

Cognitive and Emotional Components of the Inner Picture of an Individual Experience in Terms of a Pandemic

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Abstract: *The epidemic threat of COVID-19 has changed the socio-psychological situation in general and has become a serious test for both Ukrainian society and the whole of humanity. The purpose of this research was to study the psychological characteristics of emotional experiences and behavioral strategies in pandemic conditions. The study involved 85 people aged 22 to 60, residents of Ukraine. In the research, the participants of the study used Diener et al. Satisfaction with Life Scale (SWSL) (1985), adapted by D. Leontiev & Osin (2020), the method of SPANA (equivalent to the method of PANAS (Positive and Negative Affect Schedule), adapted by E. Osin, Attitude to a significant life situation, a method by E. Korzhova and A. Berdnikova. The study identified both negative and positive changes caused by the threat of a pandemic. Among the negative consequences, the respondents most often indicated anxiety and fears, among the positive ones – personal growth, strengthening family relationships, and others. The research also provides data on the life satisfaction level and outlines the behavioral strategies, which Ukrainians choose in a rapidly changing environment. Thus, the majority of Ukrainians, namely 27% of the sample, take a passive position on the prevailing conditions, feeling powerless and helpless.*

Keywords: *COVID-19; emotional experiences; life satisfaction; anxiety; fear; behavioral strategy.*

How to cite: Rybinska, Y., Loshenko, O., Pohorilka, N., Antonivska, M., Sarnovska, N., & Shum, O. (2021). Cognitive and Emotional Components of the Inner Picture of an Individual Experience in Terms of a Pandemic. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(4), 80-93. <https://doi.org/10.18662/brain/12.4/239>

Introduction

The 21st century has brought to the lives of people worldwide not only rapid scientific and technological progress but also several negative events. Among them are the challenges of a global pandemic. Present-day living conditions in the context of COVID-19 pandemic, accompanied by changes in the socio-economic situation, and increase in the information load lead to the formation of intrapersonal and interpersonal contradictions among members of society, an increase in anxiety, insecurity, a sense of uncertainty in the future, and a loss of the activity prospect. People around the world have no idea what awaits them and what to hope for. Three main questions hang in the air: *“How to live now?”*, *“When will it all end?”*, *“Will everything be as it was before?”*. These, at first glance, concise questions make our heart beat faster, feel anxiety, devastation, fatigue, and the like. Most do not tolerate the uncertainty caused by pandemic conditions. The real threat to the whole planet population is an increase in the number of suicidal disorders. This was the reason for our study, the purpose of which was to study the psychological characteristics of personality experiences and behavioral strategies in a pandemic threat.

In 2020, several studies were conducted that examined the psychological aspects of the pandemic consequences. Notably, it is noted that the uncertainty situation has led to an increase in the number of depressive disorders (Wang et al., 2020), as well as such negative reactions as anxiety and obsessive-compulsive disorder (Kumar & Somani, 2020). Studies have also noted the impact of quarantine restrictions, which mainly lead to post-traumatic stress and sleep disorders (Liu et al., 2020). In particular, the study reveals that the rate of post-traumatic stress was four times higher in children who were in quarantine than in those who were not. Also informative is research conducted by Roy and colleagues in India (Roy et al. 2020) to examine the anxiety level and sleep problems in pandemic conditions. It was found that 12% of people had sleep disorders of diverse nature, and the anxiety level indicator was elevated. Thanks to these studies, we already have an array of data that allows us to assume that the conditions of a pandemic threat adversely affect the mental state of the person.

