



# The Relationship Between Fear of COVID-19, Fear of Death and Anxiety in the Accompanists of Patients Diagnosed with COVID-19

Ülkem Angın, Elif Karaahmet

University of Health Sciences Turkey, Prof. Dr. Cemil Taşcıoğlu City Hospital, Clinic of Psychiatry, İstanbul, Turkey

## Abstract

**Objective:** The coronavirus disease-2019 (COVID-19) outbreak emerged in China in December 2019 and has spread throughout the world, including Turkey. During the pandemic, both the fear of infection that could result in death and the action plans implemented had negative effects on the mental health of the people. The aim of this study was to evaluate the relationship between the fear of COVID-19, anxiety, and fear of death in the accompanists of patients diagnosed with COVID-19 who are receiving treatment in inpatient clinics.

**Methods:** Fifty six accompanists of hospitalized patients with a diagnosis of COVID-19 were included in the study. The Fear of COVID-19 scale, the Templer death anxiety scale ve the Hamilton anxiety rating scale was used as data collection tools in the study. IBM 21.0 software was used to analyze the data.

**Results:** Fifty six people included in the study were between the ages of 18-75 (mean age 41.07). Because of the study, it was found that the presence of anxiety increases the fear of COVID-19 by 6.5 units, the presence of fear of death increases the fear of COVID-19 by 5.2 units and the presence of both fears increases the fear of COVID-19 by 11.7 units.

**Conclusion:** Relatives of people diagnosed with COVID-19 become more vulnerable to the negative psychological effects of the pandemic due to the fear of losing their loved ones and having a higher risk of getting the disease than other people. The families of COVID-19 patients should also be evaluated when preparing mental health programs.

**Keywords:** Accompanists, anxiety, COVID-19, fear of death

## INTRODUCTION

Coronavirus outbreak first appeared in Wuhan, China's Hubei Region, in December 2019 (1), and spread rapidly in China and other countries (2). With globalization, the spread of pathological agents has become easier, resulting in the pandemics (3).

In Turkey, the first coronavirus disease-2019 (COVID-19) case was identified in March 2020, and after the first death was subsequently reported on March 17, 2020. In Turkey's pandemic plan, teams were formed to take the necessary measures and conduct the work. Starting from March 2020, working hours became more flexible, compulsory weekend curfews and curfews for citizens under the age of 20 and over the age of 65

were imposed, inter-city travel restrictions were implemented, and mass gatherings were prohibited. As of June 2020, with the normalization process, some of these prohibitions were lifted by taking certain measures (4).

Fear of infection is very common during a pandemic (5). On an individual level, it can trigger feelings of despair, sickness, and death. Fear is usually a primitive emotion and it occurs despite a real or perceived threat. Some physiological signs, such as increased heart rate, muscle tension, and accelerated respiration, prepare the body to find a solution despite danger. However, fear reveals changes in the cognitive system, such as distraction (6). Additionally, during infectious disease outbreaks, individuals can misinterpret health stimuli such as worsening



**Address for Correspondence:** Ülkem Angın, University of Health Sciences Turkey, Prof. Dr. Cemil Taşcıoğlu City Hospital, Clinic of Psychiatry, İstanbul, Turkey

**Phone:** +90 533 410 46 46 **E-mail:** drulkem@yahoo.com **ORCID ID:** orcid.org/0000-0003-0933-7331

**Cite this article as:** Angın Ü, Karaahmet E. The Relationship Between Fear of COVID-19, Fear of Death and Anxiety in the Accompanists of Patients Diagnosed with COVID-19. Eur Arch Med Res 2022;38(3):171-177

©Copyright 2022 by the University of Health Sciences Turkey, Prof. Dr. Cemil Taşcıoğlu City Hospital  
European Archives of Medical Research published by Galenos Publishing House.

**Received:** 23.01.2021

**Accepted:** 12.06.2021

mental health, bodily senses, and changes due to fear. People may misinterpret harmless bodily senses or changes as signs of infection, which could lead them to be redundantly anxious (7).

