

approaches to integrating medical physiology as a fundamental medical and biological discipline. It delves into current challenges in teaching physiology within the modern educational landscape, particularly focusing on the Department of Physiology at the Poltava State Medical University. This discipline is delivered by the Department of Physiology for students of the second (Master) level of higher education in the field "Healthcare" and "Biology". Physiology is a cornerstone discipline that fosters interdisciplinary integration in medical education, bridging theoretical knowledge with practical application in clinical settings. Emphasizing a practically oriented teaching principle, the article underscores the pivotal role of physiology in preparing students for clinical practice. The department adopts a comprehensive approach, developing and updating educational materials and manuals, including laboratory work with detailed descriptions of physiological research methods. Highlighting the department's achievements, it mentions their contribution to the first Ukrainian translation of the renowned physiology textbook "Medical Physiology" by Guyton and Hall in two volumes. It concludes by stressing the importance of enhancing the quality of education in medical institutions through continuous improvements in teaching practices, integration of advanced scientific developments and technologies, and the provision of modern educational resources and facilities, particularly in the field of physiology, which serves as the theoretical backbone of clinical medicine.

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NEW CHALLENGES OF DISTANCE TEACHING AT THE INTERNATIONAL MEDICAL FACULTY DURING THE WAR AND CORONAVIRUS PANDEMIC IN UKRAINE

The aim of this work is to address specific challenges related to the organization and future prospects of distance teaching in medical higher education institutions, especially pertinent amidst the current military situation in Ukraine. Materials and methods. In our analysis, we reviewed relevant experiences and documentation, considering the participation of medical students in higher education. The data analysis on student's performance and engagement in online courses to assess the effectiveness of current distance teaching methods was performed. Results and discussion. The education of medical professionals at international faculties holds significant national importance, contributing to addressing various societal challenges and enhancing Ukraine's educational reputation. However, recent events such as the COVID-19 pandemic and martial law have posed new challenges for distance teaching practices in pedagogy. It is crucial for educators who work with international medical students to possess high levels of professionalism and moral integrity. Across the globe, simulation technologies are increasingly employed in medical training, offering innovative methods for preparing highly skilled medical personnel. One such technology is the "virtual patient," which allows learners to engage in realistic clinical scenarios, make diagnostic and treatment decisions, and understand the consequences of their actions without compromising patient safety. The development of communication and language skills among future medical professionals remains a pressing concern within higher education institutions. Utilizing technological storytelling methods to illustrate the journeys of successful specialists can provide valuable insights and inspiration for students. In the context of distance learning, maintaining prompt feedback channels between students and departmental teachers is essential for effective learning outcomes. Conclusion. Practical application of innovative methodological approaches provide with opportunity for teachers of medical higher education institutions to implement and improve the novel methods of work, to increase the effectiveness of the educational process and the level of knowledge of students of the international faculty. Innovative distance learning technologies stimulate the teacher's work, increase his/her professional level, since the organization of the educational process requires preparation for each class, constant pedagogical research, development and use of additional new materials, study of innovative technologies.

Key words: higher education students, pedagogy, medicine, distance teaching, teaching evaluation.

Introduction

The training of specialists in the field of medicine at the international faculty is of great national importance, as it is aimed at helping to solve various important problems, as well as enhancing image of education in Ukraine. Recently, new challenges have arisen for pedagogical distance teaching, which are related to the COVID-19 pandemic and the martial law in our country. The professionalism of a teacher is a qualitative characteristic as a subject of pedagogical activity, which reflects a high level of development of professionally important

and personal and business qualities that are crucial for ensuring the effectiveness of pedagogical activity. Upon graduating from a higher education institution, a future medical professional must be highly competitive at the labor market. The urgency of the problem is due to the fact that Poltava State Medical University actively works to ensure an English medium of instruction in medical education and its role in ensuring the professional development of students and teachers, which is of great importance for further use in professional activities [1, 2, 3].

The aim

The aim of this work is to address specific challenges related to the organization and future prospects of distance teaching in medical higher education institutions, especially pertinent amidst the current military situation in Ukraine.

Materials and methods

In our analysis, we reviewed relevant experiences and documentation, considering the participation of medical students in higher education. The data analysis on student's performance and engagement in online courses to assess the effectiveness of current distance teaching methods was performed.

Results and Discussion

We compared the success score in the 2019 and 2023 academic years based on the evaluation of written tests and tasks that the applicants completed independently after the online class. We noted that the test takers provided 25% more correct answers on the first attempt, which we explain as improving pedagogical skills and improving the ability of teachers to use a set of information technologies.

