ORIGINAL RESEARCH

DOI: 10.4274/ejgg.galenos.2023.2023-3-5
Eur J Geriatr Gerontol 2023;5(3):212-217

Are Fear of COVID-19, Anxiety of Death, and Fear of Death Different Among Medical Ilnesses in the Elderly?

Bahadır Demir[1], Handan Demirbaş Kurtoğlu[1], Zeynel Abidin Öztürk[2]

[1]Gaziantep University Faculty of Medicine, Department of Psychiatry, Gaziantep, Turkey
[2]Gaziantep University Faculty of Medicine, Department of Internal Medicine, Division of Geriatric, Gaziantep, Turkey

Abstract

Objective: In this study, we aimed to investigate the relationship between older patients with various illnesses' anxiety and Coronavirus disease-2019 (COVID-19) fear of death.

Materials and Methods: An elderly population made up the study participants who applied to the Gaziantep University Faculty of Medicine, Department of Geriatrics Outpatient in order between 01.02.2022 and 01.05.2022, had at least one disease, and were under treatment. The socio-demographic data form and the COVID-19 fear scale, the death anxiety scale, and the fear of death scale were administered to all patients. SPSS for Windows 22 (Statistical Package for Social Sciences for Windows 22) was used in the calculations.

Results: Two hundred and fifty patients who met the inclusion requirements received examination with a variety of tools. Two hundred and thirty four patients who completely filled out the forms were used in the analysis. The mean age of the patients was 70.51±6.11 years, 114 (48.7%) were male, and 120 were female (51.3%). COVID-19 fear scale and fear of death scale were statistically significantly higher in women (p=0.037, p=0.010, respectively). Cardiovascular, respiratory, gastrointestinal, neurological, musculoskeletal, genito-urinary, and multisystem-related diseases were diagnosed in the participants. The groups' differences on the death anxiety scale were statistically significant (F: 2.805, p=0.012) as a consequence of the comparison of the groups.

Conclusion: This was the first study to group the diseases in the elderly according to the systems and compared with the fear of COVID-19, anxiety of death, and fear of death. To generalize the results, prospective controlled research with bigger samples is required.

Keywords: Elderly, geriatric patient, COVID-19, fear, anxiety

Introduction

According to predictions, contagious new epidemics will rank among the most significant public health issues of the twenty-first century because of factors including increasing travel opportunities brought on by globalization, human-animal interaction, socio-economic anomalies, and climate change (1). As a matter of fact, severe acute respiratory failure in 2003, H1N1 virus (influenza) in 2009, Middle East respiratory syndrome in the Middle East in 2012, and Ebola epidemic in West Africa in 2014 reinforced these thoughts. Finally, it was reported on 31 December 2019 that an undiscovered coronavirus was encountered in China as a result of the examination of a group of viral pneumonia patients whose etiology is not fully known, and on March 11, 2020, the World Health Organization declared it a Coronavirus disease-2019 (COVID-19) Outbreak. It has been included in the pandemic category (2).

The fact that COVID-19 resulted in a significant number of fatalities worldwide in a short period of time, and the lack of knowledge of scientists and health authorities about the transmission routes of the illnesses and their therapies, has strengthened the sense of uncertainty about the disease in people. In addition, epidemics can be characterized as a crisis or disaster because their nature changes daily life, requires measures that disrupt it, and rapidly increases the number of people who need medical treatment (3,4).

Address for Correspondence: Bahadır Demir, Gaziantep University Faculty of Medicine, Department of Psychiatry, Gaziantep, Turkey
E-mail: bahadirdemir23@gmail.com **ORCID:** orcid.org/0000-0003-2798-6255
Received: 21.03.2023 **Accepted:** 19.05.2023

Cite this article as: Demir B, Demirbaş Kurtoğlu H, Öztürk ZA. Are Fear of COVID-19, Anxiety of Death, and Fear of Death Different Among Medical Ilnesses in the Elderly?. Eur J Geriatr Gerontol 2023;5(3):212-217

These psychological effects have deepened in certain age groups in society due to both the direct disease and the precautions taken. High morbidity and mortality rates due to COVID-19 observed among adults (elderly) over the age of 65 have been widely discussed both in the media and in social media, and many governments around the world have emphasized age in their statements and measures.

