# **PSYCHOLOGICAL SCIENCES**

### FEATURES OF DISTANCE LEARNING IN THE SYSTEM OF MEDICAL EDUCATION

#### Pototska I.,

Pirogov National Medical University, Vinnitsia (Ukraine)
PhD in Psychological Sciences, assistant professor of the Department of Medical Psychology and Psychiatry with the course of postgraduate education, Vinnitsia

## Rybinska V.,

Pirogov National Medical University, Vinnitsia (Ukraine) PhD in Medical Sciences, assistant of the Department of Medical Psychology and Psychiatry with the course of postgraduate education, Vinnitsia

#### Matsko N.,

Pirogov National Medical University, Vinnitsia (Ukraine) Assistant of the Department of Medical Psychology and Psychiatry with the course of postgraduate education, Vinnitsia

#### Mazur O.

Pirogov National Medical University, Vinnitsia (Ukraine) Assistant of the Department of Medical Psychology and Psychiatry with the course of postgraduate education, Vinnitsia DOI: 10.24412/3162-2364-2021-74-62-66

#### **ABSTRACT**

The article describes the features of the introduction of distance education during a pandemic in the medical education system; describes the main shortcomings of the introduction of this form of education and the successes and prospects of this form of education for medical students.

**Keywords:** system of medical education, distance learning, medical students, higher education institution, inpatient education.

Formulation of the problem. On March 11, 2020, the World Health Organization recognized the worldwide outbreak of COVID-19 as a pandemic. Since then, clear restrictions have been applied in all spheres of human life and in education as well. All educational institutions have switched to distance learning. Such training has become especially problematic in the system of medical education, because the training of physicians requires live communication with patients. The study of the consequences of distance learning in a pandemic is being studied by many scientists in various fields.

Analysis of recent research and publications. Popular for the study are coping behavioral strategies [4], the impact of social isolation on emotional wellbeing [3], the management of the education system in a pandemic [1] and the study of distance learning in clinical medical education [2]. A significant role is also played by the pedagogical talent of the teacher [5], which contributes to the effective acquisition of knowledge by students.

One thing is for sure, teaching in higher education will never be the same as before the full introduction of

distance learning, it undergoes significant adjustments and innovations, which, as a positive experience, were mastered during the introduction of distance learning.

**Purpose of the article.** The purpose of this study was to investigate the personal attitude to distance learning of students of Pirogov National Medical University. In order to achieve this goal, the following tasks were set: to identify the advantages and disadvantages of inpatient and distance learning in higher education and learn about the peculiarities of the teaching staff in distance and full-time education of students.

The study involved 328 students of all courses and all specialties. To conduct the study, an author's questionnaire was created in Google form, which was posted on the page of the Department of Medical Psychology and Psychiatry with a postgraduate course on Facebook. The survey was anonymous, which allowed students to give truthful answers.

**Presentation of the main material.** At the beginning of the survey, students were asked about their attitude to distance learning at the university. The results are presented in Figure 1.

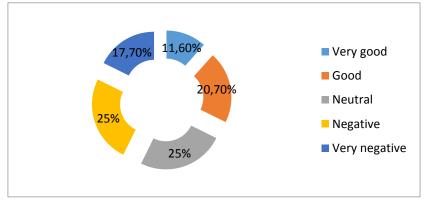


Fig.1. Percentage of students' attitude to distance learning in medical universities

As can be seen from the results on this slide, a quarter of the surveyed students have a neutral attitude to distance learning, ie they do not feel much discomfort. 25% have a negative attitude towards teaching disciplines remotely. And 17.7% have an extremely negative attitude. It was noticed that senior students have a

more negative attitude towards the introduction of distance learning due to the lack of opportunities to gain practical skills in the clinic.

Next, we explored the positive aspects of the introduction of distance learning in medical schools. The results are presented in table 1.

Table 1. Positive factors of distance learning based on the results of subjective assessment of VNMU students

Factor amount of students amount in% No crossings between buildings 70 21,4 Free time 67 20,5 55 Nothing positive 16,8 Staying at home 44 13,4 Maintaining health 37 11,3 7,8 26 Save money 7,6 25 Changes in the organization of training Everything suits 4

16.8% of students said that there was nothing positive in distance learning and only 1.2% said that they were satisfied with everything.

The most positive, according to students, in distance learning is the lack of relocation from one building to another. The next predominant factor is the availability of free time, which allows you to work in parallel with learning.

