

DOI <https://doi.org/10.11603/m.2414-5998.2024.4.15134>  
UDC 378.018.43-027.22:616.311:378.046-021.68

**L. L. Reshetnyk**

ORCID <https://orcid.org/0000-0001-9295-7800>

**O. V. Bida**

ORCID <https://orcid.org/0000-0002-6038-6545>

**I. Yu. Savchuk**

ORCID <https://orcid.org/0009-0008-0972-0828>

*Bogomolets National Medical University*

## USING THE CASE METHOD IN THE STUDY OF DISEASES OF THE ORAL MUCOSA

**Л. Л. Решетник, О. В. Біда, І. Ю. Савчук**

*Національний медичний університет імені О. О. Богомольця*

## ВИКОРИСТАННЯ КЕЙС-МЕТОДУ ПІД ЧАС ВИВЧЕННЯ ЗАХВОРЮВАНЬ СЛИЗОВОЇ ОБОЛОНКИ РОТА

**Resume.** In order to reform higher dental education, it is necessary to introduce the latest methodical innovations related to the use of interactive teaching methods. Educational activity should be innovative and based on original methods of development of various forms of thinking, creative abilities, as well as high social and adaptive capabilities of the individual. Thanks to the «case-study» method, theoretical knowledge is used to solve practical problems, which contributes to the development of independent thinking, the ability to listen to and take into account an alternative point of view, to express one's opinion in a reasoned manner.

**The purpose** was to test and introduce the «case-study» method into the educational process at the Department of Dentistry of the Institute of Postgraduate Education of Bogomolets NMU and determining its effectiveness when studying the section «Diseases of the oral mucosa».

**Results and discussion.** Therefore, the application of the case method in practical classes when studying the section of therapeutic dentistry «Diseases of the oral mucosa» makes it possible to implement the following modern didactic techniques: the individual approach of the teacher to each intern, in particular; encouraging the intern dentist to work with information; giving him maximum freedom in his studies, without overloading him with a large amount of theoretical material, but focusing the intern's attention only on the main provisions of the topic of practical training; promoting the formation of clinical practical skills, operational professional skills, etc.

**Conclusions.** The use of such an interactive teaching method as the case method will encourage intern doctors to independently study scientific and methodical literature, contributes to the formation of self-education skills, and also allows to master the methods of analysis of facts, phenomena, and problems under consideration. The «case-study» method contributes to the development of communication in practical stomatological activities, helps interns to solve specific clinical problems collegially.

**Key words:** case method, interactive teaching method, interns-doctors-dentists, educational process, diseases of the oral mucosa, eating disorders.

**Анотація.** Для реформування вищої стоматологічної освіти необхідно впроваджувати новітні методичні інновації, пов'язані з використанням інтерактивних методів навчання. Навчальна діяльність повинна бути інноваційною і ґрунтуватися на оригінальних методиках розвитку різноманітних форм мислення, творчих здібностях, а також високим соціально-адаптаційним можливостям особистості. Завдяки методу case-study для вирішення практичних завдань застосовуються теоретичні знання, що сприяє розвитку самостійного мислення, вміння вислуховувати і враховувати альтернативну точку зору, аргументовано висловити свою думку.

**Мета:** апробування та впровадження в навчальний процес методу case-study на кафедрі стоматології Інституту післядипломної освіти НМУ імені О.О. Богомольця і визначення його ефективності під час вивчення розділу «Захворювання слизової оболонки порожнини рота».

**Результати та обговорення.** Отже, застосування кейс-методу на практичних заняттях при вивченні розділу терапевтичної стоматології «Захворювання слизової оболонки порожнини рота» дає змогу реалізувати такі сучасні дидактичні прийоми: індивідуальний підхід викладача до кожного лікаря-інтерна зокрема; спонукання лікаря-інтерна стоматолога до роботи з інформацією; надання йому максимальної свободи в навчанні, не завантажуючи великим обсягом теоретичного матеріалу, а концентруючи увагу лише на основних положеннях теми практичного заняття; сприяння формуванню клінічних практичних навичок, оперативних професійних умінь тощо.

