

# Investigating anxiety, stress, and obsession during coronavirus pandemic and its relationship with resilience and life skills

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## ABSTRACT

There is an interrelationship between physical and mental illnesses, and in recent times with the spread of the deadly COVID-19 disease, the rate of negative psychological symptoms in the global community has increased and disorders have spread. Therefore, this study was conducted to investigate anxiety, stress, and obsession during the corona period and its relationship with resilience and life skills. The method of this study was descriptive-correlation and the statistical population of this study was all women aged 20 to 50 years in region seven in Tehran. Using targeted sampling, 360 people completed the research questionnaire twice in three months. The results showed that anxiety, stress, and obsessive beliefs were significantly higher and several times higher than normal, and after a few months of the spread of the disease, the amount of anxiety and stress decreased and people became accustomed to living with it. However, obsessive beliefs did not show any significant decrease, and resilience and life skills were strong predictors of the lack or reduction of anxiety, obsession, and stress during this period. Due to the good fit of the designed model, this model has a high capability and is a general indication that resilience and life skills are important factors in reducing anxiety, stress, and obsessive beliefs during this period.

**Keywords:** COVID-19, Anxiety, Stress, Obsessive Beliefs.

## Introduction and Theoretical Foundations

In today's world, it is important to pay attention to people's quality of life, so that one of the goals of the World Health Organization is to improve the quality of life <sup>[1]</sup>. Various factors affect the quality of life and its pattern, and personality and personality traits are important factors in this regard <sup>[2]</sup>. In the current era and the breadth of interpersonal relationships, we are witnessing an increasing number of psychological disorders and mental illnesses that cause the normal and constant flow of life to change and the resulting injuries. Along with the spread of physical illnesses, mental disorders are on the rise. Various studies have shown that there is a positive and significant

correlation between physical injuries and the increase in the prevalence of the disease, mental and psychological injuries <sup>[3]</sup>. One of the physical illnesses of recent days that has affected the mental health of the community is COVID-19.

COVID-19 is a viral and infectious disease that, after 5 months of its spread, has affected a large population of the world and made normal life difficult. The broad spread of infectious diseases such as COVID-19 is associated with psychological distress and symptoms of mental illness <sup>[4]</sup>. Psychiatrists and psychologists around the world should use these demonstrations and reactions to find ways to manage them that both meet the needs of a particular community and population <sup>[5]</sup> and prevent the COVID-19 outbreak <sup>[6]</sup>. They should also be aware of the claims made in the existing literature, which may become more important over time through more extensive experience and research (quoted in Rajkumar, 2020)<sup>[7]</sup>. Following this global crisis, strict public health measures have been taken to limit the prevalence of COVID-19 <sup>[8]</sup>.

In the context of the COVID-19 pandemic, initial reports and evidence suggest that there will be significant increases in anxiety and depression, substance abuse, loneliness, and domestic violence. As schools close, child abuse is likely to spread. This

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concern is so significant that the United Kingdom has provided psychological assistance through mental health [9]. Prevalence studies have shown that the disease increases the fear and stress in the population, which is manifested by mental health injuries such as anxiety, obsessive-compulsive disorder, and post-traumatic stress disorder [10, 11]. The current identified a coping strategy for the disease is ongoing body wash, and this ongoing wash has been instrumental in intensifying obsessive-compulsive disorder, which is one of the most severe traumatic mental illnesses. Obsessive-compulsive disorder, which the World Health Organization considers to be the leading cause of disability [12], is a psychological neurological disorder that usually begins in childhood or early adulthood. The average age of onset of this disorder is around 20 years of age, and often with its chronic course has a severe negative impact on the patient's mental, social, and occupational functioning [13]. The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders states that the 12-month prevalence of this disorder in the United States is 1.2 percent. Also, the prevalence of this disorder in other countries has been reported in the range of 1.1 to 1.8% [14]. The disorder is expected to increase and multiply in the next few months and years due to the current prevalence of COVID-19. Also, this disease has caused widespread fear with the symptoms of anxiety and stress in society due to the extent and speed of penetration and prevalence.

