
# The Dynamics Of Students' Condition Depending On The Period Of Distance Learning

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ABSTRACT

The psychological well-being of an individual is one of the fundamental problems in psychology, which has been of interest throughout the history of psychology as a science. It is especially important to study this area in the context of a changing social situation — the impact of a significant number of anthropogenic and natural factors on humans. One example of such an impact was the COVID-19 pandemic, which affected most of the population of Uzbekistan in 2020 and contributed to a direct and indirect impact on human mental health and cognitive potential.

**Keywords:** COVID-19,students, stress, distance learning

**Introduction.** According to modern concepts, psychological well—being is a multidimensional construct, the definition of which is still the subject of discussion [2, 3]. According to Rollo May's definition, psychological well—being is an integral systemic state of a person or group, which is a complex relationship of physical, psychological, cultural, social and spiritual factors and reflects a person's perception and assessment of their self-realization in terms of peak potential [4]. The concept of well-being is also considered as the main criterion of health status. According to the WHO definition, "health is a state of complete physical, mental and social well—being, and not only the absence of diseases and physical defects." Numerous studies have linked phenomenological indicators of well-being with a decrease in activation of the central nervous system in response to negative stimuli. It has been shown that psychological well—being can reduce the risk of somatic, psychiatric and neurological diseases of individuals - depression, generalized anxiety disorder, schizophrenia, etc. [5, 6]. Psychological well-being is one of the important factors in the learning process. Decades of observational and interventional research have linked indicators of psychological well-being of youth and adults with health outcomes, as well as educational and professional achievements, and self-realization [7-9].

A number of authors consider psychological well-being to be an important protective factor in mental disorders. Emotional and behavioral problems that are not part of the diagnosed disorder are becoming more common every year, and their frequency has increased significantly over the past 30 years, especially during the COVID-19 pandemic [10]. Problems related to the mental health of young people can have cascading effects on learning outcomes and subsequent professional outcomes over time, creating a serious economic burden [11].

The results obtained during a meta-analysis conducted by N. Vindegaard et al. [12], indicate that during the COVID-19 pandemic, people who had an infection had a high (96.2%) level of post-traumatic stress symptoms (PTSS) and a statistically significantly high level of depression symptoms. Patients with pre-