With its direct and indirect effects, COVID-19 has increased the levels of fear and anxiety in society (5,6). Studies have found that the most common neuropsychiatric symptoms, especially during the lockdown, are depression, anxiety, agitation, irritability, and apathy (7). Systematic reviews have shown that COVID-19 exerts varying degrees of mental health effects among different populations (8,9). The elderly and the young are two notable groups. Due to physiological and biochemical changes in their organs and systems with age, as well as an underlying chronic illness or disease, older persons are more likely to get the virus and may also experience worse outcomes, such as death. A major worry is how to handle depression, suicide risk, and feelings of neglect in vulnerable subpopulations including the elderly (10). Among the elderly population, it was emphasized that there is a growing concern with the intensification of cases and deaths related to COVID-19 among those staying in nursing homes (11).

The psychological effects of COVID-19 were compared to the prevalence of certain diseases in the older population (7,12,13). Nevertheless, a comparative analysis of the association between the existence of disease affects several systems and COVID-19 fear and anxiety has not been done. In this study, it we aimed to elucidate the relationship between the fear of COVID-19 and fear of death and anxiety in the elderly with other diseases. Identifying differing groups will facilitate the intensification of psychological approaches.

Materials and Methods

The participants in the research were aged individuals over 65 years who resided in Turkey, had at least one systemic illness, and were receiving therapy for it. The scales were administered to 250 people who applied to the Gaziantep University Faculty of Medicine, Department of Geriatrics Outpatient between February 1, 2022, and May 1, 2022 and who satisfied the inclusion and exclusion criteria. The study was conducted with 234 people who filled out the applied forms completely. At the beginning of the study, approval was obtained from the Gaziantep University Clinical Research Ethics Committee (ethics committee decision no: 2021/398). All procedures were carried out in line with the ethical requirements of the relevant committee on human experimentation (institutional and national) as well as the Helsinki Declaration of 1975, as amended in 2008. Informed consent has been obtained from all participants.

Inclusion Criteria

Being 65 years of age or older, having an illness that had been definitely identified before the pandemic, and willingly agreeing to be a participant.

Exclusion Criteria

Patients who were not diagnosed before the pandemic, those with a confirmed psychiatric disorder, and under the age of 65.

Socio-demographic data form is a semi-structured form prepared by the authors by reviewing the literature and considering clinical experience. All participants' ages, gender, marital status, education level, place of residence, presence of disease and related system, whether they were infected with COVID-19, and whether they had been vaccinated or not were recorded.

The Fear of COVID-19 scale (FCS) was created by Ahorsu et al. (14) to gauge COVID-19-related anxiety and fear states. The FCS is a single-factor, seven-item scale. Satici et al. (15) accomplished the scale conversion to Turkish. The adapted scale's Cronbach's alpha coefficient was reported to be 0.87.

The death anxiety scale developed by templer to determine the level of death anxiety consists of a total of 15 questions (16). Scale questions are answered as true/false. It was adapted into Turkish by Ertufan (17), taking some studies in the literature as an example, and it was converted into a seven-point Likert type scale with the belief that a more reliable measurement would be achieved.

Lester and Abdel-Khalek (18) suggested that the fear of death is different from the fear of dying, and it would be more useful to measure these separately for oneself and others. The scale consisted of 4 subgroups, each questioning a different fear of death. One's own death, one's own dying, others' death, others' dying (18). Just the "self-death" portion of these subscales was included in this study because Ertufan's Turkish validity and reliability study only covered that portion (17).

Statistics

SPSS for Windows 22 (Statistical Package for Social Sciences for Windows 22) was utilized for calculations. Numerical data was shown as mean and standard deviation, while categorical data was shown as numbers and percentages. Categorical data were compared using the chi-square test. The parameters' normal distribution was checked using the Kolmogorov-Smirnov test. The independent t-test was employed to compare variables that had a normally distributed distribution between the two groups. Linear association between the variables was examined by Pearson Correlation analysis.

One-Way ANOVA (F-test) test was used to compare the variables with normal distribution in three or more independent groups.

The multiple comparisons Tukey and Sheffe test (post-hoc test) was used to reveal which group the difference originated from and to determine the groups with different means from each other. In all analyses, a value of $p<0.05$ was regarded as statistically significant.