Methods and materials

The research team of the **Faculty of Psychology of the Taras Shevchenko National University of Kyiv**, together with the scientific team of the **Department of Foreign Philology of Kyiv National**

University of Culture and Arts, conducted an online survey of the population of Ukraine in connection with COVID-19. The study involved 85 people aged 22 to 60, residents of Ukraine. In the research, we used E. Diener et al. (1985) **Satisfaction with Life Scale (SWSL)**, adapted by Osin & Leontiev (2020). The method includes five questions, which involve the choice of the answer on a seven-point scale. The scale measures the cognitive assessment of the life circumstances compliance with the individual expectations and reflects a general measure of internal harmony and psychological satisfaction. The emotional component of life satisfaction was studied through the frequency of the level of positive emotions and negative affects using the technique of **SPANА/IIIPIAHA** (equivalent to the method of **PANAS (Positive and Negative Affect Schedule)** (Osin, 2012). The subjects are asked to note the severity of 20 adjectives revealing various psycho-emotional states. The result of this technique is two poles: positive emotional feelings and negative emotional affects. The study also used the **“Attitude to a significant life situation”**, a method by E. Korzhova and A. Berdnikova which is designed to identify the specifics of human interaction with the life situation (Korzhova & Berdnikova, 2016). Several statements were brought to the attention of the people under the research. In the first part, it was necessary to provide a detailed answer to the question. The second part reveals the degree of agreement with the proposed statements. The study situation is the quarantine situation (currently adaptive) in the conditions of the COVID 19 pandemic. Such an instruction allowed the experimenters, in no way, to direct attention to a specific aspect, to get an actual picture of the respondents' experiences and thoughts regarding the current situation.

Results

According to the results presented in **Table 1**, most often describing the importance of the situation, the respondents indicated fear, anxiety for their health (14% of the answers), and the health of their loved ones (8%). Slightly fewer – 18% of answers told about the positive changes in their lives, which became possible both through the pandemic and the introduction of quarantine restrictions to limit the incidence. For example, these are the answers: *“For me, this is a time when I can save money on travel and finally buy a car and make repairs in the apartment”*, *“Because I spend more time with my husband, as he has to work from home, and, thanks to staying at home for a long time, we had the opportunity to take a puppy”*, *“My husband and I became even closer, as well as the whole family”*, *“Made me slow down and look around”*, etc. The answers often include the idea that life used to seem different and people often

wanted something different, but now it is important to maintain health, life. *“This situation made me stop (in terms of life functionality) and think about what I have and how I want to live my life. This is when you have everything and nothing at the same time. You live, do what you want, go where you want, and at one moment, everything is taken away, and nothing is allowed, and at that moment came the realization that you need to stop and start living a real present, not the phantom future”.*

Table 1 - Frequency analysis of a situation description

№	Category	Frequency of occurrence, %
1	Negative experiences, fears for loved ones	14 8 (total 22)
2	Values reassessment	18
3	Experiencing restrictions	13
4	Discovering other options and opportunities	13
5	Important for everyone	12
6	Global changes	11
7	Business and economy destruction	7
8	Nothing has changed in my life	4

13% of respondents noted the restrictions as the most important aspect of the pandemic situation. These restrictions concern both the possibilities of travel, shopping, social activities, and answers such as **“my freedom is limited”**.

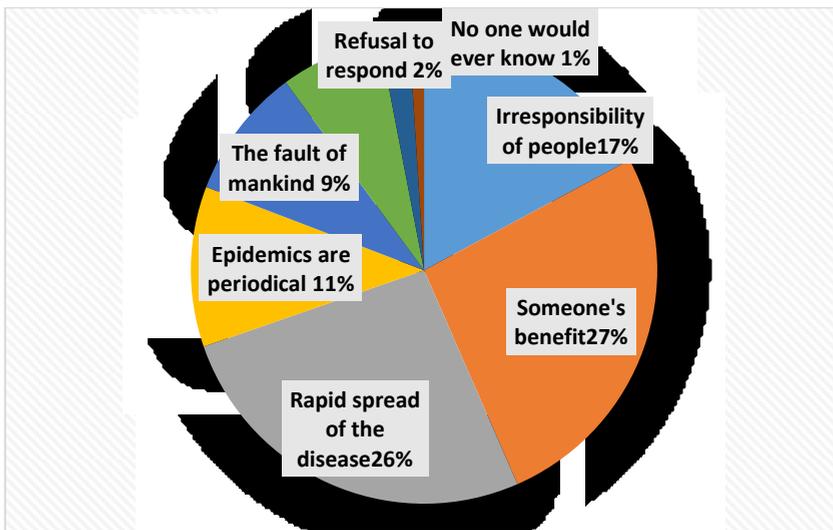
13% of responses reveal the pleasure of new opportunities that began to open up both in the macro world and in internal priorities and values. **“The pandemic forced me to reconsider priorities, adapt to the new, and I opened up loads of opportunities for myself,” “Gave direction for new development,” “I realized that you could have a job that does not depend on the location”** and the like.