Another psychological problem in the current situation is anxiety and stress. Anxiety disorder with anxiety symptoms as the main clinical manifestation has a global incidence of 3 to 25 percent [15]. Studies have shown that 33.7% of people will be affected by anxiety symptoms during their lifetime. People with a longer course of the disease are often associated with social cognitive impairment that has a serious impact on patients and society [16]. Anxiety symptoms are often confused with physical symptoms and are neglected in clinical diagnosis [17]. Anxiety causes a person to become aroused and conditioned [18]. Anxiety is also defined as a feeling of pain that is associated with a current traumatic situation or with the expectation of danger that depends on an unknown object. Anxiety is considered a cognitive and psychological branch that arises from cognitive interpretations and distortions or facts. Anxiety disorders are a negative and influential factor in mental health and related cases that damage a person's normal life [19]. This disorder, while causing psychological damage, creates the ground for physical problems such as various diseases based on the immune system. In this context, stress has a similar trend to this disorder and plays a key role in the formation of physical problems [15].

As it turns out, the prevalence of the COVID-19 virus has major psychological consequences for the global community, with the most important manifestations being anxiety, stress, and obsessive-compulsive disorder, which are the most damaging mental disorders. Therefore, it is very important to study the categories that deal with these symptoms as a result of this disease and the approaches to intervening in this field. Resilience and life

skills are two of the most important aspects of strengthening the mental system, which plays a special role in dealing with psychological problems and enduring stress in this field and providing healthy coping approaches. Resilience is not only the resistance to damage with threatening conditions, it is not the passive state in dealing with dangerous conditions, but the active and constructive conditions in its surroundings. Resilience is the ability of a person to maintain a biological-psychological balance in dangerous situations. Besides, resilience is a form of self-repair with positive emotional, emotional, and cognitive outcomes [20]. Resilient people do not have self-defeating behaviors; they are emotionally calm and able to cope with adverse conditions. All of these are the effects of the resilience index on self-tolerance and coping with psychological distress, in other words, the skills of responding to the threats that threaten mental health [21]. Therefore, resilience is a very important mechanism in providing mental health. In the field of life skills, this feature also expands the functional, activity-communication, and interpersonal ability. When a person has life skills, he or she creates a better formation in his or her life, does not underestimate his or her ability to perform activities, and chooses and uses the best response based on the circumstances. According to the above, life skills and resilience are two important and effective categories in ensuring people's mental health, which are also effective in dealing with anxiety, stress, and obsession. However, the effect of these categories on these psychological symptoms during coronary heart disease has not been studied and analyzed. Therefore, this study tried to identify and present the effectiveness of these categories in this field by examining in this field.

## Research background

Table 1- Research background

No.	Researchers	Year	Research topic and findings
1	[9]	2020	COVID-19 disease has shown widespread signs of increased anxiety and depression and other psychological problems in society.
2	[7]	2020	Preliminary evidence suggests that symptoms of anxiety and depression (26-28%) and self-reported stress (8%) are common psychological reactions to the COVID-19 epidemic and may be associated with disturbed sleep.
3	[22]	2019	According to theoretical research in this study, cognitive thinking and schema model are the most important structures in decision-making. In choices, people try to shape and deal with psychological problems. Psychological flexibility and life skills also play a decisive role.

4	[23]	2017	Strong cognitive stimuli such as resilience and cognitive patterns are involved in reducing negative symptoms such as anxiety in individuals.
5	[24]	2015	Researchers have shown that resilience and resilience are effective in reducing anxiety and depression in the workplace.
6	[25]	2011	Studies in this field have shown that life skills and their pattern play an effective and positive role in reducing stress and anxiety, as well as repetitive morbid behavior (related to obsession).
7	[26]	2017	Obsessive-compulsive disorder (OCD) has been shown to reduce emotional instability and the pattern in which it occurs, and the development of skills related to making the right choices can help reduce this disorder.

## Research Methods

The design of this research was descriptive-correlational, which was analyzed based on the structural equation model of the effect and relationships between the research variables.

## Population and sample

The population in this study was all women aged 20 to 50 years in the seventh district in Tehran, who were studied due to the normal situation and the average socioeconomic level and some special considerations in this field.

Cochran's formula was used to determine the sample size. The point to be made about this formula is that if the p-value is not available, the value of 0.5 can be considered. In this case, this formula will give the largest and most conservative workable number. By placing the information obtained from the sample members and other indicators, the number of sample members was considered to be 385 people.

