Teaching students using the case method in phthisiology practical training

Nargiza Toirjonovna Mamatova Zafar Xakimovich Jumaev Shirin Khayrulloevna Akhtamova Samarkand State Medical University

Abstract: Innovative methods in teaching include the assessment of creative approaches to understanding the discipline, as well as the ability to find non-standard solutions to standard problems. Education should become an interesting and exciting process that contributes to the personal and professional growth of the student. Therefore, it is necessary to more intensively introduce educational technologies suitable for our conditions. Of course, we do not have enough time, money, or even knowledge to apply some of them, since modern technologies use the latest achievements of science, technology, and psychology. Relatively recently, the method of solving cases has become widespread in education, becoming one of the most effective teaching technologies.

Keywords: case method, education, student, science

In modern conditions, the higher education system must prepare specialists capable of professional activity in a dynamic world, where a person constantly faces non-standard tasks, the solution of which requires the presence of skills and abilities to construct and analyze one's activity. The transformation of society into a global information one, based not only on knowledge but also on professional competence, has actualized the problem of innovative approaches to organizing educational processes. The scientific literature devoted to the problems of managing innovation processes in the educational sphere notes the complexity and multifaceted nature of this process. Particular attention is focused on the fact that an innovative approach to teaching students should be systematic and cover all aspects of educational work in the preparation of future specialists. At the same time, modern theoretical and practical approaches to the content of education, professional and pedagogical training of teachers, and the development of new technologies and teaching methods must be formed. At the moment, traditional training of specialists, which focuses on the formation of knowledge, skills, and abilities in the subject area, is increasingly falling behind modern requirements. The basis of modern education should be not so much academic disciplines, but the ways of thinking and ideation of students.



Currently, the most common forms of educational work for the introduction of innovative processes into the educational process and the formation of key professional competencies of future specialists is the use of various active forms and methods of training: creating projects, preparing public speeches, discussion of professionally important problems, collaborative learning, creating problem situations, preparing professionally directed videos and presentations. They create conditions for the formation and consolidation of professional knowledge, skills, and abilities of students, and contribute to the development of professional qualities of the future specialist. The use of innovative methods by teachers in the learning process helps to overcome stereotypes in teaching various disciplines, develop new approaches to professional situations, and develop the creative abilities of students. The advantages of innovative methods are difficult to overestimate since they play a significant role in the formation of the personal qualities of a future specialist. Innovative methods help students learn active ways to acquire new knowledge, allow them to master a higher level of social activity, also stimulate students' creative abilities, and help bring their studies closer to the practice of everyday life.

Innovative methods in teaching include the assessment of creative approaches to understanding the discipline, as well as the ability to find non-standard solutions to standard problems. Education should become an interesting and exciting process that contributes to the personal and professional growth of the student. Therefore, it is necessary to more intensively introduce educational technologies suitable for our conditions. Of course, we do not have enough time, money, or even knowledge to apply some of them, since modern technologies use the latest achievements of science, technology, and psychology. Relatively recently, the method of solving cases has become widespread in education, becoming one of the most effective teaching technologies. The introduction of educational cases into educational practice is currently a very urgent task. A case is a description of a specific real-life situation, prepared in a specific format and intended to teach students how to analyze different types of information, generalize it, the skills of formulate a problem, and develop possible solutions to it in accordance with established criteria. The essence of the method is that the assimilation of knowledge and the formation of skills is the result of active independent activity of students, as a result of which there is a creative mastery of professional knowledge, skills, abilities, and the development of thinking abilities. The advantage of the case is the opportunity to optimally combine theory and practice, which seems quite important when training a specialist. The case method promotes the development of the ability to analyze situations, evaluate alternatives, choose the best option, and plan its implementation. Accordingly, solving a case means analyzing the proposed situation and finding the optimal solution. The doctor solves cases every time he diagnoses a patient and prescribes

(CC) BY

treatment. Students' work with medical cases involves an active teaching method based on consideration of specific (real) situations from the practice of students' future activities. Students receive clinical information in the first part of which the initial condition of the patient and the symptoms of the disease are described, the second contains the results of the initial examination, the subsequent parts are devoted to test results, specialist diagnosis, prescribed treatment, the patient's response to this treatment and further progress of treatment. During the discussion, students were required to pose additional questions, put forward hypotheses, and formulate a plan for independent study of materials on the topic.

