

ORIGINAL ARTICLE

THE PROBLEM OF ANXIETY AMONG UKRAINIAN STUDENTS ON REMOTE LEARNING DURING COVID-19 PANDEMIC

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ABSTRACT

The aim: To explore the students' mental health in general and their anxiety in particular on remote learning during COVID-19 pandemic.

Materials and methods: The study is based on the material of 112 respondents (85 females and 27 males), interviewed using The Depression, Anxiety and Stress scale-21 (DASS-21) and SAN – the test for emotional state.

Results: There are statistically significant differences between the samples of 1st and 2nd year students in terms of "depression" and "stress". The latter are more typical for second-year students. The article argues that, given the COVID-19 pandemic situation and the disruption of normal face-to-face learning, the true causes that determine the indicated trends deserve more extensive and comprehensive research.

Conclusions: It has been identified that the situation as a whole significantly affected the students' mental health in general and their anxiety level in particular.

KEY WORDS: anxiety, COVID-19 pandemic, remote (on-line, distant) learning, mental health

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INTRODUCTION

According to the World Health Organization (WHO), Coronavirus (COVID-19) has become a trigger for a large number of challenges to society. Faced with completely new realities of home-schooling or working from home, it is important to look after our mental, as well as our physical, health. In the first year of the COVID-19 pandemic, global prevalence of anxiety and depression increased by a massive 25%, according to a scientific brief released by the World Health Organization today [1].

At the same time, according to experts, fear, anxiety and stress are considered to be normal responses to perceived or real threats, especially at times when people are faced with uncertainty or the unknown. So, it is quite understandable that people are experiencing anxiety in the context of the COVID-19 pandemic.

There is a broad spectrum of various causes of anxiety from a theoretical point of view. Most psychologists and clinicians agree that it is a complex set of physiological, psychological as well as social factors [2-4].

PSYCHOLOGICAL ISSUES OF THE COVID-19 PANDEMIC

The psychological impact of the COVID-19 pandemic is one of the most discussed topics among clinicians and

psychologists. It is noteworthy that a change in mental states can be traced both in patients with coronavirus and in those who have not been sick. The fear of contracting the virus, the impact of the significant changes to daily lives, economic uncertainty are common triggers for anxiety problems.

A medical review published in 2020 said that the separation from loved ones, loss of freedom, boredom, and uncertainty can cause a deterioration in an individual's mental health status [5]. Under the current global situation, both adults and children are at risk.

The young people, as a generation that has experienced compelled self-isolation in the most active period of their lives are of particular interest to us. Describing the importance of the problem and the need to pay attention to the psychological state of young people, the EU Research & Innovation Magazine called modern youth the *Covid Generation*. This makes sense, because against a decade-long pattern of deteriorating mental health among European youths, the Covid-19 pandemic made situation worse. Numerous studies observed sharp increases in rates of anxiety, depression, loneliness, and suicide attempts [6].

Based on the available scientific evidence, it should be

emphasized that children and young people are at particular risk [5; 7; 8]. They can experience anxiety, distress, social isolation, which can have short- or long-term effects on their mental health. Some common psychological symptoms are given below [5].

- anxiety, depression, or worry;
- low concentration and attention;
- changes in, or avoiding, activities that they enjoyed in the past;
- unexpected headaches and other unexplained symptoms;
- changes in eating habits.

It is clear that these symptoms can be due to both psychological factors and organic depression.

In addition to the directly psychological backgrounds for anxiety, there are also basically domestic ones. The fact is that COVID-19 pandemic lockdown forced families to live together, often in small flats, for a quite long period. But it is not always easy, from a psychological point of view. Facing virtual learning, students found themselves in a difficult psychological and domestic situation. For instance, remote at a minimum requires a quiet working place and Internet access. Unfortunately, some households cannot easily provide even these resources.

THE PSYCHOLOGICAL FEATURES OF ONLINE LEARNING DURING THE COVID-19 PANDEMIC

The increasing growth of the pandemic led to the transition of all educational institutions of Ukraine to a distance learning format. Lectures, seminars, all types of assessments and even student internship were conducted using various online platforms (Microsoft Teams, Zoom, Google Classroom etc.).

Online learning or remote learning or e-learning are considered to be both promising and challenging phenomenon. There is an opinion, that remote learning is somewhat inferior in its psychological characteristics to blended or face-to-face learning which is preferred by students [9]. The most confusing for students is the situation of uncertainty and the decrease in contacts with the fellow students and teachers.

Thus, as we can see, the COVID-19 pandemic raises new serious challenges for educational institutions.

The remote learning is especially problematic for first-year students. Since it is necessary to get used not only to the distance form, but also to the university educational system in general. The first-year students who took part in our study had the experience of distance learning at school during the past year, when the quarantine was also announced.

