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**Personal and Regulatory Resources in Achieving Educational and Professional Goals in the Digital Age**

**THE PSYCHOLOGICAL SUPPORT OF TEACHER IN TERMS OF DIGITAL TRANSFORMATION AND PANDEMICS**

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*Abstract*

The article analyzes modern research in the field of psychological support of people in the modern information society and those who find themselves in extreme conditions, including in the context of a pandemic. The article describes the main psychological problems faced by teachers in the conditions of coronavirus infection and forced emergency transition to distance learning. The author offers the author's technology of psychological support for teachers who find themselves in conditions of forced self-isolation due to the situation with the coronavirus pandemic and the transition to a comprehensive remote organization of the educational process. The technology is called OPLoT and includes five steps: O (relying on official information) – P (understanding) – L (life management as a set of management decisions in structuring daily professional activities at home) – O (environment, maintaining contacts with relatives, organizing personal space) – T (patience; self-isolation is a good time for developing personal qualities and practicing self-regulation and stress management skills). The results of a survey of St. Petersburg teachers on the most relevant issues of psychological assistance, as well as specific recommendations for each step of the presented technology, are given. For the first time, OPLoT technology was presented at the webinar of the management staff of Saint Petersburg Academy of postgraduate pedagogical education and heads of educational organizations in Saint Petersburg on April 3, 2020.

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**Keywords:** Support, assistance, awareness, life management, environment, patience.



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## **1. Introduction**

The relevance of this topic is related to the situation of self-isolation, in which a significant part of the world population found itself during the COVID-19 pandemic, and the deterioration of the epidemiological situation in the country. The increase in panic rumors, misinformation distributed in social networks and a number of media, forced prolonged sitting at home and the transition to full-fledged distance home education of children - all this together leads to increased stress in people, which inevitably indicates the need for psychological assistance, including emergency, the manifestation of care not only about physical health and prevention of infection with coronavirus, but also about conservation, maintenance mental health. If we accept as reality the new logic of life caused by prevailing conditions, then the question arises of the restructuring of lifestyle, professional activity, behavior, interpersonal communication.

## **2. Problem Statement**

Based on the foregoing, we consider it necessary to talk about the importance of psychological support for teachers who find themselves in a situation of not only self-isolation, but also forced to switch to distance learning for students in extreme conditions. Figuratively speaking, if before this distance learning in comparison with traditional (classroom) learning looked like “a cherry on a cake”, now it has become a “main course”.

## **3. Research Questions**

We offer copyright technology, which is called OPLOT (this is a Russian text). A stronghold is an old Russian term for a fortified fence, a defense and resistance knot, fortress, strong point. Now we also present such a knot of resistance to coronavirus, being at home on self-isolation. Although this situation with forced remote work will end, the experience acquired by us will be useful in the future.

## **4. Purpose of the Study**

Based on the first letters of the name of this technology, we formulated 5 rules for teachers who were forced to find themselves in the conditions of digital transformation and a pandemic.

## **5. Research Methods**

Theoretical problems were solved through logical and theoretical analysis and generalization of scientific literature related to the subject of the study – psychological assistance to teachers in the context of digital transformation and a pandemic. Survey method was used to collect empirical data.

## **6. Findings**

The analysis of works published over the past five years on the stated topic shows that, in general, both the situation of the coronavirus pandemic and the related self-isolation, quarantine turned out to be

unpredictable, as well as scientific works in which questions that became relevant at least hypothetically were considered present, no.

However, in a number of publications (Druzhirov, 2018; Gapanovich & Levchenko, 2017; Han et al., 2017; Nestik, 2017; Orman, 2015; Wang et al., 2017) discusses the potential impact on the human psyche of the modern information environment, raising questions about the modern features of the impact on people created by the same person information flows becoming a significant part of the habitat. Justified by the importance of anthropogenic-ecological and psychological approaches to the consideration of modern human society, often called informational and postindustrial. In varying degrees, studied the psychological characteristics of the experience of extreme situations of persons with different levels of social activity. Identified the relationship of hardiness of a person caught in an extreme situation, and the level of social activity. So, persons with a high level of social activity and post-emergency situations, have higher vitality and more positive look at their future and the possibilities of self-realization in the future. It was found that after such difficult situations more only increases the level of personal anxiety in men and women in the older age group (SHul'ts, 2016). The study of the behaviour of adults in difficult life situations devoted to the work of Alexandrova (2017), highlighting differential-psychological factors of the experience: factors of stressogenic (comfort), safety – depletion of personal resources, hopeless uncertainty – reassuring certainty, passive pessimism – positive energy, unsolvability – solvability and involvement – detachment from the situation. It is proven that negative emotions characteristic of individuals with low levels of meaning of his own life and focussing on the coping strategy "Flight – avoidance". Domestic researchers have studied individual issues of preparation of teachers for formation of culture of safe behavior of pupils in extreme situations (Magomedov, 2017).

