

UDC 378.147.018.43:618]-054.6-057.875

DOI <https://doi.org/10.11603/m.2414-5998.2025.4.15837>

**I. V. Korda**

ORCID <https://orcid.org/0000-0001-8644-0776>

**S. M. Heryak**

ORCID <https://orcid.org/0000-0002-7894-1009>

**N. I. Bahniy**

ORCID <https://orcid.org/0000-0003-1192-149X>

**O. Ye. Stelmakh**

ORCID <https://orcid.org/0009-0005-3310-5970>

**N. V. Petrenko**

ORCID <https://orcid.org/0000-0003-1780-6951>

*Ivan Horbachevsky Ternopil National Medical University of the Ministry of Health of Ukraine*

## **METHODOLOGICAL PRINCIPLES OF DISTANCE TEACHING OF OBSTETRICS AND GYNECOLOGY TO INTERNATIONAL STUDENTS IN CRISIS CONDITIONS**

**I. V. Корда, С. М. Геряк, Н. І. Багній, О. Є. Стельмах, Н. В. Петренко**

*Тернопільський національний медичний університет імені І. Я. Горбачевського МОЗ України*

## **МЕТОДИЧНІ ЗАСАДИ ДИСТАНЦІЙНОГО ВИКЛАДАННЯ АКУШЕРСТВА ТА ГІНЕКОЛОГІЇ ІНОЗЕМНИМ СТУДЕНТАМ У КРИЗОВИХ УМОВАХ**

**Abstract.** Distance learning has become an essential form of medical education, particularly during the COVID-19 pandemic and in wartime conditions. This study aimed to explore methodological principles for teaching obstetrics and gynecology to international students, assess main challenges, and propose strategies to improve learning outcomes. The research involved 79 international students at Ternopil National Medical University, using surveys, systematic observation, and analysis of educational platforms. Key aspects included the effectiveness of different learning formats (in-person, distance, blended), technical and organizational barriers, motivational and psychological factors, and recommendations for optimizing distance education. Results showed that 82,3% of students were partially satisfied with distance learning; however, 97,5% preferred in-person classes due to the crucial role of practical skills. The main challenges were limited interaction with patients and instructors, technical issues, distractions from the home environment, and impostor syndrome. Benefits included time and cost savings, flexible learning schedules, autonomy, and opportunities to review materials. Students suggested expanding collaboration with clinical bases, introducing integrated simulation modules, standardizing assessments, providing psychological support, and accounting for time zone differences in synchronous sessions. Findings highlight the need for a comprehensive approach to distance learning that addresses educational, practical, and psychological needs, ensuring the development of clinical competencies and the effective engagement of international medical students.

**Key words:** distance learning; international students; medical education; crisis education.

**Анотація.** Дистанційне навчання стало важливою формою медичної освіти, особливо в умовах пандемії COVID-19 та війни. Метою дослідження було виявити методичні засади викладання акушерства та гінекології іноземним студентам, оцінити основні труднощі та розробити рекомендації для підвищення ефективності навчального процесу. Дослідження проведено серед 79 іноземних студентів Тернопільського національного медичного університету із застосуванням анкетування, систематичного спостереження та аналізу функціональних можливостей освітніх платформ. Оцінювались ефективність різних форматів навчання (очно, дистанційно, змішано), технічні та організаційні бар'єри, мотиваційно-психологічні аспекти та пропозиції щодо оптимізації дистанційного навчання. Результати показали, що 82,3% студентів були частково задоволені дистанційною формою навчання, проте 97,5% віддавали перевагу очній формі через критичну роль практичної підготовки. Основними труднощами були обмежена взаємодія з пацієнтами та викладачами, технічні проблеми, чинники домашнього середовища та прояви синдрому самозванця. Серед переваг дистанційного формату віділяли економію часу та коштів, гнучкість навчання, розвиток автономності та можливість повторного опрацювання матеріалу. Студенти запропонували розширення співпраці з клінічними базами, упровадження інтегрованих симуляційних модулів, стандартизацію оцінювання, психологічну підтримку та врахування різниці часових поясів при синхронних заняттях. Отримані дані підкреслюють необхідність комплексного підходу до організації дистанційного навчання, що враховує освітні, практичні та психологічні потреби студентів і сприяє формуванню клінічних компетентностей.

**Ключові слова:** дистанційне навчання; іноземні студенти; медична освіта, навчання в умовах кризи.

**Introduction.** Distance learning represents a modern approach to organizing the educational process, involving the use of information and communication technologies (ICT) to acquire knowledge without the necessity of physical presence in the classroom (Blazhko, 2017). This format provides a flexible schedule, allows students to learn at their own pace, ensures constant access to learning materials, and facilitates effective online interaction between students and instructors (Bykov, 2015).

In medical education, distance and blended learning have become particularly relevant due to global challenges posed by the COVID-19 pandemic and wartime conditions (Ilchenko, Myshyna, Fialkovska, 2022). The spread of the virus led to significant transformations in the education system, resulting in the mass transition of educational institutions to distance learning modalities. This shift necessitated the identification of effective organizational models for distance education, taking into account the volume of learning materials, the availability of electronic resources, educational platforms, and the individual needs of both students and instructors.