THE AIM

To explore the students' mental health in general and their anxiety in particular on remote learning during Covid-19 pandemic (being, activity, mood and optimism of adolescents engaged in sport).

MATERIALS AND METHODS

SETTINGS

The present study was designed to explore the current state of anxiety manifestation of Ukrainian students on remote study due to COVID-19 pandemic.

It is worth noting, that anxiety may manifest not only in pure psychological features but in physical complaints as well: unexplained headaches, stomachaches, vomiting etc. Not surprisingly, all of these lead to learning problems. Due to the distance learning type, the teacher does not have the opportunity to fully monitor the student's motivation. For in a situation of distance learning, its influence is very limited. Consequently, the student is largely left alone with his problem, often not realizing it himself.

Taking into account all above we have selected methods that diagnose not just anxiety, but also the conditions it is associated with. The depressive tendencies were also taken into account as well.

The study was conducted between December, 2021 and February, 2022. Data was collected using cloud technologies via Google Forms.

METHOD

There is a large number of diagnostic methods, measuring an anxiety level in various ways: general level of anxiety, reactive and personal anxiety, social anxiety and even specific phobias. However, in our opinion, it is important to take into account not only psychological, but also psychophysiological causes and consequences of anxiety. Based on these considerations, the study employed the following methods.

1. The depression, anxiety and stress scale-21 (DASS-21) was sent to students through Google Forms to evaluate their emotional state during remote learning due to COVID-19 pandemic. DASS-21 is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. There are seven elements in each of the three DASS-21 scales, categorized into subscales of related information [10; 11].

2. SAN – test for emotional state. The test name derives from the first letters of the words: S – well-being, A - activity, N – mood (in Ukrainian language). It contains 30 pairs of words with opposite meanings: 10 – for well-being, 10 – for activity, 10 – for mood [12]. The scales reflect the mobility of mental functions (activity), strength, health, fatigue (well-being), as well as the characteristics of the emotional state (mood). The advantages of the test are its brevity and the possibility of multiple testing.

In order to differentiate the respondents by age, gender, year of study some additional basic demographic questions were asked.

PARTICIPANTS

The study sample consisted of 112 university psychology students from Kyiv. 85 (76%) females and 27 (24%) males.

Table I. Frequency table for Gender and Year of study

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	27	24,1	24,1	24,1
	female	85	75,9	75,9	100,0
	Total	112	100,0	100,0	
		year_of_study			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	first	64	57,1	57,1	57,1
	second	48	42,9	42,9	100,0
	Total	112	100,0	100,0	

Table II. The Descriptives for values: well-being, activity, mood

	N	Minimum	Maximum	Mean	Std. Deviation
well_being	112	2,00	8,00	5,0000	1,32202
activity	112	2,00	7,00	3,6696	1,33145
mood	112	2,00	9,00	4,2321	1,19294
Valid N (listwise)	112				

Table III. The Descriptives for values: anxiety, stress, depression

	N	Minimum	Maximum	Mean	Std. Deviation
anxiety	112	2,00	18,00	10,9286	4,07964
stress	112	2,00	25,00	12,5893	5,00010
depression	112	5,00	27,00	9,4018	5,11394
Valid N (listwise)	112				

Table IV. Non-Parametric Mann-Whitney U-Test

		year_of_study	N	Mean Rank	Sum of Ranks
depression		first	64	48,85	3126,50
		second	48	66,70	3201,50
		Total	112		
anxiety		first	64	57,43	3675,50
		second	48	55,26	2652,50
		Total	112		
stress		first	64	45,62	2919,50
		second	48	71,01	3408,50
		Total	112		
Test Statistics ^a					
		depression	anxiety	stress	
Mann-Whitney U		1046,500	1476,500	839,500	
Wilcoxon W		3126,500	2652,500	2919,500	
Z		-3,057	-,359	-4,118	
Asymp. Sig. (2-tailed)		,002	,719	,000	

^a. Grouping Variable: year_of_study

The gender asymmetry of the sample is due to the fact that in Ukraine the profession of a psychologist is more popular among women. Although both genders are demanded as specialists.

STATISTICAL ANALYSIS

The mathematical and statistical analysis were performed using Statistical Package for Social Sciences software (SPSS version 23; IBM Corporation, New York, USA). Descriptive

statistics (mean and standard deviation) were calculated to assess the anxiety, depression and stress levels of the study participants.

The data obtained were compared between two different groups – 1st year students and 2nd year students. The Mann-Whitney U test was used to compare differences between these two subsamples. Kolmogorov-Smirnov Test of Normality was used for testing if the variables follow a given distribution in a population.

The level of statistical significance was at 0.05.

RESULTS

The indicators of well-being, activity and mood (Table II) show that in general, these features are close to normal, except for activity ($M=3,7$; $SD=1,33$). This indicator is slightly reduced compared to the norm.

