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EXPERIENCE OF TEACHING OF PROPADAUTIC PEDIATRICS TO ENGLISH-SPEAKING STUDENTS UNDER QUARANTINE LIMITATIONS

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The research is devoted to the issues of improving the educational content in the clinical discipline propaedeutics of pediatrics for English-speaking foreign students in COVID-19 epidemic conditions. Based on the peculiarities of the organization of the educational process in the conditions of quarantine restrictions, adjustments were made to the methodology of teaching the discipline. All methodological materials were adapted to the conditions of distance education, supplemented by educational videos, illustrative photo and diagrams and were posted on the website of the department and on the educational portal Moodle, so students had the opportunity to apply to them again at any time. Student feedback has been carefully established. By conducting an anonymous questionnaire, we studied the point of view of students as to the study in a mixed distance-classroom system. According to the survey, among 147 surveyed students, 87.1 % rated the quality of education on a five-point scale at "5" or "4", 12.9 % – at "3". The most frequently interviewed students suggested increasing the number of references to illustrative materials in the guidelines, making extensive use of video, photo, models during practical classes and expressed a desire to work with sick children in the clinic to better master the method of examination. Problems of organization of educational process can be connected with technical maintenance of Internet communication both on clinical bases of department, and in places of residence of students, computer literacy of teachers and students, sufficient availability of necessary models and phantoms at the department, medical and security regime in hospital wards. Also, ways to improve teaching are careful methodological and technical support of lectures and practical classes, active use of innovative technologies

Keywords: distance learning, classroom learning, questionnaire, students, English language learning, propaedeutics of pediatrics

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1. Introduction

The crisis due to the pandemic, which affects all spheres of society, has become a challenge for the entire globalized world. The educational system is no exception, and it requires new approaches to teaching with the active use of information technology [1]. In recent years, the use of distance and information technology in education has become increasingly popular. Distance learning has been introduced by the order of the Ministry of Education and Science of Ukraine in connection with the spread of the epidemic COVID-19 [2]. Among the new realities of higher medical education in these difficult conditions are distance learning and classroom learning in small groups with the provision of quarantine standards without the possibility of practical work with patients in a hospital.

Despite the sufficient attention of scientists to the study of ways to use distance learning technologies, it should be noted, that the vast majority of these studies are ways to develop distance learning courses and their content, while issues of the organization and support of the educational process during global quarantine when educational institutions in force majeure created and set

up a remote form of work are timely and open [3]. At the heart of distance learning methods is purposeful and controlled intensive independent work of a student, who can study in comfortable conditions under the guidance of teachers. Thanks to distance education, students can get the desired information at the right time, and teachers, in turn, can easily post it, minimizing time and effort. However, in quarantine, the issue of improving the efficiency of learning, as well as the organization of clinical discipline, knowledge control and motivation among students with English-language education acquires new meaning and requires detailed study.

2. Literary review

A large number of scientific works on pedagogy covers the issue of quality distance learning. They discuss the basic principles of preparation of educational content, standardization of basic approaches to teaching, the use of technology in preparation for classes. Careful methodological preparation, use of new scientific data, choice of modern technologies for teaching material, adaptation to the characteristics of students, connection with subsequent clinical practice, individual approach to

the teacher's topic – these are the main components of quality distance learning [4]. The issues of teaching foreign students deserve special attention. The desire to find the most favorable psychological and pedagogical conditions for the activation and implementation of the best qualities and self-development of an individual encourages English-speaking teachers to seek new forms of presentation of educational material [5]. The software allows you to create author's computer animated presentations that are updated as needed. Animated films and materials that contain elements and provisions that need to be highlighted or emphasized, make classes rich, dynamic, interesting [6].

However, when implementing distance learning in the organization, first of all you need to pay attention to the obstacles, overcoming which allows you to solve problems [7]. The level of information literacy of a teacher can be assessed through the tools he/she uses in his/her professional activity. Quite often the set of these tools is very poor – it is browsers, email, YouTube, Skype, Facebook, Google search engine and some of its tools (and there are more than 250). Insufficient information literacy of the teacher makes it impossible to search for scientific information in scientometric databases, deep Internet, which reduces the teacher's awareness in the professional sphere. To overcome this obstacle, the teacher must prepare for distance learning, it is necessary to teach him/her to create a distance learning course, conduct a distance learning process, process large amounts of information from the network [7]. The transition to distance learning in the pandemic was very fast, so the training of teachers took place directly in the process of adapting teaching to new conditions. Significant obstacles also arise through the student. This is the lack of distance learning experience, low level of time management and information literacy. Before COVID-19, students had the opportunity to seek advice by physically meeting with a teacher or module supervisor. With the onset of the pandemic, there was a need to offer virtual working hours to support and facilitate frequent interaction with students to alleviate the barriers they face in their learning [7, 8]. Lack of physical contact is not limited to the teaching staff. Now students face a long period of time without their friends and companions. Where group work and collaborative projects are now the basis of many university courses, the opportunity for students to work with classmates has diminished and become more difficult. It has been found, that loneliness is largely associated with stress, anxiety and depression in students [9, 10].