existing mental disorders reported worsening psychiatric symptoms. Studies involving health care workers have revealed an increase in depression/depressive symptoms, anxiety, psychological distress and poor sleep quality. Population-based studies have shown a lower degree of psychological well-being and a higher degree of anxiety and depression compared to what it was before COVID-19. The COVID-19 pandemic affected all spheres of human life, dictating new conditions to the higher education system, requiring all participants in the learning process to quickly adapt to the use of information technology in distance education, which in some cases increased the psychological burden. For example, in a study by R. Dragun et al. [3], conducted with the participation of Croatian medical students (n=1326), assessed perceived stress, quality of life, happiness, anxiety and a state of optimism as indicators of psychological well-being using general linear modeling. The authors found that quarantine and subsequent hybrid learning significantly affected the quality of life, happiness, optimism (all $p<0.001$) and students' perception of stress ($p=0.005$). Along with this, the authors found that adherence to treatment in the event of a disease was positively correlated with quality of life and study time and negatively with the use of gadgets in the period before quarantine (all $p<0.001$). According to a systematic review and meta-analysis of 90 publications (46,284 cases) among university students during the three–year period of the COVID-19 pandemic, the overall prevalence of anxiety symptoms was 29.1% (95% confidence interval (CI) 20.9-39.0; K=9, N=22,357), and the overall prevalence of depression symptoms was 23.2% (95% CI 15.7–32.9; K=12, N=23,927). These data showed that COVID-19 had a significant impact on the psychological well-being of university students [14]. In addition, according to Russian researchers, the socio-psychological specifics of distance and hybrid learning indicate a decrease in involvement in learning and a change in motivation to acquire knowledge among participants in the educational process [5]. It was revealed that students of medical universities belong to the population group at risk of developing anxiety-depressive states and psychoemotional burnout. Impaired psychological well-being on the background of stress affects student academic performance [6]. It is known that stress, both acute and chronic, leads to a cascade of biochemical processes in the nervous system, the manifestation of which is a violation of the interaction between the stimulus to learning and the mechanism involved in the violation of habitual behavior. Numerous neurotransmitters and receptors mediate the inter-regional transmission of information (for example, visual and auditory), contributing to the emotional dimension of cognition and behavior. The consequence of such an impact is a violation of functions that ensure the integrity of the psyche, self-regulation of mental activity in such components as goal setting, including motivation and intentions, the formation of a program (choice of means) for the realization of the goal, monitoring the implementation of the program and its correction [7]. Lack of motivation is the greatest spiritual tragedy that destroys all the foundations of life, as G. Selye wrote [8]. Many clinical studies show that in the presence of stress, not only the motivation to learn decreases, but also there is a devaluation of the acquired knowledge, difficulty in reproducing existing skills and abilities. The constant workload of consciousness discussing the causes of stress and finding a way out of it reduces the capacity of RAM, and the hormonal background changed during stress disrupts the process of reproducing the necessary information. It should also be noted violations of the interaction of the hemispheres of the brain with pronounced emotional stress in the direction of greater dominance of the right, "emotional" hemisphere, and a decrease in the influence of the left, "logical" half of the cerebral cortex on human consciousness. All of the above processes are not only a consequence of the development of psychological stress, but also prevent its successful and timely resolution, since a decrease in mental potential makes it difficult to find a way out of a stressful situation. Numerous studies have proven that stress causes reorganization of the frontal-triatal region and the hippocampus, which causes memory impairment and behavioral disorders

[19-23]. A number of studies have confirmed numerous negative effects of conspiracy beliefs. Belief in conspiracy theories often leads to stress and contributes to unhealthy behavior, among other things, it can reduce the likelihood of vaccination, form a skeptical attitude towards measures to prevent the spread of diseases. During the COVID-19 pandemic, belief in conspiracy theories reduced the effectiveness of anti-epidemic measures. The social and political consequences of believing in conspiracy theories contributed to a decrease in trust in science and destructive political behavior [24, 25]. Thus, the aim of the study was to assess the level of psychological well-being of students and teachers of higher medical institutions during the COVID-19 pandemic. The data obtained will give us the opportunity in the future to organize students to complete tasks on our own and will help to create perspective when passing the session. The data obtained will help to plan and develop recommendations to support students who may face various difficulties during distance learning, as well as to prevent the occurrence of these difficulties in the course of working with students.

Thus, the cognitive component of the state of students in dynamics is characterized by a frivolous attitude towards distance learning among students: the forecast of easy study and rest, the discrepancy between this expectation and reality, which led at the final stage to an increase in the number of students noting disturbing thoughts (more than twice as compared with the first stage).

The results show an increase in the number of students experiencing negative emotions (first stage — 30.5%; second stage — 61.7%; third stage — 61.4%). Anxiety and sadness are most vividly represented at all stages. This is probably related to the situation of uncertainty that has arisen, accompanying the entire period of distance learning and the pandemic period as a whole. It should be noted that at the first stage, students note shock and surprise. From the second stage, irritation and anger are present in the state of students, which made it possible to smooth out the tension caused by anxiety.

At the same time, we note that some of the students experienced positive emotions, such as joy and pleasure. The high rates (44.9%) at the first stage are probably related to the frivolity of the perception of the transfer to distance learning. At the second stage, a sharp decrease in the indicator is seen by more than two times (16.2%), this can be attributed to organizational and educational difficulties encountered by students. At the third stage, positive emotions are associated with a feeling of "joy, relief" (28.7%). This condition is probably typical for those students who are confident in a positive outcome of the session.

