The Open Nursing Journal
DOI: 10.2174/0118744346353410241226114737, 2025, 19, e18744346353410
ISSN: 1874-4346

RESEARCH ARTICLE OPEN ACCESS

Determination of Depression Anxiety Stress Levels in Individuals with COVID-19 Disease: The Example of Elazığ Province

Papatya Karakurt[1], Serhat Yıldırım[1] and Kübra Öğmener Uslu[2,*]

[1]*Department of Nursing, Erzincan Binali Yıldırım University, Türkiye*
[2]*Department of Nursing, Elazığ Fethi Sekin City Hospital, Elazığ, Türkiye*

Abstract:

Background: In addition to some physiological effects of the COVID-19 epidemic, it appears that its psychological effects continue.

Objective: This study aimed to determine the depression and anxiety stress levels of individuals living in Elazığ city center and suffering from COVID-19 disease.

Methods: The population of the descriptive study consisted of individuals living in the city center of Elazığ and suffering from COVID-19 disease. No sample selection was made, and the research was completed with 525 individuals who met the inclusion criteria. Descriptive features and the Depression Anxiety Stress Scale Short Form were used to collect data. Numbers, percentages, mean, standard deviation, tdinary-test in independent groups and ANOVA Analysis were used to analyze the data.

Results: It was determined that 73.7% of the patients included in the study were in the 18-35 age group, 71.8% were women, 27.2% were high school graduates and 62.5% were single. 78.1% of the patients participating in the study stated that they had had COVID-19 for 6 months or more, 65.5% did not know who transmitted the disease, 94.9% did not receive hospitalized treatment, and 23.6% stated that they lost family members due to this disease. When the Depression Anxiety Stress Scale Average Scores of the patients were examined. The anxiety sub-dimension was determined as 7.47±4.73, the depression sub-dimension was 7.58±5.26 and the stress sub-dimension was 8.04±1.00. It was determined that there was a significant difference between the Depression Anxiety Stress Scale mean scores of the patients according to their gender, marital status and having children.

Conclusion: It was determined that the depression, anxiety and stress levels of the patients included in the study were low. It is observed that the depression, anxiety and stress levels of patients who are women, single, smokers, have no children, know who transmitted the disease, and have lost family members due to this disease are higher. It was determined that the patients' age groups, education, and who they lived with at home did not affect their depression, anxiety, and stress levels. It is important to continue awareness of COVID-19 disease, to continue the measures taken against the disease and to provide regular training.

Keywords: COVID-19, Depression, Anxiety, Stress, Nursing, Physiological effects.

*Address correspondence to this author at the Department of Nursing, Elazığ Fethi Sekin City Hospital, Elazığ, Türkiye; E-mail: qbra_ogmener@hotmail.com

Cite as: Karakurt P, Yıldırım S, Öğmener Uslu K. Determination of Depression Anxiety Stress Levels in Individuals with COVID-19 Disease: The Example of Elazığ Province. Open Nurs J, 2025; 19: e18744346353410.
http://dx.doi.org/10.2174/0118744346353410241226114737

Received: September 18, 2024
Revised: November 17, 2024
Accepted: November 27, 2024
Published: April 03, 2025

1. INTRODUCTION

The 2019 coronavirus outbreak (COVID-19) has caused a global public health crisis, including physical injuries and mental and emotional trauma. According to the World Health Organization (WHO), 6.8 million people lost their lives in the outbreak, and the losses continue [1]. Evidence suggests that the highly contagious and unpredictable nature of the disease causes widespread anxiety, cognitive uncertainty and a reduction in people's sense of security [2]. Similar psychological effects, such as panic, depression, anxiety, and stress symptoms, have been reported by health system workers in various countries due to the pandemic [3].

The COVID-19 pandemic and the related quarantine measures have rapidly and abruptly changed people's habitual lives [4]. The problems arising from this pandemic are both physical and mental [5]. However, people under quarantine have started to lose their individual and social communication, and traditional and even religious ceremonies, which causes stress, resentment and loneliness. These challenges, combined with some misinformation, exaggeration of risks or doubts about public health and personal safety, increase anxiety and contribute to psychological disorders such as stress, anxiety and depression [6-8].