At the same time the vast majority of students have an average level of well-being ($M=5,0$, $SD=1,32$) and conditionally average indicator for mood ($M=4,2$; $SD= 1,19$).

The descriptive statistics for anxiety, stress and depression (Table III) shows slightly increased level of anxiety ($M=10,9$, $SD=4,07$). However, the standard deviation indicates the heterogeneity of the data obtained. Therefore, it can be assumed that there are respondents with extremely high or low, as well as average indicators of anxiety.

The averages of stress and depressive tendencies are within the normal range, according to the DASS-21 manual. It is very important that the mean values must be considered along with the standard deviation as well. It helps to take into account the existence of values in the “tails” of the distribution.

As a result of non-paired samples comparison, using Mann-Whitney U-Test, we obtained statistically significant differences in the level of expression of depression and stress (Table IV).

As we can see from the table above, both groups can be considered as having almost the same mean ranks for anxiety and thus tends to take the similar values.

Here we see that actual Sig.(2-tailed) is 0.866 ($p = 0,719$) for an anxiety indicator. We therefore have significant evidence to argue that the difference between the medians of two subgroups is not statistically significant. The research results, therefore, showed no statistically significant differences in the anxiety expression between two groups of students.

Instead, there were statistically significant differences between the samples of the 1st and the 2nd year students for the depression and stress. It should be noted that according to the DASS-21 Scoring Instructions, the levels of these indicators are within normal limits. However, a comparative analysis showed that second-year students are characterized by more pronounced depressive and stress tendencies.

DISCUSSION

The obtained results show that, in general, the indicator for anxiety among students expressed within the normal range.

However, it is worth paying attention, that the general trend is not always able to take into account the state of each respondent. In this study, one can see that there are both moderate and extreme variants of anxiety. To understand the mental state of the respondents more deeply, other conditions have been explored. Particular attention was drawn to the reduced activity, according to the method of SAN. According to clinicians this might be a consequence of developing depression. Especially in combination with a slightly lowered mood, which was recorded in the study sample. Of course, the results obtained could hardly be considered as those that introduce quite obvious certainty into the problems of mental states in general and the specifics of anxiety among students in the process of distance learning in particular.

It goes without saying that the peculiarities of mental states and the specifics of remote learning were influenced primarily by the situation associated with the COVID-19 pandemic. The point here is not only and not so much in distance learning itself, which, to our mind, is in itself far from the ideals of full-fledged student-centered learning. The point is in the epidemic itself, in the fears caused by the possibility of infecting you and your loved ones, in a threat not only to health, but also to life, in a number of circumstances related to the pathologisation of public life as a whole. That is why, in our opinion, the problem of students' anxiety on remote learning during the COVID-19 pandemic should be further considered in the broader context of all social circumstances that exacerbate the forced form of education by unfavorable or life-threatening circumstances. It seems that it would not be perceived as a controversial statement that remote work is one thing, during which a person performs his professional duties, due to his professional training and the corresponding terms of reference. And a completely different matter is training, a jointly distributed activity of a teacher and a student, during which the necessary competencies are only assimilated, and in the process of which direct, live communication between the teacher and the student creates that unique team-spirit, which determines the results of learning in the whole.

CONCLUSIONS

1. A distance learning challenges traditional face-to-face learning in face-to-face communication. If working remotely can have a number of understandable advantages (saving time, fuel, focusing primarily on the task for which the employee is prepared, and not on interpersonal relationships, etc.), then the situation in which pupils and students find themselves is completely different. They are deprived of the direct support of their group and teacher, and given the situation associated with the COVID-19 pandemic, they remain in their own family environment, which does not always contribute to the adequate flow of the learning process. And in case of illness of one of the family members, it can generally prevent it.

2. A study of the emotional states of Ukrainian psychology students on a sample of 112 subjects, carried out by a survey method using a Google form, which contained a number of well-known diagnostic questionnaires, showed:
- the indicators “well-being” and “mood” are within the known norm, while the parameter “activity” is somewhat reduced;
 - descriptive statistics showed a slightly increased level of anxiety, but the standard deviation indicates the heterogeneity of the data obtained, which may indicate a rather large scatter;
 - there are statistically significant differences between the samples of 1st and 2nd year students in terms of “depression” and “stress”. The latter are more typical for second-year students.
3. Of course, the data obtained, due to the limited sample, can only indicate trends in the change of emotional states of Ukrainian students under the influence of distance learning in the context of the COVID-19 pandemic. However, it is rather vivid with a reasonable degree of certainty to argue that there is a trend of increasing anxiety and depressive disorders in this category of respondents. At the same time, the true causes that determine these trends deserve more extensive and comprehensive research.

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The Authors declare no conflict of interest.

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