



Professional competence of lecturers at medical higher education institutions and its role in developing the clinical thinking of future nurses

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■ **Abstract.** In the context of healthcare reform and the integration of Ukrainian medical education into the international educational space, enhancing the professional competence of lecturers has become particularly important. The training of future nurses requires the implementation of an evidence-based approach, up-to-date clinical guidelines, and modern educational technologies to foster clinical thinking and readiness for professional decision-making. The aim of this study was to conduct a comprehensive analysis of the professional competence of lecturers at medical higher education institutions and to determine its role in the development of clinical thinking among future nurses. The study employed a mixed-methods design, combining a systematic review of scientific literature published between 2019 and 2026 with a cross-sectional questionnaire survey involving 31 lecturers from M. I. Pirogov Vinnytsia National Medical University in order to assess their professional competence and their use of innovative educational and clinical approaches. The findings revealed that 96.8% of lecturers confirmed that they possessed profound and systematic knowledge of the disciplines they teach, while no negative responses regarding the level of professional training were recorded. The majority of respondents (93.3%) apply modern clinical protocols and the principles of evidence-based medicine in their teaching practice, and all participants reported that they regularly update the content of academic disciplines in accordance with current scientific evidence. The integration of theoretical knowledge with clinical practice is ensured by 96.7% of lecturers, which contributes to the development of professional competencies and the enhancement of students' clinical thinking. The use of modern educational technologies was confirmed by 80.6% of respondents, while 96.8% stated that

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they purposefully develop students' skills in clinical analysis and informed professional decision-making. All study participants noted that they create a professionally safe, supportive, and ethically comfortable learning environment. The results obtained confirm that a high level of lecturers' professional competence is a crucial factor in ensuring the quality of medical education and the effective preparation of competitive nursing professionals

■ **Keywords:** nursing; evidence-based medicine; educational technologies; digitalisation of learning; academic integrity; practice-oriented training; professional development

■ Introduction

Contemporary medical education in Ukraine is undergoing a process of intensive transformation under the influence of integration into the European educational area, the modernisation of educational standards, and increasing requirements for the professional training of future healthcare professionals, which is essential for the development of competencies among future nurses and for strengthening their mental well-being. This issue has become particularly relevant in the context of the full-scale war, when the professional resilience and psychological readiness of medical personnel are critically important for providing effective assistance to those affected and maintaining public health. Preparing nurses to work under extreme conditions requires the integration of modern clinical skills with the ability to self-regulate, maintain stress resilience, and provide psychological support to patients and colleagues.

One of the key directions of these changes is the introduction of a competence-based learning model, which involves the systematic development of professional competence among lecturers and higher education students, based on a combination of theoretical knowledge, practical skills and clinical reasoning. This is driven by the need to meet contemporary standards of professional practice in the healthcare sector and the ability to respond competently to the challenges of professional practice (Chorna *et al.*, 2022; Chorna, 2024). In the context of the educational process, researchers T. Shevchuk & T. Vasenko (2023) concluded that it is imperative to study not only the effectiveness of educational technologies but also the professional competence of lecturers as the key factor in ensuring the quality of medical education. It is precisely the competence of lecturers that determines the effectiveness of implementing an evidence-based approach, integrating theoretical knowledge with clinical examples, and fostering critical thinking among students.

An analysis of contemporary academic sources highlights the relevance and urgency of research in the field of professional competence in medical education. Researchers A.M. Dashchuk & E.I. Dobrzanska (2019) and Z. Popovych *et al.* (2024) have conducted research into the development of professional competence among medical specialists and examined ways of ensuring the professional competencies of medical students through simulation-based learning and practical skills that contribute to the professional competence of graduates. One aspect of the competence-based approach