Nationwide measures and compulsory curfew implementation can lead to mass hysteria, anxiety, and stress accompanied by loss of control and feeling trapped. The necessity of separation from the family, the uncertainty of the progression of the disease, the insufficiency of basic necessities, financial loss, increased risk perception resulting from uncertain information, and inappropriate communication with the media in the early stages of the pandemic could enhance this situation (8-10). People were also worried that the health system would not be able to cope with the COVID-19 outbreak due to the lack of sufficient hospital beds and ventilators for the number of estimated COVID-19 cases increase during the outbreak (5).

Accompanists of COVID-19 patients were included in this study. These people have been in contact with the COVID-19 pathogen for a long time without protective measures. The relationship between death anxiety and fear of COVID-19 with anxiety was evaluated in these individuals. We believe that these variables will help the mental health follow-up studies of society during the pandemic.

## METHODS

This study was conducted between August 10 and September 10, 2020, using the quantitative research method, cross-sectional method. Accompanists of patients receiving treatment in inpatient clinics who were diagnosed with COVID-19 were included in the study.

People over the age of 18 who agreed to participate, who had sufficient cognitive ability to answer the questions and answered all the questions, and who were not diagnosed with COVID-19 or who tested negative/not yet received their test results were included in this study. Individuals who had been diagnosed with COVID-19 or who had recovered from COVID-19 were excluded.

Participants filled in the following forms prepared by us: Socio-demographic data form, the fear of COVID-19 scale (FCS), the Templer death anxiety scale (DAS), and the Hamilton anxiety rating scale (HAM-A).

### Socio-demographic Data Form

The form prepared by the researchers includes information such as age, gender, educational and marital status, occupation, income perception, the presence of a chronic disease, voluntary or compulsory quarantine period, number of people living in the house and the number of children.

### The Fear of COVID-19 Scale

It was developed by Ahorsu et al. (11) in 2020. It is a one-dimensional seven-item Likert-type scale. The highest score that can be obtained from the scale is 35 and a higher score indicates higher fear from COVID-19. The scale is correlated with perceived insecurity, hospital anxiety, and depression (11). Turkish validity and reliability study by Haktanir et al. (12). In this study, the Cronbach's alpha value was found as 0.86 (12).

### The Templer Death Anxiety Scale

It was developed by Templer in 1970. In a Turkish validity and reliability study were carried out by Şenol (13) in 1989. This scale measures anxiety and fears of the individual about death and the risk of death of oneself. It is a 15 item scale answered as true-false. The highest score that can be obtained from the scale is 15 and a higher score indicates higher death anxiety. It could be evaluated that people who have an average score of 7 or higher have more death anxiety (14). Şenol (13) applied a reliability study, which was conducted with the "Test-Retest" method, twice with an interval of 3 weeks. The correlation between both application scores was found 0.86 (14). Templer, following the same method in the reliability study, found the "Test-Retest" reliability as 0.83 (15).

### The Hamilton Anxiety Rating Scale

It was developed by Hamilton (16) in 1959. The Turkish validity and reliability study was conducted by Yazıcı et al. (17). It is one of the most frequently used scales to determine the levels of anxiety in studies on anxiety disorders. This was based on expert ratings (17). Regarding the evaluation of the scores obtained from the scale; 0-5 is considered no anxiety, 6-14 is considered minor anxiety, 15 and above is considered major anxiety. In this study, we considered 15 and above as anxiety (18). Yazıcı et al. (17) reported a mean correlation coefficient of 0.72 for individual items and 0.94 for a total score.

Approval of the Ministry of Health (approval code: T10\_51\_47) and University of Health Sciences Turkey, Prof. Dr. Cemil Tascioglu City Hospital Research Ethics Committee (approval code: 48670771-514.10) was obtained. Verbal and written consent was obtained from the participants by providing detailed information before completing the questionnaire forms.

### Statistical Analysis

In this study, to conduct statistical analysis, IBM 21.0 SPSS 21 software was use. to First, descriptive analysis was carried out to demonstrate the frequency distribution of socio-demographic variables. Also, chi-square test was performed to investigate the relationship of demographic variables to HAM-A and DAS.

Then, the normal distribution was checked to determine which comparison analysis will be used. It was determined that the use of parametric tests was suitable for this. Finally, multiple linear regression analysis was performed to measure the effect of variables on each other.

## RESULTS

The participants were 56 individuals between the ages of 18 and 75. The socio-demographic characteristics of the participants in this study appear in Table 1.