Thus, despite extensive discussion in the literature, the problems of quality teaching in quarantine restrictions cannot be called solved. Foreign students may have a number of difficulties in their studies, but English-language teaching is extremely difficult for a teacher. The literature emphasizes that distance learning is one of the forms of higher education, it was developed and implemented long before the pandemic and will not disappear with its end [10, 11]. Therefore, the rational and successful teaching experience in the context of the COVID-19 pandemic, its problems and achievements must be carefully studied and analyzed.

3. Research am and tasks

The aim of the study was to improve the content of the clinical discipline of propaedeutics of pediatrics for foreign students with English as the language of instruction, which will result in quality training of a competitive specialist, increase the rating of the institution.

To achieve this goal, the following tasks were set:

1. To study modern experience and methodological approaches to conducting distance learning in clinical disciplines.
2. To highlight the own experience in creating educational content and teaching methods at the Department of Propaedeutics of Pediatrics for English-speaking students in quarantine.
3. To find out the opinion of foreign students with English-language education about the quality and ways to improve the teaching of clinical discipline at the department.
4. To outline ways to improve the teaching of the subject of propaedeutics of pediatrics for foreign students with English-language education in quarantine restrictions.

4. Materials and methods

The study was conducted by employees of the Department of Propaedeutics of Pediatrics of the Dnipro State Medical University in 2021–2022. An anonymous survey of students with their consent was conducted after the end of the semester at the department. 147 third-year foreign students aged 20 to 26 were interviewed, including 101 citizens of India (68.7 %), 26 (17.7 %) of Morocco, 8 (5.4 %) of Tunisia, and 6 of Nigeria. (4.1 %), Lebanon – 4 (2.7 %), Israel – 2 (1.4 %).

The questionnaire included the following questions:

1. What format of practical classes do you prefer?
 - classroom
 - remote
2. Are you satisfied with the method of distance learning at the Department of Propaedeutics of Pediatrics?
 - Completely satisfied
 - partially satisfied
 - dissatisfied
3. Evaluate the quality of distance learning at the Department of Propaedeutics of Pediatrics on a five-point scale (0 to 5)
4. What are the advantages of distance learning for you at the Department of Propaedeutics of Pediatrics (it is possible to choose several answers)?
 - saving time and money on the road
 - comfortable learning in a familiar home environment
 - development of self-discipline
 - the ability to choose the optimal rate of assimilation of the material
 - the opportunity to re-apply to the training material
 - Other
5. What are the disadvantages of distance learning for you at the Department of Propaedeutics of Pediatrics (it is possible to choose several answers)?

- lack of live communication with teachers and classmates
- lack of ability to work with patients and practice practical skills
- the need to have constant access to the Internet
- the need to master additional computer programs and applications (Zoom, Google Meet, Moodle)
- the negative impact on health of a long stay at the computer
- other

6. Your suggestions for improving the educational process at the Department of Propaedeutics of Pediatrics.

The percentage of respondents' answers was calculated and the descriptive method was used.

5. Research results and their discussion

The process of filling educational content with the beginning of the transition to distance learning was extremely fast. This was made possible by many years of previous experience in teaching the discipline to English-speaking students. The basis of content for distance learning was previously created methodological developments, which were redesigned and adapted to new conditions. For many years, the only unified form of lecture at the department is a multimedia presentation. The classic requirements for a quality presentation – limiting the number of slides, large font, extensive use of illustrative material, quality lecture – are well known. The methodological advantages of a multimedia lecture are that it is easier to interest and teach a student when he/she perceives both consistent sound and visual images, and it is not only informational but also emotional impact [12]. Based on these presentations, we recorded videos of all 9 lectures of the course at Zoom. During a scheduled lecture, a student had the opportunity to ask the teacher in writing with questions in the chat. All lectures were also posted on the YouTube channel of the department and were stored there permanently. Thanks to easy access to the lecture materials, students were able to refer to a lecture at any time and be sure that they are working with the original source, and not with abstracts, made by themselves, and therefore, not exclusively, with errors. In addition, students worked with these materials during independent preparation for practical classes or final tests and during the writing of an educational medical history.