to the theoretical underpinnings of medical professionals' professional competence in contemporary research emphasises the multi-component structure of future medical professionals' professional competence, which involves the integration of theoretical knowledge, practical skills and personal and professional qualities. Separately, G. Kraevska *et al.* (2023) emphasised the importance of clinical and practical training and the development of the ability to make professional decisions in the dynamic conditions of medical practice. In academic discourse, considerable attention is paid to the general pedagogical aspects of training academic and teaching staff. In particular, researchers S. Sysoeva & I. Sokolova (2020) emphasised the role of non-formal education as an important resource for the professional development of lecturers and for enhancing their pedagogical flexibility. A separate area of focus is the use of project-based technologies in professional training, which contributes to the development of practice-oriented skills and the ability to work in a team (Kraevska *et al.*, 2022). Furthermore, studies by L. Kozak *et al.* (2022) and O. Svintozelsky *et al.* (2023) emphasised the importance of developing teachers' research competence as the foundation for their academic activity and professional growth.

Despite some progress in the study of the professional competence of lecturers at higher education institutions (HEIs) in the medical field, contemporary Ukrainian academic literature contains a limited number of comprehensive empirical studies that systematically assess the level of lecturers' professional competence and its impact on the implementation of an evidence-based approach in the teaching process. In particular, there is a lack of studies that would explore the link between a lecturer's competence, the integration of theoretical knowledge and practical clinical skills among students, and the development of their clinical reasoning in the context of contemporary requirements for professional medical practice. This highlights the need for a targeted empirical study capable of making a significant contribution to the theoretical understanding and practical approaches to ensuring the quality of the educational process in medical education. The aim of the study was to examine the components of professional competence among lecturers at medical HEIs and to assess the effectiveness of innovative teaching methods in developing the clinical competence of students specialising in "Nursing".

■ Materials and Methods

The study was conducted using a mixed-methods design, combining a systematic analysis of scientific literature with an empirical cross-sectional survey of lecturers at a higher medical education institution. At the first stage, a systematic search and selection of scientific publications was carried out in order to analyse contemporary approaches to the development of the professional competence of lecturers at medical educational institutions, the application of evidence-based teaching, and the implementation of innovative educational technologies in the training of future nurses. The literature search was conducted using the international scientometric databases PubMed, Scopus, Web of Science, and Google Scholar. Publications issued between 2019 and 2026 were included in the analysis, provided that they addressed the professional competence of lecturers in medical education institutions, the application of evidence-based medicine principles in the educational process, the use of contemporary clinical guidelines, and digital learning technologies. The inclusion criteria comprised the availability of the full text, publication in peer-reviewed scientific journals, relevance to the research topic, and publication in either Ukrainian or English. Conference abstracts, editorials, duplicate publications, and studies unrelated to nursing education or pedagogical activity in medical education were excluded. The methods of analysis, systematisation, comparison, generalisation, and logical-structural analysis of scientific sources were employed to synthesise the findings.

The empirical part of the study was conducted at M.I. Pirogov Vinnytsia National Medical University. The study involved 31 lecturers responsible for the education of students specialising in I5 "Nursing" within the field of knowledge I "Healthcare and Social Welfare". The survey was conducted during February 2026, while data collection, coding, and statistical processing were performed in March 2026. Primary data were collected using an anonymous author-designed questionnaire consisting of 16 questions grouped into four thematic sections. The first section (Questions 1-3) concerned lecturers' professional competence and the level of their specialist training. The second section (Questions 4-7, 12, and 13) was aimed at assessing the organisation of the educational process, the use of contemporary teaching methods, digital resources, and evidence-based approaches. The third section (Questions 8-11) addressed pedagogical interaction, communication with students, and adherence to the principles of academic integrity. The fourth section (Questions 14-16) focused on the organisation of the educational process, the system of assessment of learning outcomes, and the professional profile of lecturers. Particular attention was paid to evaluating lecturers' level of specialist knowledge, the use of contemporary clinical protocols and principles of evidence-based medicine, their ability to integrate theoretical training with practical activities, and the

application of innovative educational technologies in the preparation of future nurses.