12% of the respondents agreed with the importance of the situation that arose but did not specify why exactly the situation was serious.

11% of those studied indicated in their responses the globality of the changes caused by the COVID 19 pandemic. For example, **“For me, this is a period of great change. We all learn to live in a new way and according to new rules”, “New realities that dictate new rules,”** etc. 7% of respondents complained about the economic destruction, the complexity of small and medium-sized businesses, whose activities ceased or suspended due to quarantine restrictions. And only 4% of the respondents indicated in their answers that the pandemic situation, quarantine restrictions are not significant to them.

In total, only 2% of the sample refused to answer the question on the pandemic situation, namely, why the pandemic situation arises. Accordingly, 98% tried to determine the causes. Thus, the respondents most often (26% of the sample) claimed that the pandemic and quarantine situation is essential to someone: **“because someone needs it,” “political games,” “because it is a business”** and so on. The same percentage of the sample (26%) revealed the cause of quarantine restrictions, as the fear of multiple deaths, the desire to protect humanity from the intensive spread of the virus. 11% of the sample noted that pandemics appear periodically and are pretty logical. 9% of the sample saw in the ferocity of coronavirus infection the wrong actions of humanity, as a whole, these are incorrect values, disrespect for nature, and, accordingly, global warming, as a result of people's wrong actions. 8% of the sample as the cause of the pandemic indicated the virus novelty and the doctors' inability to repel the disease quickly. And 1% of the researchers indicated that we would never know the truthful cause of the pandemic.

(See Fig. 1)



Evaluating their actions, some of the subjects felt the complexity. 4% of the sample indicated that they *“find it difficult to answer this question.”* 8% in response to the question *“What part did you take in the situation under study”* indicated that *“did not take,”* and 6.5% indicated that took *“none”* participation. 10% of the sample indicated their *“passive”* role without specifying.

9% of the sample indicated active participation: *“helped the company to switch to remote work format,” “provided antiseptics and personal protective equipment to vulnerable groups,”* etc. 1.5% of the sample indicated that they *“just were doing their business.”* And the largest percentage of the sample (61%) presented the answers typical for isolation and self-isolation due to the pandemic: **“I follow all the recommendations and stay at home,” “I adhere to all the rules and requirements”** and the like.

Revealing the consequences of the pandemic, 46.5% of respondents indicated negative consequences, 42.5% saw positive ones, and 11% of respondents indicated neutral changes in their lives. Qualitative analysis of negative impacts showed that most often (53% of negative consequences) changes were manifested in the appearance of anxiety, fears, and a sense of hopelessness. One subject pointed out that he felt acute fear of getting out when quarantine was relieved. 23.5% of respondents complained about losses due to the pandemic and the closure of borders: job loss in another country, obstacles to change the country of residence, abandonment of important events, etc. 17.5% of the sample faced financial constraints and losses. And 6% of respondents complained about the shrinking time perspective and difficulties in building long-term plans.

Among the positive results, the respondents indicated positive life changes (31% of all answers with positive consequences), personal growth, awareness of their resources (22%), time-release for themselves and their needs (18%), strengthening family relations (16%) and familiarity with online opportunities (13% of answers).

19% of the study sample believe that after the end of the pandemic (one subject hopes for a vaccine), life will return to **“pre-COVID”** life, and people will quickly forget about this disease. 81% of respondents believe that life has already changed, and these changes will remain with them either for a long time or forever. Most often, it was simply stated that changes would be made, but some responses were detailed. Consequently, 16% of answers about changes note their personal changes, which the subjects no longer want to get rid of, also 16% of responses indicate adaptability to such situations in the future, 10% of responses note fear of social contacts, 8% are afraid of a global economic crisis, 6.5% complain about boundary restrictions, and another 6.5% indicate that now, online forms of work would be preferred where possible.