The socio-demographic distribution of the participants, chi-square analysis was performed to determine whether there was a relationship between these variables and HAM-A (Table 2). These variables statistically significantly predicted fear of COVID-19  $F(52): 3.955, p < 0.0001, R^2: 0.543$ . R square value showed that about 54% of the variance in fear of COVID-19 is explained by the eleven predictor variables. The  $\beta$  values indicated the relative impact of the variables, so, HAM-A had the greatest influence on fear of COVID-19 ( $\beta: 5.50, t(52): 2.91, p < 0.01$ ) and followed by DAS ( $\beta: 3.70, t(52): 2.15, p < 0.05$ ) (Table 3).

Also, chi-square analysis was performed to determine whether there was a relationship between these variables and DAS. Looking at the analysis result, it was seen that there was no relationship between DAS and socio-demographic variables since the p value is greater than the significance level ( $p = 0.05$ ) for all variables.

We examined independent sample t-test to reveal the difference between those the ages of 18-49 and those over the age of 50 according to the FCS. The results indicated that people who the ages of 18-49 ( $n=40, M: 17.62$ ) had significantly different total scores than those over the age of 50 ( $n=66, M: 13.37$ ),  $t(13.487): 2.10, (p=0.001)$ . In other words, people between the ages of 18-49 are more afraid of COVID-19 than people aged 50 and over.

Following the analysis of the differences for these socio-demographic variables, to reveal differences between individuals with and without DAS according to FCS, we carried out independent sample t-test. The results showed that people with DAS ( $n=31, M: 19.66$ ) had significantly different total scores than people who without it ( $n=25, M: 12.39$ ),  $t(5.77): -4.49, (p=0.000)$ . In other words, people with death anxiety are more afraid of COVID-19 than those without it.

Finally, we conducted independent sample t-test to demonstrate the difference between people who have HAM-A and those have not. The results indicated that people who have HAM-A score ( $n=14, M: 21.35$ ) had significantly different total scores than

Table 1. Socio-demographic characteristics of participants		
	Total sample: 56	
	Frequency (n)	Percent (%)
<b>Age</b>		
Mean (SD)	41.07 ( $\pm 12.78$ )	
Range	18-75	
Number of persons at home		
Mean (SD)	3.59 ( $\pm 1.24$ )	
Range	2-7	
<b>Number of children</b>		
Mean (SD)	1.5 ( $\pm 1.4$ )	
Range	0-5	
Maximum stay at home		
Mean (SD)	26.31 ( $\pm 25.58$ )	
Range	2-120	
<b>Gender</b>		
Male	24	42.9
Female	32	57.1
<b>Marital status</b>		
Married	34	60.7
Single	18	32.1
Separated	3	5.4
<b>Occupation status</b>		
Employed	29	51.8
Unemployed	27	48.2
<b>Income perception</b>		
Very bad	3	5.4
Bad	17	30.4
Middle	33	58.9
Good	3	5.4
<b>People who have COVID-19</b>		
Spouse	14	25
Child	6	10.7
Parents	25	44.6
Parents-in-law	3	5.4
Sibling	2	3.5
Caregiver	4	7.1
Grand parents	1	1.8
<b>Chronic disease</b>		
Heart disease	3	5.4
Respiratory disease	2	3.6
Hypertension	4	7.1
Diabetes mellitus	1	1.8
Hepatitis B	2	3.6
Endometrium cancer	1	1.8
None	43	76.8
<b>Education time</b>		
Mean (SD)	9.58 ( $\pm 5.24$ )	
COVID-19: Coronavirus disease-2019, SD: Standard deviation		

