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Original Research

Death Anxiety, Mental Health and Meaning in Life During COVID-19

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Abstract

Objectives: COVID-19 triggered feelings of uncertainty, resulting in people worrying about both their lives and the lives of their families. Studies showed that prevalence of anxiety in society increased due to COVID-19 and that there was a greater need for mental health care. The aim of this study was to research the influence of the COVID-19 pandemic on individuals' death anxiety, mental health, sense of meaning in life.
Materials and Methods: This study is a cross-sectional design. The study was conducted with 565 individuals reached online. The data were obtained using Turkish Death Anxiety Scale, General Health Questionnaire-12, Meaning in Life Questionnaire between 1-20 June 2021.
Results: It was found that those who had had COVID-19, whose relatives had had the disease or who had lost relatives due to it, had a higher level of death anxiety. Participants with a symptomatic history of COVID-19 had a higher risk of mental health problems. Those at risk of mental health problems and those who were searching for meaning in their lives had more death anxiety.
Conclusion: Health professionals should evaluate the feelings and thoughts of patients and their relatives about COVID-19 and allow them to express these. They should also help them find meaning in their experiences of the disease and cope with death anxiety.

Keywords: *anxiety, COVID-19, death anxiety, mental health, meaning in life*

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Introduction

In January 2020, because of its severity in some cases, the high number of deaths, and how quickly it had spread in a short amount of time, the new coronavirus disease (COVID-19) was declared a global pandemic. Since its first emergence, over 600 million people have had COVID-19 and 6 million have died (World Health Organization, 2022). The number of COVID-19 cases in Turkey reached 16 million, and number of deaths approached 100,000 (Republic of Turkey Ministry of Health, 2022).

During the initial days of COVID-19, studies that focused more on the physical outcomes of the disease were most prominent. However, as the impact of the disease on all other areas of life became clear, studies on the psychosocial aspects also began to be conducted (Aşkın et al., 2020). It was foreseen that there might be an increase in depression, anxiety and suicide rates, and research about factors that would protect mental health was thus recommended (Mucci et al., 2020).

COVID-19 led to great uncertainty, resulting in people worrying about both their own lives and the lives of their families (Trzebiński et al., 2020). Research showed that anxiety increased across society due to COVID-19, and that the need for mental health care also increased (Çölgeçen & Çölgeçen, 2020; Moghanibashi-Mansourieh, 2020; Roy et al., 2020). The prevalence of anxiety in society during the COVID-19 period, which was previously 7.3%, was found to be 25%, showing a more than three-fold increase (Santabárbara et al., 2021).

While death anxiety is an existential anxiety, it is much more severe and has greater effects than all other forms of anxiety. While every individual is aware that death will come one day, because they do not know when it will happen, when death anxiety arises it can be pushed back into the unconscious and specific defenses can be developed against it. However, regardless of an individual's awareness of death anxiety, it can nevertheless make its presence felt and play a major role in their life and behavior (Karakuş et al., 2012; Yalom, 2001). During the COVID-19 period, the notion of death was constantly on the public agenda due to the statements of health officials and discussions in the media or on social media. Death anxiety therefore manifested itself in the behavior patterns and attitudes of individuals (Kandemir, 2020).

Death and life are closely linked and co-exist. Meaning in life is a concept that focuses on the level of meaningfulness in a person's life, their sources of meaning and the purpose of their life (Demirbaş Çelik, 2016). Living without meaning, purpose, values or ideals causes significant distress in an individual (Yalom, 2001). It is known that there is a relationship between meaning in life and wellbeing (García-Alandete, 2015; Şahin et al., 2012), and between

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meaning in life and good psychological health (Kul et al., 2020; Kurnaz, 2019). The sense that one's life has meaning is one of the basic factors that help an individual cope with life (Lew et al., 2019).

While there are studies on COVID-19 and mental health at both the individual and societal levels (Mucci et al., 2020; Roy et al., 2020; Wang et al., 2020), there is still a need for further studies that evaluate the impact of the COVID-19 pandemic from the perspectives of how it affected individuals' feelings about death and life. The aim of this study was to research the influence of the COVID-19 pandemic on individuals' death anxiety, mental health, and a sense of meaning in life. The research questions were:

- What are the participants' scores for death anxiety, mental health, and meaning in life based on their COVID-19 history, COVID-19 symptoms, COVID-19 in relatives and death of a relative due to COVID-19?
- Is there a relationship between death anxiety, mental health, and a sense of meaning in life?

Materials and Methods

Design

The study had a cross-sectional design.