Results

The mean age of the participants included in the study was 70.51±6.11 years. When the participants' socio-demographic and clinical traits were looked at, 114 were men, 120 of whom were women. There were 101 (43.2%) with high school or higher education level, and 133 (46.8%) below high school. The marital status of the participants was mostly (66.7%) married and 90.6% of them lived in their own houses. Considering their clinical features, 54 (23.1%) had COVID-19, and 130 (55.6%) had experienced the death of a relative/friend due to COVID-19. It was observed that 91.5% (n=210) of the participants had had the COVID-19 vaccine. Socio-demographic and clinical features are elaborated in Table 1.

Table 1. Socio-demographic and clinical characteristics of the participants

	Mean ± SD
Age	70.51±6.11
	n (%)
Gender	
Female	120 (51.3%)
Male	114 (48.7%)
Marrital status	
Married	147 (62.8%)
Widow	59 (25.2%)
Divorced	7 (3%)
Single	21 (9%)
Residence	
Own house	212 (90.6%)
Caregivers house	18 (7.7%)
Nursing home	2 (0.9%)
Care center	2 (0.9%)
Educational status	
Illiterate	41 (17.5%)
Literate	43 (18.4%)
Primary school	49 (20.9%)
High school	33 (14.1%)
University	68 (29.1%)
The system to which the medical illness relates	41 (17.5%)
Cardiovascular	31 (13.2%)
Respiratory	31 (13.2%)
Gastrointestinal	32 (13.7%)
Neurological	30 (12.8%)
Musculoskeletal	32 (13.7%)
Genito-urinary	37 (15.8%)
Multiple systems	
COVID-19 infection	
Yes	54 (23.1%)
No	180 (76.9%)
COVID-19 vaccination	
Yes	214 (91.5%)
No	20 (8.5%)
Death of a relative/friend due to COVID-19	130 (55.6%)
Yes	104 (44.4%)
No	

SD: Standard deviation, COVID-19: Coronavirus disease-2019

Considering the mean scores of the scale scores applied in the study, the COVID-19 FCS was 18.48±6.74, the death anxiety scale was 67.44±13.37, while the fear of death scale was 13.73±3.15 in the sample. When the relationship between age and scale scores was examined, only a low level of positive correlation was found between age and death anxiety scale ($r=0.158$, $p=0.016$). When the scales were compared in terms of gender in the participants, the COVID-19 FCS ($p=0.037$) and the fear of death scale ($p=0.010$) were statistically significantly higher in women. When the scales were compared in terms of marital status, no statistically significant difference was found ($p=0.290$ for the COVID-19 FCS, $p=0.862$ for the fear of death scale, $p=0.422$ for the death anxiety scale). There was no statistically significant difference when the scale scores were compared in terms of COVID-19 transmission status, presence of relative/friend death due to COVID-19, and COVID-19 vaccine status ($p>0.05$ for all). Scale scores and comparisons are denoted in Table 2.

According to the systems that concern the diseases of the study population, scale scores were compared by dividing them into "cardiovascular, respiratory, gastrointestinal, neurological, musculoskeletal, genito-urinary and multisystem-related"

Table 2. Comparison of scale scores and clinical features

	COVID-19 fear scale	Death anxiety scale	Fear of death scale
Gender			
Male	17.54±6.64	65.90±12.46	13.19±2.89
Female	19.38±6.74	68.91±14.08	14.25±3.31
p-value	**0.037**	0.86	**0.010**
COVID-19 infection			
Yes	19.48±6.76	67.14±14.23	14.05±3.67
No	18.17±6.72	67.53±13.14	13.63±2.97
p-value	0.213	0.853	0.395
Death of a relative/ friend due to COVID-19			
Yes	18.77±6.67	67.81±13.77	13.90±3.19
No	18.11±6.84	66.98±12.91	13.52±3.09
p-value	0.450	0.636	0.372
COVID-19 vaccination			
Yes	18.74±6.67	67.14±13.21	13.76±3.14
No	15.60±6.98	70.65±14.98	13.45±3.3
p-value	0.066	0.263	0.673

COVID-19: Coronavirus disease-2019

groups. As a result of the comparison of the groups, there was a statistically significant difference between the groups in the death anxiety scale (F: 2.805, p=0.012). COVID-19 FCS and fear of death scale did not differ between disease groups (F: 1.528 p=0.170, F: 0.652 p=0.689, respectively).

