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ADVANTAGES AND DISADVANTAGES OF DISTANCE LEARNING OF MEDICAL INTERNS OF DIFFERENT SPECIALTIES

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Abstract. We analyzed more than 300 anonymous survey responses of interns who studied Emergency Medicine course remotely. The remote andragogical process is acceptable and useful only as a component of the dual form of higher medical education. Distance learning in large classrooms has many disadvantages, so classes should be conducted in small groups. The transition to remote learning during the pandemic is a forced, but the only possible measure that will save the health and lives of learning subjects.

Keywords: postgraduate education, medical interns, remote learning, distance learning, interactive learning.

After lifting of quarantine measures in the world it became clear that humanity has moved to a new stage of education development, where the distance base will play a more significant role [1, p. 12]. Emergency distance learning is a temporary transition of the educational process to an alternative mode of learning due to the crisis circumstances [2, p. 3]. It differs from nonresident training by a more convenient system of information delivery and the use of new technologies, which allows to expand the geography of course participants without reducing the quality of the educational process. It allows to reduce learning time due to the speed of communication between a professor and an intern, as well as the access to almost all forms of learning (including independent work in the electronic library) via electronic devices [3, p. 546].

Distance learning requires significant skilled labor costs for the development and production of applications that guarantee high quality training, and also a very time-consuming process of educational material preparation, including that for test control [3, p. 545]. In the future, the cost of time and effort should be offset by reducing the time of some usual components of the professor's workload [4, p. 363].

Distance education implies access to the Internet, technical resources (PC, tablet, smartphone, etc.) for all participants of the educational process, as well as skills in distance learning technologies involved by professors [5, p. 316].

The most important thing in learning is the result, not the logic of the discipline and the process. The intern is the main participant of the educational process [6, p. 43], and the individual personal approach is the key to its success. The effectiveness of distance learning at the postgraduate stage depends on the following factors: an effective interaction between a professor and an intern; established active feedback; quality of preliminary planning of the distance education process and its management methods, development of tested didactic materials designs [4, p. 363]. Modern applications allow to ensure the transfer of knowledge and access to a variety of

educational information. The latest technologies (interactive electronic textbooks, multimedia content, the Internet, etc.) contribute to a more active involvement of interns in the learning process. The interactive capabilities of information transmission systems allow to establish and stimulate feedback, provide dialogue and constant andragogical support, which is impossible in most traditional learning systems. The use of methods of stimulating the activities of interns creates and optimizes the newest personal approaches to the training of a young doctor [6, p. 43].

More than 300 anonymous survey responses were analyzed. Two groups of interns were involved in the study: the first (103 respondents) underwent distance learning in small groups of 6-8; the second group included interns who studied in groups of 20 or more.

Distance learning means such an organization of the educational process, in which the main attention is paid to the independent training of the intern [7, p. 301]. It is quite difficult and time-consuming for a young colleague to find materials to prepare for classes on the Internet, where there is a lot of unauthorized or outdated information that does not meet modern standards, clinical protocols and algorithms for diagnosing and treating critically ill patients. To do this, in advance (2-3 days before the lesson) we provide a link to the electronic resource prepared by the department professor, which contains information adapted to the test database in the most concise form for independent work. According to the theme of the course, we have developed a number of microlectures approved by the DMA Main Curriculum Office in the form of voiced multimedia presentations for interns' self-tuition. This option of providing information is not inferior to the traditional lecture in any positive quality, but has certain advantages. A more knowledgeable colleague can pass already familiar or uninteresting moments, and on the contrary – concentrate on some other fragments. The time required for this is unlimited. The text part of individual slides or tables is only the basis for a detailed verbal explanation using stimulating techniques. This version of video lectures aroused great interest among interns, who noted in the anonymous survey the usefulness of this type of extracurricular education and the feasibility of its wider use in postgraduate education [8, p. 41]. For

the self-tuition purposes we have created and published a textbook for preparation for the license integrated examination "KROK-3" on certain topics, the content of which is best adapted to the test base. At the end of each section there is a substantial list of questions for self-control and a selection of test tasks on the topic (the keys for test tasks are placed before the final part of the book). For self-tuition we offer sections of clinical lectures of the department professors, which were published in professional scientific journals in the last 1-2 years. 98.2% of respondents consider this didactic material range sufficient, although 32.4% consider it too large for a 2 weeks course, and 42.2% of respondents expressed a desire to extend the Emergency Medicine course to at least 4 weeks. We've been receiving such a wish for 15 years, but unfortunately we are not able to satisfy it.

Because training in the Emergency Medicine course is a purely classroom theoretical training and does not involve the acquisition of practical skills, we have chosen the Google Meet application - a secure video connection for high-quality video calls with a sufficient number of users. Tasks for independent work and testing are also provided via the Google Class application, which is optimal in our conditions (purely theoretical training).

Working in a dormitory or at home creates grounds for distraction from the educational process more often than in the full-time form of education. As the screen type of thinking prevails in modern youth, there is a precedent: when a separate information fragment of the general theme is lost, the bearer of clip thinking is not able to combine the components of the context into a single whole, as a result of which the process of assimilation loses quality [9, p. 63]. According to the results of an anonymous survey, more than 22.2% of respondents in large and 9.2% of small groups in distance learning are distracted with their own affairs (including mobile communications) regularly, and 44.4% and 16.1%, respectively - only occasionally. In full-time education, this figure does not exceed 3.5%.