**Висновки.** Використання такого інтерактивного методу навчання, як кейс-метод, спонукатиме лікарів-інтернів до самостійного вивчення наукової і методичної літератури, сприяє формуванню навиків самоосвіти, а також дає змогу оволодіти методами аналізу фактів, явищ, проблем, що розглядаються. Метод case-study сприяє розвитку спілкування в практичній стоматологічній діяльності, допомагає лікарям-інтернам колегіально вирішити конкретні клінічні проблеми.

**Ключові слова:** кейс-метод, інтерактивний метод навчання, лікарі-інтерни стоматологи, навчальний процес, захворювання слизової оболонки порожнини рота, розлади харчової поведінки.

**Topicality.** Ukraine's entry into the Bologna process is a prerequisite for fundamental changes in the system of medical education, including dental education. In the modern world, due to the huge flow of information, it is time to use teaching methods that allow for the effective transfer of a large amount of knowledge and ensure a high level of assimilation of the material being studied [16, 2]. In order to reform higher dental education, it is necessary to introduce the latest methodical innovations related to the use of interactive teaching methods. Educational activity should be innovative and based on original methods of development of various forms of thinking, creative abilities, as well as high social and adaptive capabilities of the individual [7, 1].

According to the WHO, the number of people with eating disorders is increasing in the world, which causes the highest mortality rate among people with mental illnesses [8]. In addition, eating behavior significantly affects the quality of life of patients. It is known that eating disorders are not an isolated group of disorders with separate psychological characteristics; they can affect the somatic features of the functioning of the cardiovascular, digestive, nervous and other systems of the body, and the study of the relationships between the peculiarities of women's eating behavior and their other psychological characteristics will reveal essential psychological patterns and mechanisms of this aspect of human life. In turn, this will make it possible to reveal a scientifically based way of psychological assistance to persons with eating disorders,

In order to implement interactive forms of education, the most modern of them are used – trainings, business and role-playing games, educational group discussions, etc. [5]. Among the leading methods of interactive learning is the method of analyzing specific situations – «case-study», which consists in active problem-situational analysis based on learning through solving specific tasks – situations (that is, solving cases). It provides for a radical change in the functions of the teacher and intern, methods and forms of training organization [3]. Thanks to the «case-study» method, theoretical knowledge is used to solve practical problems, which contributes to the development of independent thinking, the ability to listen to and take into account an alternative point of view, to express one's opinion in a reasoned way [4]. This method enables interns to demonstrate and improve their analytical skills, learn

to work in a team, and find the most rational solution to a given problem [14, 13, 9].

*The main part.* When studying one of the most important sections of therapeutic dentistry – «Diseases of the oral mucosa» – these skills acquire special importance, which is connected with the frequent difficult diagnosis, differential diagnosis of the disease of the oral cavity in different age periods [11, 12].

Despite the fact that at the Department of Dentistry of the Institute of Postgraduate Education of Bogomolets National Medical University, Kyiv, Ukraine in Dental Medical Center provides full consultation and treatment assistance to such patients, ensuring the educational process for thematic patients is not always possible due to the human factor of constant air alarms, as well as shyness due to cooperation with interns-doctors-dentists, who, as patients think, do not have sufficient experience when receiving thematic patients.

The above determines the expediency of using the case method for studying the section «Diseases of the oral mucosa», which allows for the development and improvement of interdisciplinary horizontal object integration, understanding of the processes of development of periodontal diseases, especially in eating disorders and their effective complex treatment, which are so necessary for training and becoming a dentist as a specialist.

**The purpose** of our research was to test and introduce the «case-study» method into the educational process at the Department of Dentistry of the Institute of Postgraduate Education of Bogomolets NMU and determining its effectiveness when studying the section «Diseases of the oral mucosa». In particular, attention was focused on the following goals: to learn how to use theoretical material to analyze practical problems and formulate questions, to develop systemic integrated clinical thinking, professional clinical skills, the ability to perceive and solve a clinical problem in various ways, as well as to accept such patients with the filling of all non-hospital medical documentation and prescribing treatment for such patients.