Location and Dates

The current study was not conducted in a specific institution. Instead, the participants were reached using snowball sampling method starting with those in the close circles of the authors and then by finding more volunteers. The data were collected between 1 and 20 June 2021.

Sample

The sample size was calculated using G-Power 3.1.9.2 software. Based on the Turkish Death Anxiety Scale (α err prob: 0.05; Power: 0.80), the sample size was determined as 560. With an added buffer for possible data losses, a total of 573 individuals were contacted. Because eight individuals did not meet the participation criteria, the study was completed with 565 participants.

Inclusion Criteria

Being 18 and above, having access to the internet and possessing the necessary devices and competency to use the internet.

Data Collection Tools

Socio-Demographic Information and COVID-19 History Form

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This was a data collection form developed by the authors based on the relevant literature (Arslan et al., 2022; Kandemir, 2020; Moghanibashi-Mansourieh, 2020; Trzebiński et al., 2020). It comprised questions regarding socio-demographic information, such as age, gender, and marital status, and COVID-19 history, such as being infected with COVID-19, death of relatives due to COVID-19.

Turkish Death Anxiety Scale (TDAS)

This scale was developed by Sarıkaya and Baloğlu (2016). It comprises 20 items and three subscales, namely Ambiguity of Death (AmD), Exposure to Death (ED) and Agony of Death(AgD). The scale is a five-point Likert-type scale. Each item on the scale is evaluated between 5 (“always”) and 1 (“never”). The total score for the scale ranges between 0 and 80 and higher scores mean higher levels of death anxiety. The Cronbach alpha coefficient of the original scale was 0.95 (Sarıkaya & Baloğlu, 2016). In our study, the Cronbach alpha coefficient of the scale was found to be 0.97, while for the sub-scales of AmD, ED and AgD it was 0.96, 0.95 and 0.84 respectively.

General Health Questionnaire-12 (GHQ-12)

The initial version of this scale comprised 60 items and short forms of the scale were subsequently developed (Goldberg & Hillier, 1979). The Turkish validity and reliability study of the GHQ-12 was conducted by Kılıç (1996). The questionnaire is a four-point Likert-type scale and comprises 12 items that question the symptoms experienced by individuals during the previous two weeks. Each item has four options ranging from “less than usual” to “more than usual”. Items initially given 0 or 1 point are subsequently scored as 0, while items given 2 or 3 points are subsequently scored as 1. Using this method, the lowest obtainable score is 0 and the highest is 12. Higher scores indicated worsening mental health and increased risk to mental health. The Cronbach alpha coefficient of the original scale was 0.78 (Kılıç, 1996). In our study, the Cronbach alpha coefficient was found to be 0.88.

Meaning In Life Questionnaire (MLQ)

This scale was developed by Steger et. al (2006). Demirbaş (2010) conducted its Turkish validity and reliability study. The MLQ is a seven-point Likert-type scale comprising 10 items in which each item is given a score ranging from 1 to 7 (1= “definitely incorrect”; 7= “definitely correct”). The scale comprises two independent subscales which are Presence of Meaning (PM) and Search for Meaning (SM). The total score of each subscale is at least 5 and at most 35. A higher score obtained for the subscale of PM indicates that the individual has found meaning in their life. A higher score for SM indicates that the individual is searching for a meaning that makes life worth living. The original Cronbach alpha coefficient for the subscale of PM was

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0.87, while for the subscale of SM, it was 0.88 (Demirbaş, 2010). In our study, the Cronbach alpha coefficient for the subscale of PM was found to be 0.85, while for the subscale of SM, it was found to be 0.91.

Procedure

After receiving the consent of the ethics committee, the forms were transferred to a digital environment. The study was announced via the personal email and social media accounts of the authors. Before the start of the survey, the aim of the study was explained, and those individuals who agreed to participate and who met the inclusion criteria were included in the study.

Data Analysis

The data were transferred to the SPSS (Statistical Package for the Social Sciences) software version 21. Descriptive statistics such as frequency, percentage, and mean values were calculated. To compare the averages of the two independent groups, the independent sample t-test or the Mann-Whitney U test were used. To compare more than two independent groups, one-way ANOVA, which is a type of one-way variance analysis, was used. For post hoc analyses, the Bonferroni test was used. For correlation analysis, the Pearson correlation coefficient was calculated. The significance level was accepted as 0.05 for all test results.

Results

The average age of the study sample was 35.58±10.58 years and 62.8% of the participants were female. Of these participants, 63.9% indicated they had not previously tested positive for COVID-19. Findings related to the socio-demographic and COVID-19 history of the participants are shown in Table 1.