In the ANOVA test, it was observed that there was no difference in the Tukey and Scheffe multiple comparison tests performed to determine between which groups the difference observed in the death anxiety scale was. The comparison of the applied scales between the groups is indicated in Table 3.

Discussion

This research evaluated fear of COVID-19, fear of death, and death anxiety in the elderly. The relationship between the fear of COVID-19 and the fear and anxiety of death was examined and compared according to the medical diseases of the people.

The emergence of the COVID-19 pandemic, the excess of obscurity, and the influence of the media and social media have created psychological effects on all segments of society. The COVID-19 pandemic has turned into a global trauma that significantly affects the social and economic order, questions values, and is dominated by uncertainty and fear. Over the pandemic era, all of the psychological responses anticipated following trauma were gradually seen (19). It has been stated that the elderly have a high risk of mortality and morbidity related to this virus, and taking special precautions for this group of society (such as the curfew over the age of 65) has increased these psychological effects in individuals over the age of 65. One of the important psychosocial problems of old age is the fear and anxiety of death. Although there are studies showing that death anxiety and fear increase with age, there are also studies showing that there is no relationship (20). Our findings supported the relationship between death anxiety and age. It has also been shown that death anxiety and fear are associated with variables such as gender, health status, and religiosity. In our study, fear of COVID-19 and fear of death scale scores were found to be higher in the female gender. This finding is consistent with many studies in the literature (20-22). However, previous research found no appreciable variations in death anxiety between men and women (23).

Another demographic factor that may affect death anxiety is living conditions. A person who lives with his or her family may receive support and assistance in managing problems from the family. A comparison of the participants of our study in this respect could not be made due to the lack of a sufficient number of place groups. The scales were compared according to the clinical characteristics of the elderly, such as having COVID-19, being vaccinated, and loss of relatives/friends due to COVID-19, but no significant difference was found. The abundance of speculative information regarding the technology, efficacy, and side effects of COVID-19 vaccines has influenced the belief in vaccine willingness and protection (24).

In support of these comments, in our study, fear of COVID-19, fear of death, and anxiety did not differ between those who had and did not have the COVID-19 vaccine. The other finding in our study is that there is no difference between the scale scores according to the situation of having COVID-19 and loss of relatives/friends. News about the effects of the epidemic can be as effective as learning by experience or socially. This finding shows how the impact of pandemics can change over time with the influence of social media and the press. Studies showing that psychological effects occur in healthcare workers in many hospitals before COVID-19-positive patients were detected also support our finding (25).

Another important finding of our study was that it compared the COVID-19 fear, death anxiety, and fear of death scales among the medical systems related to the disease. Studies that assessed various patient groups may be found in the literature. However, as far as we know, this study was the first to group and compare the systems to which the diseases belong. In a study investigating the psychiatric symptoms caused by COVID-19 in elderly Parkinson's patients, 82.6% of the participants had depression and 52.2% had insomnia (12).

A study was conducted to investigate the frequency of psychiatric diagnosis with the effect of COVID-19 in patients

Table 3. Comparison of scales according to systems related to medical diseases

	Cardiovascular	Respiratory	Gastrointestinal	Neurologic	Muscle & skeleton	Genito-urinary	More than once	p-value
COVID-19 fear scale	18.02±6.53	18.96±7.92	20±6.46	16.56±5.45	18.13±6.90	17.09±6.52	20.43±6.90	0.170
Death anxiety scale	68.21±13.51	70.77±14.34	70.45±12.68	61.59±13.03	66.93±13.60	62.75±11.38	70.81±12.72	**0.012**
Fear of death scale	13.58±3.10	13.83±3.48	14±3.41	13.84±3.07	13.43±2.89	13±3.22	14.37±2.95	0.689

COVID-19: Coronavirus disease-2019

with type-2 diabetes. The incidence rates of newly diagnosed depressive disorders in people with type 2 diabetes decreased somewhat over the research period, but the incidence rates of anxiety and stress disorders remained mostly stable (13). In another study, the death anxiety scale and death depression scale scores of the elderly with chronic diseases were found to be higher without evaluating the diseases one by one (22). When the cause of death statistics in the elderly population is examined, it is seen that the most common cause of death is chronic diseases with 78.7% in Turkey and 86% in developed countries (26).

