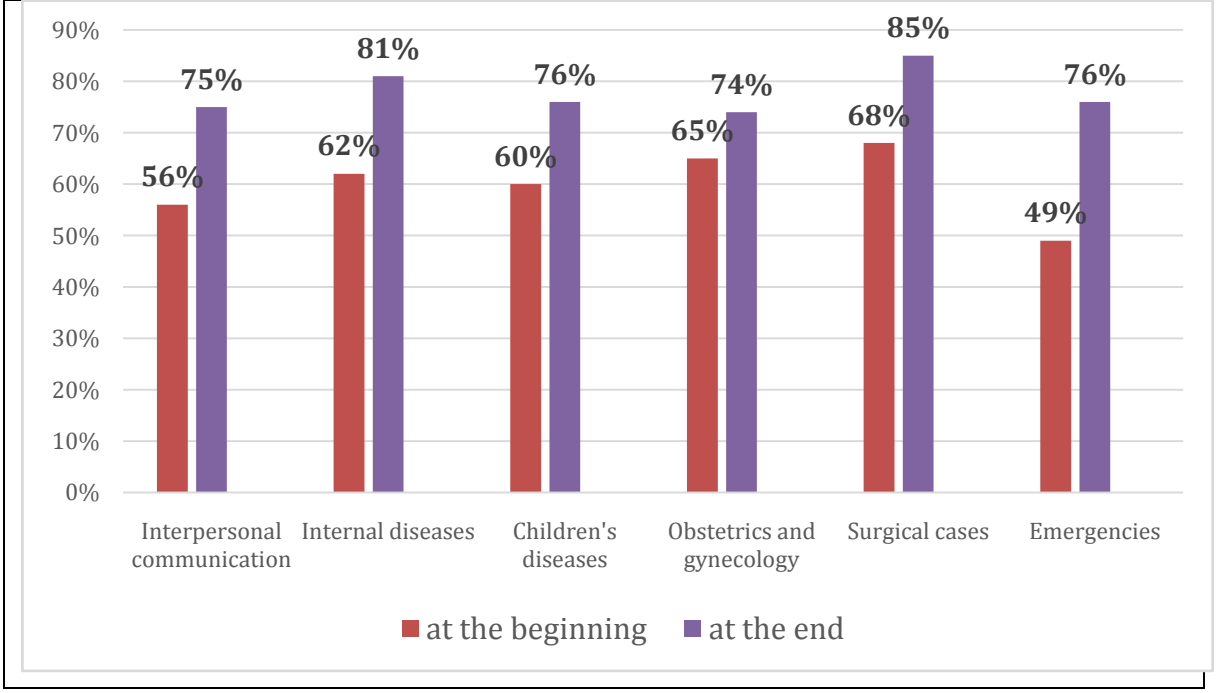


According to the results of the final control, the basic knowledge of students averaged 61%. 80.6%. It was found that the knowledge of students on these diseases increased by an average of 19.6%.

In the process of determining practical knowledge, the simultaneous demonstration of practical skills in simulation technologies took into account their approach to the patient, the ability to perform all steps of the skills in the correct sequence and identify the pathological condition.

According to the assessment of practical knowledge, the basic skills included in the program were identified in 6 areas and the mastery indicators were analyzed (Figure 4). The average level of basic knowledge of students was described as follows: interpersonal communication - 56%, internal medicine - 62%, pediatrics - 60%, obstetrics and gynecology - 65%, surgery - 68%, and emergency - 49% formed.

Figure 4. Indicators of mastery of practical knowledge(%)



During the training course, after all the practical skills were demonstrated by the teacher, special attention was paid to the identification of deficiencies in the performance of each student independently and the steps in the observation process. At the end of the course, the mastery of the acquired skills increased from an average of 60% to 77.8%. In particular, it was found that the effectiveness of skills acquisition in emergencies is relatively high - an increase of 27%. Positive feedback of students on the use of imitation technologies, direct manual and specific aspects of the educational process and suggestions for activating the process of application of modern simulation technologies in all disciplines were taken into account in the acquisition of practical skills.

CONCLUSION

In order to increase the effectiveness of the simulation course, to develop various scenarios in order to bring the skills to correctly determine the tactics of the family doctor during the practical training, to update the medical equipment and provide modern equipment, to share experience in improving this area in cooperation with foreign experts. , it is advisable to increase the level of provision of modern simulation technologies .

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