Given the multiple stressors and traumatic events associated with the COVID-19 pandemic and the increased level of distress in different populations, a mental health response that is sensitive to stress and trauma is vital. Alongside its negative consequences, the COVID-19 pandemic provides an opportunity for reforms and innovations in mental health care, increasing accessibility to services and contributing to de-stigmatisation of mental health and help-seeking behaviour. In order to mitigate the negative mental health consequences of the pandemic, modifiable risk and protective factors of mental health need to be identified and targeted. In this context, evidence-based mapping of risk and protective factors is important for managing the pandemic [9]. In addition, cognitive-behavioural interventions focusing on intolerance of uncertainty [10] may be useful in reducing the risk of developing health anxiety [11].

In addition to causing physical health problems in infected individuals, the COVID-19 pandemic has significantly increased the incidence of adverse psychological complications such as depression and anxiety, with some survivors continuing to experience long-term effects. In this unprecedented pandemic, positive health-related behaviours should be adopted or maintained through effective health promotion strategies to reduce the increase in acute and chronic psychological distress. COVID-19 patients and survivors should be screened and treated for psychological disorders such as depression and anxiety. To this end, it is recommended that vulnerable groups receive timely and appropriate psychological interventions through counselling and psychological services and more financial and psychological support, and nurses have a great responsibility in this regard [6-8, 12]. Furthermore, given the wide range of stressors experienced by survivors of infectious diseases, it appears that their stress not only persists but may also increase over time, leading to detrimental effects on their quality of life, functioning, and thus their mental health. Therefore, control measures and psychological interventions are necessary to help COVID-19 survivors improve their mental health [6]. Nurses have undertaken very important duties during the COVID-19 process. They have taken the necessary protective measures to prevent the spread of the disease in society and have applied the necessary precautions to individuals. Nurses have important responsibilities in preventing anxiety, depression, and stress in individuals who have experienced COVID-19. Nurses should provide psychological support to individuals during this pandemic process and follow up at regular intervals. In light of this information, this study was conducted to determine the depression, anxiety and stress levels of individuals living in Elazığ city centre and who had COVID-19 disease.

1.1. Research Questions

- What are the depression and anxiety stress levels of individuals with COVID-19 disease?

- Are the sociodemographic characteristics of individuals with COVID-19 disease effective on depression anxiety stress levels?

2. MATERIALS AND METHODS

2.1. Type of Research

The type of this research is descriptive research within the scope of quantitative research.

2.2. Population and Sample of the Study

The population of the study consisted of individuals who lived in Elazığ city centre and had COVID-19 disease. The sample of the study was determined by using the sample calculation formula in cases where the universe is unknown because it is not possible to determine the number of the universe. According to this formula, at least 384 people should be included in the study. In this study, it was deemed appropriate to take 525 individuals in order to prevent possible data losses. The formula is as shown below;

$$n = \frac{t^2 . p . q}{d^2}$$

(1.96^2)x0.5x0.5/0.05^2 = 384

n= Number of individuals to be sampled.

p= Probability of occurrence (frequency) of the examined event (0.5).

q= Frequency of non-occurrence of the examined event (1-p) (0.5).

t= the theoretical value found in the t table at a certain level of freedom and at the determined error rate (1.96). d= symbolised as the desired ± deviation according to the frequency of occurrence of the event (0.05)

2.3. Inclusion Criteria

-Being 18 years of age and over

-Having had COVID-19 disease

-Volunteering to participate in the study.

2.4. Data Collection Tools

2.4.1. Descriptive Characteristics Form

This form includes demographic characteristics of individuals (age, gender, education, marital and income status) and questions about COVID-19 disease (time of COVID-19 disease, who transmitted the disease, time of hospitalisation, who transmitted the disease, *etc*.).

2.4.2. Depression Anxiety Stress Scale Short Form (DASS-21)

This scale, the first form of which was developed by Lovibond and Lovibond in 1995 as DASS-42, measures depression, anxiety and stress levels of individuals and includes 42 questions [13]. Later, a 21-question short form of the scale was created by Antony *et al*. under the name DASS-21, and its relationships with Beck Anxiety and Beck Depression scales were analysed to determine the convergent validity of the scale. The correlation coefficient between the anxiety subscale of the scale and Beck Anxiety Scale was found to be .84, and the correlation coefficient of the depression subscale with Beck Depression Scale was found to be .77. Therefore, it was determined that the scale had high validity values [14]. The Turkish validity and reliability study of the Depression Anxiety Stress Scale - short form (DASS-21) was conducted by Yılmaz *et al*. in 2017. The internal consistency coefficient (Cronbach's alpha) was 0.75 for the stress subscale, 0.81 for the anxiety subscale, and 0.82 for the depression subscale (Yılmaz *et al*. 2017). DASS-21 is a 4-point Likert-type scale that examines the depression, anxiety and stress dimensions of individuals in the last week, each consisting of 7 items in clinical and non-clinical samples. The answers to the scale are scored as -never 0 points, -sometimes 1 point, -sometimes 2 points, -very often 2 points, -always 3 points. The scores that can be obtained from each sub-dimension vary between 0 and 21 and the higher the score obtained from the sub-dimensions, the higher the level of depression, anxiety or stress [15]. In this study, the internal consistency coefficient was found to be 0.84 for the anxiety subscale, 0.87 for the depression subscale and 0.86 for the stress subscale.