Opportunity to eat well and regularly, the opportunity to raise their own children, including breastfeeding, spend more time with family - all these responses of students, we attributed to such a factor as "staying at home", because 13.4% of students said it was positive factor.

Preservation of one's own life and health, counteraction to the spread of COVID-19, was noted as positive by 11.3% of students. After all, it is medical students who understand and appreciate the amount of effort made by medical staff to overcome the pandemic and save lives.

A small number of students (7.8%) noted that with such training they save money on relocation, rent and clothing.

In the study of the negative aspects of distance learning, presented in Table 2, we found that more than a third of students indicated the lack of opportunities to acquire professional medical skills and develop professional skills as the main disadvantage of distance learning

Table 2. Negative factors of distance learning based on the results of subjective assessment of VNMU students

Factor	amount of students	amount in%
Lack of medical practice	112	34,2
Low quality of training	66	20,1
Technical reasons	53	16,1
Lack of social contacts	44	13,4
Nothing positive	26	7,9
Absolutely everything	21	6,4
Low awareness of teachers	6	1,9

20% noted a significant deterioration in the quality of student learning. They note that teachers began to explain the material worse, there was a need to learn a large amount of material. We also attributed to this factor the lack of a schedule for couples to be held by teachers, which, as the students note, affected their motivation to study.

Factors such as "Technical reasons" and "Low teacher awareness" were very difficult to distinguish, as these factors. We attributed to the low awareness of teachers not the use by teachers of the platforms offered by the university (microsoft teams and google meet) or

the unpreparedness of teachers to conduct pairs remotely. By technical reasons we mean disruptions to the Internet and lack of technical means for students.

Man is a social being who needs live communication and social interaction, this is confirmed by our results, because 13.4% of students called "lack of social contacts" the most negative side of distance learning.

6.4% of respondents who stated their absolute negative attitude to distance learning and 7.9% who do not see anything negative in it were categorical in their answers.

In the next step, we interviewed students about the pros and cons of inpatient education, the results are presented in Tables 3 and 4.

Table 3. Positive factors of inpatient (full-time) study based on the results of subjective assessment of VNMU students

Factor	amount of students	amount in%
Live communication	134	40,8
Availability of medical practice	113	34,5
Quality of training	48	14,6
Everything is positive	21	6,4
Nothing positive	12	3,7

In the first place, the most important factor was such as living human communication. The second in the ranking is the presence of medical practice as a "strength", because it contributes to the formation of clinical thinking, professional skills and abilities.

Under the quality of education, students understood the presence of a clear schedule, better perception of educational material, control, which contributes to greater discipline and better learning.

Table 4. Negative factors of inpatient (full-time) study based on the results of subjective assessment of VNMU students

Factor	amount of students	amount in%
Nothing bad	109	33,2
Movements between buildings	73	22,3
Organization of training	68	20,7
Risk of getting sick	27	8,2
Not enough rest	23	7,2
Availability of lectures	14	4,2
The attitude of teachers	14	4,2

One third of the surveyed students indicated that they did not see anything negative in inpatient education. By the way, no student chose complete dissatisfaction with full-time study. Some of them pointed out that in comparison with the negative aspects of distance learning, the negative aspects of the eye are leveled and become invisible.

Movement between buildings at any time of the year, in crowded transport with transfers, was marked by students in 2nd place.

20.7% of students point to such a shortcoming as the organization of the educational process: unsuccessful schedule, late completion of studies; heavy load of material that is irrelevant or outdated for study; longer duration of pairs in comparison with distance learning; significantly difficult testing of missed pairs and more.

The disadvantage of full-time training in a pandemic is the risk of getting sick and spreading the infection, as stated by 8.2% of respondents.

Some students emphasize that in inpatient education they definitely do not have enough time for quality sleep, proper nutrition, rest and physical and mental recovery, which leads to exhaustion.

4.2% define the presence of lectures as a disadvantage, they emphasize the possibility of self-mastery of the material.

The same number of students believe that a negative attitude towards the student, disrespect for him as a person, a superior attitude that leads to stress, conflict and mental exhaustion are also negative aspects of the student's live communication with the teacher.

At the beginning of the introduction of distance learning in higher education, it was widely believed that the workload on students will increase significantly, and they will have to spend a lot of time on self-training. Therefore, we formed the question "from my own experience, for the implementation of which form of training your workload (preparation for practical classes) was greater?". The results are presented in Figure 2.

