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**MODERN FEATURES OF A LECTURE IN THE FORMAT OF  
DISTANCE LEARNING FOR STUDENTS OF A MEDICAL UNIVERSITY**

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*Modern conditions of life specify appropriate requirements to the training of medical specialists. Internet resources and on-line technologies become more popular in educational process. The objective of the work is to analyze the role of lectures in the educational process of students of a medical university on the basis of literature data, as well as to determine the features of the distance learning process at the Department of Dermatovenereology and Cosmetology with the Course of Aesthetic Medicine of FPE of Zaporizhzhia State Medical University.*

*By means of analysis of scientific and pedagogical approaches to lecturing format in different countries two points of view can be defined. The first one is the classic notion about forms and methods of lecturing. Such point of view is typical for majority of educational institutions all over the world. But there is another point of view which emphasizes the fact that the passive transfer of material to students significantly decreases the*

*educational level of specialists and therefore the introduction of new forms and methods for training of medical specialists is required. A special place in the preparation of students of medical universities should take an online lecture-visualization and a lecture-conference. It was in this format that lectures were introduced during quarantine in connection with the COVID-19 pandemic at the Department of Dermatovenereology and Cosmetology with the Course of Aesthetic Medicine of FPE lectures were held using the MS Teams program based on Office 365 or Skype for business. During the lecture, the program provided for the possibility of interactive communication with groups of students or cadets. To control the effectiveness and perception of the information presented by the lecturer, an online questionnaire MS Forms on the topic of the lecture was used.*

*The use of this software in lectures at the department helped to increase the level of cognitive processing of information, interest and motivation of all participants in the educational process.*

*Key words: distance learning, online media lecture, education.*

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*Современные условия жизни диктуют нам определенные требования к подготовке специалистов-медиков. Большую популярность набирают Интернет-ресурсы и онлайн технологии в образовательном процессе. Целью работы является анализ роли лекции в учебном процессе студентов медицинского ВУЗа на основании литературных данных, а также определение*

особенностей дистанционного учебного процесса на кафедре дерматовенерологии и косметологии с курсом дерматовенерологии и эстетической медицины ФПО ЗГМУ.

Анализируя научно-педагогические подходы к формату проведения лекции в разных странах, можно выделить две точки зрения. Первая – это классическое представление о формах и методах проведения лекции. Такая точка зрения присуща большинству учебных заведений во всем мире. Но с другой стороны, пассивная передача материала студентам значительно снижает уровень подготовки специалистов и требует введения новых форм и методов подготовки студентов. Особое место в подготовке студентов медицинских ВУЗов должна занять онлайн лекция-визуализация и лекция-конференция. Именно в таком формате были введены лекции во время карантина в связи с пандемией COVID-19 на кафедре дерматовенерологии и косметологии с курсом дерматовенерологии и эстетической медицины ФПО ЗГМУ. Чтение лекций проводилось с использованием программы MS Teams на базе Office 365 или Skype for business. В процессе проведения лекции программа предусматривала возможность интерактивного общения с группами студентов или курсантов. Для контроля результативности и восприятия изложенной лектором информации использовался онлайн-опросник MS Forms по теме лекции.

Использование данного программного обеспечения в проведении лекций на базе кафедры способствовало повышению уровня когнитивной обработки информации, заинтересованности и мотивации всех участников учебно-воспитательного процесса.

Ключевые слова: дистанционное обучение, онлайн медиа - лекция, образование.

**Introduction.** Modern conditions of life specify the appropriate requirements to the training of medical specialists.

For research data of Shearer R.L. et.al. students want a personalized and adaptive learning experience that is sensitive to the needs and preferences of students. In this case, students are very autonomous and can control their own learning process. They are motivated and have the skills of self-control and self-monitoring. Students learn by participating in in-depth discussions and communication with their peers and educators, solve real complex problems through critical thinking and metacognitive processes. Teachers are instructors, negotiators and guides. They help with the choice of content and learning environment [12].

Internet resources and on-line technologies become more popular in educational process. It should be mentioned that most kinds of works made by student already have interactive nature and media resources are actively used. Questionnaire from Anuj S. et.al. involving 142 respondents (72 students and 72 graduate students) showed that two-thirds of students (59.6%) still prefer chalk and blackboard over PowerPoint-based lectures. 88.4% want to use textbooks, and the rest - gadgets. 70.5% use information from their telephone most of the time for medical education. 82.5% believe that PowerPoint presentations on the topics they teach are necessary for their education. 85.9% used YouTube for medical purposes, and for 88.9%, computer training can replace personal didactic lectures [7].

