

theoretical knowledge, most students experience fear when dealing with patients, worried about causing harm or pain.

8. Cognitive distortions arise during self-assessment. Students in the control group held a subjective belief that they were performing manual skills correctly. At the same time, objective data differed from the students' perceptions. Respondents in the experimental group were able to align their self-assessment of their actions more closely with reality by identifying their weaknesses following the simulation cycle and debriefing.

Conclusions

This study confirmed the hypothesis that simulation technologies significantly outperform traditional methods in the training of nurses with higher education in the course "Propaedeutics of Internal Medicine."

The data obtained strongly support the advisability of widely implementing simulation technologies into the "Propaedeutics of Internal Medicine" curriculum for future nurses with higher education.

It is necessary to increase the number of instructional hours allocated to the "Propaedeutics of Internal Medicine" course for bachelor's degree students in the 34.03.01 "Nursing" program.

It is impossible to master the physical examination of patients within the 72-hour scope of this course. Even the minimal practical component — without repeated practice of the skills — will take up 10–15% of the instructional time, during which a group of 20–30 students will not have time to perform half of the necessary procedures. To improve the quality of the examination, students must repeat the same procedures time and again, both under the instructor's supervision and independently. This factor depends directly on the number of instructional hours allocated to the course.

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A COMPARATIVE ASSESSMENT OF THE EFFECTIVENESS OF DIFFERENT FORMS OF TRAINING FOR PHYSICIANS IN GENERAL PRACTICE IN PREPARATION FOR THE INITIAL SPECIALIZED ACCREDITATION PROCEDURE

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Abstract. The accreditation of healthcare professionals involves several stages: a theoretical stage (testing and situational tasks) and a practical stage — based on the assessment of professional skills and competencies using simulation technologies (using full-body or partial-body manikins, which typically have built-in electronics that simulate vital signs and create the appearance of a disease or specific syndromes, as well as standardized patients — specially trained individuals who play the role of patients by simulating a clinical case according to a specific scenario).

Scientific specialty: 3.2.3. Public Health and Health Care Organization, Sociology, and History of Medicine.

Relevance

The quality of medical care depends directly on the professionalism of specialists, particularly physicians and nursing staff.

Currently, close attention is being paid to issues related to the effectiveness of training for future and practicing physicians. Medical education is undergoing active modernization, which includes:

- a greater emphasis on practical training;
- the intensive implementation of electronic educational platforms;
- the widespread use of simulation-based training.

Given the active integration of digital technologies into the educational process, the most pressing issues remain the need to prepare students for the accreditation process and the format of this preparation (in-person, distance learning, or traditional self-study).

Objective

To compare the effectiveness of different forms of training (full-time, part-time, distance learning, and self-directed study) in relation to the initial specialized accreditation process.

Materials and Methods

The study included 359 physicians who had completed professional retraining in therapeutic specialties at the Medical Institute of the Russian University of People's Friendship (RUDN).

After completing their training, the specialists underwent preparation for the practical portion of the accreditation.

The trainees were divided into 4 groups:

Group I (n = 119) — in-person training;

Group II (n = 132) — blended (in-person and distance) training;

Group III (n = 56) — distance learning only;

Group IV (n = 52) — self-directed study using materials from the website of the Methodological Center for Specialist Accreditation (fmza.ru).

The analysis was based on the results of two stations: "Emergency Medical Care" and "Basic Cardiopulmonary Resuscitation."

For the "Emergency Medical Care" station, the correctness of performing 10 key items was analyzed.

When analyzing the completion of the checklist items for the "Basic Cardiopulmonary Resuscitation" station, the data provided by the computer software after performing cardiopulmonary resuscitation on a multifunctional robot simulator were evaluated.

The statistical significance of differences in the results of the practical tasks between the groups was assessed using a nonparametric method — Pearson's χ^2 test. A p-value of less than 0.05 was used to reject the null hypothesis (H_0) that there were no statistically significant differences between the comparison groups.

Results

Statistically significant differences ($p < 0.05$) were identified when analyzing the proportion of students who passed the stage on their first attempt between the groups: Groups I and III — 94.1% and 39.3% (n = 112 and n = 22; $\chi^2 = 63.81$); Groups I and IV — 94.1% and 25%

($n = 112$ and $n = 13$; $\chi^2 = 87.91$); Groups II and III: 89.4% and 39.3% ($n = 118$ and $n = 22$; $\chi^2 = 51.92$); Groups II and IV: 89.4% and 25% ($n = 118$ and $n = 13$; $\chi^2 = 75.42$). However, no statistically significant differences were found between Groups I and II, or between Groups III and IV ($p > 0.05$).