Statistical analysis of the results was performed using descriptive statistical methods, including the calculation of absolute values, relative frequencies (%), and mean values. Spearman's rank correlation coefficient was used to assess the relationships between individual indicators. Data processing was carried out using Microsoft Excel 2021 and IBM SPSS Statistics software (version 27.0). The ethical aspects of the study complied with international bioethical standards, particularly the principles of respect for persons, beneficence, and justice set out in The Belmont report: Ethical principles and guidelines for the protection of human subjects of research (1979). Participation was voluntary, and the questionnaire contained no personal data, thereby ensuring the confidentiality and anonymity of the information obtained. The limitations of the study include the relatively small sample size, the fact that the research was conducted at a single HEI, and the use of self-assessment methods, which may have influenced the subjectivity of respondents' answers.

■ Results

According to the results of the survey conducted among lecturers at M. I. Pirogov Vinnytsia National Medical University ($n = 31$), who teach groups of future nurses within the field of knowledge I "Healthcare and Social Welfare", speciality I5 "Nursing", it was established that the overwhelming majority of respondents (96.8%) confirmed that they possess profound and systematic knowledge of the disciplines they teach. Only 3.2% of respondents selected the answer option "partially", which may indicate a critical self-assessment of their own professional level or a desire for further professional development. No respondents chose the answer "no". The findings demonstrate a high level of professional competence among the academic staff and a well-established confidence in their own specialist training. Such an indicator represents an important measure of the quality of the educational process, as the systematic nature and depth of lecturers' knowledge directly influence the effectiveness of students' learning, the development of clinical thinking, and the acquisition of professional skills (Fig. 1).

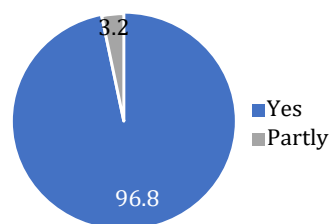


Figure 1. Proportion of the professional competence of lecturers at medical HEIs and its importance for the development of students' clinical thinking, %
Source: compiled by the authors

Among the respondents surveyed, 93.3% stated that they apply contemporary clinical protocols, the principles of evidence-based medicine, or up-to-date theoretical knowledge in their professional practice. A small proportion of respondents (3.7% and 3.0%, respectively) selected the options “partially” or “no”. These findings indicate the predominance of an evidence-based approach within the educational process. The use of current clinical guidelines and updated scientific evidence constitutes a key component of high-quality training for future healthcare professionals, as it ensures that educational content corresponds to international standards and contemporary clinical practice. At the same time, the presence of isolated responses of “partially” or “no” may indicate the need for further improvement of the methodological support system for lecturers and for ensuring access to up-to-date resources (Fig. 2).

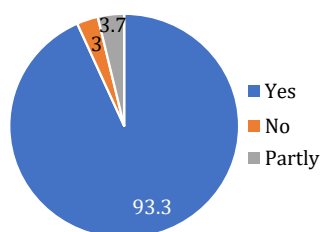


Figure 2. Proportion of the implementation of the evidence-based approach in the professional activities of lecturers, %

Source: compiled by the authors

All respondents (100%) confirmed that they regularly update the content of teaching materials in accordance with contemporary scientific evidence and current standards. No respondents selected the options “partially” or “no”. This indicator reflects a high level of academic responsibility and professional adaptability among lecturers. Regular updating of course content is an essential prerequisite for ensuring the quality of medical education in the context of rapid scientific advancement, the introduction of new clinical guidelines, and changes in the regulatory framework. The overwhelmingly positive responses indicate a well-established culture of continuous professional development and a commitment to contemporary educational standards.

It was found that 96.7% of lecturers integrate theoretical knowledge with practical clinical examples, demonstrating the practice-oriented nature of the educational process. Only a small proportion of respondents indicated the absence of such integration, which may be associated with the specific characteristics of certain disciplines. This indicator is of particular importance for the development of the professional identity of future nurses, as the integration of theory with clinical experience ensures the development of clinical thinking and preparedness for real-world practice (Fig. 3).