Particular challenges arise in the education of international students due to limited access to clinical bases, insufficient opportunities to develop practical skills, language and cultural barriers, as well as increased psychological stress under crisis conditions (Mintii, Vakaliuk, Ivanova, 2021). Therefore, ensuring the continuity of education, maintaining its quality, and guaranteeing equitable assessment conditions for students abroad or in restricted regions is an urgent task.

At the same time, distance learning has several limitations (Ilchenko, Myshyna, Fialkovska, 2022). Objective assessment of knowledge and effective adjustment of the educational process require direct contact with students (Mayer, 2020). Additional technical and organizational challenges include unstable internet connectivity, lack of live interaction with instructors and peers, and difficulties in expressing personal opinions and participating in discussions (Morse, 2004). Nevertheless, the instructor's active role remains crucial for ensuring a high level of knowledge acquisition.

Online education necessitates the adaptation of traditional pedagogical principles to the digital environment, considering each student's communicative, emotional, and psychological state, as well as their cognitive processing of information through ICT (Vlasenko, 2017). Practical experience demonstrates that students require active feedback and opportunities to demonstrate competencies, which is particularly important under crisis and wartime conditions (Yaremchuk, Chaika, 2023).

At our university, a blended learning format was implemented: face-to-face sessions for students present in Ukraine and parallel online instruction for

those abroad. This approach demands high pedagogical competence, self-organization, and flexibility from instructors. While distance learning promotes student autonomy and responsibility, it also increases requirements for self-directed learning, motivation, and effective organization of the educational process.

**Study Aim.** The aim of this study was to determine the methodological principles of distance teaching in the disciplines of Obstetrics and Gynecology for international students under crisis conditions, to assess the primary challenges of distance learning, and to develop practical recommendations for enhancing its effectiveness.

**Research Methods.** The study was conducted among 79 international students at Ternopil National Medical University who were enrolled in the Obstetrics and Gynecology course via distance learning. Data collection and analysis were carried out using questionnaires, systematic observation, and functional analysis of educational platforms.

Within the study, the following aspects were evaluated:

- The effectiveness and advantages of different learning formats (in-person, distance, and blended);
- The main difficulties and barriers associated with distance learning;
- Technical and external factors influencing the quality of the educational process;
- Motivational and psychological aspects of student engagement;
- Suggestions and recommendations for optimizing the quality of distance education.

This comprehensive approach enabled the assessment of the impact of distance learning on the educational process and the identification of directions for its improvement from both students' and instructors' perspectives.

**Research Results.** The study was conducted at the Department of Obstetrics and Gynecology No. 2 of the Faculty of International Students during the autumn semester of 2025. The educational process was implemented using the MOODLE electronic platform, the university website, and the ASU electronic gradebook. Practical classes were delivered online via Microsoft Teams videoconferencing, which enabled oral assessments and demonstrations of clinical techniques using presentations, photographs, and video materials.

A pre-recorded lecture course was available throughout the entire semester, allowing students to engage with the material asynchronously. Instructors regularly entered grades into the electronic gradebook, which was accessible to students, the department chair, and the university administration, enabling continuous monitoring of academic performance and attendance.

Anonymous survey results indicated a low level of satisfaction with distance learning, with 82,3%

of students reporting partial satisfaction and 18% expressing dissatisfaction. The vast majority (97.5%) preferred in-person instruction, underscoring the critical role of hands-on clinical training.

The main technical and organizational challenges included unstable internet connectivity, limited access to equipment, distractions from the home environment, time zone differences, platform-related inconveniences, and reduced social interaction.

Students most frequently reported:

- limited patient interaction and inability to practice clinical skills (99.5%);
- lack of direct contact with instructors and peers (63.8%);
- internet-connectivity problems and prolonged screen time;
- the need for continuous access to a computer and the internet (38.3%);
- difficulties mastering practical content (94.6%).

At the same time, distance learning provided opportunities for repeated review of materials, ensured consistency in assessment, and fostered autonomy and self-discipline. The advantages highlighted by students included time and financial savings (93.8%), the comfort of studying from home (43.3%), flexibility in scheduling (58.6%), and accessibility to informational resources (35.7%).

Nearly all students reported experiencing imposter syndrome, characterized by doubts about one's abilities and fear of being exposed as «incompetent» (Walker, Saklofske, 2023); (Mak, Kleitman, Abbott, 2019). Students unanimously associated this phenomenon with limited opportunities for practical training and patient interaction.