**Table 2. Relationship between socio-demographic variables and HAM-A**

Variables		Hamilton anxiety scale	
		No	Yes
Gender	Male	18 (42.9%)	6 (42.9%)
	Female	24 (57.1%)	8 (57.1%)
	p value	1.00	
Marital status	Married	27 (64.3%)	7 (50.0%)
	Single	12 (28.6%)	6 (42.9%)
	Separated	24.8%	1 (7.1%)
	p value	0.69	
Occupation status	Employed	19 (45.2%)	10 (71.4%)
	Unemployed	23 (54.8%)	4 (28.6%)
	p value	0.12	
Income perception	Very bad	2 (4.8%)	1 (7.1%)
	Bad	13 (31.0%)	4 (28.6%)
	Middle	25 (59.5%)	8 (57.1%)
	Good	2 (4.8%)	1 (7.1%)
	p value	0.96	
People who have COVID-19	Spouse	11 (26.8%)	3 (21.4%)
	Child	5 (12.2%)	1 (7.1%)
	Parents	17 (41.5%)	8 (57.1%)
	Parents-in-law	2 (4.9%)	1 (7.1%)
	Sibling	2 (4.9%)	0 (0%)
	Caregiver	4 (9.8%)	0 (0%)
	Grand parents	0 (0.0%)	7 (1%)
	p value	0.42	
Age	18-49	27 (64.3%)	13 (92.9%)
	+50	15 (35.7%)	1 (7.1%)
	p value	0.047*	
Number of person at home	≤4	30 (71.4%)	14 (100%)
	≥5	12 (28.6%)	0 (0%)
	p value	0.026*	
Number of children	≤2	28 (66.7%)	14 (100%)
	≥3	14 (33.3%)	0 (0%)
	p value	0.012*	
Maximum stay at home	≤60	37 (92.5%)	13 (92.9%)
	≥61	3 (7.5%)	1 (7.1%)
	p value	1.00	
Chronic disease	Yes	10 (23.8%)	3 (21.4%)
	No	32 (76.2%)	11 (78.6%)
	p value	1.00	
Education time	≤10	21 (51.2%)	20 (57.1%)
	≥11	8 (48.8%)	6 (42.9%)
	p value	0.76	

\*p<0.05 (p value significant), COVID-19: Coronavirus disease-2019, HAM-A: Hamilton anxiety rating scale

people who did not (n=42, M: 14.76), t(0.017): -3.44, (p=0.000) (Table 4).

In of these analyses, we conducted correlation analysis to evaluate the relationships between HAM-A, DAS, and FCS. According to correlation analysis, while there was no significant relation between HAM-A and DAS, there was a positive and significant relation between FCS and HAM-A (r=0.410, p<0.01), also there was a positive and significant relation between FCS and HAM-A (r=0.522, p<0.01).

Multiple regression was carried out to predict fear of COVID-19 from HAM-A and DAS. These variables statistically significantly predicted fear of COVID-19 F(55): 15.785, p<0.0001, R2: 0.350. R square value showed that about 35% of the variance in fear of COVID-19 is explained by the two predictor variables. The β values indicated the relative impact of the variables, so, HAM-A had the greatest influence on fear of COVID-19 (β: 6.47, t(55): 4.15, p<0.001) and followed by DAS (β: 5.20, t(55): 2.92, p<0.01). In other words, whether an individual has the HAM-A is the highest contributing (6.48) predictor to explain the fear of COVID-19, and the next is whether an individual has the death anxiety cut-off score (5.20). The direction of influence for the two is positive (Table 5).

In addition to the explanation above, having the HAM-A increases the fear of COVID-19 by approximately 6.5 units, and having the DAS increases the fear of COVID-19 by 5.2 units.

## DISCUSSION

Studies conducted worldwide have clearly revealed that facing an unexpected threat has negative psychological effects on individuals. Many different variables affect people’s mental health. Socio-demographic variables are one of these conditions. In our study, we found that some socio-demographic variables were associated with fear of coronavirus, anxiety, and fear of death.

We found that the anxiety levels were higher in individuals under the age of 50 compared with individuals over the age of 50. Similarly, in a study conducted with many participants online in China, mental health symptoms were reported to be more common under the age of 40. In that study, in the younger group, the presence of symptoms was explained with the use of social media and wider access to misleading information on the Internet. The importance of obtaining the right information during the pandemic process has been emphasized (19). In another article, it was stated that negative information about infection increases the perception of personal risk and causes