A statistically significant difference favoring participants without a history of COVID-19 was observed between the average scores for AmD (p=0.01), ED (p=0.005), AgD (p=0.03), and the total TDAS score (p=0.007) for participants with or without a history of COVID-19. A statistically significant difference favoring participants who were asymptomatic was observed between the average scores for the GHQ-12 (p=0.001), AmD (p=0.01), ED (p=0.05), and AgD (p=0.03) and the total TDAS score (p=0.01) for participants with or without symptoms. A statistically significant difference favoring participants with relatives with no history of COVID-19 was observed between the average scores for AmD, ED, AgD and the total TDAS (p<0.001) for participants with relatives with or without a history of COVID-19. A statistically significant difference favoring participants with no relatives who had died due to COVID-19 was observed between the average scores for AmD (p<0.001), ED (p=0.001), AgD (p=0.03)

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and the total TDAS score ($p<0.001$) for participants with or without relatives who had died due to COVID-19 (Table 2).

Table 1: Characteristics of participants

Characteristics		**mean±SD**	**min-max**
Age		35.58±10.58	18-73
		n	**%**
Gender	Female	355	62.8
	Male	210	37.2
Marital status	Married	361	63.9
	Single	204	36.1
Education level	Primary school	30	5.3
	High school	95	16.8
	College	440	77.9
Income level	Regular	431	76.3
	Irregular	134	23.7
Living with	Family	523	92.6
	Single	42	7.4
COVID-19 history	Yes	204	36.1
	No	361	63.9
COVID-19 symptoms	Yes	189	92.6
	No	15	7.4
COVID-19 in relatives	Yes	258	45.7
	No	307	54.3
Death of a relative due to COVID-19	Yes	141	25
	No	424	75

min: minimum; max: maximum; SD: standart deviation

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Table 2. Death anxiety, mental health and meaning in life scores based on COVID-19 history

Characteristic	GHQ-12 X±SD	PM X±SD	SM X±SD	AmD X±SD	ED X±SD	AgD X±SD	Total TDAS X±SD
COVID-19 history							
Yes	3.27±3.3	26.77±6.89	18.7±8.6	16.31±12.18	10.6±8.5	5.61±3.7	32.53±23.04
No	3.49±3.56	26.47±7.46	18.41±8.97	13.72±11.48	8.62±7.78	4.96±3.45	27.31±21.53
p*	0.48	0.63	0.71	**0.01**	**0.005**	**0.03**	**0.007**
COVID-19 symptoms							
Yes	3.42±3.25	30.06±4.47	18.75±8.64	16.86±12.13	10.92±8.52	5.75±3.64	33.55±22.94
No	1.4±3.37	26.51±6.99	18.13±8.39	9.33±10.92	6.66±7.44	3.66±4.11	19.66±20.95
p**	**0.001**	0.08	0.81	**0.01**	**0.05**	**0.03**	**0.01**
COVID-19 in relatives							
Yes	3.67±3.39	26.1±7.24	18.63±8.74	16.87±12.27	10.53±8.67	5.84±3.71	33.26±23.2
No	3.19±3.52	26.99±7.25	18.42±8.92	12.8±11.05	8..33±7.44	4.64±3.32	25.78±20.77
p*	0.1	0.14	0.77	**<0.001**	**0.001**	**<0.001**	**<0.001**
Death of a relative due to COVID-19							
Yes	3.7±3.25	26.42±8.5	19.65±8.5	17.8±12.49	11.38±8.62	5.75±3.63	34.94±23.92
No	3.31±3.54	26.63±7.33	18.13±8.92	13.61±11.37	8.66±7.8	5±3.51	27.29±21.3
p*	0.24	0.76	0.07	**<0.001**	**0.001**	**0.03**	**<0.001**

*Independent sample t test; ** Mann Whitney U Test; GHQ-12: General Health Questionnaire-12; PM: Presence for Meaning; SM: Search for Meaning; AmD: Ambiguity of Death; ED: Exposure to Death; AgD: Agony of Death; TDAS: Turkish Death Anxiety Scale

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A moderate and positive correlation was observed between the average GHQ-12 scores and the AmD, ED, AgD and total TDAS scores of participants. A negative correlation was observed between the average GHQ-12 scores and the PM scores. A low positive correlation was observed between the average GHQ-12 scores and the SM scores. A low positive correlation was observed between the average SM scores and the AmD, ED, AgD and total TDAS scores (Table 3).