Distance learning encompasses a range of instructional methods and digital tools designed to facilitate education without the need for students to be physically present on campus. One of its key advantages is the flexibility it offers, allowing students to engage in learning activities both synchronously (in real-time online sessions) and asynchronously (accessing materials at their own pace). This approach democratizes access to education by leveraging cutting-edge information technologies and telecommunications networks, enabling individuals to pursue learning opportunities nationwide. Importantly, distance learning helps uphold individuals' right to education, even amidst the challenges posed by the ongoing martial law situation in Ukraine [4, 5].

Hence, educators entrusted with the task of instructing international medical students must possess a blend of robust professional expertise and moral integrity. They should exemplify a range of civic virtues, including active engagement in community affairs, a strong sense of national identity, a spirit of patriotism, and a deep respect for diverse cultures and peoples. Moreover, they should uphold the principles of individual sovereignty and human dignity, recognizing them as sacrosanct. In terms of professional and moral attributes, these educators should embody traits such as unwavering professional integrity, steadfastness in their convictions, adept organizational skills coupled with a sense of accountability, a commitment to fairness and impartiality, and the ability to maintain self-discipline, demanding high standards from themselves and their students alike. Furthermore, they should exhibit a mastery of their respective disciplines at a sophisticated scientific level, ensuring a comprehensive

understanding of the subject matter they impart to their students.

In today's digital age, social media platforms have evolved beyond mere communication tools, emerging as integral elements of the information and educational landscape. The accessibility and flexibility afforded by distance learning at the international faculty is undeniably advantageous, transcending geographical and temporal constraints. However, it is not without its drawbacks. Students may struggle with a superficial understanding of the material due to the nature of online interactions. Moreover, challenges such as fluctuating internet connectivity, inadequate materials and technical resources, and an overwhelming abundance of educational content can impede the learning process, leading to mental fatigue and reduced knowledge retention. Additionally, certain aspects of medical education, particularly in clinical departments, necessitate hands-on experience and physical presence, making offline demonstrations impractical. Furthermore, assessing practical skills of applicants becomes challenging for teachers in an online setting.

During distance learning, live broadcasts and video demonstrations serve as invaluable tools for fostering direct communication with students. Such interactive sessions create an informal atmosphere, fostering trust in the teacher and rendering the discipline more engaging and approachable. Notably, the authors have observed a heightened interest among future specialists when each student takes turns presenting a brief overview of their own research findings on a particular topic. Striking a balance between traditional teaching methods and the integration of internet technologies is paramount for effective instruction. Moreover, the ability to customize newsfeeds during sessions, share files with other users, and access English-language medical resources freely adds significant value to the learning experience.

One of the best is the direct contact of the teacher with the student during the case presentation, the clinical situation, the conversation, in the process of which both the general level of training and knowledge of the discipline are revealed. The advanced IT technologies, provide with establishing such communication, but the teacher needs to obtain the patient's consent in advance, but as a rule there are always those who willingly go to the communication. In order to optimize independent work, to practice clinical thinking skills, we use a traditional survey in practical classes by solving simulated clinical situations and health problems, both in classes and by independently sending the answer after the class. The formulation of the tasks corresponds to the 3rd and 4th levels of education. The developed set of diagnostic tasks helps to establish a diagnosis and prescribe treatment, and a wide exchange of ideas activates students not only in classes, but also when doing homeworks. Solving these problems brings education closer to the prac-

tical activity of a doctor, promotes the development of the clinical thinking. Currently, there are unique opportunities to access information without significant financial costs, which is provided in various formats: (webinars, video lectures, educational films), text (textbooks, scientific articles, regulatory and legal framework), audio content (books, reports by experts) [1, 2, 5].

The involvement of platforms for video conferences and webinars, such as Microsoft Teams, Google Meet, Skype, Zoom, Moodle learning, turned out to be the most appropriate. In the conditions of distance learning, it is very important for students of the international faculty to maintain quick feedback with the teachers of the department, which was accordingly ensured by the creation of groups in Viber and Telegram messengers, where students received quick and accurate answers to their questions or via e-mail. We can single out the following components of the plan of self-education activities of future doctors: the formation of sources and literature that need to be processed and the selection of forms of self-education and approval of the deadline for the completion of work.

In delineating the professional skills of future doctors, the structure is typically divided into three main components. Firstly, there's the acquisition of professional knowledge, which encompasses the requisite amount of information outlined in the educational standards of the field. Next, there are professional skills, which entail mastering necessary actions through repetitive practice until they become automatic. Lastly, there's the cultivation of professional competencies, which involves the readiness to perform both theoretical and practical skills autonomously, with a conscious understanding of their application. Acquiring the last two components remotely presents challenges for students, but this format also offers the teacher an opportunity to effectively share their professional knowledge with future doctors.