2.5. Data Collection

Data were collected through Google Forms. Data collection forms prepared using Google Forms were shared with individuals *via* social media and they were asked to complete the sent survey link.

2.6. Analysing the Data

The evaluation of data obtained as a result of the research was analysed by entering the database prepared in the SPSS for Windows 25.0 statistical program. Since the data showed normal distribution, numbers, percentages, mean, standard deviation, t-test in independent groups and Anova Analysis were used to analyze the data.

2.7. Ethical Aspects of the Research

After obtaining approval from Erzincan Binali Yıldırım University Human Research Health and Sports Sciences Ethics Committee (31/12/2021 Protocol No: 10/06) for the conduct of the research, data collection forms prepared using Google forms were shared with individuals *via* social media and asked to complete the sent survey link. In addition, written consent was obtained from each participant by asking the question, 'Do you agree to participate in this research?' at the beginning of the shared data collection form. Due to the need to observe personal rights in the research, the ethical principles of 'Informed Consent', 'Volunteerism' and 'Protection of Confidentiality' were followed. During the research process, the 'Helsinki Declaration of Human Rights' was used for the research.

2.8. Limitations of the Study

Since this study was conducted in a specific region, it needs to be replicated in different populations, as cultural and social norms may affect the results. Further studies are needed to replicate the results of this study in countries with different health systems.

3. RESULTS

It was determined that 73.7% of the patients included in the study were in the 18-35 age group, 71.8% were female, 27.2% were high school graduates and 62.5% were single. It was found that 57.7% of the patients lived with their parents, 21.9% had children, 22.7% smoked and 14.9% had any chronic disease. Among the patients who participated in the study, 78.1% stated that they had COVID-19 for 6 months or more, 65.5% did not know who transmitted the disease, 94.9% did not receive inpatient treatment, and 23.6% lost family members due to this disease (Table **1**).

When the mean scores of the Depression Anxiety Stress Scale were analysed, it was found that the anxiety sub-dimension was 7.47±4.73, the depression sub-dimension was 7.58±5.26 and stress sub-dimension was 8.04±1.00 (Table **2**).

When Table **3** was examined, it was found that there was a significant difference between the mean scores of the Depression Anxiety Stress Scale according to the gender, marital and child status of the patients. It is seen that depression, anxiety and stress levels of female, single and childless patients are higher.

It was determined that there was a statistically significant difference between the mean scores of the Depression Anxiety Stress Scale according to smoking status. Patients who smoke cigarettes have higher levels of depression, anxiety and stress.

Table 1. Distribution of descriptive characteristics of patients (n=525).

Descriptive Properties	Category	n	%
Age groups	18-35	387	73.7
	36-53	107	20.3
	54-71	26	5.0
	72 and above	5	1.0
Gender	Female	377	71.8
	Male	148	28.2
Education status	Literate	116	22.1
	Primary/secondary school	132	25.1
	High School	143	27.2
	University	134	25.5
Marital status	Married	197	37.5
	Single	328	62.5
Whom she lives with at home	Alone	39	7.4
	Only with his wife	23	4.4
	With his wife and children	109	20.8
	With mum and dad	303	57.7
	Other (relatives, friends)	51	9.7
Having a child	Yes	115	21.9
	No	410	78.1
Smoking status	Yes	119	22.7
	No	406	77.3
Presence of chronic disease	Yes	78	14.9
	No	447	85.1
Time to pass the COVID-19 disease	within 1 month	30	5.7
	Within 2-5 months	85	16.2
	6 months and over	410	78.1
Knowing who transmitted the disease	Knows	181	34.5
	Don't know	344	65.5
Inpatient hospitalisation	Yes	27	5.1
	No	498	94.9
Loss of a family member due to COVID-19	Yes	124	23.6
	No	401	76.4
Total	-	**525**	**100.0**

Table 2. Depression anxiety stress scale score means of the patients (n=525).