Table 3. Correlation between death anxiety, mental health and meaning in life

Characteristic		AmD	ED	AgD	Total TDAS	SM	PM	GHQ-12
GHQ-12	r	0.38	0.30	0.37	0.37	0.18	-0.24	-
	p	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	-
PM	r	0.02	0.01	-0.006	0.01	-	-	-
	p	0.49	0.75	0.89	0.64	-	-	-
SM	r	0.20	0.14	0.19	0.19	-	-	-
	p	**<0.001**	**<0.001**	**<0.001**	**<0.001**	-	-	-

*GHQ-12: General Health Questionnaire-12; PM: Presence for Meaning; SM: Search for Meaning; AmD: Ambiguity of Death; ED: Exposure to Death; AgD: Agony of Death; TDAS: Turkish Death Anxiety Scale

Discussion and Conclusion

Individuals who have had COVID-19 experienced death anxiety both for themselves and their relatives during the period of the pandemic (Dehkordi et al., 2020). In the current study, it was found that those with a history of COVID-19, a symptomatic history of COVID-19 and those who had lost relatives due to COVID-19 had higher levels of death anxiety. COVID-19 resulted in many fatalities in a short amount of time. For this reason, it was expected that the death anxiety of individuals who had suffered from the disease would have increased.

It was found that, regardless of testing positive, 80% of people felt the need for psychological health care during the COVID-19 period (Roy et al., 2020), and that testing positive for the disease increased anxiety (Santabárbara et al., 2021). In the current study, while no difference was observed in terms of mental health between those who had had COVID-19 and those who had not, it was found that those that had a history of mild or severe COVID-19 had a higher risk than those with an asymptomatic disease history. Because a symptomatic

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disease course may result in a worsening of general health resulting in thoughts of death, the authors believe that such a disease course may have resulted in the participants experiencing increased anxiety. In the current study, it was found that mental health levels did not vary in relation to the presence of relatives with a history of COVID-19 or who had died as a result of the disease. Similarly, another study showed that people's anxiety levels did not vary in relation to the presence of a relative with a diagnosis of COVID-19 (Çölgeçen & Çölgeçen, 2020). On the other hand, another study reported that those with at least one relative with a history of COVID-19 had higher anxiety levels (Moghanibashi-Mansourieh, 2020). The different findings across different studies may be due to how the disease progressed in participants' relatives (whether it was mild or severe) and the method of assessing anxiety.

Yalom observed that cancer patients who found deep meaning in their lives lived the time remaining to them more fully and faced death with a more positive attitude. Similarly, it was argued that people who have faced death by surviving near-death situations or losing a loved one were able to create more meaning in their lives afterwards (Yalom, 2001). In the current study, which was conducted during the COVID-19 period, it was found that a history of COVID-19, a history of symptomatic or asymptomatic COVID-19, having relatives with a history of COVID-19 or death did not result in a difference in terms of the presence of meaning in life or a desire to search for meaning in life. This situation may be related to the COVID-19 period not yet being over at the time of the study, leading to continuing uncertainty, as well as the fact that the participants' experiences were still fresh.

In the current study, it was observed that death anxiety and risk to mental health were related. It has been reported that neurotic traits are correlated with death anxiety (Pradhan et al., 2022; Lee et al., 2020) and that death anxiety and perceived COVID-19 risk can be decreased through positive emotions (Yıldırım & Güler, 2021). The authors conclude that during the pandemic people's psychological health was negatively affected due to the triggering of death anxiety.

Yukay Yüksel and his colleagues reported that people who could not find meaning in their lives or were in search of meaning had higher death anxiety (Yukay Yüksel, 2017). In the current study, too, death anxiety and the search for meaning in life are related. This led the authors to conclude that those trying to find meaning in their lives failed to cope with death anxiety during the COVID-19 period.

The presence of meaning in life is correlated with positive emotions and a sense of satisfaction, while the search for meaning in life is correlated with neuroticism and negative emotions (Steger et al., 2006). In the current study, it was found that people who found less

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meaning in life had a higher risk of mental health problems. In studies conducted during the COVID-19 period, it was pointed out that people who find meaning in their life have positive emotions, greater wellbeing (Arslan et al., 2022; Özyürek & Atalay, 2020), and less anxiety (Kul et al., 2020; Trzebinski et al., 2020). It is important that mental health professionals help their patients find meaning in their lives (Glaw et al., 2017). These findings indicate that the presence of meaning in life had a positive impact on psychosocial health during the COVID-19 period.