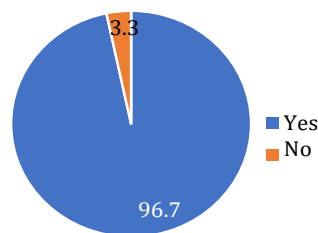


Figure 3. Proportion of the integration of theory and practice in the educational process at medical HEIs, %
Source: compiled by the authors

The overwhelming majority of respondents (100%) confirmed that they present educational material in a structured and logical manner. This reflects a high level of pedagogical expertise and proficiency in teaching methodology, which is an essential prerequisite for the effective assimilation of complex medical knowledge. With regard to the use of contemporary educational technologies (case-based methods, problem-based learning, simulation technologies, and clinical case discussions), 80.6% of respondents reported their active application, whereas 19.4% selected the response “partially”. These findings demonstrate a relatively high level of implementation of innovative teaching methods; however, they also indicate the existence of opportunities for further methodological modernisation of the educational process (Fig. 4).

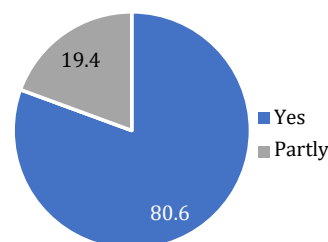


Figure 4. Proportion of the use of contemporary educational technologies (case-based method, problem-based learning, simulation technologies, and clinical case discussions) in HEIs, %
Source: compiled by the authors

The overwhelming majority of respondents (100%) confirmed that they present educational material in a structured and logical manner. This reflects a high level of pedagogical expertise and mastery of teaching methodology, which is an essential prerequisite for the effective assimilation of complex medical content. Regarding the use of contemporary educational technologies (case-based methods, problem-based learning, simulation technologies, and clinical case discussions), 80.6% of respondents reported their active application, while 19.4% selected the response “partially”. These findings demonstrate a relatively high

level of implementation of innovative teaching methods; however, they also indicate that there remains scope for further methodological modernisation of the educational process (Fig. 5).

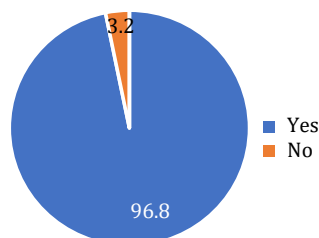


Figure 5. Development of clinical thinking and provision of a professionally safe educational environment by HEI lecturers, %

Source: compiled by the authors

Encouragement of academic discussion and respect for diverse opinions and viewpoints were confirmed by 96.7% of respondents, while a small proportion answered “partially”. This indicates a democratic style of pedagogical interaction and a focus on fostering students’ critical thinking (Fig. 6).

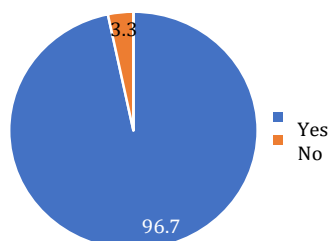


Figure 6. A democratic style of pedagogical interaction and the fostering of critical thinking among HEI students, %

Source: compiled by the authors

Adherence to the principles of academic integrity and professional ethics was confirmed by 100% of lecturers, which is consistent with the previously identified indicators of high professional responsibility and demonstrates the existence of a well-established culture of ethical interaction within the educational environment. Effective use of digital platforms and electronic resources was reported by 93.5% of respondents, while the remainder indicated partial use. A similar trend was observed with regard to the implementation of innovative educational approaches and the digitalisation of learning: 80.6% responded “yes”, whereas 19.4% selected “partially”. These findings confirm the ongoing digital transformation of the educational process, while also highlighting the need for further development of digital competencies among a proportion of lecturers (Fig. 7).

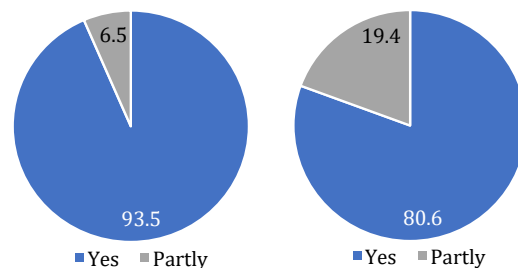


Figure 7. Integration of digital competences and innovative approaches into the professional practice of HEI lecturers, %