Currently, in most countries worldwide, simulation technologies are used during the training of medical specialists, which are a new direction in the training of highly qualified medical personnel. "Virtual patient" is an innovative interactive learning technology that, with the help of a computer model of a real clinical situation, allows to fully immerse oneself in the diagnostic and treatment process, make independent decisions on the tactics of diagnosis and treatment, see and realize the consequences of certain decisions, not thereby violating the rights and safety of the patient. Unconditional advantages of this technology are also stimulation of interest in independent study of the material, clarity, the opportunity to "take a break" in the process of working with a patient and obtain the necessary background information. 20 clinical scenarios with different nosologies are available for training. Contemporary life requires from the student of medical higher education not only the attainment of

theoretical knowledge and practical skills, but also the ability to analyze, draw conclusions, independently make decisions and bear responsibility for them [3, 4].

The training of students requires constant optimization of the educational process through the use of the cutting edge learning technologies. The optimal use of a pedagogically sound organization of learning process in today's conditions is the basis for improving the training of students of the international faculty and improving the image of Ukraine.

The authors would like to emphasize the issue of language etiquette among different peoples, the knowledge of which significantly improves communication between a student and a teacher. Teacher-student communication differs significantly in different cultures. If a Ukrainian student answers the teacher's questions humbly, then the teacher rightly believes that the student does not know the answer to the question well enough; if an African student speaks quietly, it may well mean simply a demonstration of politeness and respect for the teacher: the quieter you speak, the more respectful it sounds (from the African's point of view). The language etiquette of communication with the older generation is very developed and strictly observed in some countries, especially in the countries of the East. So, in our opinion, if the language culture is followed, then the teacher will never push the student away from being interested in the discipline.

The ability of the teacher to explain the content of the text also reveals the individual skills of the student:

1. information-detailing, that is, the ability to highlight information that presents and clarifies theses, following the development of the main idea;
2. generalizing, that is, the ability to understand the idea of the text, the conclusion to which it leads, and to determine one's attitude to this information [2, 3].

The development of communication and language skills among future medical professionals in higher education institutions remains a pressing concern. A notable aspect of professional speech within the medical field is its interaction with patients, who are often in vulnerable states due to health concerns. This aspect is equally vital in the distance learning of students at international faculties with English as the medium of instruction. During their student years, individuals often look up to teachers and accomplished professionals as role models. Incorporating the biographies of renowned Ukrainians, scientists, and physicians into academic and educational activities can provide invaluable insights into success stories. Utilizing technological storytelling methods about prominent figures can effectively highlight the specific actions that led to their achievements, making them tangible examples for students [1, 5].

Conclusions

Therefore, the study and practical application of innovative methodological approaches provide with opportunity for teachers of medical higher institutions to implement and improve the novel methods of teaching, to increase the effectiveness of the educational process and the level of knowledge of students of the international faculty. The advanced distance learning technologies stimulate the teacher's work, increase his/her professional level, since the organization of the educational process requires preparation for each class, constant pedagogical research, development and use of additional new materials, study of IT technologies.

Authors' contribution

Kateryna V. Pikul — research concept and design, data collection, data analysis and interpretation, writing the article; Valentina I. Ilchenko — data analysis and interpretation, writing the article; Zlato-slava O. Shaienko — editing the text, final approval of the article; Oksana V. Muravlova — research concept and design, editing the article; Konstantyn Y. Prylutskiy — editing the text, final approval of the article.

Conflicts of interests

Authors declare the absence of any conflicts of interests and own financial interest that might be

construed to influence the results or interpretation of the manuscript.