The findings of this study cannot be generalized to the general population as the study was cross-sectional. The study sample was limited to voluntary participants. The online nature of the data collection tools may have created a limitation as it only allowed people with internet access to participate. The data collected from the participants regarding COVID-19 were limited to their own statements and did not reflect the views of a clinician.

This study showed that in people with a history of COVID-19, with relatives with a history of COVID-19 and with relatives who had died due to COVID-19, death anxiety was triggered as a result of the pandemic. Individuals who were symptomatic experienced higher levels of death anxiety. Those searching for meaning in their lives and those whose mental health was at risk experienced higher death anxiety. In line with these findings, in addition to physical health care, mental health care should be provided to individuals who have had COVID-19. Their feelings and thoughts about COVID-19 and death should be evaluated, and they should be allowed to express these. They should be helped to find the meaning in their experience of the disease and to cope with death anxiety. For future studies, it is recommended that patients with intensive care needs also be included when assessing meaning in life and death anxiety.

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References

Arslan, G., Yıldırım, M., Karataş, Z., Kabasakal, Z., & Kılınç, M. (2022). Meaningful living to promote complete mental health among university students in the context of the COVID-19 pandemic. *International Journal of Mental Health and Addiction*, *20*(2), 930-942. https://doi.org/10.1007/s11469-020-00416-8

Aşkın, R. Bozkurt, Y., & Zeybek, Z. (2020). Covıd-19 pandemic: Psychologıcal effects and therapeutic interventions. *İstanbul Ticaret Üniversitesi Sosyal Bilimler Dergisi*, *19*(37), 304-318.

Çölgeçen, Y., & Çölgeçen, H. (2020). Evaluation of anxiety levels arising from Covid-19 pandemic: the case of Turkey. *Electronic Turkish Studies*, *15*(4), 261-275. https://doi.org/10.7827/TurkishStudies.44399

Dehkordi, M.A., Eisazadeh, F., & Aghjanbaglu, S. (2020). Psychological consequences of patients with coronavirus (COVID-19): A qualitative study. *Iranian Journal of Health Psychology, 2*(2), 9-20. https://doi.org/10.30473/IJOHP.2020.52395.1074

Demirbaş, N. (2010). *Yaşamda anlam ve yılmazlık.* [Unpublished master's thesis, Hacettepe Üniversitesi]. YÖK Ulusal Tez Merkezi.

Demirbaş Çelik, N. (2016). The relationship between meaning in life and the purpose of life for university students. *Mediterranean Journal of Humanities*, *6*(1), 133-141. https://doi.org/10.13114/MJH.2016119294

Glaw, X., Kable, A., Hazelton, M., & Inder, K. (2017). Meaning in life and meaning of life in mental health care: An integrative literature review. *Issues in Mental Health Nursing*, *38*(3), 243-252. https://doi.org/10.1080/01612840.2016.1253804

Goldberg, D.P. & Hillier, V.F. (1979). A scaled version of the general health questionnaire. *Psychological Medicine, 9*(1), 139-45. https://doi.org/10.1017/s0033291700021644.

García-Alandete, J. (2015.) Does meaning in life predict psychological well-being? *The European Journal of Counselling Psychology*, *3*(2):89-98. https://doi.org/10.5964/ejcop.v3i2.27

Kandemir, F. (2020). An empirical research on the relationship of Covid-19 pandemic generation's geligiosity and death anxiety in the context of some demographic variables]. *Tokat İlmiyat Dergisi*, *8*(1), 99-129. https://doi.org/10.5281/zenodo.3876200

Karakuş, G., Öztürk, Z., & Tamam, L. (2012). Death and death anxiety. *Archives Medical Review Journal, 21*(1), 42-79.

Kılıç, C. (1996). Genel sağlık anketi: Güvenilirlik ve geçerlilik çalışması. *Türk Psikiyatri Dergisi*, *7*(1), 3-9.

Kul, A., Demir, R., & Katmer, A. N. (2020). Meaning of life and anxiety as predictors of psycholological resilience during the Covid-19 epidemic. *Electronic Turkish Studies*, *15*(6),695-719.