Source: compiled by the authors

At the same time, 100% of respondents stated that they clearly define assessment criteria and adhere to them during the evaluation of students’ knowledge. This indicates transparency and objectivity in assessment, which constitute key principles of contemporary quality assurance systems in higher education. Analysis of responses concerning the area of professional activity within the medical HEI revealed a relatively balanced distribution of respondents between theoretical and clinical departments. In particular, 53.3% of respondents represented theoretical departments, whereas 46.7% were affiliated with clinical departments (Fig. 8). The professional competence of lecturers at medical HEIs and its role in the development of clinical thinking among future nurses are determined, among other factors, by the fact that theoretical and clinical departments differ in the level and nature of their use of evidence-based medicine principles, innovative technologies, and digital tools. While theoretical departments primarily focus on the analytical interpretation of scientific evidence and the use of digital educational resources, clinical departments concentrate on their practical application in simulated and real clinical situations, thereby contributing to a more profound development of students’ clinical thinking.

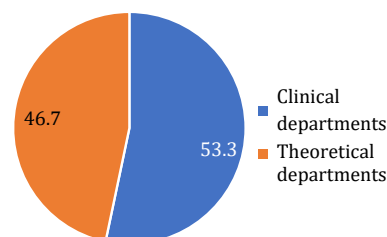


Figure 8. Proportion of lecturers from theoretical and clinical departments in the study sample, %

Source: compiled by the authors

Analysis of the data obtained revealed a correlation between the level of teachers’ professional competence and the characteristics of the organisation of the educational process. In particular, the high level of self-assessed specialist knowledge (96.8%) is consistent

with the frequent use of contemporary clinical protocols and the principles of evidence-based medicine (93.3%), indicating a direct relationship between the depth of professional training and orientation towards current scientific evidence. A relationship was also identified between lecturers' academic responsibility and the quality of educational content: 100% of respondents who reported regularly updating teaching materials simultaneously demonstrated a high level of structure and logical organisation in presenting this content (100%), which points to a well-developed pedagogical culture and systematic approach to teaching. The practice-oriented approach (96.7% integration of theory with clinical examples) correlates with the use of contemporary educational technologies (80.6%), demonstrating the interdependence between innovative teaching methods and a focus on developing students' clinical thinking. A separate relationship can be observed between adherence to the principles of academic integrity (100%) and transparency in assessment practices (100%), confirming the consistency between the ethical and pedagogical dimensions of the educational process.

At the same time, the partial use of innovative technologies (19.4%) and digital tools (approximately 6-19%) is associated with the need for further development of digital competencies, which may influence the extent to which contemporary educational approaches are implemented. The distribution of respondents between theoretical departments (53.3%) and clinical departments (46.7%) suggests that the identified trends are characteristic of both areas of training and are systemic in nature rather than being determined solely by the specific characteristics of individual disciplines. Correlation analysis revealed that most indicators exhibited low variability, limiting the possibility of identifying statistically significant relationships. Moderate positive correlations were observed between the use of contemporary educational technologies, digital resources, and innovative approaches ($r \approx 0.5-0.7$). Other indicators demonstrated weak or absent correlations, which may be attributed to the high degree of homogeneity in respondents' answers and the relatively small sample size.

The data obtained indicate that the sample is representative and provide a comprehensive reflection of the educational process from both the fundamental theoretical and practical clinical perspectives of nursing education. The presence of an almost equal proportion of representatives from clinical departments strengthens the practice-oriented nature of the findings, as it allows consideration of the specific features of teaching disciplines directly related to clinical practice. At the same time, the predominance of representatives from theoretical departments within the sample structure ensures the assessment of methodological, organisational, and didactic aspects involved in the development of core professional competencies. Taken together, these

factors provide a holistic understanding of the current state of lecturers' professional competence and the specific characteristics of the implementation of the educational process within the system of medical education.

