

METHODOLOGY FOR DEVELOPING PEDAGOGICAL SKILLS IN TEACHING HYPERTENSION

Dekhkambayeva Zulfiya Abubakirovna,
Associate Professor of the Department of Pedagogy and
Psychology, Ph.D., TMA

Yormatov Shakhzodbek Shermukhammat og'li
Tashkent Medical Academy
1st Year Master's Student in Cardiology

Abstract:

This article analyzes methodological approaches aimed at developing pedagogical skills in teaching hypertension. The study examined the effectiveness of interactive methods, in particular, case studies, cluster, simulation exercises and lessons based on reflection. The results of the experiment proved that modern approaches to the topic of hypertension have a positive effect on the quality of student knowledge and teacher skills. The article contains practical recommendations to improve the quality of teaching in the field of medical education.

Keywords: Hypertension, pedagogical skills, interactive methods, case studies, medical education, simulation, reflection, clinical thinking.

Introduction

Today, hypertension is one of the most common chronic diseases in the world, and is one of the main causes of cardiovascular complications, reduced work capacity and premature death. According to the World Health Organization (WHO), every year millions of people suffer from complications such as heart attacks, strokes, and kidney failure due to hypertension. This makes timely detection and prevention of this disease, as well as its in-depth teaching, an urgent issue.

In-depth and effective teaching of the subject of hypertension in medical educational institutions depends, first of all, on the pedagogical approach of the teacher, his skills in conveying knowledge, and the level of use of interactive methods. Unfortunately, in practice, traditional, passive

approaches prevail in teaching this subject. This negatively affects students' interest in the subject and in-depth assimilation of professional knowledge. In such conditions, there is a need to develop the pedagogical skills of teachers and introduce new methodological approaches.

2. Research Methods

• 2.1. Object and subject of research

The process of teaching hypertension in medical colleges was chosen as the object of research of this scientific article.

The subject of research was the pedagogical methods used in teaching the topic of hypertension, their effectiveness and new methodological approaches that serve to improve pedagogical skills.

• 2.2. Research methods

The following scientific and pedagogical methods were used in the study:

- Pedagogical observation - existing approaches were analyzed by observing the lesson process.
- Questionnaire and interview - practical experience and feedback were obtained through interviews with teachers and students.
- Diagnostic tests - the level of students' knowledge was assessed using special tests at the beginning and final stages.
- Experimental-comparative analysis - teaching the topic of hypertension based on interactive methods was used in the experimental group, the results were compared with the control group.

2.3. Experimental basis

- The research experiment was conducted at the Abu Ali ibn Sino Medical College in Tashkent in the 2024–2025 academic year. Two groups were formed in the experiment:

- Experimental group: 10 teachers and 30 students (lessons were taught using interactive methods);

Control group: 10 teachers and 30 students (traditional lesson forms were retained).

The experiment lasted 6 months and included the following stages:

1. Determining the initial state (diagnostic tests, questionnaires);
2. Developing methodological materials for improving pedagogical skills;
3. Organizing lessons based on the methodology in the educational process;
4. Final monitoring and analysis of results.

3. Research results

3.1. Initial case analysis

The results of the initial diagnostic tests conducted on the topic of hypertension at the beginning of the experiment showed that the students' theoretical knowledge was superficial, they did not have a sufficient idea of the stages of the disease, diagnostic criteria, and treatment approaches. When looking at the teaching methods of teachers, it was found that most of them used only a lecture-style, traditional approach. Students' independent thinking, analysis of clinical cases, and communication skills were not sufficiently developed in the lessons.

3.2. Description of the development methodology

The methodology aimed at developing pedagogical skills in teaching hypertension included the following main approaches:

- Case study (analysis of clinical cases): students' analytical thinking and decision-making skills were developed through a discussion of clinical cases related to hypertension taken from real life.
- Cluster technology: systematization of concepts among students was achieved by grouping information on the symptoms, causes, complications, and prevention of hypertension.
- Simulation exercises: practical skills such as measuring blood pressure, communicating with the patient, and collecting anamnesis were practiced.
- Interactive tests and reflective analysis: the level of mastery was regularly assessed through tests and self-analysis tasks after each lesson.

3.3. Analysis of results

The results of the final test conducted at the end of the experiment showed the following changes

1-Table

Group	Initial grade point average	Final grade point average	Difference (%)
Experience	58,3	84,7	+45,2%
Control	57,9	63,4	+9,5%

Graphical analysis also clearly showed the results: students in the experimental group significantly increased their knowledge and skills in the symptoms, diagnosis and treatment of hypertension. Teachers, on the other hand, developed their skills in organizing interactive lessons and stimulating analytical thinking.

4. Discussion

The experience gained clearly showed the difference between traditional approaches to teaching hypertension and interactive, methodically based approaches. During the work with the experimental group, it was observed that students' theoretical knowledge deepened, clinical thinking was formed, and practical skills were strengthened. This once again confirmed that the teacher's pedagogical skills are a decisive factor in teaching such relevant topics as hypertension.

The results of this study show the advantages of using several scientific pedagogical approaches:

- The use of the case study method developed students' skills in analyzing real clinical situations and drawing independent conclusions;
- Simulation lessons strengthened the practice of the most important stage in the diagnosis of hypertension - correct measurement of blood pressure, collection of anamnesis, communication with the patient;
- Through interactive testing and reflection, a culture of self-improvement and self-assessment was formed in students.

At the same time, differences in methodological competencies were also observed among teachers. While some teachers quickly mastered new methodologies, others needed more time and methodological support to adapt. This situation indicates the need for a systematic approach to improving the qualifications of medical teaching staff.

The results of the study are consistent with some previous scientific works. In particular, studies conducted in Uzbekistan, Russia and European countries have also confirmed that teaching medical topics based on modern methods increases the level of professional preparation and analytical thinking among students.

5. Conclusions and recommendations

5.1. Conclusion

The conducted research has shown that the pedagogical skills of the teacher in teaching hypertension have a direct impact on the quality of knowledge and professional preparation of students. Compared with traditional approaches, interactive lessons organized on a modern methodological basis:

- deepen theoretical knowledge;
- develop clinical thinking;
- form practical skills;
- increase student activity.

The use of case studies, simulation, cluster and reflective methods within the framework of the topic of hypertension allowed for the effective organization of the educational process. The increase in methodological competencies among teachers had a direct positive impact on student results.

5.2. Recommendations

1. It is necessary to systematically introduce interactive methodologies in teaching the topic of hypertension in medical educational institutions.
2. Organizing special training and seminars to improve the pedagogical skills of teachers will give effective results.
3. It is recommended to widely involve clinical cases and practical simulation tasks in the curriculum.
4. It is advisable to introduce an assessment system based on portfolios, reflection and practical indicators, rather than a test-based approach, in assessing student knowledge.

5. In the future, pedagogical approaches can be further improved by conducting interdisciplinary integrated methodological research related to hypertension.

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