Based on the results of the analysis of mastery of the ABCDE algorithm at the "Emergency Medical Care" station, statistically significant differences ($p < 0.05$) were identified when comparing Groups I and II, I and III, I and IV, as well as Groups II and III, and II and IV.

No statistically significant differences were found when comparing Groups III and IV ($p > 0.05$).

The analysis of the "Basic Cardiopulmonary Resuscitation" station revealed statistically significant differences between the groups.

Let's examine the results using the checklist item "Adequate compression rate (at least 90%)" as an example: Groups I and II — 93.3% and 82.6% ($n = 111$ and $n = 109$; $\chi^2 = 6.62$); Groups I and III — 93.3% and 35.7% ($n = 111$ and $n = 20$; $\chi^2 = 67.04$); Groups I and IV — 93.3% and 25% ($n = 111$ and $n = 13$; $\chi^2 = 84.64$); II and III — 82.6% and 35.7% ($n = 109$ and $n = 20$; $\chi^2 = 40.09$); II and IV — 82.6% and 25% ($n = 109$ and $n = 13$; $\chi^2 = 55.35$) — $p < 0.05$.

Conclusions

This study demonstrates the advantages of in-person and blended learning methods in preparing specialists for the accreditation exam. In addition, we identified statistically significant differences in the analysis of checklist items for the two general stations among internists, which is most likely due to the advantages of in-person learning.

Thus, the priority should be to train physicians through in-person instruction, supplemented by online learning.

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FROM OSCE TO DYNAMIC CLINICAL SCENARIOS: A NEW FORMAT FOR SIMULATION STATIONS AT THE "OPERATION RESCUE" REPUBLICAN OLYMPIAD IN ANESTHESIOLOGY AND RESUSCITATION WITH INTERNATIONAL PARTICIPATION

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Abstract. This paper presents the experience of organizing a medical competition based on simulation-based training and dynamic changes in clinical scenarios depending on the participants' decisions. A distinctive feature of the developed format was the combination of OSCE with changing scenarios, in which the participants' actions determined the further development of the clinical case. A comparison was conducted of the results of similar clinical tasks from the qualifying round among 10 randomly selected teams, subjective assessments of participants' readiness for critical situations, and the professional readiness of graduates.

Scientific specialty: 3.2.3. Public Health and Health Care Organization, Sociology, and History of Medicine.

Relevance

Traditional simulation stations allow for an objective assessment of the performance of a specific procedure. However, in real clinical practice, a physician must simultaneously perform procedures, assess the patient's condition, and, if necessary, adjust the approach to providing care. In this regard, it makes sense to transition from a static "task-action-evaluation" scenario to a dynamic model in which subsequent events depend on the participants' actions. With this approach, the simulation center becomes a space for recreating not a single skill, but a full-fledged clinical process.

Objective

To develop and conduct the "Operation Rescue" National Olympiad in Anesthesiology and Resuscitation with international participation, using dynamic simulation scenarios, and to evaluate its educational effectiveness.

Materials and Methods

Forty teams (240 students in their 4th–6th years at medical universities in CIS countries) participated in the competition. Based on the results of 30 test questions and 2 clinical tasks, 10 teams advanced to the in-person stage. The in-person stage was held at a simulation center and the Minsk City Clinical Emergency Hospital. In addition to traditional OSCE stations, dynamic scenarios were developed in which the further course of events depended on the patient's routing and the team's clinical decisions.

The main competition of the "Operation Rescue" Olympiad combined three locations: the intensive care unit, the CT scan room, and the operating room. Depending on the route chosen, the patient's condition and the conditions for further care changed. For example, on the "ICU–operating room" route, if the correct tactics were employed, the patient's condition remained stable but critical against a background of hypovolemic shock. When choosing the route through the CT scan room, the patient went into cardiac arrest during transfer, and a new assessment checklist appeared. An additional element was the time constraint: certain decisions made by the participants altered the time available to complete the task.

Effectiveness was assessed based on the results of similar tasks completed before and after participating in the competition by the 10 teams that advanced to the in-person stage, as well as through participant surveys. To compare paired quantitative measures, we used Student's paired t-test after verifying the normality of the distribution of differences using the Shapiro–Wilk test. To analyze paired self-assessment measures, we used the Wilcoxon signed-rank test.

Results

The average score on similar tasks increased from 60.62 to 76.20 points, with an average difference of 15.58 points, corresponding to a 25.7% increase. The differences were statistically significant ($p < 0.001$).

The questionnaire revealed an increase in the average self-assessment of readiness for independent work from 4.60 to 8.25 points, the ability to act in a critical situation from 4.90 to 8.70 points, and confidence in performing practical procedures from 4.65 to 8.15 points; For all indicators, the differences were statistically significant ($p < 0.001$; Wilcoxon signed-rank test).