Scale	Min.	Max.	Mean	Sd
Anxiety	0.0	21.0	7,47	4,73
Depression	0.0	21.0	7,58	5,26
Stress	0.0	21.0	8,04	1,00

It was found that there was a statistically significant difference between the mean scores of the sub-dimensions of the Depression Anxiety Scale according to the presence of chronic disease, but there was no significant difference between the mean scores of the stress sub-dimension. It was determined that patients with chronic diseases had higher levels of depression and anxiety.

It was found that there was a statistically significant difference between the mean scores of the sub-dimensions of the Depression and Anxiety Scale according to the time of the patients' COVID-19 disease, but there was no significant difference between the mean scores of the stress sub-dimension. Patients who had the disease within 2-5 months had higher levels of depression and anxiety compared to other groups.

It was determined that there was a statistically significant difference between the mean scores of the Depression Anxiety Stress Scale according to the status of knowing who transmitted the disease and losing family members from COVID-19 disease. It was found that patients who knew who transmitted the disease and lost family members from this disease had high levels of depression anxiety and stress.

Table 3. Comparison of depression anxiety stress scale score means according to descriptive characteristics of patients (n=525).

Descriptive Properties	Category	Depression	Anxiety	Stress
Age groups	18-35	7,72±5,66	7,43±4,93	8,15±5,47
	36-53	6,97±3,74	7,38±3,78	7,67±3,81
	54-71	8,27±3,97	8,69±4,40	8,50±4,72
	72 and above	5,40±5,98	6,40±8,50	5,60±7,06
Test and significance	F=1,009 *p*=,388		F=,687 *p*=,651	F=,680 *p*=,565
Gender	Female	7,93±5,15	7,89±4,49	8,48±4,95
	Male	6,66±5,44	6,40±5,15	6,93±5,48
Test and significance	**t=2,507 *p*=,012**		**t=3,285 *p*=,001**	**t=3,145 *p*=,002**
Education status	Literate	8,03±5,46	7,42±4,77	7,81±4,79
	Primary/secondary school	7,79±4,71	8,10±4,25	8,54±4,92
	High School	7,48±5,57	7,32±4,89	8,03±5,50
	University	6,96±5,26	7,04±4,97	7,82±5,43
Test and significance	F=1,045 *p*=,372		F=1,198 *p*=,310	F=,586 *p*=,625
Marital status	Married	6,79±3,70	7,29±3,82	7,18±3,94
	Single	8,05±5,95	7,58±5,20	8,56±5,69
Test and significance	**t=-2,662 *p*=,008**		**t=-,680 *p*=,497**	**t=-2,993 *p*=,003**
Whom she lives with at home	Alone	8,08±3,83	8,79±3,67	8,82±4,19
	Only with his wife	6,74±3,12	7,78±3,01	6,91±3,13
	With his wife and children	7,10±3,69	7,44±3,92	7,52±4,12
	With mum and dad	7,70±5,87	7,27±5,08	8,14±5,48
	Other (relatives, friends)	7,84±5,92	7,57±5,41	8,51±6,31
Test and significance	F=,530 *p*=,714		F=,932 *p*=,445	F=,908 *p*=,459
Having a child	Yes	7,23±3,73	7,44±3,97	7,58±4,19
	No	7,67±5,61	7,48±4,92	8,17±5,38
Test and significance	**t=--,786 *p*=,000**		**t=-,069 *p*=,014**	**t=-1,088 *p*=,007**
Smoking status	Yes	8,50±4,37	8,69±3,98	8,88±4,24
	No	7,41±5,38	7,26±4,82	7,90±5,28
Test and significance	**t=1,687 *p*=,036**		**t=2,486 *p*=,038**	t=2,839 *p*=,061
Presence of chronic disease	Yes	9,55±5,11	9,36±5,29	9,92±5,33
	No	7,00±5,16	6,92±4,41	7,49±4,97
Test and significance	**t=4,747 *p*=,000**		**t=5,078 *p*=,000**	**t=4,620 *p*=,000**
Time to pass the COVID-19 disease	within 1 month	8,20±5,46	7,77±5,39	8,07±5,55
	Within 2-5 months	8,87±4,84	8,76±4,24	8,86±4,90
	6 months and over	7,26±5,29	7,18±4,74	7,87±5,16
Test and significance	**F=3,562 *p*=,029**		**F=4,063 *p*=,018**	F=1,293 *p*=,275
Knowing who transmitted the disease	Knows	8,20±4,52	8,07±4,05	8,60±4,43
	Don't know	7,24±5,58	7,15±5,02	7,75±5,47
Test and significance	**t=1,995 *p*=,000**		**t=2,121 *p*=,001**	**t=1,807 *p*=,002**
Inpatient hospitalisation	Yes	7,56±3,80	8,41±3,58	8,04±3,85
	No	7,58±5,33	7,42±4,78	8,04±5,21
Test and significance	**t=-,020 *p*=,034**		t=1,057 *p*=,063	**t=-,007 *p*=,031**
Loss of a family member due to COVID-19	Yes	8,30±5,29	8,23±4,78	8,58±5,02
	No	7,35±5,23	7,23±4,69	7,88±5,18
Test and significance	**t=2,640 *p*=,009**		**t=2,520 *p*=,012**	**t=2,502 *p*=,013**