However, in some studies conducted with the elderly, it has been suggested that the chronic health problems of the elderly do not affect death anxiety and fear of death (27,28). In our study, the scores of the COVID-19 FCS, the fear of death scale, and the death anxiety scale did not show statistically significant differences between the systems related to the diseases in the elderly. It is known that the risk of severe disease and mortality from COVID-19 is high mainly in adults with advanced age or underlying medical comorbidities. It is said that among these comorbidities, respiratory system, cardiovascular, and immune system deficits including chronic obstructive pulmonary disease, obesity, and diabetes may create a more severe clinical condition in elderly patients (29).

There is evidence that common comorbid diseases have greater death rates in COVID-19 patients (30). Recent research has indicated that older people have more health worry when they have a chronic illness (31). As all of the individuals in our research had at least one systemic ailment, it's possible that these patients had significant levels of health anxiety. As a result, there was no difference in COVID-19 fear, death anxiety, or fear of death across the groups.

Study Limitations

One of the limitations of our study was the absence of an evaluation for the measuring of health anxiety. Another drawback might be the lack of a control group made up of people over the age of 65 who do not have a medical ailment.

Conclusion

Grouping the diseases in the elderly according to the systems, comparing the fear of COVID-19, anxiety of death, and fear of death among the groups, and examining the differences in terms of any system is the strength of our study. In order to generalize the findings, there is a need for studies with a larger sample, including the elderly who are hospitalized and living in nursing homes and rest homes.

Ethics

Ethics Committee Approval: Gaziantep University Clinical Research Ethics Committee (ethics committee decision no: 2021/398). All procedures were carried out in line with the ethical requirements of the relevant committee on human experimentation (institutional and national) as well as the Helsinki Declaration of 1975, as amended in 2008.

Informed Consent: Informed consent has been obtained from all participants.

Peer-review: Externally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: B.D., Concept: B.D., Design: B.D., Data Collection or Processing: B.D., H.D.K., Z.A.Ö., Analysis or Interpretation: B.D., H.D.K., Z.A.Ö., Literature Search: B.D., Z.A.Ö., Writing: B.D., H.D.K., Z.A.Ö.

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. Semenza JC, Lindgren E, Balkanyi L, Espinosa L, Almqvist MS, Penttinen P, Rocklöv J. Determinants and Drivers of Infectious Disease Threat Events in Europe. Emerg Infect Dis 2016;22:581-589.
2. Organization WH. Advice for the public: Coronavirus disease (COVID-19). Corona Virus Disease. 2021.
3. Doğan MM, Düzel B. Covid-19 özelinde korku-kaygı düzeyleri. Turkish Studies 2020;15:739-752.
4. Kulu M, Özsoy F. COVID-19 anxiety and health anxiety levels in non-healthcare community sampling. Kocaeli Medical Journal 2021;10:112-117.
5. Luo F, Ghanei Gheshlagh R, Dalvand S, Saedmoucheshi S, Li Q. Systematic Review and Meta-Analysis of Fear of COVID-19. Front Psychol 2021;12:661078.
6. Kulu M, Özsoy F, Gürler EB. Impact of covid-19 on mood of dental professionals worldwide. Konselor 2022;11:32-35.
7. Soysal P, Smith L, Trott M, Alexopoulos P, Barbagallo M, Tan SG, Koyanagi A, Shenkin S, Veronese N; European Society of Geriatric Medicine Special Interest Group in Dementia and Systematic Reviews and Meta-Analyses. The Effects of COVID-19 lockdown on neuropsychiatric symptoms in patients with dementia or mild cognitive impairment: A systematic review and meta-analysis. Psychogeriatrics 2022;22:402-412.
8. Vindegaard N, Benros ME. COVID-19 pandemic and mental health consequences: Systematic review of the current evidence. Brain Behav Immun 2020;89:531-542.
9. Saltzman LY, Hansel TC, Bordnick PS. Loneliness, isolation, and social support factors in post-COVID-19 mental health. Psychol Trauma 2020;12:S55-S57.
10. Chen PJ, Pusica Y, Sohaei D, Prassas I, Diamandis EP. An overview of mental health during the COVID-19 pandemic. Diagnosis (Berl) 2021;8:403-412.
11. Gardner W, States D, Bagley N. The Coronavirus and the Risks to the Elderly in Long-Term Care. J Aging Soc Policy 2020;32:310-315.
12. Janiri D, Petracca M, Moccia L, Tricoli L, Piano C, Bove F, Imbimbo I, Simonetti A, Di Nicola M, Sani G, Calabresi P, Bentivoglio AR. COVID-19 Pandemic and Psychiatric Symptoms: The Impact on Parkinson's Disease in the Elderly. Front Psychiatry 2020;11:581144.
13. Kowall B, Kostev K, Landgraf R, Hauner H, Bierwirth R, Rathmann W. Effects of the COVID-19 pandemic on clinically diagnosed psychiatric disorders in persons with type 2 diabetes. Diabet Med 2022;39:e14852.