In addition to the vividly presented positive and negative emotions, the students had mixed emotions that they could not clearly differentiate. This condition can be called an "emotional swing", when students simultaneously experienced a feeling of "joy-anger", "relief-tension". Perhaps this condition is due not only to the uncertainty of the external situation (distance learning, pandemic), but also to the lack of intrapersonal stability. It manifests itself as a reliance on one's inner strength, a sense of control and subjectivity, some students noted a feeling of "indifference and apathy" to what is happening (the first stage — 6%; the second stage — 17%; the third stage — 13% of respondents). These feelings can be assessed as the refusal of students to realize and accept the events taking place, a new situation for themselves. Perhaps this is the work of the protective mechanisms of the psyche: repression and denial.Also, some of the surveyed students noted a state of calm (the first stage — 7.3%; the second stage — 14.7%; the third stage — 8.8%). Probably, these students were able to cope with the situation of uncertainty and adapt to it.

Next, we will present the dynamics of the results on the behavior and actions of students, which they noted during the period of distance learning at the university (I kept the balance: rest' study, I studied hard, I coped with emotions, I rested, I was lazy based on the results obtained, we note the behavioral tasks that students set themselves: to organize a balance of rest and work in a comfortable way for themselves; to be productive in learning;

control emotions so that they do not disorganize activities; find ways to relax for yourself in a distance learning environment; to solve the problem of self-motivation and the fight against laziness.

At the first stage of distance learning, students sought to develop a comfortable study and recreation regime for themselves (38.2%). We associate the results obtained with the fact that at the first stage, the denial of the actual situation of the need to study remotely prevails, and depending on the attitude to this, students choose different behavioral strategies.

At the second stage, the number of students immersed in academic activities increased (50%). At the same time, we observe a decrease in the number of students who saw it necessary to cope with emotions (19.1%) or set the main task — rest (11.7%). This indicates the successful adaptation of students to distance learning. At the same time, there were students who were unable to enter the new study and recreation regime and cope with laziness (8%).

At the third stage, we observe the division of students into those who have already worked productively (completed all academic tasks) and could afford to rest (41.8%). As well as those who are now intensely immersed in their studies (59.6%), which is associated with working off debts and preparing for the session. It should also be noted that the number of students coping with negative experiences has increased, as students note, "a state of nervous breakdown."

Next, let's look at the resources that have helped students cope with the difficulties that arise in distance learning. The results showed that 5.4% of girls and 2.5% of boys do not see at all, so they can cope with difficulties ("no resources, disruption") that arise during distance learning. This is a risk group — students who fall into a state of helplessness and have a high chance of not coping with distance learning. Possible reasons for such indicators may be low motivation of the subjects, or a state of confusion in which socially unadapted students found themselves (rigidity of behavior). These students are among those who are acutely experiencing the situation of changes and experiencing great difficulties, getting into new conditions of educational activity.

It can be seen from the answers of the subjects that for girls the most resource factor is "communication with friends, family, classmates" (40%). Among young men, 19.6% of respondents report the importance of this resource. Here we can see a social construct accepted in society — girls are more in need of communication, and for them this is an opportunity to discuss emerging difficulties, share emotions in connection with the need to master new forms of education. Students seek support from a significant social environment (family, friends), and also feel that they are not alone in a distance learning situation, communicating with classmates.

The next most important resource for girls is "self-organization, prioritization, problem solving" (33.8%). For young men, this factor turned out to be the most significant (32.1%). It can be said that a third of the surveyed students are aware of the need for internal organization of their educational activities and resort to this method of adaptation.

About a quarter of students also note the importance of showing strong-willed qualities during distance learning: 16.1% of boys and 21.3% of girls. Approximately the same attitude to the motivation factor: 16.1% of boys and 16.3% of girls noted.