Lee, S. A., Jobe, M. C., Mathis, A. A., & Gibbons, J. A. (2020). Incremental validity of coronaphobia: Coronavirus anxiety explains depression, generalized anxiety, and death anxiety. *Journal of Anxiety Disorders*, *74*, 102268. https://doi.org/10.1016/j.janxdis.2020.102268

Lew, B., Huen, J., Yu, P., Yuan, L., Wang, D. F., Ping, F., Abu Talip, M., Lester, D., & Jia, C. X. (2019). Associations between depression, anxiety, stress, hopelessness, subjective well-being, coping styles and suicide in Chinese university students. *PloS One*, *14*(7), e0217372. https://doi.org/10.1371/journal.pone.0217372

Moghanibashi-Mansourieh, A. (2020). Assessing the anxiety level of Iranian general population during COVID-19 outbreak. *Asian Journal of Psychiatry, 51*, 102076. https://doi.org/10.1016/j.ajp.2020.102076

Mucci, F., Mucci, N., & Diolaiuti, F. (2020). Lockdown and isolation: psychological aspects of COVID-19 pandemic in the general population. *Clinical Neuropsychiatry*, *17*(2), 63-64. https://doi.org/10.36131/CN20200205

Nienaber, K., & Goedereis, E. (2015). Death anxiety and education: A comparison among undergraduate and graduate students. *Death Studies*, *39*(8), 483-490. https://doi.org/10.1080/07481187.2015.1047057

Özyürek, A., & Atalay, D. (2020). Pandemic investigation of the relationshıp between the death anxiety and meaning of life with well-being of adults in COVID-19 pandemic. *TURAN-SAM International Scientific, Peer-Reviewed and Refereed Journal*, *12*(46), 458-472. https://doi.org/10.15189/1308-8041

Pradhan, M.,Chettri, A., & Maheshwari, S. (2022): Fear of death in the shadow of COVID-19: The mediating role of perceived stress in the relationship between neuroticism and death anxiety, *Death Studies*, *46*(5), 1006-1010. https://doi.org/10.1080/07481187.2020.1833384

Roy, D., Tripathy, S., Kar, S. K., Sharma, N., Verma, S. K., & Kaushal, V. (2020). Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. *Asian Journal of Psychiatry, 51*, 102083. https://doi.org/10.1016/j.ajp.2020.102083

Republic of Turkey Ministry of Health. (2022). *COVID-19 Bilgilendirme Platformu.* https://covid19.saglik.gov.tr/TR-66935/genel-koronavirus-tablosu.html

Santabárbara , J., Lasheras, I., Lipnicki, D.M., Bueno-Notivol J., Pérez-Moreno M., López-Antón, R ., De la Cámara C.,Lobo, A., & Gracia-García, P. (2021). Prevalence of anxiety in the COVID-19 pandemic: An updated meta-analysis of community-based studies. *Neuro-Psychopharmacology and Biological Psychiatry, 109*, 110207. https://doi.org/10.1016/j.pnpbp.2020.110207

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Doi:10.21020/husbfd.1185854

Sarıkaya, Y., & Baloğlu, M. (2016). The development and psychometric properties of the Turkish death anxiety scale (TDAS). *Death Studies*, *40*(7), 419-431. https://doi.org/10.1080/07481187.2016.1158752

Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The meaning in life questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, *53*(1), 80. https://doi.org/10.1037/0022-0167.53.1.80

Şahin, M., Aydın, B., Sarı, S. V., Sezen, K., & Havva, P. (2012). The role of hope and the meaning in life in explaining subjectıve well-being. *Kastamonu Education Journal*, *20*(3), 827-836.

Trzebiński, J., Cabański, M., & Czarnecka, J. Z. (2020). Reaction to the COVID-19 pandemic: The influence of meaning in life, life satisfaction, and assumptions on world orderliness and positivity. *Journal of Loss and Trauma*, *25*(6-7), 544-557. https://doi.org/10.1080/15325024.2020.1765098

Yukay Yüksel, M.,Güneş, F., & Akdağ, C. (2017). Investigation of the death anxiety and meaning in life levels among middle-aged adults. *Spırıtual Psychology And Counselıng, 2*(2), 165–181. https://doi.org/10.12738/spc.2017.2.0024

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health*, *17*(5), 1729. https://doi.org/10.3390/ijerph17051729

World Health Organisation. (2022). *WHO Coronavirus (COVID-19) Dashboard.* https://covid19.who.int/

Yalom, I. (2001). *Varoluşçu Psikoterapi. (3. Baskı). (Z. İyidoğan Babayiğit, Çev.)* Kabalcı Yayınevi. (Original work published 1980)

Yıldırım, M., & Güler. A. (2021). Positivity explains how COVID-19 perceived risk increases death distress and reduces happiness. *Personality and Individual Differences, 168*(1), *110347.* https://doi.org/10.1016/j.paid.2020.110347