14. 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;20:1537-1545.
15. Satici B, Gocet-Tekin E, Deniz ME, Satici SA. Adaptation of the Fear of COVID-19 Scale: Its Association with Psychological Distress and Life Satisfaction in Turkey. Int J Ment Health Addict 2021;19:1980-1988.
16. Templer DI. The construction and validation of a Death Anxiety Scale. J Gen Psychol 1970;82:165-177.
17. Ertufan H. Bir grup tıp öğrencisi üzerinde ölüm kaygısı ve ölüm korkusu ölçeklerinin geçerlilik güvenilirlik çalışması. İstanbul Üniversitesi Sağlık Bilimleri Enstitüsü Yüksek Lisans Tezi. 2000.
18. Lester D, Abdel-Khalek A. The Collett-Lester Fear of Death Scale: a correction. Death Stud 2003;27:81-85.
19. Zeybek Z, Bozkurt Y, Aşkın R. Covid-19 pandemisi: Psikolojik etkileri ve terapötik müdahaleler. İstanbul Ticaret Üniversitesi Sosyal Bilimler Dergisi 2020;19:304-318.
20. Madnawat AV, Kachhawa PS. Age, gender, and living circumstances: discriminating older adults on death anxiety. Death Stud 2007;31:763-769.
21. Depaola SJ, Griffin M, Young JR, Neimeyer RA. Death anxiety and attitudes toward the elderly among older adults: the role of gender and ethnicity. Death Stud 2003;27:335-354.
22. Erbesler ZA, Demir G. Determination of Death Anxiety and Death-Related Depression Levels in the Elderly During the COVID-19 Pandemic. Omega (Westport) 2022:302228221082429.
23. Neimeyer RA. The threat hypothesis: A conceptual and empirical defense. Death Studies 1986;10:177-190.
24. Islam MS, Siddique AB, Akter R, Tasnim R, Sujan MSH, Ward PR, Sikder MT. Knowledge, attitudes and perceptions towards COVID-19 vaccinations: a cross-sectional community survey in Bangladesh. BMC Public Health 2021;21:1851.
25. Demir B, Sahin SK, Atalay UM, Aslan E, Elboga G, Altindag A. How did the psychological impact of COVID-19 change healthcare workers in times of fighting the pandemic? Work 2022;72:19-26.
26. Altın Z. Elderly People in Covid-19 Outbreak. Tepecik Eğit. ve Araşt. Hast. Dergisi
27. Kurt Magrebi T, Akçay S. Examining death anxiety and depression level related to death of the elderly living in nursing home. Elektronik Sosyal Bilimler Dergisi 2020;19:2100-2118.
28. Keskin G, Dülgerler Ş, Engin E, Bilge A, Özer S, Peker S. Death anxiety in the elderly: relation to participation in daily life. Turkish Journal of Geriatrics 2018;21:383-393.
29. Prevention CfDCa. People who are at higher risk for severe illness. 2019. https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html.
30. Roy J, Jain R, Golamari R, Vunnam R, Sahu N. COVID-19 in the geriatric population. Int J Geriatr Psychiatry 2020;35:1437-1441.
31. 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;66:504-511.