

FORMATION OF PROFESSIONAL COMPETENCE IN MEDICAL STUDENTS: THE ROLE AND IMPORTANCE OF PEDAGOGY AND PSYCHOLOGY

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Abstract: This article provides a scientific analysis of the interrelation, integration, and significance of pedagogy and psychology in the process of developing professional competence among medical students in higher medical education institutions. It explores the essence and structure of professional competence, as well as the formation of empathy, reflection, and communication skills in the personality of a future physician.

Keywords: professional competence, pedagogy, psychology, empathy, reflection, learner-centered education, communication skills, medical education.

Introduction

In the context of globalization, preparing competitive, ethical, and professionally competent specialists in the field of medicine has become an urgent priority. The main goal of medical education is not only to provide knowledge but also to develop professional competence in medical students, fostering their independent thinking, ability to establish effective communication with patients, and commitment to humanistic values. The integration of pedagogy and psychology plays a decisive role in this process. Pedagogy, as a science, organizes the educational process on a theoretical and methodological basis and determines effective teaching strategies. Psychology, on the other hand, analyzes an individual's inner world, motivation, emotional state, and professional orientation. Therefore, the professional maturity of a medical student depends on the harmony between pedagogical processes and psychological preparedness.

The Concept and Structural Components of Professional Competence

Professional competence is an integrated system of knowledge, skills, abilities, and personal qualities necessary for a specialist to effectively carry out professional activities. According to Hojimatov, competence is defined as “the ability to consciously apply knowledge in practical activities and make independent decisions.” In medical education, professional competence should encompass cognitive, practical,

motivational-communicative, and psychological components. The cognitive component includes a medical student's theoretical knowledge, clinical reasoning, and analytical thinking. The practical component reflects the ability to apply this knowledge in clinical practice and make sound medical decisions. The motivational-communicative component represents the culture of communication with patients, empathy, and professional dedication. Meanwhile, the psychological component involves self-awareness, reflection, emotional stability, and stress tolerance. The overall quality of medical education largely depends on the balanced and harmonious development of these components.

The Role of Pedagogy in the Formation of Professional Competence

In higher medical education, the main function of pedagogy is to organize the teaching process on a scientific and methodological basis, implement modern educational technologies, and develop students' independent learning skills. Rasulova, in her research substantiates the effectiveness of innovative pedagogical approaches in medical education, including problem-based learning, case studies, simulation training, and interactive methods. These techniques help develop clinical thinking, teach decision-making in problematic situations, and bridge the gap between theoretical knowledge and practical activity. According to Mirziyoyeva, the application of a student-centered learning model in the medical field contributes to the realization of students' potential and increases their learning motivation. In this process, pedagogy serves not only as a means of imparting knowledge but also as a key factor in shaping the moral, social, and cultural competences of future medical professionals.

The Role of Psychology in Medical Education

The science of psychology supports the process of professional development among medical students by studying their inner world, motivation, self-awareness, and emotional state. According to Ahmedova, empathy, reflection, self-regulation, and stress tolerance are among the most essential psychological skills for medical students. Gilbert identifies empathy as one of the core attributes of a physician's personality, considering it the foundation for establishing a reliable therapeutic relationship with patients. Psychological preparedness plays a crucial role in the professional maturity of medical students in three main aspects:

1. Emotional and intellectual development — the ability to manage stress, maintain composure, and sustain emotional balance;
2. Reflection and self-assessment — the capacity to critically evaluate one's own actions and learn from mistakes;
3. Empathic communication — the ability of the student-physician to understand the patient's psychological state and apply an appropriate emotional approach.

Thus, a psychological approach in medical education serves not only to enhance knowledge acquisition but also to deepen professional competence through an understanding of the human psyche.

Human Factors in the Development of Professional Competence

In the professional formation of medical students, human factors such as morality, culture, compassion, responsibility, empathy, and integrity play a crucial role. Since the medical profession is directly related to human life, professional competence encompasses not only knowledge and skills but also ethical responsibility. Therefore, psychological and pedagogical influences in medical education should function not only as a teaching process but also as a formative and moral development process. Such an approach fosters professional ethics, humanism, empathy, and reflective thinking in the personality of the future physician.

Integration of Pedagogy and Psychology

The interrelation between pedagogy and psychology in medical education is a complex yet highly effective process. Pedagogical activity achieves true efficiency only when it is grounded in psychological principles. As Mirziyoyeva emphasizes, psychologically supporting a student-centered approach within the educational process fosters self-awareness, independent thinking, and communication culture among students. The integration of pedagogy and psychology in medical education ensures that the learning process is genuinely student-oriented while also facilitating the psychological adaptation of future physicians. Moreover, it helps to create a positive educational environment, strengthens collaboration among medical students, and promotes the values of humanism and empathy.

Literature Review

A wide range of local and international scholars have conducted research on the development of professional competence. Analyzing their works allows for a deeper understanding of the pedagogical and psychological dimensions of this topic. In her monograph “Tibbiyot psixologiyasi” (Medical Psychology), M. Sh. Ahmedova scientifically examines the role of psychological factors in medical education, particularly the influence of empathy, attention, reflection, and emotional stability on the professional success of physicians. D. Kh. Rasulova, in her work “Innovative Pedagogical Technologies in Higher Medical Education”, substantiates the effectiveness of interactive teaching methods in developing students’ independent thinking, professional responsibility, and communicative competence. The author argues that new pedagogical technologies enhance cooperation between students and instructors, thereby revitalizing the process of practical learning. A. Hojimatov, in “Methods of Professional Education”, explores the theoretical foundations of professional competence, its structural components — knowledge, skills, abilities, and personal qualities — as well as mechanisms for their formation within the educational

process. In “Fundamentals of Pedagogical Psychology”, Z. T. Karimova provides a detailed analysis of psychological approaches to professional formation, emphasizing motivation, social environment, self-awareness, and stress management mechanisms. Among foreign sources, P. Gilbert, in “Empathy: Psychological and Clinical Perspectives”, interprets empathy as one of the most essential psychological components that strengthens the mutual trust between doctor and patient in clinical practice. An overall analysis of these studies demonstrates that pedagogical methods and psychological approaches are intrinsically interconnected in the development of professional competence. Their integration contributes to the comprehensive personal and professional growth of medical students.

Conclusion

The formation of professional competence in medical education is a complex, multifactorial, and continuous pedagogical-psychological process. Research indicates that the integration of pedagogy and psychology plays a decisive role in ensuring the effectiveness of the educational process. While pedagogy provides medical students with theoretical knowledge, practical skills, and methodological foundations, psychology contributes to the development of essential personal qualities such as empathy, reflection, emotional stability, and stress resilience. Humanistic values — including ethics, culture, responsibility, compassion, and honesty — occupy a central place in the development of professional competence. Therefore, medical education should be viewed not only as the acquisition of professional knowledge but also as a holistic process encompassing personal and moral development. The integration of pedagogy and psychology enhances medical education based on the principles of humanism, empathy, and professional ethics. Consequently, the future doctor emerges not only as a competent professional but also as a socially responsible individual who prioritizes human values and effective communication in patient care.

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