It was determined that there was a statistically significant difference between the mean scores of the sub-dimensions of the Depression Stress Scale according to inpatient treatment status, but the difference between the mean scores of the anxiety sub-dimension was not significant. Patients who did not receive inpatient treatment in the hospital had higher levels of depression and stress.

It was determined that there was no statistically significant difference between the mean scores of the Depression Anxiety Stress Scale according to the age groups, education, and with whom the patients lived at home (p>0.05).

4. DISCUSSION

The COVID-19 pandemic has affected the lives of individuals in different ways. In this study, it was determined that the depression, anxiety and stress levels of the patients were low. According to a study, it was reported that general anxiety, stress and depression findings of individuals were associated with the COVID-19 pandemic [16]. In a study conducted with 1498 people during the pandemic, it was found that 36.6% of the participants experienced stress, 57.9% experienced anxiety, and 47.9% experienced depression [17], and in another study, it was determined that a significant number of participants had moderate to severe perceived stress levels due to the COVID-19 outbreak [18]. Another study showed that COVID-19 patients experienced different levels of anxiety, depression and post-traumatic stress [6]. In studies conducted in Turkey, it has been reported that approximately 22.6%-23.6% of the population had depression during the COVID-19 pandemic [16, 19], and it is also observed that the anxiety and depression levels of individuals increased during the pandemic [16, 19-22]. Again, in a study conducted with 689 people living in different provinces of Turkey, it was observed that the average depression level of all participants included in the study was 14.05 and the depression level increased during the COVID-19 process [23]. The pandemic, which affects individuals at different levels, can also cause different mental consequences. The reason why the depression, anxiety and stress levels of individuals in this study were low may be explained by the fact that the research was not conducted in the first year when the pandemic started, and in the following process, individuals learned the methods to cope with the pandemic and followed the rules of society.

Among the patients included in the study, it is seen that depression, anxiety and stress levels of female and single patients and patients without children are higher. In a study, it was determined that the effects of the COVID-19 pandemic on the mental health of patients were particularly severe in women [24]. In another study conducted with individuals with COVID-19 disease, it was found that marital status and gender did not affect stress, anxiety and depression [6]. In another study, female gender was determined as a factor associated with high anxiety levels [25]. In a study, women's health anxiety during the pandemic was found to be significantly higher than men's [26]. In a study, it was revealed that there was a significant relationship between the number of family households and the increase in mean depression and anxiety scores [12]. In the same study, it was determined that gender did not affect the level of anxiety, it affected the level of depression, the number of people living in the family affected the level of anxiety and depression, and marital status did not affect the level of depression [12]. According to studies, the prevalence of depression, anxiety and stress is affected by demographic characteristics such as gender and urban living [27, 28]. In this study, the high number of female (71.8%), single (62.5%) and childless (78.1%) patients is thought to be effective on the results. In addition, the fact that singles and those without children receive inadequate support during the process of illness may also be effective in increasing the levels of depression, anxiety and stress.

In this study, it is seen that patients who smoke have higher levels of depression, anxiety and stress. Since COVID-19 disease affects the lungs, it is inevitable that patients who smoke have higher levels of depression, anxiety and stress.

Among the patients who participated in the study, those with chronic diseases were found to have higher levels of depression and anxiety. Similar to the finding of this study, it was determined that patients' other chronic disease status affected their anxiety and depression levels [12]. In a study, having a chronic disease was determined as a factor associated with high anxiety levels [25]. Having a chronic disease negatively affects the quality of life of individuals and causes more medication use. In addition to chronic disease, having COVID-19 disease is inevitable to have high levels of depression and anxiety in individuals.