**Table 3. Comparing to socio-demographic variables, HAM-A, DAS according to FCS**

Variables	$\beta$	SE	t	p
(Constant)	13.085	9.069	1.443	0.157
HAM-A	5.504	1.885	2.919	0.006**
DAS	3.769	1.748	2.156	0.037*
Age	-0.045	0.080	-0.560	0.579
Gender	4.019	1.855	2.166	0.036*
Educational status	-0.354	0.178	-1.987	0.054
Occupation	-0.994	1.852	-0.537	0.594
Marital status	-2.907	1.708	-1.702	0.097
The number of children	0.189	0.783	0.242	0.810
Number of people living in the house	0.338	0.687	0.493	0.625
Income perception	1.561	1.328	1.176	0.247
Voluntary/compulsory quarantine period	-0.079	0.035	-2.225	0.032*
Presence of a chronic disease	0.474	2.302	0.206	0.838
R <sup>2</sup> : 0.543; F: 3.955; p<0.001				
*p<0.05, **p<0.01. Dependent variable: FCS, independent variable: DAS, HAM-A, socio-demographic variables. HAM-A: Hamilton anxiety rating scale, DAS: Death anxiety scale, FCS: Fear of COVID-19 scale, SE: Standard error of mean				

**Table 4. Comparing to ages, maximum stay at home, chronic disease, DAS, HAM-A according to FCS**

Groups	n	Mean	SD	t	p
Those between the ages of 18-49	40	17.62	7.62	2.105	0.001*
Those over the age of 50	16	13.37	4.08		
Those stay home for up to 60 days	50	16.64	7.06	0.239	0.491
Those stay at home for more than 60 days	4	15.75	8.46		
Chronic disease yes	13	17.76	7.24	0.792	0.546
Chronic disease no	43	16.00	7.00		
DAS high	31	19.667	6.92	-4.49	0.000*
DAS low	25	12.360	4.75		
HAM-A high	14	21.35	6.59	-3.443	0.002*
HAM-A low	42	14.76	6.97		
*p<0.05 (p value significant), DAS: Death anxiety scale, HAM-A: Hamilton anxiety rating scale, FCS: Fear of COVID-19 scale					

**Table 5. Predictor of FCS**

Variables	$\beta$	SE	t	p
(Constant)	11.527	1.170	9.853	0.000***
DAS	5.209	1.782	2.923	0.005**
HAM-A	6.471	1.552	4.169	0.000***
R <sup>2</sup> : 0.350, F: 15.785, p<0.001				
**p<0.01, ***p<0.001. Dependent variable: FCS, independent variable: DAS, HAM-A. FCS: Fear of COVID-19 scale, DAS: Death anxiety scale, HAM-A: Hamilton anxiety rating scale, SE: Standard error of mean				

nervousness or fear (20). In another study in Spain, it was stated that young people between the ages of 18-25 had more anxiety, and the importance of adding programs to reduce stress symptoms in education programs was mentioned (21).

We found that although the increase in the level of anxiety was more evident in younger people, fear of COVID was higher in adults over the age of 50. It has been reported in the literature that older age groups are at higher risk in terms of depression and anxiety due to reasons including quarantine enforcement and the presence of additional diseases (22). The reason for the increased fear of COVID in older people may be the selected population composed of accompanists. In general information about the disease, the fact that the disease prognosis is worse in the older population compared to the younger population may appear as a fear of coronavirus more specifically in this age group. In our study, we could not find a relationship between age and the duration of the quarantine. However, we found a relationship between the duration of quarantine and the fear of COVID. This situation might be explained by the voluntary quarantine practices of people with fear of COVID.

In our study, we could not find a difference between genders there was in the study conducted in Spain (21). Differently, a large-scale study in China reported higher mental health symptoms in men (19). Studies have defined male gender as a poor prognostic factor in terms of the course of infection (23). The difference in results could be due to the selection of different sample groups and to some sample groups not having information about the virus.

In numerous studies, it has been reported that quarantine practices have negative effects on mental health. This situation has been attributed to fear of infection, reduced flow of information, and insufficient access to main resources. Interestingly, we could not find a difference in terms of the quarantine period and the fear of COVID-19. It was thought that this situation may be related to the period of the study (the summer period, during the normalization process, in which there was a perception that the infection was partially under control), as well as the state policy to provide basic necessities during the quarantine period.

Interestingly, while we could not find a relationship with the quarantine period, we found higher anxiety levels in participants with fewer children and live with fewer people. This situation might be related to social isolation. Crowded families who live in the same house may be changing their focus due to both social support and the presence of other people they should take care of.