**Results and discussion.** The section «Diseases of the oral mucosa» requires an intern-dentist to have in-depth knowledge of fundamental disciplines: pathological anatomy, pathological physiology, histology, microbiology, biochemistry, pharmacology, as well as therapeutic disciplines: therapy, gastroenterology, cardiology, endocrinology, etc. Such

interdisciplinary horizontal integration is essential for interns to have a comprehensive understanding of the etiopathogenesis, clinical manifestations of the disease, and to understand the problem of treating patients with diseases of the oral mucosa.

In order to find rational ways to solve the problem and learn the necessary practical skills, interns are invited to analyze a clinical situation based on a specific topic of practical training, which allows them to use the acquired knowledge from related academic disciplines.

As material for cases, we use the outpatient cards of specific patients with a typical variant of the course of the disease and with various variants of complications, for which tasks or questions are developed, and we also invite thematic patients for a consultation and drawing up a treatment plan.

#### Methodology of practical training

The practical session consists of three stages: preparatory, main and final. At the *first* stage, the teacher explains to interns the essence and options for implementing the «case-study» method. No later than a day before the class, the teacher distributes completed cases to the interns, provides the class with a list of sources of specialized literature, professional algorithms, questions and clinical tasks of various levels of complexity, radiographs, data from laboratory examinations, and microfilm-presentations. Interns-doctors-dentists independently examine the case, select additional information and literature for its solution.

At the *second* stage, the class begins with the control of the knowledge of interns-doctors-dentists, the clarification of the clinical situation that needs to be resolved.

Interns are divided into small groups and diagnose, evaluate and choose the optimal solution to the clinical situation. The teacher monitors their work, helps, directs their actions in the right direction, avoiding direct consultations. In each small group, the interns choose a speaker who presents a solution to the clinical situation, expressing the opinion of the group, after which a discussion takes place in the form of answers to questions, solving atypical situational problems prepared by the teacher and interns. The tasks describe the clinical situation, but with insufficient data, errors in the formulation of the diagnosis and in the diagnostic and treatment tactics of dentists. Interns are encouraged to find errors, search for the necessary information to identify and correct them. Intern-expert doctor assesses the correctness of their colleagues' decisions when solving these tasks. At the end of the main stage of the training, interns try to solve the main problem situation and formulate the main shortcomings in the diagnosis of periodontal diseases and verification of the diagnosis in patients, their treatment, examination.

At the final – *third stage* – the teacher evaluates the knowledge and acquired skills of intern doctors, the level of reports, participation in their discussion, questions, solving intermediate and main problems.

This stage ends with summarizing the lessons and announcing the grades for the theoretical training and practical skills and abilities of each intern.

To apply the case method in the educational process, the teacher must perform certain functions, namely: epistemological, design, constructive, organizational, communicative and educational. This requires increasing the effectiveness of the work of the teacher who practices the situational method of learning, as well as increasing the quality of the educational process, since the pedagogical potential of the case method of learning is much larger in scope and more modern than the potential of traditional education methods [11, 6, 15].

This method assumes that the teacher and the intern must constantly interact, choosing appropriate forms of behavior, and not only during practical classes, but also during consultations.

Therefore, the application of the case method in practical classes when studying the section of therapeutic dentistry «Diseases of the oral mucosa» makes it possible to implement the following modern didactic methods: individual approach of the teacher to each intern, in particular; encouraging the intern dentist to work with information; giving him maximum freedom in his studies, without overloading him with a large amount of theoretical material, but focusing the intern's attention only on the main provisions of the topic of practical training; promoting the formation of clinical practical skills, operational professional skills, etc. During such a class, the teacher focuses on the development of the intern's strengths as a future dentist, who will be fully ready to independently receive patients after the internship. The case method overcomes the classic stereotype of traditional teaching – the «dryness» and «non-emotional» teaching of educational material and increases the quality of the clinical training of a dentist.

