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INTEGRATED APPROACH TO DEVELOPING PROFESSIONAL COMPETENCE OF FUTURE PHYSICIANS BASED ON THE ACL MODEL (ON THE EXAMPLE OF TEACHING INFECTIOUS DISEASES)

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Abstract: This article analyzes the effectiveness of an integrative approach to developing professional competence in medical education based on the ACL (Activity-Competence-Learning) model. It highlights the formation of students' competencies in practical clinical thinking, diagnostics, decision-making, and professional self-development within the context of teaching infectious diseases.

Keywords: medical education, infectious diseases, ACL model, professional competence, clinical reasoning, integrative approach, simulation, virtual laboratories, reflective analysis, diagnostic decision-making.

Introduction. Modern approaches to training medical personnel, in particular, the use of activity-oriented, competency-based and integrated teaching technologies, are becoming widespread in educational institutions around the world. In this regard, creating an educational environment that activates students, forms their professional competence and ensures thorough mastery of specialized subjects is recognized as one of the most effective methods. Large-scale research is being conducted in educational and research institutions around the world to modernize medical education, improve the quality of clinical training, and develop the professional competence of future doctors. In particular, activity-oriented, competency-based learning models, especially the Activity–Competency–Learning (ACL) model, are being implemented in prestigious higher medical education institutions.

In recent years, the introduction of professional competency-based educational methodologies in medical education in line with international standards has been a priority task in our republic. Work is underway to gradually reform medical education, introduce advanced foreign experiences, and develop new technologies for integrated teaching of science and practice. The formation of professional competencies in higher medical education is not just the transfer of knowledge, but the process of deepening the student's level of readiness for professional activity, preparing them to solve real clinical problems, and developing analytical thinking, speech culture, empathy and professional values. This approach is especially relevant in infectious diseases, since infectious disease doctors are required to act quickly, have a modern outlook and adapt to a changing epidemiological environment. In these circumstances, effective organization of the educational process is put forward as an important methodological solution for the gradual and systematic formation of professional competencies in students.

Methods. The methodology is centered on the concept of professional competence, which is a set of knowledge, skills, moral values, and psychological preparation that allow a doctor to perform his professional activities competently, independently, and responsibly. This concept has become a central category of modern approaches to medical education. The level of competence depends not only on the student's knowledge, but also on their ability to apply this knowledge to a real clinical situation. The formation of professional competencies is effective only when organized on the basis of activity-based learning, integrative communication, reflection, problem tasks, and clinical-situational cases. Based on general didactic principles, the

specific requirements of the medical profession (quick thinking, stress resistance, communication, empathy) must be developed in accordance with the structure of professional competencies.
Professional competencies in this model include the following core elements:

- Clinical thinking (diagnosis, differential decision-making, symptom analysis)
- Communicative competence (patient communication, medical ethics, cultural adaptability)
- Reflective thinking (analyzing one's own performance, creating a professional growth plan)
- Creative-analytical potential (adaptation to a new situation, understanding an unusual clinical situation)

The ACL (Activity–Competency–Learning) model is of particular importance in teaching these components. In the ACL approach, students not only acquire knowledge but also apply that knowledge to active clinical activities, reflect, and assign professional meaning to knowledge. For example, instead of just memorizing the symptoms and treatment of hepatitis, a student in the ACL approach applies this knowledge to a real-life disease scenario in interaction with a patient, takes responsibility for his decisions, evaluates alternative paths, and evaluates his performance. This is achieved by developing key aspects of competence, including clinical reasoning, mastery of practical skills, and communicative competence.

Results. The results of the study show that integrative approaches based on the ACL model significantly increase not only the theoretical knowledge of students, but also their level of readiness for practical activities. Empirical analyses also show that as a result of developing professional competencies in future doctors:

- the ability to independently analyze clinical cases increases;
- the effectiveness of clinical decisions increases;
- the quality of communication with the patient improves;
- professional identity is strengthened.

As a result, future doctors reach a level where they can critically and analytically approach their work, understand professional errors and develop ways to eliminate them.

Discussion. Developing professional competencies in future doctors is not just a didactic need, but a scientifically based, systematic, practice-oriented pedagogical necessity. The application of the ACL model proves to be a crucial tool in this process. Especially in teaching a complex and case-oriented subject such as infectious diseases, tools like clinical case analysis, reflective writing, debriefing exercises, simulation, and case-study approaches are important for developing professional competence. The findings confirm that this model helps future doctors to not only gain knowledge but to apply it responsibly and critically in clinical settings. Therefore, the gradual introduction of the methodology based on the ACL model into the medical education process is pedagogically and practically expedient.

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