

The dynamic format made it possible to identify differences in decision-making that might have gone unnoticed during the performance of an isolated procedure. Specifically, at the station involving central venous catheter placement, when acute respiratory failure developed, only 3 out of 10 teams stopped performing the initial procedure and switched to assessing and correcting the patient's life-threatening condition.

Discussion

In the competition, dynamic stations complemented the traditional OSCE tasks. Participants were evaluated not only on their performance of the prescribed procedure but also on their actions following a change in the patient's condition.

In a dynamic scenario, a mistake does not simply reduce the number of points; it can alter the further course of the clinical situation. As a result, the assessment simultaneously evaluated performance under time constraints, participant interaction, and the team's ability to adjust their approach when complications arose.

After participating in the competition, the average scores on similar tasks in the qualifying round improved. At the same time, participants rated their own readiness for independent work and action in critical situations more highly. However, these results should be considered preliminary, as the study was conducted without a control group, and some of the indicators were based on participants' self-assessments. The data obtained support the continued use of this format in future competitions and during simulation sessions as a tool for developing clinical reasoning, adaptability, and readiness to work in changing clinical situations.

Conclusions

Dynamic simulation stations allow for the assessment not only of the correct execution of individual procedures but also of the team's actions as the patient's condition changes. During such a scenario, participants must promptly identify emerging complications, adjust their initial approach, and determine the next steps in providing care. The use of this approach in a medical competition made it possible to supplement traditional OSCE tasks with an assessment of decision-making in the context of a changing clinical situation. The continued use of such scenarios and adaptive checklists may be beneficial both in medical competitions and in the context of simulation-based training and practical assessment of clinical skills.

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SOME ASPECTS OF IMPROVING METHODS FOR MODELING CLINICAL SITUATIONS IN SIMULATION TRAINING FOR MANUAL SURGICAL SKILLS

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Abstract. Training students and residents in surgical techniques using pig carcasses and models of human patho-

logy created according to an original methodology allows them to systematically practice all stages of an operation, learn to work in conditions simulating the actual thoracic and abdominal cavities, and master manipulation within the appropriate anatomical layer. The implementation of these educational models has proven effective: students and residents who have completed this training confidently perform the basic steps of laparoscopic and open surgeries. **Scientific specialty:** 3.2.3. Public Health and Health Care Organization, Sociology, and History of Medicine.

Relevance

Currently, there is a demand for accelerated surgical training: during the two-year residency, residents must master basic surgical procedures, learn to make professional decisions, and study treatment strategies for various conditions. This trend underscores the importance of establishing a solid foundation of manual skills in future surgeons as early as their undergraduate studies. Ideally, by the time they graduate, a future surgeon should not only be able to place intestinal and vascular sutures on biomaterial but also be capable of performing an entire operation from the initial skin incision to final hemostasis. The Federal Accreditation Center and the Department of Clinical and Operative Surgery at the E.A. Wagner Penza State Medical University faced the challenge of creating a learning environment conducive to the comprehensive mastery of surgical skills.

Objective

To improve the effectiveness of training in manual surgical skills by increasing the realism of simulated clinical scenarios.

Materials and Methods

Simulation-based training of students and residents in all stages of surgical treatment using pig carcasses and models of human pathologies.

Results

There is a list of skills essential for a surgeon's work that are difficult to practice effectively on isolated biological material — such as trocar placement, creating a pneumoperitoneum, and performing maneuvers under the specific conditions of the abdominal and thoracic cavities, where there is a real risk of damaging organs and blood vessels, etc. A solution was found to address this shortcoming: practicing these skills on a piglet carcass. The main advantages of this method are: it is humane, requires no anesthesia, is inexpensive, and the relatively small size of the thoracic and abdominal cavities creates conditions that are sometimes even more challenging than those encountered in the human body.

This model allows for the simulation of the educational process under "real operating room" conditions. For example, when training in minimally invasive surgery, the student or resident first marks the sites for trocar placement, then inserts them, refining various insertion techniques: the blind method, the Veresh needle technique, and the Hassen method. After inserting the trocar and the endoscope, the trainee can examine the organs and determine the surgical site. The future surgeon then refines surgical techniques while working inside the abdominal

cavity: inserting endoscopic instruments under visual guidance and carefully using a coagulator, needles, and scissors. There is a risk of damaging surrounding organs and blood vessels. In addition, this training model effectively develops multitasking skills: the trainee continuously monitors intra-abdominal pressure, the camera's field of view, and the safety of their movements. At the end of the operation, the student or resident learns to close the trocar wound layer by layer.