The introduction of distance learning in pedagogical practice during active quarantine events is relevance. Manu T.R et.al. confirms that distance learning methods provide feedback and support in the learning process, which ultimately helps to improve the environment of e-learning. Access to training materials is simpler and can be done at any time. E-learning is a special program designed to facilitate and manage administrative tasks, as well as student participation in educational courses.

The e-learning platform provides higher education institutions with the opportunity to improve their teaching and learning activities, strengthens the relationship between teachers and students and provides students with means of interaction among themselves [9].

Ubiquitous learning tools can improve context-sensitive and educational processes, offering uninterrupted availability regardless of location. They also help to establish an easy interaction between authentic and digital learning resources, while at the same time offering individual learning opportunities [6].

The current pandemic challenge has further accelerated the process of introducing innovative technologies. In addition to conducting online lectures, medical schools in the United Kingdom of Great Britain also formulate the practical skills of a future doctor using teletranslation with a patient or opening a database of clinical cases, online repository of patient interview recordings [10]. De Araújo Novaes M. et al. also report on the positive experience of using telemedicine in the educational process [8].

Therefore, distance learning methods provide the opportunity not only to conduct a full-fledged educational process, but also erase the boundaries, the framework in the strict, previously authoritarian "teacher-student" relationship.

The objective of the work is to analyze the role of lectures in the educational process of students of a medical university on the basis of literature data, as well as to determine the features of the distance learning process at the Department of Dermatovenereology and Cosmetology with the Course of Aesthetic Medicine of FPE of Zaporizhzhia State Medical University.

**Materials and methods.** At the basis of Department of Dermatovenereology and Cosmetology with the Course of Aesthetic Medicine of FPE an anonymous questionnaire was conducted with an open

type of question. 35 students studying the «Dermatology and venerology» course in the remote format and their teachers determined the level of comfort of these innovations in the educational process, while the quality of the educational component was controlled by testing in the form of an online questionnaire MS Forms. Also, an analysis of the literary sources PubMed, Google Scholar from 2013 to 2020 was carried out.

**Results and discussion.** The dispute about role and importance of the lecturing format is held for many years in society of scientists. Lecture in such form as it is presented in majority of universities is the obsolete format. In 90% of cases it is one-way passive transfer of information from teacher to student. It is subject-object approach to educational process when the student is still recognized as the object to be taught. Obviously, it is required to revise the traditional principles of lecture formation, mainly introduction of number of interactive techniques.

Lecture is the basis of theoretical training and it should provide systematic basic principles of scientific knowledges of discipline, reveal condition and prospects for the development of appropriate area of science and technology, attract attention of students to the most difficult and key questions, stimulate their active cognitive activity and promote formation of creative thinking. The leading method in lecturing is the oral representation of educational material accompanying by demonstration of video, films, diagrams and presentations, show of models, devices and patterns.

It should be mentioned that lecturing format is the current problem for educational environment of the most countries. Efficiency of classic lecture as the passive form of education is constantly discussed in the scientific environment.

The use of presentations of theoretical lecture material overloaded with text has not shown its effectiveness and only encourages passive information.

Roberts D. tests multimedia learning suggestions that claim that using certain images eliminates pedagogically harmful textual excesses, reducing cognitive overload and exploiting under-utilized visual processing capabilities. The experiments demonstrated unpredictable results that indicate that using certain images can also encourage students to become active co-producers of knowledge [11].

In USA the same point of view has Eric Mazur, professor of Harvard University, who is against lecturing for 27 years and does not participate in the preparation of the above scientific work. Professor emphasizes that lecturing is obsolete, old-fashioned and ineffective [2]. It is important to note that points of view on the format of conducting modern lectures in higher education have some of common key questions:

1. Activation of individual or group work of students during lecture.
2. Use of interactive kinds of activity. Students can describe proposed small pictures, interpret diagrams; make calculations on their own and make collective solutions on specified problem.
3. Estimation of level of acquisition of material considered during lecture.

In 2016 L. Ratnikova, Dr. Sc. (Med.), performed investigation as to analysis of the lecture role in higher educational medical institution. The results of questionnaire of students of 1, 3 and 6 courses of South Ural State Medical University on issues of their preferences as to format and demand of lectures were presented by author in report. It was stated that in senior courses the medical students require more additional instruments for acquisition of the lecture information: lecture notes (electronic or printed) and video records. Unfortunately, during study in higher educational medical institution the interest of students to lecture as the source of new knowledges and skills progressively decreases but at the same time the stable high interest in lectures as effective method of teaching is saved [3].

In general, the educational system used now in Ukrainian higher educational medical institutions has 3 forms of lecturing: classroom lecture, on-line lecture and video lecture. Let's make a brief review of advantages and disadvantages of each mentioned form.

Classroom lecture (traditional model) means that lector and student are in the same room. On-line lecture enables studying and getting of new information remotely. The lecture materials can be presented in different formats including text pages, documents, audio records with synchronized slides or without them and video record of the lecture.