It was found that there was a statistically significant difference between the mean scores of the Depression and Anxiety Scale sub-dimensions according to the time the patients had COVID-19 disease, but there was no significant difference between the mean scores of the stress sub-dimension. In a study, it was found that there was no statistically significant difference between the time elapsed since COVID-19 and the level of anxiety, depression and fatigue of individuals [29]. In another study, it was determined that there were significant differences in the mean scores of perceived stress and variable categories, such as the duration of the disease [18]. In this study, patients who had the disease within 2-5 months had higher levels of depression and anxiety than the other groups.

It was found that patients who knew who transmitted the disease and lost family members due to this disease had high levels of depression, anxiety and stress. The loss of a family member causes fear of death in the individual and this leads to high levels of depression, anxiety and stress.

Patients who did not receive inpatient treatment in the hospital had higher levels of depression and stress. Similar to the finding of this study, it was determined that the

patients' inpatient treatment status in the hospital or at home affected their anxiety and depression levels [12]. It is expected that patients receiving treatment at home will have high levels of depression and stress due to the possibility that their condition may worsen at any time due to the disease.

It was found that there was no statistically significant difference between the mean scores of the Depression Anxiety Stress Scale according to the age groups, education, and with whom the patients lived at home. Unlike the finding of this study, the prevalence of depression, anxiety and stress is affected by demographic characteristics such as age [27, 28]. Many studies have also found an increase in anxiety among older adults after the pandemic and a high rate of COVID-19 anxiety in the elderly [30-32]. In a study similar to the finding of this study, it was found that the difference between age and anxiety and depression was insignificant, but unlike the finding of this study, the difference between educational status and mean anxiety and depression scores was significant [12]. In another study, it was reported that stress affected educational status, and depression and anxiety affected educational status and age [6]. In another study, being 61 years of age or older was found to be associated with high anxiety levels [25]. Unlike the findings of this study, significant differences were found between the mean scores of perceived stress and variable categories such as family size, duration of the disease and age of the participants [18]. Since age, educational status and with whom the participants lived at home differed in the studies, it is thought that depression did not affect anxiety and stress in this study.

CONCLUSION

In this study, which determined the depression, anxiety and stress levels of individuals with COVID-19, it was determined that more than half of the patients were in the 18-35 age group, female, single and living with their parents. The majority of the patients stated that they have had COVID-19 for 6 months or more and have not been hospitalised. It was determined that the depression, anxiety and stress levels of the patients included in the study were low. Patients who were female, single, smoked, had no children, knew who transmitted the disease and lost family members due to this disease had higher levels of depression, anxiety and stress. It was found that the age groups, education, and with whom the patients lived at home did not affect their depression, anxiety and stress levels. In line with these results, it is important to continue awareness of COVID-19 disease, to continue the measures taken for the disease and to provide regular training. In addition, coping strategies are important predictors of mental health measures. Education about positive thinking, active coping, and social support may be useful to cope with the decline in mental health due to the COVID-19 pandemic.

AUTHORS' CONTRIBUTION

It is hereby acknowledged that all authors have accepted responsibility for the manuscript's content and consented to its submission. They have meticulously reviewed all results and unanimously approved the final version of the manuscript.

ABBREVIATION

(DASS-21) = Depression Anxiety Stress Scale

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

After obtaining approval from Erzincan Binali Yıldırım University Human Research Health and Sports Sciences Ethics Committee Turkey (31/12/2021 Protocol No: 10/06) to conduct the research, data collection forms were prepared.

HUMAN AND ANIMAL RIGHTS

All human research procedures followed were in accordance with the ethical standards of the committee responsible for human experimentation (institutional and national), and with the Helsinki Declaration of 1975, as revised in 2013.

CONSENT FOR PUBLICATION

Informed consent was obtained from the participants.

STANDARDS OF REPORTING

STROBE guidelines were followed.

AVAILABILITY OF DATA AND MATERIAL

All data generated or analyzed during this study are included in this published article.

FUNDING

None.

CONFLICT OF INTEREST

The author(s) declare no conflict of interest, financial or otherwise.

ACKNOWLEDGEMENTS

Declared none.

REFERENCES

[1] World Health Organization. WHO Coronavirus (COVID) Dash board 2023. 2023. Available from: https:// covid19.who.int/ [Cited 6 September 2023].