We acknowledge that with the onset of the epidemic, scientific works on various aspects of psychological and psychiatric care for people in connection with the COVID-19 pandemic (Brooks et al., 2020; Karjalainen et al., 2020; Mosolov, 2020; Nussbaumer-Streit et al., 2020) were published.

According to our survey (April 2020, a sample of 227 people, teachers of educational organizations of St. Petersburg; of these, 86 % – married, 98 % – women, aged 23 to 57 years), the main psychological problems that teachers faced in conditions of coronavirus infection and forced emergency transition to distance learning: low computer competence the educators themselves and the low quality of the work of educational online services, which in turn causes a stream of negative experiences; the need to change the assessment system; poor perseverance of students; poor ability of students to work independently and plan their time; a decrease in confidence in the future; reduced motivation of children and adolescents (especially aged 14-15 years) to study in stressful conditions of self-isolation and the distance learning mode; loss of motivation for primary school students due to insufficient communication with teachers (lack of direct visual and audio contact); dramatically increased time spent at the computer and, as a result, pain in the neck, back, hands, visual impairment; difficulties with rest at home; difficulties with self-healing; difficulties in maintaining the work-life balance in the changed conditions, relationships with family members; decreased emotional state during the period of forced restrictions (Table 1).

**Table 1.** The main psychological problems faced by teachers in the conditions of coronavirus infection and forced emergency transition to distance learning

Psychological Problem	%
dramatically increased time spent at the computer and, as a result, the occurrence of pain in the neck, back, hands, vision impairment	67
low computer literacy of teachers	56
quality of online educational services	38
need to change the assessment system	34
poor perseverance of school children	33
reduced motivation of children to study	32
difficulties with rest at home	21
reduced confidence in the future	17
relationships with family members	11

To the question "How difficult was the transition to distance learning for students?" every fifth teacher said that the transition was very difficult (rated 7-10 points on a 10-point scale). Note that the transition to new working conditions, according to the self-assessment of teachers, led to a deterioration in their physical health (Table 2).

**Table 2.** During a long stay at home on self-isolation at a computer / smartphone, where did you begin to feel pain?

Localization of Physical Pain	%
my head started to ache more often	48
neck	38
back	38
loin	14
elbow or wrist right hand	14
feet	10
my vision deteriorated	5

14 % of respondents did not see significant changes in their health. Among the symptoms of stress and poor health, teachers most often find themselves feeling tired (67 % of respondents indicated this), muscle tension (52 %), sleep disorders (38 %), unmotivated anxiety for various reasons (37 %), increased irritability (33%), inability to focus attention (24 %), overeating (19 %), persistent headaches (10 %).

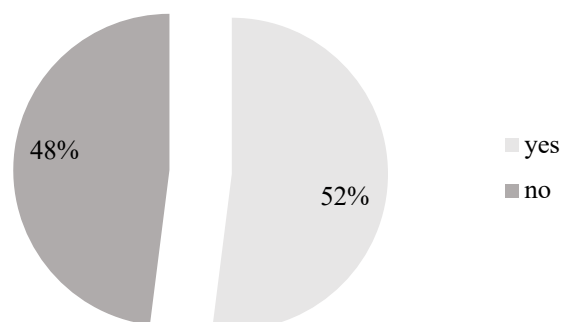
Note that the data we obtained on stress symptoms in teachers who worked in normal professional conditions offline before the coronavirus (2009-2018, sample – 3312 people), differ. Then the symptoms of stress were as follows: fatigue (69 %), sleep disorders (54 %), depressed mood (45 %), high blood pressure (43 %), increased irritability and muscle tension (by 34 %), persistent headaches (29 %), unmotivated anxiety for various reasons (26 %).