The above makes it possible to recommend the case method for its use in practical and final classes of the department of therapeutic dentistry and other departments of the dental profile, not only when studying the section «Diseases of the oral mucosa», but also in all therapeutic dentistry sections.

Summarizing, we note that the further implementation of the interactive method of training dental interns using the «case-study» method when teaching the section of therapeutic dentistry «Diseases of the oral mucosa» is promising.

#### **Conclusions**

1. The use of such an interactive teaching method as the case method will encourage intern

doctors to independently study scientific and methodical literature, contributes to the formation of self-education skills, and also allows to master the methods of analysis of facts, phenomena, and problems under consideration.

2. The «case-study» method contributes to the development of communication in practical stomatological activities, helps interns to solve specific clinical problems collegially.

### List of literature

1. Diversification features of therapy of generalized parodontal diseases with anorexia nervosa M. Antonenko, N. Zelinskaya, L. Reshetnyk [et al.] Georgian Medical News. 2020. № 9 (306). P. 46–51.

2. Mental health and psychosocial considerations during the COVID-19 outbreak: World Health Organization. March 2020. Available from: [https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf?sfvrsn=6d3578af\\_2](https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf?sfvrsn=6d3578af_2).

3. Reshetnyk L. generalized parodontal diseases and anorexia nervosa: clinic-laboratory parallels L. Reshetnyk, M. Antonenko, N. Zelinskaya // Science of Europe. 2020. Vol 2. № 47. P. 53–58.

4. Reshetnyk L. Microbial and tissue hypersensitivity as a basic pathogenetic component of generalized parodontal diseases in patients with anorexia nervosa L. Reshetnyk, M. Antonenko, N. Zelinskaya The Scientific heritage (Budapest, Hungary). 2020. Vol. 1. № 53. P. 21–26.

5. The DSM-5 diagnostic criteria for anorexia nervosa may change its population prevalence and prognostic value L. Mustelin, Y. Silén, A. Raevuori [et al.] J Psychiatr Res. 2016. № 77. P. 85–91. DOI: 10.1016/j.jpsychires.2016.03.003.

6. Touyz S. Eating disorders in the time of COVID-19 / S. Touyz, N. Lacey, P. Hay Journal of Eating Disorders. 2020. Vol. 8. Available from: <https://jeatdisord.biomedcentral.com/articles/10.1186/s40337-020-00295-3>. DOI: 1186/s40337-020-00295-3.

7. Vitamin D3 and the system of oxidative stress-antioxidant protection in the pathogenesis and treatment of generalized parodontitis associated with anorexia nervosa / M. Antonenko, S. Palamarchuk, L. Reshetnyk [et al.]// International Journal of Medical Dentistry. 2023. Vol. 27, Issue 1. P. 45–53.

8. WHO Health of the oral cavity: inform. bullet No. 318 [Internet]. 2012 May [cited on Dec.

3. The case method allows you to objectively assess the knowledge, practical skills, and professional skills of intern doctors, develops the clinical thinking of each individual intern doctor and his intellectual potential, and also prepares him for independent practical activity.

4. The use of the method increases the effectiveness of the department's teacher and contributes to his professional growth.

23, 2018]. Available from: <http://www.who.int/mediacentre/factsheets/fs318/en>.

9. Абсалямова Л.М. Психологічне дослідження проблем харчової поведінки у жінок. Науковий вісник Херсонського державного університету. Серія «Психологічні науки». 2016. Вип. 5. Т. 1. С. 7–12.

10. Абсалямова Л.М. Психологічний аналіз причин виникнення порушень харчової поведінки. Науковий вісник Херсонського державного університету. Серія «Психологічні науки». 2017. Вип. 3. Т. 1. С. 8–13.

11. Абсалямова Л.М. Психологічний аналіз проблем харчової поведінки особистості. Вісник ХНПУ імені Г. С. Сковороди. Психологія. 2017. Вип. 55. С. 5–12.