[2] Akhlaghifard M, Meraji N. Predicting corona anxiety based on emotional distress (depression, anxiety and stress) and spiritual health in nurses and aides. Rooyesh E Ravanshenası J 2021; 10(6): 161-70. Available from: https://sid.ir/paper/1028011/en

[3] Eghbali A, Vahedi H, Rezaei R, Fathi A. The effectiveness of mindfulness-based stress reduction training on depression, anxiety and stress in people at risk for COVID-19. J Health Care 2021; 22(4): 306-17. http://dx.doi.org/10.52547/jhc.22.4.306

[4] Mansueto G, Palmieri S, Marino C, *et al*. The Italian COVID-19 anxiety syndrome scale: Investigation of the COVID-19 anxiety syndrome and its association with psychological symptoms in an Italian population. Clin Psychol Psychother 2022; 29(6): 1972-90. http://dx.doi.org/10.1002/cpp.2767 PMID: 35771682

[5] Wilandika A, Nina Gartika N, Salami S. Social stigma against individuals with COVID-19: Scale development and validation.

Health Psychol Behav Med 2023; 11(1): 2155166.
http://dx.doi.org/10.1080/21642850.2022.2155166 PMID: 36606004

[6] Amiri Gooshki E, Mangolian Shahrbabaki P, Asadi N, Salmani M. Psychological consequences and the related factors among COVID-19 survivors in southeastern Iran. Health Sci Rep 2022; 5(5): e755.
http://dx.doi.org/10.1002/hsr2.755 PMID: 35957974

[7] Zhang J, Wu W, Zhao X, Zhang W. Recommended psychological crisis intervention response to the 2019 novel coronavirus pneumonia outbreak in China: A model of West China Hospital. Precis Clin Med 2020; 3(1): 3-8.
http://dx.doi.org/10.1093/pcmedi/pbaa006 PMID: 35960676

[8] Chan JFW, Yuan S, Kok KH, *et al*. A familial cluster of pneumonia associated with the 2019 novel coronavirus indicating person-to-person transmission: A study of a family cluster. Lancet 2020; 395(10223): 514-23.
http://dx.doi.org/10.1016/S0140-6736(20)30154-9 PMID: 31986261

[9] Javakhishvili JD, Arnberg F, Greenberg N. Dealing with the COVID-19 pandemic in Europe: Five lessons from the European Society for Traumatic Stress Studies. Eur J Psychotraumatol 2022; 13(1): 2046330.
http://dx.doi.org/10.1080/20008198.2022.2046330 PMID: 35558684

[10] Dugas MJ, Schwartz A, Francis K. Intolerance of uncertainty, worry, and depression. Cognit Ther Res 2004; 28(6): 835-42.
http://dx.doi.org/10.1007/s10608-004-0669-0

[11] Akbari M, Seydavi M, Zamani E, Nikčević AV, Spada MM. The Persian COVID-19 Anxiety Syndrome Scale (C-19ASS): Psychometric properties in a general community sample of Iranians. Clin Psychol Psychother 2022; 29(3): 906-21.
http://dx.doi.org/10.1002/cpp.2686 PMID: 34761473

[12] Sohrabivafa M, Sadeghi R, Riahi F, Rahimi Foroushani A, Shahbazi Sighaldeh S, Zarei J. Predictive factors of anxiety and depression in COVID-19 survivors: A cross-sectional study. Health Sci Rep 2023; 6(11): e1712.
http://dx.doi.org/10.1002/hsr2.1712 PMID: 38028689

[13] Lovibond PF, Lovibond SH. The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. Behav Res Ther 1995; 33(3): 335-43.
http://dx.doi.org/10.1016/0005-7967(94)00075-U PMID: 7726811

[14] Antony MM, Bieling PJ, Cox BJ, Enns MW, Swinson RP. Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. Psychol Assess 1998; 10(2): 176-81.
http://dx.doi.org/10.1037/1040-3590.10.2.176

[15] Yılmaz Ö, Boz H, Arslan A. The validity and reliability of depression stress and anxiety scale (DASS21) Turkish short form. Finans Ekonomi ve Sosyal Araştırmalar Dergisi 2017; 2(2): 78-91.

[16] Özdin S, Bayrak Özdin Ş. Levels and predictors of anxiety, depression and health anxiety during COVID-19 pandemic in Turkish society: The importance of gender. Int J Soc Psychiatry 2020; 66(5): 504-11.
http://dx.doi.org/10.1177/0020764020927051 PMID: 32380879

[17] Khademian F, Delavari S, Koohjani Z, Khademian Z. An investigation of depression, anxiety, and stress and its relating factors during COVID-19 pandemic in Iran. BMC Public Health 2021; 21(1): 275.
http://dx.doi.org/10.1186/s12889-021-10329-3 PMID: 33535992