Since the questionnaires were to be completed again by the sample group after three months, 500 questionnaires were distributed. In retrieving information from the research sample in the second quarter, 360 people responded and the final sample became 360 people. It should be noted that the sampling was targeted and convenient based on specific governing conditions.

## Research tools

To gather information from The Beck Anxiety Inventory (BAI), Connor-Davidson Resilience Scale (CD-RIS), Life Skills Assessment Questionnaire of Saatchi, OBQ-44 Obsession Questionnaire, and the inventory by Edwin J [27]. Thomas, Marianne R M Yoshioka, and Richard D. Ager (1993) was used.

**Table 2- Investigating the psychometric properties of the integrated questionnaire.**

Component	Construct validity	Cronbach's alpha coefficients
Anxiety	0.796	0.908
Stress	0.618	0.879
Obsession	0.715	0.899

Resilience	0.843	0.911
Life Skills	0.693	0.882

Given that the value of the AVE index for all concepts and dimensions of research is greater than 0.50, since convergent validity is confirmed when the value of the average index of extracted extraction is greater than 0.50, it can be said that convergent validity for all concepts and dimensions of research are confirmed. Also, the reliability of each component, which indicates the internal fit of the test materials, is more than 0.7 in all components, which indicates the adequacy of the tool.

## Results

### Measurement the level of anxiety, stress, and obsession during the Coronavirus pandemic

**Table 3-Measurement the level of anxiety, stress, and obsession during the Coronavirus pandemic**

Category	Mean in the second month of Coronavirus pandemic	Mean in the fifth month of Coronavirus pandemic
The stress of medium or above	0.57	0.33
The anxiety of medium or above	0.52	0.36
The obsession of medium or above	0.84	0.71

Analytical studies of this Table show several main issues. First, the rate of anxiety, stress, and obsessive-compulsive disorder is significantly higher than normal. Secondly, after a few months of the spread of the disease, the amount of anxiety and stress has decreased and people seem to be used to living with it. However, obsessive beliefs did not show a significant decrease and the amount is still high.

In the next section, the effect of each of the variables under study was used through the structural equation model, and in the first section, the correlation relationships of the variables are examined.

**Table 4- Matrix correlation of research variables**

	Anxiety	Stress	Obsession	Resilience	Life Skills
Anxiety	1				
Stress	0.79**	1			
Obsession	0.56**	0.71**	1		
Resilience	-0.66**	-0.71**	-0.56**	1	
Life Skills	-0.59**	-0.63**	-0.68**	0.68**	1

\*\*P<01 \*P<05

The results of the Pearson correlation coefficient among the research variables showed that there is a significant correlation between all components of the research and all relationships are significant at the level of 0.01.

Because the correlation coefficients of the variables were significant, it was possible to use the structural equation

modeling method. In the structural equation model, the standard model was used to determine how and to what extent the latent variables affect each other. To show the significance of these effects, a significance model was used, and to evaluate the fit of the model, fitness indicators were used.

In the following, the structural equation modeling method is used to evaluate the effectiveness of the identified variables and the effects of each.

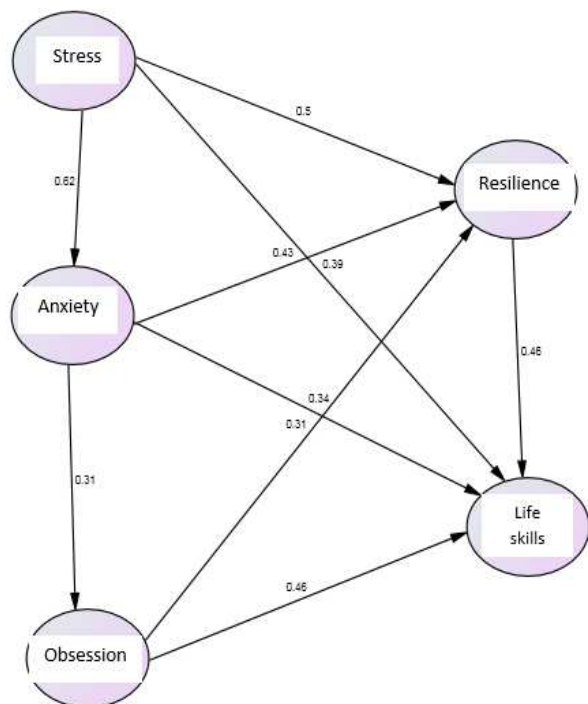


Figure 1- Structural Equation Model

Given that the coefficients obtained between all the components are above 0.3, all relationships are significant.

