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Матеріали

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з міжнародною участю

"Симуляційна медицина погляд в майбутнє"

(впровадження інноваційних технолоогій у вищу медичну освіту України)

м. Чернівці
19 лютого 2021

МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ

МАТЕРІАЛИ

НАУКОВО-ПРАКТИЧНОЇ КОНФЕРЕНЦІЇ

З МІЖНАРОДНОЮ УЧАСТЮ,

"МЕДИЧНА СИМУЛЯЦІЯ - ПОГЛЯД В МАЙБУТНЄ"

(впровадження інноваційних технологій у вищу медичну освіту України)

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

С 37Медична симуляція – погляд у майбутнє (*впровадження інноваційних технологій у вищу медичну освіту України*) (для лікарів, науковців та молодих вчених) : наук.-практ. конф. з міжнар. участю. Чернівці, 19.02.2021 року: тези доп. / Чернівці: БДМУ. – 267 с.

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SIMULATION MEDICINE AND OTHER INNOVATIVE TECHNIQUES IN THE STUDY OF INTERNAL MEDICINE FOR THE 5TH YEAR STUDENTS

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The modern labor market places high demands on the training of competitive, highly qualified doctors because the society needs independent, creative specialists, initiative and enterprising, able to work in a team, to offer and develop ideas, to find innovative solutions[1, 15]. Therefore, the problem of the lack of professional competence of graduates is very relevant today.

Studying at a higher educational institution involves not only the compulsory acquisition of theoretical knowledge but also the qualitative mastery of future specialists by practical skills and competences. This is an important component of modern medicine[5]. Such an approach will allow future specialists to develop skills of dialogic communication, a tolerant attitude to the opinions and views of colleagues, the ability to distinguish (isolate) the problem from the general situation, to choose the best way to solve, predict and analyze the results that meet the criteria of professional competence of the specialist. Active and interactive forms and methods of education play an important role in training competitive, highly skilled health care professionals [3].

To prepare a competent medical professional ready for independent work, a combination of traditional teaching methods using innovative technologies is required[4]. Student have to master the basic skills before they face real life situation (work). However, on clinical bases it is not always possible to provide the necessary means for mastering practical skills, often the low prevalence of a particular nosology does not make it possible to familiarize the student with it in practice [6]. Therefore, to increase students' motivation in the study of internal medicine, various active teaching methods are actively used: the method of active dialogue (discussion), presentations, the crew-role method, simulation role-playing games. Such approaches to the organization of students' work in practical classes should activate mental activity, develop their creative potential and research approach to solving specific professional problems in the discipline being studied [7, 10].

Also, a study of the effectiveness of simulation teaching methods shows that in this case, the level of motivation to further self-education becomes much higher, since it creates a real environment that the student may face in his future professional activity. In addition to working in simulation (training centers), the use of situational clinical tasks (in pulmonology, cardiology, hematology) as role-playing games are used in the study of internal medicine. After all, educational simulation game, most fully corresponds to the idea of a new, contextual type of training, because it reflects its most characteristic features[12, 16, 17].

An example of a simulation game that is regularly used in the study of certain areas of internal medicine is also the clinical analysis of a thematic patient [16]. An independent survey, examination by a student as a doctor ends with group discussion. The teacher acts as a so-called expert, gradually adding information from the medical history, if necessary, directing from simple to complex. Under the guidance of the teacher, students distinguish the main symptoms based on survey data, review, additional research methods. Students learn how to identify the differential number of nosologies that are accompanied by similar symptoms and syndromes. If necessary, an additional examination plan is provided to clarify the underlying and associated pathology. The detailed diagnosis of the main and accompanying diseases is established [14].

In addition, the main focus is on the principles of drug therapy, the presence of indications and contraindications to the appointment of specific pharmacological groups,

discusses the benefits of certain drugs, the possibility of side effects, discusses the advantages and disadvantages of different treatment regimens offered by students, taking into account the problems of the drug interaction, age aspects, and comorbidity, etc. It also predicts the expected effect of treatment, the prognosis of the disease (recovery, improvement, etc.), indicate the preventive measures to eliminate recurrence or progression of the disease[11, 13].

The use of such forms of student learning is fully justified in terms of current principles of educational simulation, as it facilitates the accumulation of professional competencies for students and allows them to adapt more easily in real professional activity in the future.

Thus, the undeniable advantage of simulation technologies is that their implementation allows you to move away from traditional forms of the educational process in practical classes, allows you to shift the focus on the student, allowing the latter to practice skills, make mistakes and correct them, analyze the situation and draw conclusions [2]. The application of methods of active learning, in particular, simulation role-playing, allows medical students, while remaining in the position of students, to perform professional actions and deeds. The form of organization of such activity practically reproduces the forms of real professional activity [8]. A successful alternative to patient education is simulation training. In the medical education system, simulations underlie several techniques designed to reproduce clinical situations for learning, repetition, assessment, and research. Simulation techniques range from a basic level in the form of verbal simulation to more advanced ones, such as standardized patients [9].

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EDUCATIONAL SIMULATION TECHNOLOGY AS A PREREQUISITE OF IMPROVED DENTAL CARE AND PATIENTS`SAFETY

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Stomatology as a science has undergone tremendous changes due to technological advances which revolutionized dental care in many dramatic ways, making diagnosis, care and treatment easier and less invasive. Simulation, however, not being an innovative method, has been around for preclinical dental education since the 18th century, has progressed from the utilization of sizeable teeth models to simulated patients, high-fidelity virtual reality, haptics and robotics and is currently being developed to support the acquisition of requisite psychomotor skills before real-life clinical application.

This research paper aims to provide a historical background and methodology of simulation technology usage in dentistry as well as analyze the efficiency of phantoms, mannequins and models for honing students' dexterity and motor skills in the process of studying in simulation centres and medical institutes before real-life clinical applications.

In addition to the above, this paper aims to shed the light on the value of virtual simulation in the current preclinical dental education framework that will expand opportunities and enable students to have a successful clinical exposure.

The paper elucidates such research materials as facts and historical reference regarding simulation procedures around the globe based on the case studies, research articles and social surveys as the research methods which are perceived through the comparative analysis. In