12. Абсалямова Л.М. Психологічні механізми адиктивних порушень харчової поведінки. Науковий вісник Херсонського державного університету. Серія «Психологічні науки». 2017. Вип. 1. Т. 1. С. 8–13.

13. Абсалямова Л.М. Психологія харчової поведінки людини : навчально-методичний посібник. Харків : Смугаста типографія, 2017. 181 с.

14. Абсалямова Л.М. Харчова поведінка жінок: розлади та психокорекція : монографія. Харків : Стильна типографія, 2019. 393 с.

15. Оцінка якості лікування пацієнтів з функціональними розладами зубо-щелепного апарату, поєднаних із дентоальвеолярною формою глибокого прикусу / А.М. Проценко та ін. Клінічна та профілактична медицина. 2024. № 4. С. 26–32. DOI: 10.31612/2616-4868.4.2024.04.

16. Чабан О.С. Психічне здоров'я в період пандемії COVID-19 (особливості психологічної кризи, тривоги, страху та тривожних розладів). *НейроNews*. 2020. № 3(114). С. 26–36. URL: [https://neuronews.com.ua/ua/archive/2020/3\\_%28114%29/pages-26-36/psihichne-zdorov-ya-v-pe-riod-pandemiyi-covid-osoblivosti-psihologichnoyi-krizi-trivo-gistrah-ta-trivozhnih-rozladiv-#gsc.tab=0](https://neuronews.com.ua/ua/archive/2020/3_%28114%29/pages-26-36/psihichne-zdorov-ya-v-pe-riod-pandemiyi-covid-osoblivosti-psihologichnoyi-krizi-trivo-gistrah-ta-trivozhnih-rozladiv-#gsc.tab=0).