<i>Statement</i>	<i>Average</i>	<i>Standard Deviation</i>
Everything in my power	1.60	.89
Not so much depends on me	1.44	1.00
It is good that everything happened that way. For me, this is a valuable experience	1.25	1.04
That should not have happened to me	.87	.91
There is nothing difficult for me in the situation	1.52	.94
The situation seems very complicated to me	1.79	.98
I believe that everything will be great	2.41	.81
I doubt that this will lead to anything good	1.09	.87
I take an active part	1.23	.86
I do not play an important role	1.60	.97

The evaluation was performed using a four-point scale from 0 to 3, where 0 is the indicator of absolute disagreement with the statement, and 3 is the maximum degree of agreement. According to the results obtained, the highest rating (with a low standard deviation) had the statement “*I believe that everything will be great,*” which indicates the positive attitude of our subjects, optimism. A more positive view of the situation is confirmed by the agreement degree with the statements included in the parameter “*optimism-pessimism,*” in particular: “*I believe that everything will be great*” ($m = 2.41$; $\sigma = 0.81$) and “*I doubt that this will lead to anything good*” ($m = 1.09$; $\sigma = 0.87$).

The statement “*that should not have happened to me*” received the lowest score, which may indicate our subjects' acceptance of a pandemic situation caused by COVID 19. This assumption confirms the general assessment of the statements, the methodology authors attributed to the “acceptance-rejection” pole, namely: “It is good that everything happened that way. For me, this is a valuable experience” ($m = 1.25$; $\sigma = 1.04$) and “*it should not have happened to me*” ($m = 0.87$; $\sigma = 0.91$). Low levels of agreement with these statements indicate a generally faster positive emotional attitude to the situation.

Degrees of agreement with the parameter statements “*ease – complexity*” “*There is nothing difficult for me in the situation*” ($m = 1.52$; $\sigma = 0.94$) and “*The situation does not seem very simple*” ($m = 1.79$; $\sigma = 0.98$) reveal the difficulty in unambiguous assessment. Most likely, the situation seems difficult for the subjects, but the above-described optimism helps to reduce this complexity.

The same ambiguity appeared when answering the statement to the parameter “*internality-externality*”: “*The situation depends on me. Everything in my power*” ($m = 1.6$; $\sigma = 0.89$) and “*Not so much depends on me. This is how the*

circumstances turned out” ($m = 1.44$; $\sigma = 1$). It is likely that already at this stage, the respondents perceive the situation of the pandemic as one that can be controlled by them.

And the parameter “*activity – passivity*” covered the statement “*I take an active part*” ($m = 1.23$; $\sigma = 0.86$) and “*I do not play an important role*” ($m = 1.6$; $\sigma = 0,97$). According to the answers, there is a slight predominance of the pole of passivity. It is likely that quarantine situations, which continue to apply to many spheres of life, are perceived by the subjects as limiting their activity.

Factor analysis of the above statements revealed their semantic combination for the studied sample. The expediency of factor analysis is indicated by the values of the KMO index (0.719) and Bartlett’s Test of Sphericity (0.000). Due to factor analysis, four factors were identified, which together covered 64% of the variance. To obtain more or less uniform filling factors, we used the rotation of Quartimax.

<i>Statement</i>	<i>Components</i>		
	1	2	3
Not so much depends on me	.833		
Everything in my power	-.811		
That should not have happened to me	.588		
The situation seems very complicated to me	.582		
It is good that everything happened that way. For me, this is a valuable experience	-.562		
I doubt that this will lead to anything good		-.771	
There is nothing difficult for me in the situation		.767	
I believe that everything will be great		.672	
I take an active part			.846
I do not play an important role			-.756

Three factors were obtained. The first factor, which explained 27% of the variance, combined five statements: “*Not so much depends on me*” (0.833), “*Everything in my power*” (-0.811), “*It should not have happened to me*” (0.588), “*The situation seems very complicated to me*” (0.582) and “*It is good that everything happened that way. For me, this is a valuable experience*” (-0.562). These statements reveal feelings of helplessness, powerlessness, rejection of the pandemic situation.