In our study, we found a relationship between fear of COVID-19 and anxiety, and fear of COVID-19 and fear of death. Additionally, we found that if an individual has anxiety, it increases the fear of COVID-19 by 6.5 units, the fear of death by 5.2 units, and if an individual has both anxiety and fear of death, it increases the fear of COVID-19 by 11.7 units. Studies have reported that the family members and friends of COVID-19 patients are prone to mental health disorders, and 50% of their family members have mild to severe mental health symptoms (19). It has also been noted that a traumatic event experienced by a loved one plays a triggering role in mental health disorders (24,25). Furthermore, relatives of patients with COVID may also have a fear of being infected, quarantined, or stigmatized. All these situations can exacerbate mental health problems (10,26). Supporting this argument, Tsang et al. (20) stated that approximately 50% of the family members of the infected person had psychological problems. They also emphasized that this situation is related to feelings of stigmatization (20).

Because to the prevalence of the infection, all resources are allocated to the treatment of the disease, or the studies have focused more on the public and healthcare professionals. However, relatives of those diagnosed with COVID-19 face both the fear of losing their loved ones and the risk of getting the disease themselves. Therefore, they become more vulnerable to the negative psychological effects of the pandemic than other people. COVID-19 patients and their families should also be evaluated in terms of social and psychological aspects. Early strategies are required to prevent and treat the psychological effects of the COVID-19 outbreak. As it was stated in several studies, there is a need for planning for the prevention and

treatment of mental health problems caused by the pandemic (27). Accordingly, many studies conducted in different sample groups will be required.

### Study Limitations

Our study has limitations, such as the small sample size and the use of this sampling regression analysis.

## CONCLUSION

The presence of contamination risk in filling the scales by meeting face to face with the participants limited reaching more participants. There is a need for numerous studies on the near-term and long-term effects of pandemics on mental health.

### Ethics

**Ethics Committee Approval:** Approval of the Ministry of Health (approval code: T10\_51\_47) and University of Health Sciences Turkey, Prof. Dr. Cemil Tascioglu City Hospital Research Ethics Committee (approval code: 48670771-514.10) was obtained.

**Informed Consent:** Verbal and written consent was obtained from the participants by providing detailed information before completing the questionnaire forms.

**Peer-review:** Externally peer-reviewed.

### Authorship Contributions

Concept: Ü.A., Design: E.K., Data Collection or Processing: Ü.A., E.K., Analysis or Interpretation: Ü.A., Literature Search: Ü.A., E.K., Writing: Ü.A.

**Conflict of Interest:** No conflict of interest was declared by the authors.

**Financial Disclosure:** The authors declared that this study received no financial support.

## REFERENCES

1. Chen Q, Liang M, Li Y, Guo J, Fei D, Wang L, et al. Mental health care for medical staff in China during the COVID-19 outbreak. *Lancet Psychiatry* 2020;7:e15-6. Erratum in: *Lancet Psychiatry* 2020;7:e27.
2. Shigemura J, Ursano RJ, Morganstein JC, Kurosawa M, Benedek DM. Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: mental health consequences and target populations. *Psychiatry Clin Neurosci* 2020;74:281-2.
3. Ornell F, Schuch JB, Sordi AO, Kessler FHP. "Pandemic fear" and COVID-19: mental health burden and strategies. *Braz J Psychiatry* 2020;42:232-5. Erratum in: *Braz J Psychiatry* 2020;42:333.
4. Republic of Turkey Ministry. COVID-19 information page. Accessed date: 09.15.2020. Available from: [https://covid19.saglik.gov.tr/?\\_Dil=2](https://covid19.saglik.gov.tr/?_Dil=2)
5. Choi EPH, Hui BPH, Wan EYF. Depression and anxiety in Hong Kong during COVID-19. *Int J Environ Res Public Health* 2020;17:3740.

