PEDAGOGICAL APPROACHES TO DEVELOPING COGNITIVE THINKING IN MEDICAL STUDENTS AND THEIR IMPORTANCE

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Abstract: *This article discusses the theoretical and practical foundations of pedagogical approaches aimed at developing the cognitive thinking of medical students. The article also analyzes the impact of these approaches on educational effectiveness and the motivational factors for student activity on a scientific basis.*

Keywords: *cognitive thinking, medical education, pedagogical approach, SNAPPS, reflection, problem-based learning (PBL), clinical scenario, critical thinking, interactive methods, reasoning, professional decision-making* **.**

The global medical education system places special emphasis not only on traditional knowledge and skills in the training of medical professionals, but also on the formation of cognitive thinking. Since the medical field is developing on the basis of constantly updated science and technology, future doctors must be independent thinkers, able to make quick and correct decisions in problematic situations, analyze and reason. In this regard, the pedagogical approaches used in medical education - in particular, the reflective approach, problem-based learning (PBL), clinical scenario-based learning and the SNAPPS model - are important methodological tools for developing students' cognitive thinking.

Pedagogical approaches are theoretical and technological approaches applied to the teaching process, through which active thinking, critical thinking, analytical thinking, and cognitive perspectives are formed in students. The main approaches used in medical education are:

1. Constructivist approach - according to this model, the student does not acquire ready-made knowledge, but recreates it based on his own experience. This approach requires the teacher to play the role of a consultant, a guide. The student, in turn, comprehends the knowledge and connects it with his previous knowledge. In particular, in clinical training, the study of the history of the disease and drawing conclusions based on it is carried out based on the constructivist approach.

2. Problem-based learning - the student is presented with a real clinical situation, an unknown condition, or a diagnostic challenge. The student studies the situation in depth, analyzes various options, and proposes a solution based on the choice. This process increases the level of thinking, teaches decision-making, and directs knowledge to practical application.

3. Active teaching technologies - through methods such as role-playing, working in

groups, analyzing cases, creating "concept maps", "brainstorming", students freely express their thoughts. They create new knowledge by complementing each other. Through these methods, the process of cognitive thinking is activated.

4. Reflective and metacognitive approaches - the student does not just learn, but also monitors, evaluates and develops ways to improve the process of self-learning. Reflection and self-analysis are considered a key stage in the development of cognitive thinking. The student realizes the error in his thinking, corrects it and forms a new approach [1].

Approaches to developing cognitive thinking complement each other. For example, problem-based learning is reinforced by reflective analysis. Or knowledge acquired through active methods is reinforced by a constructivist approach. In particular, models such as SNAPPS are examples of a combination of several approaches.

Modern teachers are adopting these approaches in their lessons, moving from traditional methods to an interactive model. For example, teaching effectiveness is increased through small group case discussions at the beginning of the lesson, followed by question-and-answer sessions, and finally reflective writing. This serves to gradually develop cognitive thinking.

There are 5 indicators for determining the level of cognitive knowledge of *students in internal medicine :*

- differentiation – knowledge of objects, events, processes, and properties while repeating previously learned information;
- memorization – the reproductive implementation of the received information;
- understanding;
- independent activity – applying information obtained during the learning process;
- Acquisition – a cognitive approach to solving non-standard tasks using received information [2].

The innovative activity of the future doctor is manifested in the cognitive approach, cognitive activity, technological and methodological readiness to introduce innovation, innovative thinking, and a culture of communication. During the period of cognitive activity, innovations and new ideas are fully absorbed into the educational process. For this reason, the introduction of innovations in the educational system into the pedagogical process is carried out in several stages:

– analysis of the existing pedagogical problem;

– designing the planned education system;

– planning, organizing and monitoring changes and innovations in the pedagogical process.

The goal of preparing doctors for cognitive activity is to develop a doctor's desire for innovation, the ability and skills to work independently, and to improve the skills

of conducting classes and extracurricular activities using modern pedagogical technologies and interactive methods.

