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"МЕДИЧНА СИМУЛЯЦІЯ- ПОГЛЯД У МАЙБУТНЄ"

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Віталіна Сокорська — провідний фахівець навчально-тренінгового центру симуляційної медицини;

Віталій Поточняк — фахівець І категорії навчально-тренінгового центру симуляційної медицини;

Василь Бондар –фахівець ІІ категорії навчально-тренінгового центру симуляційної медицини;

Едуард Зуб — фахівець І категорії навчально-тренінгового центру симуляційної медицини.

У тезах доповідей науково-практичної конференції з міжнародною участю лікарів, науковців та молодих учених, подаються стислі відомості щодо результатів наукової роботи, виконаної учасниками конференції.

М 42 Медична симуляція — погляд у майбутнє (для лікарів, науковців та молодих учених): наук.-практ. конф. з міжнар. участю.

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BENEFITS OF PRACTICING SIMULATION SCENARIOS IN PEDIATRICS

Lozyuk I.Ya.

Bukovinian State Medical University, Chernivtsi

Simulation training has become an integral part of the activities of medical universities and healthcare organizations in Ukraine, which is reflected in state programs for the development of healthcare and medical education. The use of modern technologies for mastering and improving practical skills in the professional training of medical workers is an important condition for ensuring their high-quality professional competence.

Problems in passing clinical disciplines include the lack of individual provision of students with thematic patients, the inability of the teacher to monitor the quality of each student's performance of an objective examination of the patient. This is especially true for the pediatric patient, access to whom, even in more favorable conditions, has always been limited. Among the reasons that aggravate this situation are the increase in the number of students in groups, the decrease in the number of hospitalized patients, with the predominance of seriously ill children in the hospital, the negative attitude of the patients' parents towards students, which is associated with many current problems. All this contributes to the deterioration of the communication process between the subject patient and the medical professional, the development of practical skills and examination of the patient, and the ability to make independent and effective clinical decisions.

A sufficiently high level of theoretical training and a low level of students' mastery of practical skills of their future profession require new educational standards for professional competence and the need for changes in the methodology of medical education in the conditions of real practice in healthcare.

Simulation in medical education is a modern method of teaching and assessing practical skills, abilities, and knowledge, based on realistic modeling, imitation of a clinical situation or a single physiological system, for which biological, mechanical, electronic, and virtual (computer) models can be used.

The goal of learning through the use of simulation scenarios is to acquire and master skills (technical, cognitive, behavioral) and meet the needs of students.

The simulation scenario provides a number of advantages:

— no risk to the patient due to clinical experience acquired in a virtual environment;

— objectification of the assessment of the achieved level of skill;

— unlimited repetitions to practice skills;

— practicing actions for rare and life-threatening pathologies;

— A virtual simulator takes on some of the teacher's functions, increasing the accessibility of education;

— stress reduction during the first independent manipulations;

— training takes place regardless of the clinic and educational institution's work schedule;

— development of individual skills and abilities;

— development of clinical thinking;

— development of logical thinking;

— development of thinking based on the principles of evidence-based medicine.

A simulation scenario in pediatrics excludes the possibility of working with the child himself. The student's entire attention should be focused on working with the child's parents (actor). A lot of attention is paid to communication skills, where it is necessary to formulate basic questions qualitatively to achieve maximum communicative effect, show tactical empathy, and practice dialogic techniques and methods.

The main task of the student according to the simulation scenario is to interview the mother/father/guardian of the child (standardized patient) who actively sought medical attention due to the appearance of a disease in their child. During the interview, it is necessary to focus on the questions most important for making a preliminary diagnosis, demonstrating the following skills and abilities in a certain sequence.1. Communication skills: greeting, establishing contact with the patient's parents, guardians; self-presentation (introduce yourself, state your role, determine the nature of the consultation; to obtain consent for the survey (ask if there are any objections to conducting the survey); collection of passport data (ask for the child's full name and age); addressing the patient (standardized) by name. The survey should begin with a general open-ended question, «What brought you here?», «Why did you contact us?»2. Collection of complaints and anamnesis (clarify complaints, determine their priority, anamnesis of the onset and development of the disease, what the mother associates the occurrence of this disease with, whether the child received treatment). 3. Establish objective data (covered in the task condition). 4.

Establish a preliminary diagnosis (based on complaints, collected history, objective data). 5. Decide on further tactics for managing the patient (prescribe laboratory and instrumental diagnostic methods to confirm the diagnosis). 6. Decide on the tactics of treating the disease. 7. Assign preventive measures.

The use of simulation training methods can never replace the patient, however, modeling clinical situations in conditions close to real ones allows you to train students and doctors, increasing the level of safety for patients and students.

Upon completion of the scenario, during the debriefing, a detailed analysis and evaluation of the students work is carried out, and a unified algorithm of actions is developed.

Therefore, when going through the simulation scenario, all three aspects of Bloom's taxonomy of assessing target learning competencies are taken into account.: — cognitive learning tasks (knowledge) — «What should program participants know?»- psychomotor learning tasks — «What are participants required to be able to do?»- affective learning tasks — «What should participants think about, care about?»

Taking into account all of the above, a promising way to improve the training of students of higher educational institutions is the introduction and application of simulation technologies that involve modeling various clinical scenarios. Reproducing simulation scenarios contributes to the mastery and improvement of personal professional skills and increases students' motivation to learn, improving the assimilation of the material. The use of this simulation technique contributes to self-realization and the development of teamwork skills in students, which in the future will reduce the risks of errors in practical activities.

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EMERGENCIES IN NURSING: THE EVOLVING ROLE OF NURSES IN EMERGENCY CARE AND THE IMPACT OF SIMULATION TRAININGS ON EFFECTIVENESS

Marichereda V.H., Rogachevskyi O.P., Pervak M.P., Khrapova Y.S.
Odesa National Medical University

Introduction. The growing number of complex clinical cases is placing significant strain on healthcare systems, increasing the demand for highly skilled nursing professionals. Scenario-based simulation training has emerged as an effective method to enhance preparedness by replicating real-life medical situations, thereby improving nurses' knowledge, practical skills, and confidence. Despite its clear advantages, further research is needed to establish standardized evaluation protocols

This study aims to evaluate the impact of simulation-based training on nurses' knowledge, proficiency, and competency development in emergency care settings.

The main part. During the autumn semester of 2024, 94 nurses participated in a specialized training program designed by the Department of Simulation Medical Technologies at ONMedU. The program was structured around the international Advanced Trauma Life Support (ATLS) course, incorporating the ABCDE assessment and intervention algorithm as its core framework. A total of 89 participants completed all stages of the study.

To measure the effectiveness of scenario-based training, the following parameters were analyzed: Practical skill execution time — the average time to complete assigned tasks decreased by 20 % (from 9.0 to 7.2 minutes; $p < 0.05$). Quality of skill performance — scores based on standardized checklists improved from 71.8 ± 8.1 to 87.2 ± 6.5 ($p < 0.01$). Knowledge assessment — post-test results demonstrated a 32 % increase compared to pre-test scores (58.7 ± 9.1 vs. 77.5 ± 7.8; $p < 0.001$).

Conclusions. The findings confirm the effectiveness of scenario-based simulation training in enhancing the competencies of nurses in emergency care. The observed improvements in both technical skills and theoretical knowledge support the broader implementation of such educational programs.