6. Bakioğlu F, Korkmaz O, Ercan H. Fear of COVID-19 and positivity: mediating role of intolerance of uncertainty, depression, anxiety, and stress. *Int J Ment Health Addict* 2021;19:2369-82.
7. Dutheil F, Mondillon L, Navel V. PTSD as the second tsunami of the SARS-CoV-2 pandemic. *Psychol Med* 2021;51:1773-4.
8. Maunder R, Hunter J, Vincent L, Bennett J, Peladeau N, Leszcz M, et al. The immediate psychological and occupational impact of the 2003 SARS outbreak in a teaching hospital. *CMAJ* 2003;168:1245-51.
9. Hawryluck L, Gold WL, Robinson S, Pogorski S, Galea S, Styr R. SARS control and psychological effects of quarantine, Toronto, Canada. *Emerg Infect Dis* 2004;10:1206-12.
10. Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet* 2020;395:912-20.
11. Ahorsu DK, Lin CY, Imani V, Saffari M, Griffiths MD, Pakpour AH. The fear of COVID-19 scale: development and initial validation. *Int J Ment Health Addict* 2022;20:1537-45.
12. Haktanir A, Seki T, Dilmaç B. Adaptation and evaluation of Turkish version of the fear of COVID-19 scale. *Death Stud* 2022;46:719-27.
13. Şenol C. Ankara ilinde kurumlarda yaşayan yaşlılarda ölüme ilişkin kaygı ve korkular. Thesis: Ankara University Institute of Social Sciences, Ankara. 1989.
14. Akça F, Köse A. Adaptation of Death Anxiety Scale (DAS): Validity and Reliability Studies. *Klinik Psikiyatri*. 2008;11:7-16.
15. Templer DI. The construction and validation of a death anxiety scale. *J Gen Psychol* 1970;82:165-77.
16. Hamilton M. The assessment of anxiety states by rating. *Br J Med Psychol* 1959;32:50-5.
17. Yazıcı MK, Demir B, Tanrıverdi N, Karaağaoğlu E, Yolaç P. Hamilton anxiety rating scale: interrater reliability and validity study. *Türk Psikiyatri Derg* 1998;9:114-7.
18. Bilişsel Davranışçı Terapiler Derneği. BDT Ölçekler. Accessed date: 15.11.2020. Available from: [https://www.bilisseldavranisci.com/uploads/hamilton\\_anksiyete\\_has\\_a.pdf](https://www.bilisseldavranisci.com/uploads/hamilton_anksiyete_has_a.pdf)
19. Shi L, Lu ZA, Que JY, Huang XL, Liu L, Ran MS, et al. Prevalence of and risk factors associated with mental health symptoms among the general population in China during the coronavirus disease 2019 pandemic. *JAMA Netw Open* 2020;3:e2014053.
20. Tsang HW, Scudds RJ, Chan EY. Psychosocial impact of SARS. *Emerg Infect Dis* 2004;10:1326-7.
21. Ozamiz-Etxebarria N, Dosil-Santamaria M, Picaza-Gorrochategui M, Idoiaga-Mondragon N. Stress, anxiety, and depression levels in the initial stage of the COVID-19 outbreak in a population sample in the northern Spain. *Cad Saude Publica* 2020;36:e00054020.
22. Hamm ME, Brown PJ, Karp JF, Lenard E, Cameron F, Dawdani A, et al. Experiences of American older adults with pre-existing depression during the beginnings of the COVID-19 pandemic: a multicity, mixed-methods study. *Am J Geriatr Psychiatry* 2020;28:924-32.
23. Li X, Xu S, Yu M, Wang K, Tao Y, Zhou Y, et al. Risk factors for severity and mortality in adult COVID-19 inpatients in Wuhan. *J Allergy Clin Immunol* 2020;146:110-8.
24. Bromet EJ, Atwoli L, Kawakami N, Navarro-Mateu F, Piotrowski P, King AJ, et al. Post-traumatic stress disorder associated with natural and human-made disasters in the World Mental Health Surveys. *Psychol Med* 2017;47:227-41.
25. Tang B, Liu X, Liu Y, Xue C, Zhang L. A meta-analysis of risk factors for depression in adults and children after natural disasters. *BMC Public Health* 2014;14:623.
26. Person B, Sy F, Holton K, Govert B, Liang A; National Center for Infectious Diseases/SARS Community Outreach Team. Fear and stigma: the epidemic within the SARS outbreak. *Emerg Infect Dis* 2004;10:358-63.
27. Li Z, Ge J, Yang M, Feng J, Qiao M, Jiang R, et al. Vicarious traumatization in the general public, members, and non-members of medical teams aiding in COVID-19 control. *Brain Behav Immun* 2020;88:916-9.