Developing the cognitive thinking of future doctors *through the science of internal medicine* There are a number of psychological barriers to development. The first of these is the difficulty for a doctor to go beyond the boundaries of his usual activities, that is, the lack of creativity among doctors, and another reason is that new and unknown things always cause fear and anxiety in people. Thus, the aim is to train a new generation of competitive specialists, especially doctors, who have the ability to set themselves ambitious tasks and solve them, a high culture of thinking, and the ability to independently use scientific, technical, and socio-political information.

The following areas are taken into account when preparing doctors for cognitive activity:

- innovative readiness to perceive new things;
- to teach students a cognitive approach to activity aimed at forming and developing the minimum requirements that must be met by them, as specified in the qualification requirements for future doctors;
- organizing activities based on creativity [3].

The study of cognitive processes, their functions, laws of development, mechanisms and technologies of their implementation, the pedagogical foundations of management principles - makes it possible to organize the activity of a doctor in accordance with world standards. In this regard, the innovative activity of a future doctor requires the use of certain criteria that determine the effectiveness of innovation.

Preparing a future doctor for cognitive activity through the science of internal medicine involves the following:

- predict the success of the planned innovation as a whole and its individual stages; compare the innovation with other innovations, select the most effective ones, and check the degree of success of the most significant and specific ones;

- assessing the innovative capacity of the organization implementing the innovation. In this regard, the cognitive pedagogical activity of the doctor also finds expression in his personal competence.

The doctor demonstrates the following abilities in pedagogical activity:

- supports cognitive motivation in classroom activities and evaluates professional activity;
- contributes to the cognitive interaction of students;
- organizes his work with determination, responsibility and honesty;
- identifies the need for innovation activities;
- prepares for engagement in cognitive activity;
- aligns personal goals with innovative activities, etc. [4].

When teaching internal medicine to students, a doctor must be a progressive, productive cognitive individual, with broad interests, a rich inner world, and a thirst for pedagogical innovation. Innovative activity consists of motivational, technological, and reflective components.

The preparation of a doctor for this activity is carried out in two directions: the formation of cognitive readiness for the perception of novelty and training in new actions. In the organization of cognitive pedagogical activity, the cognitive activity of students and its management are of particular importance.

Based on the development of the cognitive thinking of the future doctor, the clinical readiness of students, individual psychological characteristics, and their motivational sphere are comprehensively studied, and methodological complexes are created that provide a continuous didactic system aimed at clinical development during independent education.

The following main functions are implemented in developing the cognitive thinking of future doctors through the science of internal medicine:

– analysis of a conscious approach to future professional activity;

– a critical approach to standards;

– enthusiasm for professional innovations;

– shaping creativity;

– to realize their potential, to live a healthy lifestyle and to embody their aspirations in their professional activities [5].

Thus, the future doctor will manifest himself in cognitive activity as an author, developer, researcher, and disseminator of new pedagogical technologies, theories, and concepts. The future doctor is required to use certain criteria in preparing for cognitive pedagogical activity. Such criteria can include novelty, acceptability, high efficiency, and the ability to cognitively support innovation in public experiences.

REFERENCES:

1. Mamatov, I. The effectiveness of the SNAPPS model in clinical training. – PhD dissertation, Nukus Medical Institute, 2023. – 65 p.

2. Makhmudov, D. Integration of SNAPPS and simulation training in medical education. – PhD dissertation, Tashkent Medical Academy, 2022. – 55 p.

3. Lukina, NA "Evaluation of clinical competence of students of medical universities in the transition to new educational technologies. Dissertation on the application of candidate pedagogical sciences. - Novosibirsk, 2019. - 215 p.

4. Nikolaeva, TV "Razvitie reflexivnoj deyatel'nosti studentov v usloviyah professional'nogo obucheniya." - Dissertation candidate of pedagogical sciences. - St. Petersburg, 2018. - 118 p.

5. Kuchkarov, M. Developing critical and reflective thinking in medical education. – Tashkent: Science, 2023. – 77 p.