[18] Girma A, Ayalew E, Mesafint G. Covid-19 pandemic-related stress and coping strategies among adults with chronic disease in Southwest Ethiopia. Neuropsychiatr Dis Treat 2021; 17: 1551-61.
http://dx.doi.org/10.2147/NDT.S308394 PMID: 34045857

[19] Cansel N, Ucuz İ, Arslan AK, *et al*. Prevalence and predictors of psychological response during immediate COVID-19 pandemic. Int J Clin Pract 2021; 75(5): e13996.
http://dx.doi.org/10.1111/ijcp.13996 PMID: 33404167

[20] Karahan Yılmaz S, Eskici G. Evaluation of emotional (depression) and behavioural (nutritional, physical activity and sleep) status of Turkish adults during the COVID-19 pandemic period. Public Health Nutr 2021; 24(5): 942-9.
http://dx.doi.org/10.1017/S136898002000498X PMID: 33292903

[21] Gencer N. Pandemi Sürecinde Bireylerin Koronavirüs (Kovid-19) Korkusu: Çorum Örneği. Uluslararası Sosyal Bilimler Akademi Dergisi 2020; 1(4): 1153-73.
http://dx.doi.org/10.47994/usbad.791577

[22] Meng H, Xu Y, Dai J, Zhang Y, Liu B, Yang H. Analyze the psychological impact of COVID-19 among the elderly population in China and make corresponding suggestions. Psychiatry Res 2020; 289: 112983.
http://dx.doi.org/10.1016/j.psychres.2020.112983 PMID: 32388175

[23] Hamzaoglu N, Rozant-Reisyan R, Kalfoglou S. The evaluation of depression levels and domestic violence during the COVID-19 pandemic. Soc Work Public Health 2023; 38(1): 47-57.
http://dx.doi.org/10.1080/19371918.2022.2095071 PMID: 35762089

[24] Koşunalp N, Kavurmaci M. Determination of anxiety, depression, avoidance and obsessions experienced by hemodialysis patients during the COVID-19. Ther Apher Dial 2023; 27(6): 1070-8.
http://dx.doi.org/10.1111/1744-9987.14031 PMID: 37386825

[25] Tokur Kesgin M, Hançer Tok H, Uzun LN, Pehlivan Ş. Comparison of anxiety levels of hospitalized COVID-19 patients, individuals under quarantine, and individuals in society. Perspect Psychiatr Care 2022; 58(1): 149-58.
http://dx.doi.org/10.1111/ppc.12857 PMID: 34018193

[26] Artan T, Cebeci F, Karaman M, Atak I. The relationship between Coronavirus (COVID-19) outbreak related perceptions and health anxiety. Soc Work Public Health 2022; 37(2): 135-45.
http://dx.doi.org/10.1080/19371918.2021.1986452 PMID: 34658292

[27] Robab BG, Zeynab K, Jalil B. Comparison of five big personality factors in depressive disorder patients and obsessive–compulsive disorders with normal individuals. Knowledge Res Appl Psychol 2013; 14(1): 110-7.

[28] Ebstrup JF, Eplov LF, Pisinger C, Jørgensen T. Association between the Five Factor personality traits and perceived stress: Is the effect mediated by general self-efficacy? Anxiety Stress Coping 2011; 24(4): 407-19.
http://dx.doi.org/10.1080/10615806.2010.540012 PMID: 21213153

[29] Çıbık M, Yılmaz K, Sert ÖA. COVID-19 geçiren ve geçirmeyen bireylerde anksiyete, depresyon ve yorgunluk düzeyi. *KAEÜ Sağl*. Bil Derg 2022; 6(1): 31-9.

[30] Korkut S. Research of the coronavirus anxiety, post-traumatic stress, generalized anxiety disorder, quality of life, and stress coping styles in COVID-19 survivors. Psychol Rep 2022; 125(6): 3069-83.
http://dx.doi.org/10.1177/00332941221129131 PMID: 36134735

[31] Kaya N, Bayındır F. Evaluation of the relationship between the geriatric anxiety and COVID-19 anxiety and fear levels in geriatric dental patients during the COVID-19 pandemic. Dent Med Probl 2023; 60(1): 5-11.
http://dx.doi.org/10.17219/dmp/157345 PMID: 36877485

[32] Firat M, Okanli A, Kanbay Y, Utkan M, Demir Gökmen B. The prevalence of pandemic anxiety, anxiety and depression during the COVID-19 pandemic in Turkey. Psychiatry Clin Psychopharmacol 2021; 31(2): 198-205.
http://dx.doi.org/10.5152/pcp.2021.21641 PMID: 38765224