■ Discussion

Contemporary challenges, including the digitalisation of education, the implementation of simulation-based learning, distance and blended learning formats, as well as the need to adhere to the principles of academic integrity, require a reconsideration of approaches to the organisation of the educational process and the role of the lecturer as a facilitator of learning. In this context, the analysis of factors influencing the effectiveness of the educational process is of particular relevance, especially the use of innovative technologies, interactive teaching methods, and the provision of high-quality feedback. The findings of studies by N. Volodka (2020) and L. Bilyk (2021) emphasised the importance of a comprehensive examination of the quality of teaching in medical HEIs against the backdrop of the transformation of the healthcare system and the educational landscape. The authors emphasised the need to integrate the principles of evidence-based medicine, an interdisciplinary approach, patient-centred care and modern educational technologies into the professional training of future healthcare professionals. Particular attention is paid to the development of clinical reasoning, evidence-based decision-making skills, effective communication and the ability to adapt to the rapid evolution of medical knowledge.

The findings are generally consistent with the conclusions of the aforementioned authors. In particular, it was found that 96.7% of lecturers integrate theoretical knowledge with practical clinical examples, which demonstrates the practice-oriented nature of the educational process and contributes to the development of clinical reasoning in students. In line with the findings of L. Bilyk (2021) and N. Volodka (2020), this study confirms the importance of combining theoretical training with real clinical situations for the development of professional competences among future nurses. The structured and logical presentation of teaching material is also an important indicator of teaching quality. In this study, all the lecturers surveyed (100%) confirmed that they adhered to these principles in their teaching practice. The data obtained indicate a high level of pedagogical skill among the lecturers and their ability to ensure the effective assimilation of complex medical material, which meets contemporary requirements for medical education.

Contemporary scientific sources, such as the studies by E. Arruzza & M. Chau (2021) and A.E. van Gaalen *et al.* (2021), also emphasise the need for the digitalisation of the educational process, the implementation of simulation-based learning, problem-based approaches and interactive teaching methods. The results

of this study confirm this trend: 80.6% of lecturers actively use modern educational technologies, in particular the case method, problem-based learning, simulation technologies and clinical case discussions. At the same time, 19.4% of respondents indicated that they use such technologies only to a limited extent. The findings demonstrate a fairly high level of readiness among lecturers to use modern educational tools. Indeed, a common thread between the results of this study and the findings of other authors is the recognition of the decisive role of a lecturer's professional competence in ensuring the quality of medical education and in developing the clinical thinking of future nurses. At the same time, a distinguishing feature is the high level of practical integration of teaching and the use of innovative technologies observed in this study, which may indicate positive trends in the development of the educational environment and the readiness of teachers to meet the modern requirements of medical education.

One of the promising avenues for improving the training of future nurses is the use of gamification technologies, which involve the integration of game elements (points, rankings, quests, the case method, simulation technologies and clinical debriefings, competitions, achievements and instant feedback) into the educational process. In the current context of medical education, gamification is regarded not only as a tool for enhancing learning motivation, but also as an effective means of developing clinical reasoning, professional judgement and decision-making skills. According to C.Y. Lee *et al.* (2024), gamification is a promising strategy for bridging the gap between theoretical training and the practical application of knowledge in the process of teaching clinical reasoning. The author argued that the use of game mechanics helps to increase student engagement, stimulate learning activities and improve long-term retention of information. In a subsequent review study, C.Y. Lee *et al.* (2025) found that the implementation of gamified educational strategies has a positive impact on the development of clinical reasoning, analytical skills and students' ability to make evidence-based clinical decisions.

A systematic review by A.E. van Gaalen *et al.* (2021) and E. Arruzza & M. Chau (2021), focusing on gamification in the training of healthcare professionals, demonstrated a growing interest in the use of game-based approaches in medical education. The authors concluded that gamification helps to improve academic performance, student engagement and the quality of learning. Of particular interest are the studies in the field of nursing education by M.E. Elzeky *et al.* (2022), which found that the use of a gamified "flipped classroom" helps to increase nursing students' motivation to learn, improve the development of professional competences and encourage independent learning. The results confirmed the effectiveness of integrating game mechanics into the training of future nursing professionals.

