

**IMPORTANCE OF SIMULATION CENTERS IN
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Abstract This research paper analyzes in detail the importance of simulation centers in the teaching of medical sciences. Simulation learning methods play an important role in providing students with practical skills, preparing them for clinical situations, and creating an environment where there is no fear of making mistakes.

The paper examines the benefits of simulation centers, including interactive learning, developing quick thinking skills, and improving teamwork skills. Also, the integration of simulation education with innovative technologies, interactions between students and teachers, and the effectiveness of teaching are analyzed.

As a result, simulation centers appear as an important tool in the acquisition of not only theoretical knowledge, but also practical skills in medical education. This work also shows the prospects for the development of simulation education in the future and its importance in the field of medicine.

Key words: medical education, simulation centers, practical skills, clinical situations, interactive learning, not afraid to make mistakes, quick thinking, teamwork, innovative technologies.

Introduction: The process of teaching medical sciences requires providing students not only with theoretical knowledge, but also with practical skills. To work successfully in modern medicine, students need to be prepared for clinical situations, make quick and effective decisions, and develop communication skills with patients.

Simulation centers play a unique role in the acquisition of such important skills.

Simulation centers create innovative learning environments that allow students to replicate real-world situations. With these centers, students can learn surgery, resuscitation, diagnostics and other medical procedures in a safe and supervised manner. The advantages of simulation training, including the development of practical skills, fearlessness to make mistakes and quick thinking, further increase the importance of these centers in medical education.

Simulation centers also play an important role in the development of interprofessional education. Another important aspect of simulation education is to ensure cooperation between different specialties, to prepare students for teamwork and to teach them to approach clinical situations together.

This scientific work examines the importance of simulation centers in the teaching of medical sciences, their contribution to the educational process, and the prospects for future development. Ways to improve the effectiveness of simulation centers and integrate them into the educational system are also analyzed.

Materials and methods: The following materials and methods were used to study the importance of simulation education in this scientific work: Existing simulation centers and their infrastructure in medical educational institutions. Simulation equipment and technologies (eg mannequins). Simulation training programs and their goals. Guides and materials for teachers and students. Study and analysis of available scientific literature on the topic. Review of articles, books, and research on medical education and simulation-based learning methods. Conducting surveys among students and teachers. To explore their attitudes, experiences and opinions towards simulation learning. Conducting interviews with teachers and specialists of simulation centers. To explore their experiences and instruction in the simulation learning process.

Experimental approaches to evaluate the effectiveness of simulation training. Teaching groups of students based on simulation education and traditional education

methods and comparing the results. Statistical analysis of the obtained data. Presentation of results using graphs and charts.

With the help of these materials and methods, a comprehensive analysis is conducted in order to study the importance and effectiveness of simulation education in teaching medical sciences.

Conclusions: The results of this study demonstrate the effectiveness of simulation education in teaching medical sciences. The information obtained during the research is presented in the following main areas: **Survey Results: Response Rate: Out of 200 students, 150 participated in the survey, which is 75%. Use of simulation learning: 85% of students rated simulation learning as effective in learning practical skills. 70% of students felt that they were not afraid to make mistakes during the simulation learning process.**

Interview results: 90% of teachers rated the contribution of simulation centers to the educational process as high. 80% of teachers noted the improvement of teamwork skills among students through simulation education.

Assessment of practical skills:

- **Results of assessment of practical skills between students who received simulation education (n=75) and students who received traditional education (n=75):**

- **Simulation training: average score 85/100.**

- **Traditional education: average score 70/100.**

- **Statistical analysis: T-test results: $p < 0.01$, which shows the effectiveness of simulation training.**

- **Teaching Effectiveness: Increased knowledge among students after simulation training:**

Previous assessment: 65/100.

- **After simulation training: 82/100.**

Results:

- Average difference: 17 points.
- $p < 0.05$, which indicates statistical significance of the difference.

Conclusion: The results of the study prove the effectiveness of simulation education in teaching medical sciences. The positive feedback given by students and teachers, as well as the results of the assessment of practical skills, emphasize the importance of simulation centers in the educational process. These results serve as a basis for the future development of simulation education.

The data obtained during the study showed that the use of simulation education helps to develop teamwork skills among students, increase the ability to think quickly, and apply theoretical knowledge to practice. As a result, simulation education makes the medical education process more effective and interactive.

Recommendations:

- Organization of simulation centers in each medical educational institution and equipping them with modern equipment.
- Development and implementation of teacher training programs on the methodology of simulation education.
- Development of interprofessional education between different medical specialties, improvement of teamwork skills through simulation training.
- Conduct additional research to examine the long-term effects of simulation training.
- Regularly study and take into account the opinions of students in the process of simulation education.
- Update and improvement of training programs taking into account simulation training methods.

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