The attitude that "it could have been even worse" (3.6% of boys, 3.8% of girls) helps students in accepting the situation, as it allows them to expand their vision of the problem. Comparing reality and fantasy about a worse state of affairs, both girls and boys come to re-evaluate the situation and highlight the positive sides in it.

For students who do not see resources for themselves and have strong concerns about learning outcomes, individual support is probably required. Tutors can come to the rescue here, who accompany students during the period of adaptation at the university, help them to unlock their potential and achieve educational goals.

**Research results:** According to studies conducted during the pandemic, the focus was on the study of psychological well-being, health,

coping strategies, and stress adaptation [6-9]. Citizens of different ages and fields of activity (students, doctors) participated in the research. Due to new circumstances, each area (personal, professional) requires study. In our study, attention was focused on the psychological state of students. Due to the need to switch to a distance learning format, it is important to analyze the psychological state of students, the problems and difficulties that students experienced. This will be able to help coordinate work at the university in case of a need to switch back to the remote format, given that currently such a need periodically arises due to the deterioration of the epidemiological situation in the country.

E. A. Potapova, D. A. Zemlyanoi, G. V. Kondratiev (2021), studying the well-being of students of medical universities, noted that the psycho-emotional state of students is characterized by a pronounced level of anxiety and is determined by personal characteristics, the formation of a resource base, the ability to adapt to changed living conditions [10]. The results of our study, obtained on the basis of subjective assessments of students, also confirm the presence of severe anxiety and, in general, an increase in negative emotions, especially at the second and third stages of distance learning.

Discussing the resources allocated by students, it can be noted that the most important resource is communication with friends and relatives. This resource is marked by the majority, especially pronounced in girls. As noted in one of the studies, family communications can act both as a support and as a risk factor for psychological well-being [2]. Young men noted self-organization of activities as the most significant resource. The resources identified in the course of the study among students can be considered as factors contributing to the balance of the psychological state of students during distance learning during the pandemic.

**Conclusions**

A study of the psychological state of students during distance learning during the pandemic showed that not all students successfully passed this period. Some of the students were disoriented in the schedule, someone could not figure out the tasks, questions, technical details related to the development of new platforms, and other details that had not previously been paid attention to.

During the period of distance learning, students experienced difficulties related to educational activities, the volume of assigned material, and deadlines, which was also complicated by the peculiarities of motivation and self-motivation to complete tasks. Also, the lack of communication and the general tense situation associated with quarantine complement the picture of the difficulties encountered, which the students coped with on the emotional, cognitive and behavioral levels.

At the initial stage of distance learning, there was a frivolous attitude of students towards distance learning, expectations of the short-term nature of the situation and the possibility of recreation prevailed. The emotional state of most students during this period is mostly stable and favorable, since students underestimate the duration of the upcoming distance learning period. However, about a third of students experience negative emotions. Behavioral strategies are characterized primarily by the search for a balance of work and rest in new conditions.

At the main stage of distance learning, the main thoughts of the students were focused on the upcoming session, some students successfully adapted, and some thought about studying at the university. More than half of the students experienced negative experiences during this period. At the behavioral level, half of the students are actively involved in the learning process.

At the final stage, about a third of the students, having successfully coped with difficulties, were looking forward to the holidays, and a third were in a state of anxiety about exams. The emotions they experienced are also related to this:

joy and relief or anxiety. At the behavioral level, more than half of the students were engaged in intensive preparation for the session, while the rest of the students took a break from solving educational tasks during this period.

The resources for coping found by students are gender-specific: girls, compared with boys, have

a more pronounced communication resource, and resources such as self-organization, volitional qualities and self-motivation are common.

Thus, during the planning and organization of distance learning activities, it is necessary to take into account the peculiarities of the condition of students, systematically introduce students into the distance format. Tutors and teachers who have already had experience working remotely with students will be able to provide such support to students.

The data obtained will help to plan and develop recommendations to support students who may face various difficulties during distance learning, as well as to prevent the occurrence of these difficulties in the course of working with students.

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