An important contribution to the study of the impact of gamification on the development of clinical reasoning was made by K. Ishizuka *et al.* (2023). The study utilised Diagnostic Management Cards (DMCs), through which the process of clinical decision-making was transformed into an interactive educational game. The study found a statistically significant increase in students' confidence in making diagnostic decisions, a rise in motivation to learn clinical reasoning, and an improved awareness of the economic aspects of healthcare. Furthermore, the study participants demonstrated a better understanding of clinical situations and the ability to justify their choice of diagnostic and treatment strategies.

A similar trend can be observed regarding the implementation of innovative educational approaches and the digitalisation of learning: in this study, 80.6% of lecturers stated that they actively use modern educational technologies, whilst 19.4% implement them to some extent. The results obtained are consistent with data from recent scientific studies by A.E. van Gaalen *et al.* (2021) and C.Y. Lee *et al.* (2024; 2025). Studies by E. Arruzza & M. Chau (2021), M.E. Elzeky *et al.* (2022) and K. Ishizuka *et al.* (2023) have shown that the incorporation of gamification elements into the learning process has a positive impact on learning satisfaction and academic motivation among medical students. The study demonstrated that a gamified learning format contributes to the development of professional competencies and increases motivation among nursing students. It was shown that the use of gamified clinical scenarios improves students' confidence in making diagnostic decisions, promotes the development of clinical reasoning and enhances the quality of practical knowledge acquisition.

Simulation-based learning is an effective approach to the development and assessment of clinical competencies among medical students. In the context of enhancing the professional competence of lecturers at medical HEIs, the organisation of simulation sessions, particularly those involving first-year students, is of particular importance, as it facilitates the development of clinical thinking. Similar findings were reported by S.L. Rudinsky *et al.* (2024), who demonstrated that the combination of brief clinical scenarios with low-fidelity simulation represents a resource-efficient approach that optimises the educational process, reduces resource expenditure, and simultaneously ensures the effective development of clinical reasoning among future healthcare professionals. The authors emphasised that well-structured simulation sessions are especially effective during the early stages of education, when fundamental clinical competencies are being established.

Expanding upon this concept, R. Cole (2026), in a study of a long-standing progressive simulation programme, found that simulation-based learning should be continuous and gradually increase in complexity

throughout the entire training period. This approach, based on the theory of experiential learning and the theory of cognitive load, ensures the step-by-step development of clinical, communication and teamwork competencies, whilst also preparing trainees to act in crisis and high-risk clinical situations. The author emphasised that the integration of simulations as part of a long-term educational pathway contributes to the development of resilience, adaptability and professional confidence in future doctors. Thus, the results of this study are consistent with the findings of the current scientific literature and confirm that simulation-based learning is one of the key tools for developing clinical reasoning in medical students. At the same time, the effectiveness of its implementation depends to a large extent on the methodological training of lecturers, the structure of the scenarios and a systematic approach to integrating simulations into the teaching process.

As demonstrated by the research of J. Knopes *et al.* (2024), medical students and doctors encounter an extremely large volume of knowledge during their studies and professional practice, making it impossible to fully master all information in the field of biomedicine. In this context, a key component of the professional competence of lecturers at medical HEIs is fostering students' ability to prioritise knowledge according to its clinical significance and practical relevance. Even before commencing clinical placements, students learn to select information based on its relevance to examinations and their future professional practice. Teamwork, facilitated by lecturers to promote peer learning and collegial support, plays a vital role in this process. In such an environment, students learn to interact effectively, compensating for individual gaps in knowledge at a group level, which is a key element in the development of clinical reasoning.

Peer learning, integrated into the educational process through the professional competence of lecturers, has proven highly effective in higher medical education institutions, although its application in clinical practice remains under-researched. At the same time, a significant proportion of nursing students' training, particularly in the United Kingdom, takes place within clinical practice settings, where peer learning occurs in both formalised and informal contexts. When lecturers create a supportive educational environment that fosters partnership, professional interaction and constructive feedback, this promotes the development of clinical competencies, boosts students' confidence and reduces levels of stress and anxiety. A lecturer's pedagogical expertise is a key factor in the effective implementation of peer-based learning as a tool for developing clinical reasoning in future nurses.