Another significant challenge is the need to simulate human pathologies using biomaterial: it is extremely difficult to realistically mimic a tumor, cyst, abscess, and so on. One example of a successful solution to this problem is a model of internal hemorrhoids, created to practice hemorrhoidectomy techniques. In this model, the rectum is simulated by a porcine bladder, into whose submucosal layer a gel is injected to mimic a hemorrhoidal node. After the base of the bladder is excised, it is secured in an opening whose diameter corresponds to that of the anal ring, through which the surgical procedure is performed. Traction is applied to the neck of the bladder using a rubber cord, which secures the bladder in a position characteristic of the distal rectum. Next, a student, resident, or surgeon can perform the main steps of the procedure: ligation of the vascular pedicle, removal of the hemorrhoid, and suturing of the bed. During hemorrhoid removal, the muscular layer of the sac corresponds to Prax's ligament, which allows students to develop the skill of working in the correct layer.

Trainees who have undergone training using these educational models easily master the basic surgical techniques, such as layer-by-layer wound closure, trocar placement, laparotomy and thoracotomy, cholecystectomy, lung resection, etc.

Discussion

At this stage, a large number of simulation trainers with computer graphics are being developed, which allow for various options for simulating work inside the body cavity. However, a drawback of such designs is the inability to feel the resistance and fragility of tissue when working with an instrument or to practice the process of inserting an instrument into the cavity. In our view, working inside the cavity of a piglet carcass or on models of human pathological conditions provides this opportunity.

Conclusions

The educational models presented here enable students, residents, and physicians to learn surgical techniques at a higher level that is much closer to reality, thereby ensuring their continued professional success. Trainees who have completed this preparatory course are capable of independently performing various surgical procedures.

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SIMULATION TECHNOLOGIES IN TRAINING PHYSICIANS FOR PREVENTIVE COMMUNICATION: EXPERIENCE WITH THE "STANDARDIZED PATIENT" METHOD

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Abstract. This paper presents the experience of applying the "standardized patient" method to develop the professional and communicative skills of resident physicians in preventive care. A phased approach — including theoretical training, practical immersion, and professional integration — was developed and experimentally tested. Its effectiveness has been demonstrated according to cognitive, activity-based, personal, and axiological criteria. The results can be applied in the system of postgraduate medical education.

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

Relevance

The priority given to the preventive orientation of medical practice, as enshrined in professional standards and strategic documents, imposes qualitatively new requirements on physician's communication training. The effectiveness of preventive care depends on the physician's development of the professional communication competencies necessary for motivational counseling, fostering commitment to a healthy lifestyle, and collaborative interaction with the patient. Simulation technologies — and, in particular, the "standardized patient" method — are recognized as effective tools not only for practicing clinical skills but also for teaching communication skills to future physicians. However, the potential of this method for developing a culture of professional communication in physicians' preventive care during residency training remains understudied.

Objective

To theoretically justify, develop, and experimentally test a model and methodology for developing a professional communication culture in physicians' preventive care during residency training using the "standardized patient" method.

Materials and Methods

The study was conducted at the Medical Institute of the Federal State Budgetary Educational Institution of Higher Education "I.S. Turgenev Orel State University" from 2023 to 2026. A total of 135 residents in their first or second year of training participated in the experiment. A set of criteria and assessment tools was developed, including cognitive, activity-based, personality-based, and axiological criteria. In this formative experiment, a methodology for developing professional and communicative skills in physicians' preventive practice was implemented in three stages: theoretical training (the "Preventive Communication" course), practical immersion (sessions with a standardized patient, preventive conversations, creation of digital materials), and professional integration (real-life preventive consultations, a reflective journal, and group supervision). At each stage, the "standardized patient" method served as a key teaching tool, allowing for the simulation of real-life preventive care scenarios. Communication skills were assessed using a range of evaluation methods. Statistical analysis of the results was performed using Pearson's χ^2 test.

Results

During the descriptive phase, predominantly low and moderate levels of professional-communicative compe-