## References

1. Antonenko, M., Zelinskaya, N., Reshetnyk, L., Stolyar, V., & Revych, V. (2020). Diversification features of therapy of generalized parodontal diseases with anorexia nervosa. *Georgian Medical News*, 9 (306), 46. Cавчук 51 ISSN 1512-0112.
2. Mental health and psychosocial considerations during the COVID-19 outbreak: World Health Organization. March 2020. Available from: [https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf?sfvrsn=6d3578af\\_2.3](https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf?sfvrsn=6d3578af_2.3).
3. Reshetnyk L., Antonenko, M. & Zelinskaya, N. (2020). generalized parodontal diseases and anorexia nervosa: clinic-laboratory parallels. *Science of Europe*, 2 (47), 53–58.
4. Reshetnyk L., Antonenko, M. & Zelinskaya, N. (2020). Microbial and tissue hypersensitivity as a basic patho-genetic component of generalized parodontal diseases in patients with anorexia nervosa. *The Scientific heri-tage (Budapest, Hungary)*, 1 (53), 21–26.
5. The DSM-5 diagnostic criteria for anorexia nervosa may change its population prevalence and prognostic value. *J Psychiatr Res*, 77, 85–91. DOI: 10.1016/j.jpsychires.2016.03.003.
6. Touyz, S., Lacey, N. & Hay, P. (2020). Eating disorders in the time of COVID-19. *Journal of Eating Disorders*. Available from: <https://jeatdisord.biomed-central.com/articles/10.1186/s40337-020-00295-3>. DOI: 1186/s40337-020-00295-3.
7. Vitamin D3 and the system of oxidative stress-antioxidant protection in the pathogenesis and treatment of generalized parodontitis associated with anorexia nervosa. *International Journal of Medical Dentistry*, 27 (1), 45–53.
8. WHO Health of the oral cavity: inform. bulletin No. 318 [Internet]. 2012 May [cited on Dec. 23, 2018]. Available from: <http://www.who.int/media-centre/factsheets/fs318/en.6>. Mustelin, L., Silén, Y., Raevuori, A., Hoek, H.W., Kaprio, J. & Keski-Rahkonen, A. (2016).
9. Absalyamova, L.M. (2016). Psykholohichne doslidz-hennya problem kharchovoyi povedinky u zhinok. *Naukovyy visnyk Khersons'koho derzhavnoho universytetu [Psychological study of problems of eating behavior in women. Scientific bulletin of Kherson State University]: zb. nauk. prats'. Seriya «Psykhologichni nauky»*. Kherson, 5 (1), 7–12 [in Ukrainian].
10. Absalyamova, L.M. (2017). Psykholohichnyy analiz prychyn vynyknennya porushen' kharchovoyi po-vedinky. *Naukovyy visnyk Khersons'koho derzhavnoho universytetu [Psychological analysis of the causes of eating disorders. Scientific bulletin of Kherson State University]: zb. nauk. prats'. Seriya «Psykhologichni nauky»*. Kherson, 3 (1), 8–13 [in Ukrainian].
11. Absalyamova, L.M. (2017). Psykholohichnyy analiz problem kharchovoyi povedinky osobystosti [Psychological analysis of the problems of eating behavior of the individual]. *Visnyk KHNPU imeni H.S. Skovorody. Psykholohiya*. Kharkiv, 55, 5–12 [in Ukrainian].
12. Absalyamova, L.M. (2017). Psykholohichni mekhanizmy adyktivnykh porushen' kharchovoyi povedinky. *Naukovyy visnyk Khersons'koho derzhavnoho universytetu [Psychological mechanisms of addictive eating disorders. Scientific bulletin of Kherson State University]: zb. nauk. prats'. Seriya «Psykhologichni nauky»*. Kherson, 1(1), 8–13 [in Ukrainian].
13. Absalyamova, L.M. (2017). Psykholohiya kharchovoyi povedinky lyudyny [Psychology of human eating behavior]: navch.-metod. posib. Kharkiv: Vydavnytstvo «Smuhasta typohrafiya», 181 [in Ukrainian].
14. Absalyamova, L.M. (2019). Kharchova povedinka zhi-nok: rozlady ta psykhokorektsiya [Eating behavior of women: disorders and psychocorrection]: monohrafiya. Kharkiv: Vyd-vo «Styl'na typohrafiya», 393 [in Ukrainian].
15. Proshchenko, A.M., Proshchenko, N.S., Shemel'ko, M.L., Reshetnyk, L.L., Chervonna, N.V. & Sorokina, K.O. (2024). Otsinka yakosti likuvannya patsiyentiv z funktsional'nymy rozladamy zubo-shchelepnogo aparatu, poyednanykh z dentoal'veolyarnoyu formoyu hlybo-koho prykusu [Evaluation of the quality of treatment of patients with functional disorders of the dental and jaw apparatus, combined with the dentoalveolar form of a deep bite]. *Klinichna ta profilaktychna medytsyna*, (4), 26–32. DOI: 10.31612/2616-4868.4.2024.04
16. Chaban, O.S. & Khaustova, O.O. (2020). Psykhichne zdorov'ya v period pandemiyi COVID-19 (osoblyvosti psykhologichnoyi kryzy, tryvohy, strakhu ta tryvozhy-nykh rozladiv) [Mental health during the COVID-19 pandemic (features of psychological crisis, anxiety, fear and anxiety disorders)] *NeyroNews – NeuroNews*, 3(114), 26-36. Rezhym dostupu: [https://neuronews.com.ua/ua/archive/2020/3\\_%28114%29/pages-26-36/psihichne-zdorov-ya-v-pe-riod-pandemiyi-covid-osoblivo-sti-psihologichnoyi-krizi-trivo-gistrah-ta-trivozhnih-ro-zladiv-#gsc.tab=0](https://neuronews.com.ua/ua/archive/2020/3_%28114%29/pages-26-36/psihichne-zdorov-ya-v-pe-riod-pandemiyi-covid-osoblivo-sti-psihologichnoyi-krizi-trivo-gistrah-ta-trivozhnih-ro-zladiv-#gsc.tab=0) [in Ukrainian].

Отримано 25.11.2024

Електронна адреса для листування: [reshetnik.lujdmila@gmail.com](mailto:reshetnik.lujdmila@gmail.com)