Table 5- Hypothesis test results

Relation	Independent	Dependent	Statistic t value	Route coefficient	Confirmation or rejection of the hypothesis
1	Stress	Life Skills	14.12	0.50	Confirmation of the relationship
2	Anxiety	Life Skills	11.48	0.43	Confirmation of the relationship
3	Obsession	Life Skills	7.89	0.34	Confirmation of the relationship
4	Stress	Resilience	8.86	0.39	Confirmation of the relationship
5	Anxiety	Resilience	6.53	0.31	Confirmation of the relationship
6	Obsession	Resilience	12.15	0.46	Confirmation of the relationship

The results of the t-test statistic show that because the t-value of the statistical factor analysis presented for this hypothesis is greater than 1.96, all relationships are validated, and there is a

significant relationship between stress, anxiety, and obsession with life skills and resilience.

### Checking the fitness of the model

The table below shows the results of the performance indicators of the model

Table 6- Indicators of structural equation model fit

Values	Statistical indices	$\chi^2$	AGFI	GFI	CFI	RMSEA
	Fit value	589.17	0.92	0.91	0.90	0.036

According to the fitness indices presented in the table above, the relative chi-square value calculated on the degree of freedom is less than 3 and in the other indices, the AGFI, GFI, CFI are above 0.9. This is indicative of adequate adequacy, and RMSEA is less than 0.05. In other words, the research model has a good fit and the model presented in this field is efficient.

### Ranking of factors

Table 7- Ranking of factors

Dimensions	Life Skills	Resilience
Stress	2	1
Anxiety	3	2
Obsession	1	3
df = 2	Sig = .001/0	X <sup>2</sup> 987.21
		X <sup>2</sup> 1048.943

Based on the results of the Friedman rank test, resilience has a greater effect on stress, anxiety, and obsession, respectively, and life skills have a greater effect on obsession, stress, and anxiety, respectively. According to the results of the Friedman test, which shows a significant level of less than 0.01, the ranking of the three factors at the level of 0.99 confidence is significant.

### Conclusion

Mental health is a very important and fundamental category of healthy living conditions and is an important predictor of life expectancy, future, and current conditions [28]. Many factors are involved in the formation of mental health [3, 29], and in this regard, there is a positive relationship between mental health and physical health criteria in different dimensions and a positive bilateral increase. The results indicate that physical and mental health interact with each other [30]. In today's world, with the spread of COVID-19, which is highly transferable, and the fact that people are dying from the disease, psychological and mental worries have increased.

In this regard, this study examined some negative psychological symptoms, including anxiety, stress, and depression during this period. The results showed that the prevalence of anxiety, stress, and basic beliefs is significantly higher and more than normal, and after a few months of the spread of the disease, the amount of anxiety and stress decreased. Also, concerning these categories with positive psychological characteristics such as resilience and

life skills, the findings indicated that there is a significant inverse relationship between resilience and life skills with anxiety, obsessive beliefs, and stress. Resilience has a greater effect on stress, anxiety, and obsession, respectively, and life skills have a greater effect on obsession, stress, and anxiety, respectively. Both of these factors are effective in controlling these negative psychological categories. These results, which are consistent with the research conducted in this field, can be explained in two ways. First, the disease increased the prevalence and anxiety of people with high prevalence, and as a result, significantly increased the amount of anxiety and stress. Since one of the ways to deal with this disease is through constant washing, obsessive beliefs have spread. After months of illness, people became accustomed to living with the virus, reducing stress and anxiety but still keeping it above normal. In the case of obsessive beliefs, these types of beliefs are later forgotten and in many cases become a habit. As a result, obsessive-compulsive disorder rates were lower than other problems. In the second part, explaining the findings is life skills and resilience are positive psychological criteria that provide the right life choices and psychological hardship based on the circumstances. During this period, people with high resilience and life skills, with proper tolerance and interpretation of the conditions and the right choices based on health, have less pressure and a better psychological feeling.

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