The issue of academic integrity observance turned out to be even more difficult during distance learning [5, p. 316]. In an oral survey, 52.9% of interns in large and 29.4% of small groups constantly resort to fraud, and 29.4% and 16.7%, respectively,

sometimes use illicit methods. The field of view of the webcam does not allow the professor to see unauthorized media during the survey or behind-the-scenes visual cues from other process participants. Respondents fairly honestly estimated their own personal level of self-training, which averaged 3.3 ± 0.04 points on a five-point scale, and the teacher's average assessment of answers was 3.8 ± 0.05 points, which exceeds the overall self-esteem of respondents. During testing, 55.6% of all respondents are more active in fraud, and 27.8% - less. The reliability of the results is significantly reduced. For this reason, the results of distance testing are 22-23% higher than in homogeneous groups in full-time training. The indicator of good attitude of respondents to the oral interview process was only 17.7% in large groups, and 53.9% in small ones. The conscious attitude to solving test tasks in both groups had no statistically significant differences and amounted to only 16.6%. This can be explained by the much greater possibility of watching 6-8 people who are constantly displayed on the main screen. A close positive correlation was found between the level of self-assessment of self-training and good attitude towards control methods and a strong inverse correlation between self-assessment of one's knowledge and indicators of fraud during oral interview and test control.

For fifteen years we have been observing the dynamics of this negative phenomenon, creating and implementing tools to improve the sad situation [9, p. 63]. Thus, in face-to-face training, we have made it almost impossible to use fraudulent methods in questioning and testing due to command-and-control influence [10, p.52]. We still have little experience with distance learning, but we hope to find new ways to overcome this negative trait in the future.

The platform of distance learning makes it possible to ensure communication between the participants of the educational process at a certain distance, which is difficult to overestimate in the current situation [11, p. 43]. Among the positive features of this process, all respondents included saving time and considerable money for the intern to move, especially long-distance. To get to class, just open your laptop or smartphone and go to Google Meet; no need to wake up early, get together, etc.; classes are not missed even during acute respiratory diseases and self-isolation; there

is no danger of infections transmission; video lectures for self-preparation can be mastered at a convenient time for everyone, even without getting out of bed, to determine the speed of learning the material in accordance with the nuances of their thinking. The educational institution gets the reduction of utility costs (electricity, water supply), depreciation of premises and furniture, costs of cleaning, respirators and disinfectants, etc. [12, p. 108].

The negative aspects include the lack of opportunity to learn "live": to build relationships in the team (with professors, classmates, administration), to speak before the audience. Not every intern is able to maintain motivation to work independently: the lack of such an effective incentive for learning activities as constant monitoring by the teacher; inability to compare their successes with the achievements of other interns; the absence of a person who provides material with an emotional coloring that affects the degree of understanding. It is important for the professor in classroom to feel how students understand the material (their glances, behavior, relevance of questions, the quality of answers) and quickly adjust the learning process: repeat difficult paragraphs, give additional explanations, change the pace of teaching. In distance learning, such a connection is lost. For an educational institution, the introduction of distance learning is associated with significant material costs: technical equipment, software and hardware, training of special personnel, etc. But at the same time, it is necessary to note the moments which to some extent compensate some of the listed shortcomings: if it's impossible to receive consultation in person, it's possible to consult by text or voice messengers; the lack of "live" relationships for some young colleagues provides more comfortable psychological conditions for learning, etc. [4, p. 363]. Not all interns have modern (very expensive) gadgets, which periodically creates technical problems. 34.2% of respondents noted that the simultaneous training of 20 or more people is inferior to small groups in terms of theory discussion quality.

Quarantine restrictions and the need for rapid adaptation of the teaching staff to the introduction of distance learning technologies have made some adjustments in the implementation of staff training [13, p. 375]. There must be a constant dialogue

between the professor and the interns. The professor is obliged to operate the information impeccably and be able to quickly and fully answer any question on the topic, because even using the syllabus is inappropriate; they must have modern pedagogical and information technologies and be ready to work with interns in the new educational and cognitive space [7, p. 300]; must be fluent in the native language and demand it from young people [14, p. 394].

All respondents expressed the opinion that it is impossible to train a doctor completely remotely, which consists with the statement of many modern andragogues [1, p. 13]. Distance-educational technologies should be widely introduced into the process of postgraduate education at the level of additional professional training [6, p. 43]. The order of the Cabinet of Ministers of Ukraine dated September 19, 2018 № 660-r approved the Concept of training specialists in the dual form of education [1, p. 14], which provides a combination of distance and nonresident learning and is the most acceptable at present time [7, p. 301]. According to the subjects of study, the combination of ordinary in-class learning with independent work on electronic courses is quite effective, which is confirmed by the results of the student performance analysis [4, p. 363]. It is important to avoid the temptation to equate emergency distance learning to online learning [1, p. 12].

Distance learning can be used separately as a temporary measure for the implementation of the educational process during quarantine or other conditions where the full-time education is impossible, with the subsequent transition to the traditional form for the acquisition and control of skills and abilities. Strategy, methodology and training for remote methods in learning should be maintained and developed at the institutional and national levels. Although the situation is stressful, at the end of it the schools will be able to assess how well they have been able to implement emergency distance learning to maintain the continuity of medical education.

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