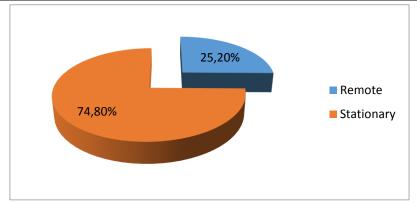


Fig.2. The results of students' self-assessment of their own workload in preparation for practical classes in%

As can be seen from the results, much less effort was spent on training students, according to almost 75% of respondents.

When studying the main shortcomings in the work of teachers in distance learning, presented in table 5, it was

found that almost a third of students do not notice any shortcomings in the work. 24% of respondents noted technical incompetence, explaining it by the inability of teachers to use the learning platform and the computer in general.

Table 5
The results of subjective assessment of the main shortcomings in the work of the teaching staff during distance learning by students of VNMU

Factor	amount in%
There are no disadvantages	30,2
Technical incompetence	23,9
Time of couples	17,5
Poor quality material	14,9
The attitude of teachers	4,9
Lack of steam	4,5
Impartial assessment	4,1

"Inconvenient and unclear time of couples" is difficult to attribute only to the shortcomings in the work of teachers, because the university administration ordered to conduct couples at different and convenient times for students and teachers, because the learning platform could not provide simultaneous distance learning for all students. On the part of teachers, this shortcoming manifested itself in such forms as: holding couples at a very late time and creating psychological stress with constant anticipation and inability to organize their free time.

14.9% of students noted a decrease in the quality of classes. Some teachers did not explain the material, interviewed quickly, tried as a condition to complete the pair faster or subtract the subject, gave only written assignments without discussion.

4.9% noted the poor attitude of teachers as a reluctance to understand the reasons for the absence of students in pairs due to problems with connection to the learning platform. Superior attitude to the student.

4.5% of respondents say that the disadvantage of distance learning is the lack of pairs by teachers at all, for various reasons.

The bias of assessment has increased, as teachers have begun to give more positive grades, which is what students with a high level of success complain about. Others emphasize the complexity of the process to prove the level of their own knowledge and skills

The main shortcomings in the work of the teaching staff in full-time education are presented in table 6.

Table 6. The results of subjective assessment of the main shortcomings in the work of the teaching staff during inpatient (full-time) training by students of VNMU

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Factor	amount in%	
There are no disadvantages	57,2	
Poor quality material	15,1	
The attitude of teachers	9,9	
Lack of steam	8,2	
Not enough practice	6,1	
Impartial assessment	3,5	

57.2% of surveyed students stated that there were no shortcomings. We attribute such a high percentage of negative answers to the fact that students say so because of their own negative attitude to distance learning in terms of comparing the two forms of learning.

By poorly submitted material, 15% of students mean incompetence of teachers, unwillingness to explain the material and teach students.

Negative attitude of teachers to students is stated as a shortcoming by 9.9% of respondents. This is manifested in the separation of individual students, the increased demands of teachers not only to knowledge but also to the personal qualities of students.

Under the "lack of couples" 8.2% of students understood the inability of the teacher to work with students in clinical departments due to the heavy workload to sit "in the basement waiting for 90 minutes."

Some students report shortcomings in conducting practical classes with them in the form of access to the patient's bed. A small number of students emphasize the biased assessment of knowledge by teachers.

The last question to the students was as follows - "Which form of education, in your opinion, is more effective, or one that contributes to the formation of a highly qualified specialist?". The results are presented in Figure 3.

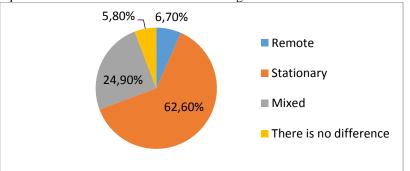


Fig.3. The results of the survey of students to the question "Which form of education, in your opinion, is more effective, or one that contributes to the formation of a highly qualified specialist?" in%

The results show that 62.6% of respondents believe that the most effective training is inpatient - full-time training.

Conclusions and offers. The vast majority of students emphasize the effectiveness of inpatient education in medical higher education, understand the importance of developing in the future doctor of practical skills acquired "in bed" of the patient; appreciate the importance of live communication between the teacher and the student and need to be taught by experienced, highly qualified specialists who will conduct professional discussions with students and play an important role in the formation of a modern medical worker.

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