■ Conclusions

The results of the questionnaire survey ($n = 31$) demonstrated a high level of professional competence

among lecturers at medical HEIs: 96.8% of respondents confirmed that they possess profound and systematic knowledge of the disciplines they teach, while no responses of "no" were recorded. This indicates well-established professional confidence and an appropriate level of specialist training among academic staff. The predominance of an evidence-based approach within the educational process was established, with 93.3% of lecturers applying contemporary clinical protocols and the principles of evidence-based medicine, and 100% regularly updating the content of academic disciplines in accordance with current scientific evidence and standards. These indicators confirm that the educational process is aligned with contemporary clinical practice and international requirements for the training of healthcare professionals.

The practice-oriented nature of education is ensured through the integration of theoretical knowledge with clinical examples in 96.7% of cases, which correlates with the high proportion of lecturers focused on the development of clinical thinking (96.8%). This confirms the alignment of the educational process with the competency-based model of training future nurses. Contemporary educational technologies, including case-based methods, problem-based learning, and simulation techniques, are actively employed by 80.6% of lecturers, while 19.4% apply them only partially. This indicates a satisfactory level of innovation within the educational process while simultaneously highlighting opportunities for its further methodological modernisation. All respondents (100%) stated that they provide a structured presentation of educational material, offer constructive feedback, and maintain a professional and ethically safe atmosphere during classes, thereby creating a psychologically supportive educational environment and promoting the development of the professional identity of future nurses. Prospects for further research include the development and validation of innovative models aimed at enhancing the professional competence of lecturers at medical HEIs in accordance with the principles of evidence-based medicine, as well as investigating the impact of integrating WHO standards on the development of clinical thinking among future nurses within the context of the ongoing transformation of the healthcare system.

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■ Conflict of Interest

None.

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Професійна компетентність викладачів медичних ЗВО та її роль у формуванні клінічного мислення майбутніх медичних сестер

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■ **Анотація.** В умовах реформування охорони здоров'я та інтеграції медичної освіти України до міжнародного простору особливе значення має підвищення професійної компетентності викладачів. Підготовка майбутніх медичних сестер потребує впровадження доказово-орієнтованого підходу, актуальних клінічних рекомендацій і сучасних освітніх технологій для розвитку клінічного мислення та готовності до професійних рішень. Метою дослідження був комплексний аналіз професійної компетентності викладачів медичних закладів вищої освіти та визначення її ролі у формуванні клінічного мислення майбутніх медичних сестер. Дослідження виконано за змішаним дизайном, що поєднує систематичний аналіз наукової літератури 2019-2026 років із поперечним анкетним опитуванням 31 викладача Вінницького національного медичного університету ім. М. І. Пирогова для оцінки їх професійної компетентності та використання інноваційних освітніх і клінічних підходів. За результатами дослідження встановлено, що 96,8 % викладачів підтвердили наявність глибоких і системних знань із дисциплін, які викладають, а негативних відповідей щодо рівня фахової підготовки не зафіксовано. Більшість респондентів (93,3 %) застосовують у своїй педагогічній діяльності сучасні клінічні протоколи та принципи доказової медицини, а всі опитані зазначили, що регулярно оновлюють зміст навчальних дисциплін відповідно до актуальних наукових даних. Інтеграцію теоретичних знань із клінічною практикою забезпечують 96,7 % викладачів, що сприяє формуванню професійних компетентностей та розвитку клінічного мислення здобувачів освіти. Використання сучасних освітніх технологій підтвердили 80,6 % респондентів, а 96,8 % зазначили, що цілеспрямовано формують у студентів навички клінічного аналізу та прийняття обґрунтованих професійних рішень. Усі учасники дослідження відзначили створення професійно безпечного, доброзичливого та етично комфортного освітнього середовища. Отримані результати підтверджують, що високий рівень професійної компетентності викладачів є важливим чинником забезпечення якості медичної освіти та ефективної підготовки конкурентоспроможних фахівців у галузі сестринської справи.

■ **Ключові слова:** медсестринство; доказова медицина; освітні технології; цифровізація навчання; академічна доброчесність; практико-орієнтована підготовка; професійний розвиток