Thus, with the introduction of cases into training, medical students were immersed in the world of medical practice instead of purely theoretical training. Today, the case method has gained a leading position in teaching, is actively used in foreign educational practice, and is considered one of the most effective ways of teaching students the skills to solve typical problems. Created as a method for studying economic disciplines, the case method is now widely used in the study of medicine, law, and other sciences, such as management, marketing, and sociology.

The use of case technologies in teaching will not solve all problems and should not become an end in itself. It is necessary to take into account the goals and objectives of each discipline, the nature of the material being studied, and the capabilities of the students. In medicine, the material (case) for study, as a rule, is an individual patient with inherent painful disorders, identified mainly by objective examination methods.

When considering the use of the case method in the study of phthisiology, one should take into account the specifics of the subject, which consists in determining the psychopathological symptoms and syndromes in the patient by conducting varying degrees of the structure of the so-called "clinical interview", i.e. purposeful conversation. In our practice of situational training, in the first practical lesson, students are presented with patients with pronounced pathological disorders, and subsequently, the cases become more complicated.

Students, with varying degrees of involvement, depending on interest and the severity of cognitive activity, independently began a clinical examination of the patient, aimed at identifying pathological disorders. In cases where difficulties arose in the process of collecting information, the teacher briefly joined the examination, asking the patient questions that guided the students to further clarify and detail the existing disorders. Simple alternative answers such as yes or no were not used to identify symptoms, the teacher encouraged the patient to speak freely, rarely interrupted him, and allowed time for reflection and recollection. The questions were contextually adapted and followed the logic of the patient's narrative, usually the teacher clarified details or asked for examples. At the same time, students received

not only additional information about existing and unidentified disorders but also had an example of a clinical examination. The students recorded the identified symptoms in writing in random order, as certain pathological disorders were identified. After completing the collection and recording of the information received, students were asked to translate the received data into terminological symptomatic concepts using the acquired knowledge in the process of preparing for the practical lesson. Then there was an oral group interaction with a discussion about the identified disorders.

At the next stage of working with a practical case, students were asked to integrate the identified individual symptoms into a more complex diagnostic system - a syndrome. The concept of a pathological syndrome was previously defined as a set of symptoms naturally united by a common pathogenesis, in which main (obligate) and additional (optional) symptoms are distinguished. Attention was focused on the fact that the correct ranking of symptoms in the syndrome and its generally accepted classification will help increase the reliability and validity of the diagnosis.

The innovative training of students in the basics of phthisiology carried out in this way, involves a targeted study of literature, discussion of pathological concepts, real conversations with patients under the supervision and with the participation of a teacher, followed by a discussion of their technical aspects, interpersonal interaction, origin and diagnostic significance of the information received.

Thus, to summarize, it can be noted that innovative methods of teaching students are based on active methods that help to form a creative, innovative approach to understanding professional activity, develop independent thinking, and have the ability to make optimal decisions in a certain situation.

As practice shows, the use of innovative methods in professionally oriented training is a necessary condition for the training of highly qualified specialists. The use of a variety of active learning methods and techniques awakens students' interest in the educational and cognitive activities themselves, which makes it possible to create an atmosphere of motivated, creative learning and at the same time solve a whole range of educational, educational, and developmental tasks. The greatest effect can be achieved with a reasonable combination of traditional and interactive teaching technologies when they are interconnected and complement each other.

References

1. Аджаблаева Д.Н. Основные эпидемиологические показатели по туберкулезу органов дыхания среди детей и подростков в Самаркандской области: состояние проблемы и возможные пути её разрешения // Universum: медицина и фармакология. 2014. №9 (10). С.2.

(cc)) BY

2. Ашуров А. А., Абдухакимов Б. А. Калқонсимон бези патологияси кузатилган беморларда силга қарши даволаш чораларининг оқибатлари //Academic research in educational sciences. – 2022. – T. 3. – №. 8. – C. 166-173.

3. Маматова Н. Силнинг оғир ва сурункали шакллари билан касалланган беморларга паллиатив тиббий ёрдам кўрсатишнинг ахамияти //Журнал вестник врача. – 2020. – Т. 1. – №. 2. – С. 53-56. https://doi.org/10.38095/2181-466Х-2020942-52-55

4. Adjablaeva D.N. Active identification of tuberculosis in children and adolescent. Молодежь и медицинская наука в XXI веке. 2014.

5. Ашуров А., Абдухакимов В. (2021). Особенность течения туберкулеза легких у детей в сочетании с гельминтозом. Журнал кардиореспираторных исследований, 2(3), 69-72. https://doi.org/10.26739.2181-0974-2021-3-13

6. Маматова Н.Т. Опыт применения краткосрочных курсов лечения у больных туберкулёзом с множественной лекарственной устойчивостью в Самаркандской области. Вестник научно-исследовательского института туберкулёза,106-107, 2020.