The second factor, which explained 21% of the total variance, included statements that studied “*I doubt that this will lead to anything good*” (-0.771), “*there is nothing difficult for me in the situation*” (0.767), and “*I believe that*

everything will be great" (0.672). This factor included positive emotional experiences of the subjects.

The third factor (16% of the total variance) combined the statements *"I take an active part"* (0.846) and *"I do not play an important role"* (-0.756), which indicates a behavioral strategy to overcome feelings about the COVID-19 pandemic.

Next, we consider the results of the life satisfaction study of the sample under research. We identified three levels of life satisfaction: low, medium, and high. According to the obtained results, the most among the studied people with a high degree of life satisfaction - 49.3 samples. In the studied sample, the lowest number of people is with a low level of life satisfaction - 9.3%. And, accordingly, individuals with an average satisfaction level is 41, 3% of the subjects' sample.

<i>Statement question</i>	<i>Sample covariance</i>	<i>Standard Deviation</i>
In many ways, my life corresponds to my ideal	4.24	1.14
The conditions of my life are wonderful	5.17	1.06
I am satisfied with my life	5.06	1.04
I achieved almost everything I wanted in my life	3.9	1.19
If I had the opportunity to live my life again, I would not change almost anything in it.	4.31	1.36

Analysis of the answers sample covariance showed that most of our subjects are satisfied with living conditions and their lives in general. But the least they are satisfied with their achievements and need more accomplishments. Accordingly, according to these results, we can say that for people with a high level of life satisfaction, the subjective perception of the current life situation as prosperous is more important than the correspondence of the life of the subjective ideal.

Thus, it is possible to claim that the subjects of our sample are generally satisfied with their lives, live in psychologically comfortable conditions, have a strong interest in life as the opposite of apathy, show determination, commitment, consistency in achieving life goals; coherence between set and actually achieved goals; positive assessment of one's qualities and actions and the general positive mood background.

It was determined that life-satisfied subjects, often revealing their degree of agreement with the statements described above, chose the average

The first factor includes adjectives that fill the negative factor of feelings: anxious (0.856), restless (0.854), angry (0.825), nervous (0.824), irritated (0.814), scared (0.684), depressed (0.666), upset (0.594). Thus, the first factor can be called the **“negative pole,”** where the dominant is anxious, restless, and angry.

The second factor includes adjectives that belong to the positive pole of emotional experiences: inspired (0.839), enthusiastic (0.836), interested (0.727), confident (0.675), active (0.604), full (0.530) and joyful (0.527). You can call the factor *“positive emotions”* with a predominance of inspiration and admiration.

The third factor includes such adjectives as attentive (0.848), focused (0.745), and decisive (0.539). This factor can be called the factor of attention.

Finally, the fourth factor combines two adjectives: guilty (0.900) and embarrassed (0.789). This factor is called the guilt factor.

Analysis of the arithmetic mean sample revealed the dominance of the positive pole of experiences ($m = 33.12$; $\sigma = 6.9$) over negative affects ($m = 20.23$; $\sigma = 7.46$). Analysis of the arithmetic mean of the samples according to the estimates of the expression degree of each adjective emotion revealed leaders: decisive ($m = 3.48$), enthusiastic ($m = 3.41$), active and focused (both received an average score of 3.37), focused ($m = 3.36$) and attentive ($m = 3.28$). According to the subjects' assessments, emotions-experiences were the least expressed: embarrassed (1.24), guilty (1.33), angry (1.81), and scared (1.85).

Discussions

Recent events, namely the pandemic threat and quarantine restrictions, have significantly changed the socio-psychological situation of Ukrainians and caused numerous changes that have had both negative and positive effects (Pohorilka, 2021). This study is aimed at studying the subjective experiences of Ukrainian, namely their qualitative component in pandemic conditions. Attention is paid to the study of the behavioral aspect in complex life realities. The empirical study obtained results on the life satisfaction level and revealed its content.