To provide methodological support for practical classes (62 hours) in accordance with the calendar-thematic plans, guidelines for each lesson, videos with the method of examining a child, audio recordings of auscultation of the heart and respiratory system were posted on the Moodle platform. The guidelines necessarily included short theoretical blocks, references to main and additional literature sources and videos from the Internet. Examples of these short videos are unconditional reflexes of a newborn, animation on the peculiarities of fetal circulation, fetal development, methods of proper application of the newborn to the mother's breast, and others. Student feedback was carefully established, and for some time at the beginning of the pandemic and the entire period when the region was in the red zone in terms of COVID incidence, students studied remotely. Practical classes with the teacher during the period of full

distance learning took place in Google Meet. Conducted analysis of theoretical issues of the topic, a detailed analysis of practical skills, partly if possible, the teacher demonstrated the method of examination in front of a monitor screen on a mannequin. During the oral analysis of the material after the student's answer, the standard of the correct answer was demonstrated on the computer screen. This ensured better assimilation of the material by students. Preparation for the lesson was monitored on the basis of the Moodle platform through testing (25-30 tests, 5 distractors in each, one answer is correct) and students solved situational problems. With the transition of the region to the orange zone, given the number of students in a group of up to 10 people, it became possible to conduct practical classes in person in classrooms in compliance with all quarantine standards, and lectures continued remotely. Classroom classes were close to traditional ones, but work with patients was limited, and students could not, as before, master practical skills in patients. Models, mannequins, audio recordings, laboratory and instrumental research data were used to practice and control practical skills. The semiotics of diseases was studied using situational tasks.

In recent years, the institution of higher medical education has paid much attention to simulation training before the pandemic, the department has a sufficient number of mannequins for palpation, percussion, auscultation of children, as well as available records of auscultation in normal and pathology. This allowed in difficult quarantine conditions to continue training quite effectively.

At the end of the course, we conducted an anonymous survey of students to assess the quality of material and its content, as well as the attitude of students to the methods of teaching the discipline in quarantine.

The results of the student survey revealed the following. Among 147 surveyed students, 63.2 % prefer classroom classes and 36.7 % prefer distance classes. The vast majority of students are partially (70.1 %) or completely (23.8 %) satisfied with the method of teaching at the department. 128 respondents (87.1 %) rated the quality of teaching on a five-point scale at "5" or "4" (87.1 %), 19 – at "3" (12.9 %). Among the advantages of distance learning, students often mentioned the ability to choose the optimal speed of learning the material (43.5 %) and the ability to re-apply the study material (60.5 %), the comfort of learning at home (38.8 %). Among the shortcomings of quarantine training, almost all respondents mentioned the inability to work with sick children (91.2 %), and quite often they complained about the lack of communication with peers and teachers (57.1 %). The most frequently interviewed students suggested increasing the number of references to illustrative materials in the guidelines, extensive use of videos, photographs, mannequins during practical classes and expressed a desire to work with sick children in the clinic to better master the method of examination.

Thus, the organization of teaching clinical discipline to English-speaking students in the conditions of quarantine restrictions at the department was positively assessed by students, the content of material for distance education needs further development.

The study of the attitude of students to the quality of education through questionnaires leads to the accumu-

lation of data that will contribute to the training of competitive professionals. Therefore, research on the results of student surveys will be continued. We plan to further implement Google forms for the survey process, which will provide more information to improve the activities of teachers and the learning process in general.

6. Conclusions

1. In the conditions of quarantine restrictions during the COVID-19 pandemic, distance learning with the use of information technologies has developed significantly.

2. The essential points of distance learning are the established mechanism of feedback with students and illustrativeness of educational content that increases the availability and comprehensibility of material, careful methodological and technical support of lectures and practical classes, active use of innovative technologies.

3. The results of the anonymous survey of students with English-language education on the quality of

lecture teaching show a positive assessment of teaching methods at the Department of Propaedeutics of Pediatrics, DSMU by the vast majority of respondents.

4. Problems of the educational process organization can be connected with technical maintenance of Internet communication both on clinical bases of the department, and in places of residence of students, computer literacy of teachers and students, sufficient availability of necessary mannequins and phantoms at the department.

Conflict of interest

The authors declare that they have no conflicts of interest.

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