On-line lecture is a new approach toward acquiring of knowledges. Its popularity shows that such tendency to get knowledges is not connected with accustomed conditions (school classroom, university classroom etc).

Owing to analysis of video materials there are distinguished three main formats of on-line lectures: public media lecture, lecture-visualization with accompanying sound and out-of-class media lecture. For this classification there are used three parameters: lecture duration, presence or absence of live audience and possibility of editing.

Public media lecture is the oral monologue of the scientist, investigator in presence of audience in studio addressed to viewers and then downloaded to the Internet. This format permits completely to get acquainted with lecture material including material presentation manner, listener's questions and lector's answers. Today one of the most famous projects of this manner is TEDTalks (project of Richard Saul Wurman).

Lecture-visualization with accompanying sound means commenting of footage (slide-show, pictures, cartoons etc.). Listener doesn't see the lector but only hears his voice. If lecture-visualization in off-line format includes not only demonstration of video or slides but personal presence of the lector, so in on-line form it will be narration prepared in advance; process of its creation includes not only writing of text-scenario but editing with



possibility of making several “doubles” in case of mistake. Besides, on-line lecture-visualization doesn't stipulate parallel questions of listeners and feedback with lector. The main goal of lecture-visualization in on-line form is to perform a brief review of the selected problem or topic. Educational YouTube channels are one of the most illustrative examples of such type of lectures.

One more type of on-line lectures is out-of-class media lecture. This format almost always stipulates the whole course of lectures presented by one or several lectors. In contrast to the record of lecturing in presence of live audience this type of lecture as well as the lecture-visualization stipulates preparation of material in advance: writing of scenario, recording, editing and possibility to make several doubles. Feedback within frame of this format will be possible only in case if lectures are included in the program of course at the end of which the listener has possibility to get certificate or diploma as to its completion. This type of on-line lectures is the most effective because it includes control on the part of the teacher and intermediate on-line tests [1,4,5].

Exactly in this format of lectures were introduced during quarantine in connection with the COVID-19 pandemic at the Department of Dermatovenereology and Cosmetology with the Course of Aesthetic Medicine of FPE of Zaporizhzhia State Medical University. Lectures were held using the MS Teams program based on Office 365 or the Skype for business platform. During the lecture, the program provided for the possibility of interactive communication with a previously created group of students or trainees. In addition, both during the lecture and after it, the assimilation of the material was checked by testing.

To control the effectiveness and perception of the information presented by the lecturer, an online questionnaire MS Forms on the topic of the lecture was used. An important point in the educational process was the

possibility of video recording of the lecture and saving it in MS Team's Class Notebook. The general availability of the material and the possibility of re-viewing lectures with teacher comments contribute to their wider use in preparation for practical / seminar classes. Involving a student as an active participant in the educational process helps to increase his interest in the subject, research activities, as well as the formation and development of creativity, innovative thinking.

During the quarantine period, we conducted an anonymous survey of 35 students and 4 teachers of the Dermatovenereology course. This questionnaire is composed in the form of open questions: "How comfortable is the distance learning process for you?", "What are the positive / negative components of distance learning?", "If possible, would you choose this format for lectures in the future?". According to the survey, all students and teachers showed interest in conducting this type of lecture. 34 students noted that distance learning is quite informative and comfortable if you use the Teams and Skype applications. The most of students attributed the positive components to the possibility of an interactive presence at a lecture without leaving home, as well as re-viewing video material if necessary. Students report that the level of communication with the teacher has increased, respectively, the perception of information and interest in the subject have grown too. Almost all students (30) expressed the opinion that in the future it is necessary to use only distance lectures, while the remaining 5 people advocate a combination of classical and innovative methods.

For their part, teachers do not note any discomfort in the conditions of online lectures. All noted an increase in attendance and interest from students in the new format. The ability to conduct interactive testing is an additional control of student performance and perception of lecture material. Most of the respondents-teachers positively assess the digitalization of the

educational process and consider it necessary to more actively introduce innovations in order to optimize the interaction of “teacher-student”.

The transition to distance learning allowed not only to continue the academic year in full, but also led to an improvement in the methodological and didactic skills of lectures.

**Conclusions:**

1. The conditions of the modern pedagogic process contribute to the formation and use of new techniques for lectures.

2. The introduction of distance lectures is not only a requirement of the quarantine period, but a real opportunity to modify the educational process in the direction of digitalization.

3. The use of MS Teams and Skype for business software in conducting lectures in our practice helped to increase the level of cognitive information processing, interest and motivation of all participants of the educational process.

4. Interactive control of the lecture material finally strengthens the theoretical knowledge of medical students.

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