7. Маматова Н. Силга қарши даволаш чораларининг қалқонсимон безининг фаолиятига таъсири //Журнал вестник врача. – 2020. – Т. 1. – №. 4. – С. 31-35.

8. Маматова N. (2022). Влияние туберкулеза легких на психическое состояние подростков. Журнал гепатогастроэнтерологических исследований, 2(3.2),114–117. https://inlibrary.uz/index.php/hepatoизвлечено ОТ gastroenterological/article/view/2454

9. Маматова N., Ашуров А., Абдухакимов В. (2022). Особенности течения туберкулеза легких у детей в сочетании с глистной инвазией. Журнал кардиореспираторных исследований, 2(1), 74-77. https://doi.org/10.26739.2181-0974-2021-1-14

10. Маматова Н. Т. и др. Влияние улучшения психического состояния на эффективность лечения женщин, больных туберкулезом органов дыхания //Science and Education. – 2023. – T. 4. – №. 5. – C. 156-165.

11. Mamatova N.T. Influence of bedaquiline on the effectiveness of complex treatment of tuberculosis of the respiratory system. Journal of cardiorespiratory research. 2020, vol. 1, issue 1, pp. 77-80.

12. Ходжаева, С. (2011). Данные электрокардиографических исследований при туберкулёзе органов дыхания. Журнал вестник врача, 1(04), 127–128. извлечено от https://inlibrary.uz/index.php/doctors_herald/article/view/12536

13. Ходжаева, С. (2011). Актуальные проблемы туберкулёза в сочетании с ВИЧ. 125–126. Журнал вестник врача, 1(04), извлечено ОТ https://inlibrary.uz/index.php/doctors_herald/article/view/12535

(cc) BY

14. Ходжаева, С. (2011). Актуальные проблемы противотуберкулёзной помощи детям и подросткам. Журнал вестник врача, 1(02), 149–150. извлечено от https://inlibrary.uz/index.php/doctors_herald/article/view/11898

15. Ходжаева, С. (2011). Актуальные вопросы туберкулеза половых органов у женщин и мужчин. Влияние туберкулёзного процесса на фертильность. Журнал вестник врача, 1(02), 151–153. извлечено от https://inlibrary.uz/index.php/doctors_herald/article/view/11899

16. Abduhakimov B.A. The importance of improving the mental state of patients with tuberculosis.//Web of Scientist: International Scientific Research Journal. -2022. - T. 3. - No. 4. - C. 1423-1429.https://doi.org/10.17605/OSF.IO/RNB7V

17. Abduhakimov B.A. O`pka sili bilan kasallangan bemorlarga stomatologik yordam ko'rsatishning ahamiyati. Academic Research in Educational Sciences. 2022, volume 3, issue 1, pp.258-262.

18. Ashurov A.A. The importance of palliative care in patients with severe and chronic forms of tuberculosis. ACADEMICIA: An International Multidisciplinary Research Journal 12 (2), 290-293. https://doi.org/10.5958/2249-7137.2022.00159.8

19. Ataxanovna, K.S. The Effectiveness of Short-Term Treatment Regimens In The Treatment Of Drug-Resistant Forms Of Tuberculosis. European Journal of Molecular & Clinical Medicine, 2020, Volume 7, Issue 3, Pages 5236-5240.

20. Mamatova N. T. Psychological characteristics of adolescents with respiratory tuberculosis //Journal of Biomedicine and Practice. $-2020. - T. 5. - N_{\odot}. 5. - C. 135-140.$

21. Xaydarovna, M.F. (2020). Prevention Of Anemia In Patients With Tuberculosis. The American Journal of Medical Sciences and Pharmaceutical Research, 2(11), 62-65. https://doi.org/10.37547/TAJMSPR/Volume02Issue11-11.

22. MN Toirjonovna. Features of pulmonary tuberculosis in children with helminthiasis. Web of Scientist: International Scientific Research Journal 3 (11), 643-651.

23. Mamatova N. T. et al. Sil bilan kasallangan bemorlarni kompleks davolash samaradorligiga bedakvilinning ta'siri //Science and Education. $-2023. - T. 4. - N_{2}$. 2. - C. 107-117.