The pandemic and quarantine restrictions have highlighted the experiences that characterize a situation of uncertainty (Skotnikova et al., 2020). Conducted empirical study shows that during the period of adaptive quarantine in a pandemic threat, most Ukrainian people worry about their health (14%). The second place is occupied by fears for the health of relatives, 8% of the sample. In general, health anxiety covers 22% of respondents. However, in the course of our research, it turned out that

Ukrainians observed not only the negative consequences of being in a situation of long-term danger to health and life in general. 18% of respondents felt pleasure through positive changes in their lives thanks to a value reassessment. Researchers noted that the pandemic threat situation opened up new opportunities for respondents and gave direction for further development. A significant proportion of those investigated complained and felt dissatisfied because of the restrictions that were imposed during adaptive quarantine. In total, 13% of respondents were dissatisfied with the restriction of social activity and perceived this as an attack on their freedom. Only 4% of the sample considered the situation due to the pandemic, and the restrictions that were imposed are not important. Qualitative analysis of the pandemic threat consequences showed that respondents' responses to the positive and negative consequences were divided almost equally. Thus, 46.5% of respondents noted negative changes, while 42.5% of respondents indicated positive changes. Among the negative consequences were mostly the appearance of anxiety, fears, feelings of hopelessness. Among the positive changes, 22% of the sample indicated the possibility of personal growth and awareness of own potential. A significant part of the sample (18%) noted the free time as a positive factor that contributed to meeting their needs. For 16% of the sample, experiencing a situation of uncertainty led to family strengthening. Enrichment of experience as a positive change was reflected in 13% of responses through acquaintance and mastery of online opportunities.

As part of the pandemic threat situation, data were obtained on the degree of satisfaction with the life of Ukrainians. Three degrees with high, medium, and low levels of satisfaction were identified, respectively. It should be noted that in a difficult situation, the majority of respondents (49.3%) showed a high level of satisfaction from life. Among them, the respondents are most satisfied with life in general and their living conditions. The average assessment of life satisfaction was found in 41.3% of the sample. The lowest percentage was given to the low level. Namely, 9.3% of respondents were dissatisfied with their lives.

As a result of factor analysis, we obtained three behavioral strategies that were characteristic of respondents in adaptive quarantine. For most responses, which is 27% of the variance, the behavioral strategy of the passive type prevails, which is expressed in experiences of helplessness, powerlessness, and anticipation of a change in the current situation. The behavioral strategy of the active type, which is 16% of the variance of all responses, manifests itself in overcoming the adverse consequences of a pandemic threat situation. 21% of the total variance were responses,

generally characterizing an optimistic behavioral strategy. Respondents of this type generally experience positive emotions, rationally assess the current situation, and are positive towards the future.

Conclusions

Analyzing the results of the study, it can be noted that in the context of the COVID-19 pandemic, namely adaptive quarantine, *the respondents often felt fear, especially fear for their health and their loved ones*. It should be noted that a significant number of *respondents mentioned crucial positive changes in their lives*. Qualitative analysis of the pandemic consequences showed that most often among the pandemic negative impacts, *the respondents indicated anxiety, fears, and feelings of hopelessness*. The positive consequences of the pandemic were *personal growth, resource awareness, freeing time for themselves and their needs, strengthening family relationships, as well as familiarity with online opportunities*. We also found a positive attitude of our subjects, the belief that everything will be fine, and, in general, a positive emotional attitude to the situation. The respondents feel that the situation is difficult but controlled. Their optimism helps to cope with difficult circumstances. The study found the highest number of people with a high level of life satisfaction and, accordingly, the lowest, with low. *Respondents are satisfied with their living conditions and their lives in general*. But they are least satisfied with their achievements and need further accomplishments. Thus, this study demonstrates that an unexpected, uncertain, and at the same time dangerous situation such as the COVID-19 pandemic can cause *not only negative effects but also positive changes in the lives of Ukrainians*.

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