References

1. Shaienko ZO, Muravlova OV, Dvornyk IL, Lihonenko OV. Studentskiy naukoviy hurtok yak forma samostiinoi naukovodoslidnoi roboty studentiv [Students scientific group as a form of independent scientific and research work of students]. Odeskiy medychnyi zhurnal. 2023;1(182):108-110. (Ukrainian).
2. Korchan NO, Svintsytska NL, Ustenko RL. Ekolohichne vykhovannia yak odyn iz pryoritetnykh napriamiv vykhovnoi roboty u formuvanni vykhovnoho prostoru na kafedri anatomii liudyny Poltavskoho derzhavnogo medychnoho universytetu [Ecological education as one of the priority directions of educational work in the formation of educational space at the Department of Human Anatomy of Poltava State Medical University]. Innovations and prospects of world science: proceedings of the 3rd International scientific and practical conference, Vancouver, Canada, 4-6 November 2021; Vancouver; 2021. p. 201-210. (Ukrainian).
3. Sokolenko VM, Sharlai NM, Yeroshenko HA, Shevchenko KV. Osobystisno-orientovnyi pidkhd do navchalnoho protsesu [Personal orientation approach to the educational process]. In: Resursno-orientovane navchannia v «3D»: dostupnist, dialoh, dynamika [Resource-oriented training in "3D": accessibility, dialogue, dynamics]: materialy II Mizhnarodnoi naukovopraktychnoi internet-konferentsii, m.Poltava, 22-23 liutoho 2022 r.; Poltava: PUET; 2022. p. 60-64. (Ukrainian).
4. Sharlai NM, Sokolenko VM, Vesnina LE, Fedotenkova NM. Profesiina kompetentnist fakhivtsiv u haluzi okhorony zdorovia [Professional competence of specialists in the field of health care]. In: Pylypenko SV, editor. Biolohichni, medychni ta naukovopedagogichni aspekty zdorovia liudyny [Biological, medical and scientific and pedagogical aspects of human health]: materialy Mizhnar. nauk.-prakt. konf., 21-22 zhovtnia 2021 r.; Poltava: Astraia; 2021. p. 74-77. (Ukrainian).
5. Shaienko ZO, Muravlova OV, Pikul KV, Dvornyk IL, Lihonenko OV. Student scientific group: a path to improve professional skills of future physicians. Aktual'ni problemy sучasnoyi medytsyny: Visnyk Ukrayins'koyi medychnoyi stomatolohichnoyi akademii. 2023; 23(4):266-269.

Реферат

НОВІ ВИКЛИКИ ДИСТАНЦІЙНОГО ВИКЛАДАННЯ НА МІЖНАРОДНОМУ МЕДИЧНОМУ ФАКУЛЬТЕТІ ПІД ЧАС ВІЙНИ ТА ПАНДЕМІЇ КОРОНАВІРУСНОЇ ХВОРОБИ В УКРАЇНІ

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Ключові слова: здобувачі вищої освіти, педагогіка, медицина, дистанційне викладання, оцінювання викладання.

Метою даної роботи є обговорення окремих питань організації та перспективи дистанційного викладання у вищих медичних навчальних закладах на міжнародному факультеті, обумовлених викликами військового стану в Україні. Матеріали і методи: Проаналізовано досвід роботи та відповідну документацію, а також враховані результати аналізу та були зроблені певні висновки про участь здобувачів вищої медичної освіти. Результати дослідження та їх обговорення. Підготовка фахівців у сфері медицини на міжнародному факультеті має вагомe державне значення, оскільки спрямована на допомогу в розв'язанні важливих проблем різного спрямування, а також іміджу освіти в Україні. Останнім часом виникли нові виклики педагогічного дистанційного викладання, що пов'язані з пандемією коронавірусної хвороби та воєнним станом в нашій країні. Особливо у викладачів, що працюють зі здобувачами міжнародного медичного факультету мають бути достатньо високі професійно-моральні якості. Сьогодні у більшості країн світу під час підготовки медичних фахівців застосовують симуляційні технології, які є новим напрямом підготовки висококваліфікованих медичних кадрів. «Віртуальний пацієнт» - це інноваційна інтерактивна технологія навчання, що дозволяє за допомогою комп'ютерної моделі реальної клінічної ситуації повноцінно зануритися в діагностичний і лікувальний процес, приймати самостійні рішення з тактики діагностики і лікування, бачити і усвідомлювати наслідки тих чи інших своїх рішень, не порушуючи при цьому прав та безпеки пацієнта. Формування у майбутніх медичних працівників комунікативно-мовних умінь в умовах вищої школи залишається однією з актуальних проблем. Технологічні прийоми наведення розповіді про видатних фахівців найближче підводять до тих конкретних дій, які привели людину до успіху. Саме вони є найчастіше об'єктом безпосереднього впровадження у навчальний процес як свідчення використання позитивного досвіду відомих людей. В умовах дистанційного навчання студента міжнародного факультету дуже важливо підтримувати швидкий зворотний зв'язок із викладачами кафедри.

Висновки: вивчення і застосування на практиці інноваційних методологічних підходів надають можливість викладачам вищих медичних закладів впровадити та удосконалити нові методи роботи, підвищити ефективність навчального процесу і рівень знань здобувачів міжнародного факультету. Інноваційні технології дистанційного навчання стимулюють роботу викладача, підвищують його професійний рівень, так як організація навчального процесу потребує підготовки до кожного заняття, постійного педагогічного пошуку, розробки і додавання нових матеріалів, вивчення ІТ-технологій.