24. NT Mamatova, AA Ashurov, BA Abduhakimov. Ruhiy holat yaxshilashning siydik ajratish tizimi sili bilan kasallangan bemorlarning davolash samaradorligiga tasiri. Academic research in educational sciences 3 (10), 892-900.

25. Mamatova, N.T., Abduxakimov, B.A., Axtamova, S.X. and Ashurov, A.A. 2024. Bemor kuratsiyasi - ftiziatriya va pulmonologiya kafedrasida talabalarning mustaqil ishining asosiy shakli. Science and Education. 5, 4 (Apr. 2024), 84–90.

26. Mamatova N. T. et al. The effect of mental status improvement on treatment effectiveness in men with urinary tuberculosis// Academia Science Repository, 2023.

27. Mamatova N. T. et al. Ko'p bolali oiladagi bolalarda ko'krak ichi limfa tugunlari silning aniqlanishi va uning kechishi //Science and Education. -2024. - T.5. $- N_{2}. 2. - C. 69-76.$

29. Mamatova N. T. et al. Nafas olish tizimi sili bilan kasallangan bemorlarga stomatologik yordam ko'rsatishning ahamiyati //Science and Education. -2022. - T.3. $- N_{2}. 12. - C. 132-141.$

30. Toirjonovna M. N., Abduhakimovich A. A., Abduvaliyevich A. B. Role of palliative care for patients with severe and chronic tuberculosis //Modern scientific challenges and trends. -2021. - C. 30.

31. Маматова, Н., Ашуров, А., & Абдухакимов, Б. (2024). Silning surunkali shakllari bilan kasallangan bemorlarga palliativ tibbiy yordam ko'rsatishning ahamiyati . Инновационные подходы к диагностике, лечению и профилактике туберкулеза и неспецефической респираторной патологии у взрослых и детей, 1(1), 85–86. извлечено от https://inlibrary.uz/index.php/prevention-tuberculosis/article/view/30633.

32. Маматова, Н. «Значение паллиативной медицинской помощи для больных с тяжелыми и хроническими формами туберкулёза». Журнал вестник врача, т. 1, вып. 2, март 2022 г., сс. 53-56, doi:10.38095/2181-466X-2020942-52-55.

33. Mamatova N.T., Abduhakimov B.A. Effects of anti- tuberculosis treatment on the functional status of the thyroid gland. Journal of cardiorespiratory research. 2020, vol. 3, issue 1, pp.24-27

34. Mamatova N. T. et al. Mobile testing in the system of higher medical education //Science and Education. $-2024. - T. 5. - N_{\odot}. 9. - C. 243-249.$

35. Toirjonovna M. N., Abdulloyevich A. A., Khayrulloevna A. S. Degree of adherence to treatment regulations of teenagers infected with tuberculosis //European journal of modern medicine and practice. $-2024. - T. 4. - N_{\odot}. 8. - C. 126-132.$

36. Маматова, Н.Т. Отрицательные социальные факторы и их влияние на возникновение туберкулеза у детей / Н.Т. Маматова, С.А. Ходжаева // Молодежный инновационный вестник. – 2018. – Т. 7, № S1. – С. 67.

37. Маматова Н.Т., Ходжаева С.А. Выявление туберкулёза лёгких у больных с психическими расстройствами. // Журнал молодёжный инновационный вестник. 2018. №1(7). -С. 68.

40. N.T. Mamatova., B.A. Abdukhakimov. Emotional state of tuberculosis patients and their families. Innovations in pedagogy and psychology. 2021, vol. 4, issue 1, (56-60) pp.

41. AA Kim, NT Mamatova, AA Ashurov, BA Abduhakimov. Siydik ajratish tizimi sili bilan kasallangan erkaklarning davolash samaradorligiga ruhiy holat yaxshilashning ta'siri. Science and Education 3 (11), 143-153.

42. Маматова Н, Ходжаева С, Ашуров А, Абдухакимов Б. The effect of pulmonary tuberculosis on the mental state of adolescents. Журнал гепатогастроэнтерологических исследований. 2021;2(3.2):114-7.

43. Toirjonovna, M.N., Abdulloyevich, A.A. and Khayrulloevna, A.S. 2024. Degree of adherence to treatment regulations of teenagers infected with tuberculosis. European journal of modern medicine and practice. 4, 8 (Aug. 2024), 126–132.

44. Маматова, Н. (2022). Влияние бедаквилина на эффективность комплексного лечения туберкулёза дыхательной системы. Журнал кардиореспираторных исследований, 1(1), 77–80. https://doi.org/10.26739.2181-0974-2020-1-1