Thus, the muscle tension increased significantly, and a significant part of teachers increased from 34 % of the respondents to 52 % of the respondents, the differences are significant according to the Fischer F-criterion  $\varphi^* = 1.32$  ( $p < 0.1$ ). Unmotivated anxiety for various reasons has increased – it has increased from 26 % (before the coronavirus) up to 37 % (in conditions of coronavirus), the reliability of

differences according to the Fisher criterion  $\varphi^*=1.30$  ( $p < 0.1$ ). The indicator "Inability to focus on work" increased from 19 % to 24 %, and "Overeating" - from 12 % to 19 %.

At the same time, sleep disorders decreased from 54 % to 38 %, and the differences were significant according to the Fischer F – criterion  $\varphi^* = 1.32$  ( $p < 0.1$ ). Also, a paradoxical result was obtained: with general complaints of headaches, the number of teachers with such symptoms decreased from 29 % to 10 %, the differences are significant at the level of  $p < 0.01$ .

More than half of teachers say that they do not have enough time to solve the everyday issues that they did before self-isolation (Figure 1).



**Figure 1.** Do you have enough time for everyday tasks that you did before the self-isolation regime?

To the question "What new things have you done in these 2 months of self-isolation, what can you be proud of (learned something new, acquired new hobbies, etc.)?" 29 % of teachers answered in the negative – "nothing at all".

24 % of the respondents improved their computer skills and completed distance learning in new programs.

43 % of teachers began to pay more attention to their personal life and family (cosmetic home procedures, healthy food, cosmetic home repairs, new hobbies, drawing, learning a foreign language, etc.).

As a way to relieve stress and improve their health, teachers most often use: trips to the countryside (indicated by 52 % of respondents), communication with friends (48 %), communication with pets (43 %), humor and laughter (43 %), water (bath, sauna, shower) (38 %), walking (38 %), food, do your favorite thing, hobbies, music, communication with relatives, reading (by 24 %).

Note that psychological science has yet to comprehend the experience of psychological escort and support of people, representatives of different professional groups in these extreme conditions.

## 7. Conclusion

Summarizing the results of our research, we can draw the following conclusions. The emergency transition to distance learning in conditions of coronavirus infection led to an increase in stress among teachers, deterioration of somatic and mental health, which was especially manifested in an increase in muscle tension in different parts of the body (neck, back, lower back, right arm), due to a significant

increase in the time spent by teachers at the computer from 3-4 hours (before Covid-19) to 8-10 hours (in self-isolation). There was also an increase in unmotivated anxiety for various reasons and the inability to focus on work, which is explained by concern for their health and the health of their family members.

Our analysis of the main psychological problems faced by teachers in the conditions of coronavirus infection and forced emergency transition to distance learning led to the creation of our author's technology of psychological support for teachers in these conditions, which we called OPLLOT.

Let's give a brief description of the technology.

1. O – (in Russian – O, opora) – support, prop, base, foundation

We rely on official information. Avoid fakes, rumors. WHO has indicated that neither garlic, nor a hot bath, nor an electric towel dryer, nor a ultraviolet lamp, nor antibiotics, nor saline solution for the nose will protect against infection. WHO has long made clear that drinking alcohol does not kill the virus inside a person. Use reliable, official sources of information at specific times throughout the day. The constant flow of news, perceived from television screens or from the Internet about the coronavirus, can cause concern for any person, even with a stable psyche.

As rightly pointed out by Druzhilov (2018), namely, manipulation is a negative form of information impact on a person of the modern information environment. The targets of manipulative influence are most often the human consciousness, his picture of the world, worldview, a system of relations to the surrounding reality, which, through distortion, filtering of information, direct disinformation and personification of informational impact, can be deformed.

When a stream of conflicting information falls upon the human psyche, it may be difficult to verify it for authenticity and choose a strategy of behavior, as a result of which an existential crisis, mental disorders, and adaptation dysfunction can occur. The term “information pollution” is already in use, when the massive distribution of false information negatively affects human life.

Here is one example. In March 2020, attributed verse to A.S. Pushkin: “Alexander Sergeyevich Pushkin, being in quarantine about cholera in Boldino, turns to us today!