Student recommendations for improving the effectiveness of distance learning included:

- strengthening collaboration with clinical bases and hospitals;
- developing integrated simulation modules for distance and blended learning;
- implementing a standardized assessment system;
- providing psychological support and stress-reduction resources;

## References

1. Blazhko, O. O. (2017). Suchasni tendentsii rozvytku dystantsiinoho navchannia studentiv u VNZ [Modern trends in the development of distance learning of university students]. In L. B. Lishchynska (Ed.), *Dystantsiine navchannia yak suchasna osvitnia tekhnolohiia*, 10–11. VTEI KNTEU. [in Ukrainian].
2. Bykov, V. Yu. (2015). Dystantsiine navchannia v krainakh Yevropy ta SShA i perspektyvy dlia Ukrayny [Distance learning in Europe and the USA and prospects for Ukraine]. In V. Yu. Bykov, O. O. Hrytsenchuk, & Yu. O. Zhuk (Eds.), *Informatsiine zabezpechennia navchalno-vyhovnogo protsesu: innovatsiini zasoby i tekhnolohiii*, 77–140. Atika. <https://doi.org/10.33989/2075-146x.2024.33.310081> [in Ukrainian].
3. Ilchenko, S., Myshyna, N., & Fialkovska, A. (2022). Advantages and disadvantages of distance education in teaching clinical discipline to students of the medical university. *ScienceRise: Pedagogical Education*, (5), 17–22. <https://doi.org/10.15587/2519-4984.2022.264792>.
4. Mak, K. K. L., Kleitman, S., & Abbott, M. J. (2019). Impostor Phenomenon Measurement Scales: A Systematic Review. *Frontiers in psychology*, 10, 671. <https://doi.org/10.3389/fpsyg.2019.00671>.
5. Mayer, R. E. (2020). *Multimedia Learning* (3rd ed.). Cambridge: Cambridge University Press.

– accounting for time-zone differences when scheduling synchronous sessions.

## Conclusions and Future Research Directions.

The study demonstrated that distance learning in the disciplines of Obstetrics and Gynecology for international students is an effective format for organizing the educational process, ensuring a high level of overall satisfaction (82.3%). However, the majority of students (97.5%) preferred in-person instruction, underscoring the essential role of hands-on clinical training in developing clinical competencies.

The primary advantages of distance learning include time and cost efficiency, flexibility, and the opportunity for repeated review of educational materials. The main disadvantages were limited interaction with patients and instructors, technical difficulties, and the impact of home environment factors on concentration.

To enhance the effectiveness of the learning process, the following improvements are recommended: strengthening collaboration with clinical facilities, integrating simulation-based modules, standardizing assessment procedures, providing psychological support, and considering time-zone differences when organizing synchronous classes.

## Future research prospects include:

1. Developing hybrid educational models that combine distance learning with clinical practice.
2. Examining the impact of distance learning on the formation of clinical and communication competencies.
3. Analyzing the effectiveness of integrating simulation technologies and video-based demonstrations.
4. Investigating psychological factors, including motivation and stress resilience.
5. Assessing the influence of technical and organizational factors on academic performance and material comprehension.

Overall, the findings underscore the necessity for a comprehensive approach to organizing distance learning in medical education – one that considers the educational, psychological, and practical needs of students.

6. Mintii, I. S., Vakaliuk, T. A., Ivanova, S. M., Chernysh, O. A., Hryshchenko, S. M., & Semerikov, S. O. (2021). Current state and prospects of distance learning development in Ukraine. In Proceedings of the 4th International Workshop on Augmented Reality in Education (AREdu 2021), 41–55. Kryvyi Rih. <https://doi.org/10.31812/123456789/4593>. (CEUR Workshop Proceedings 2021).

7. Morse, N. V. (2004). Informatsiini tekhnolohii v osviti [Information technologies in education]. BHV Publishing Group. [in Ukrainian].

8. Vlasenko, I. H. (2017). Vprovadzhennia dystantsiinoho navchannia – vymoha suchasnosti [Implementation of distance learning as a requirement of modernity]. In L. B. Lishchynska (Ed.), *Dystantsiinie navchannia yak suchasna osvitnia tekhnolohiia*, 12–14. VTEI KNTEU. [in Ukrainian].

9. Walker, D. L., & Saklofske, D. H. (2023). Development, Factor Structure, and Psychometric Validation of the Impostor Phenomenon Assessment: A Novel Assessment of Impostor Phenomenon. *Assessment*, 30(7), 2162–2183. <https://doi.org/10.1177/10731911221141870> (Original work published 2023).

10. Yaremchuk, L. V., & Chaika, H. V. (2023). Shliakh udoskonalennia vykladannia na kafedri akusherstva i hinekolohii No. 1 z metoiu pidvyshchennia yakosti medychnoi osvity v umovakh nadzvychainoi sytuatsii [Ways to improve teaching at the Department of Obstetrics and Gynecology No. 1 to enhance medical education quality in emergency conditions]. In *Aktualni problemy yakisnoi pidhotovky medychnykh kadrov u nadzvychainykh umovakh*, 281–282. Vinnitsa. [in Ukrainian].

Електронна адреса для листування: kordai@tdmu.edu.ua

Стаття надійшла 14.10.2025

Статтю прийнято 10.11.2025

Стаття опублікована 30.12.2025