Excuse me, the inhabitants of the country,

In hours of mental torment

Congratulate you from confinement

With the great holiday of spring! ...

A. S. Pushkin, 1827”.

2. P – (in Russian – П, ponimanie) – understanding, awareness, comprehension.

The measures taken by the President, the government, the Governor of St. Petersburg – and hard to understand. These measures, aimed at saving the lives of every person in the broad sense of the word – the salvation of our country.

Stringent measures cease to be perceived as hard when they become aware.

Human behavior is organized in such a way that the inner, poorly detectable movement direct and guide them.... True understanding is penetration into the motives of the interlocutor. The meaning of the words changes from motive.... A valid and complete understanding of another's thought becomes possible only when we reveal it in an efficient, affective and volitional implications. (Vygotskiĭ, 1934, p. 320)

We have, unfortunately, not everyone has full understanding. Read the Letter from the Ministry of education of the Russian Federation dated 27 March 2020 N 07-2446 "About the direction of information". There is a list of recommendations for parents, teachers and children. Please read and agree to the leadership. Forced measures of self-isolation, precautions are temporary, there will come a time when people will return to the usual life. That means we need to talk, to think about the future. Will soon need the seminar "Life after the pandemic", and to prepare this workshop we need now.

In this regard, it is important to prepare for the exit from the current extreme situation, realizing that with high criticality and self-reflection will help with smaller losses to overcome the possible manifestations of post-traumatic stress disorder and depression.

3. L – (in Russian – Л) – life management.

It is important to adhere to the usual rhythm of life. Any change in the existing rhythm of life is stress for the body. Morning rise, exercise, meal. Everything is the same as on weekdays before the pandemic. Get enough sleep.

It should be clearly understood that prolonged sitting at the computer leads to physical inactivity, carpal syndrome, back and neck pains, and reduced physical activity is a risk factor to reduce immunity and vitality. A long stay on the Internet over time leads to a decrease in social activity. It is important to maintain physical fitness daily, to find time for physical education at home. Avoid excessive alcohol and caffeine consumption, as well as unlimited online shopping.

It is necessary to recall the basic rules of effective time management (Knoblaukh & Velt'e, 2012; Tracy, 2007).

4. O – (in Russian – О, okruzhenie) – environment, inner circle, closest entourage.

The development of relationships and harmonious communication in the family is most significantly affected by such factors as a sense of family cohesion, awareness of belonging to one's kind, relationship, family; emotional climate.

It is important at home in conditions of self-isolation that everyone has their own personal space. Keep in touch with relatives (parents), colleagues. A little conversation, even with the help of the phone, is better than encapsulation in oneself – this helps to feel like a member of a social group - a family, a teaching staff. Spend more time with your children, spouse. Take self-isolation as a test of the strength of family relationships. You can take a virtual tour. If you are used to going out of town for the weekend, traveling, going out to the Louvre, there are interesting virtual tours of the halls of this world treasury. In the evening, "go" to the Mariinsky theatre and watch "Eugene Onegin".

5. T – (in Russian – Т, terpenie) – patience, endurance, stability.

Self-isolation is a good time for the development of personal qualities: exposure – to sit at home, creativity – how to conduct training sessions with students and free time with your loved ones at home; dedication – to dream, to plan for the future, after release from quarantine.

So in China, where people are very serious about this attitude, almost all the sick had recovered, and new cases of infection are almost none. Now we have to be patient.

Getting training in distance learning format, many teachers encountered difficulties in the development of the tools. Do teachers even have the desire to quit. This is normal. Remember: we are not

alone. The most important thing now is to stay in touch with colleagues. If something goes wrong, remember that you can always contact the head, with colleagues. We have their e-mail address.

Another important quality required in these conditions, the desired positive, humor.

To improve mood, help pleasant activity, hobby, fun. For example, listening to music, watching your favorite movies (especially movies of your childhood), cooking delicious food, reading books.

It is important to have in the apartment a kind of cocoon of safety, a favourite place, chair, sofa, blanket. Trained skills struggle with anxiety, called rumination, develop skills for stress management. According to a survey of St. Petersburg educators, the most effective ways to relieve stress are breathing techniques, elements of meditation, and visualization techniques.

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