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The relationship between quality of life and fear of Turkish individuals during the COVID-19 pandemic: A cross-sectional study

Ahu Aksoy [a,*], Arzu Abiç [b], Filiz Değirmenci [a], Duygu Vefikuluçay Yılmaz [a]

[a] Department of Nursing, Mersin University Faculty of Nursing, 33343 Mersin, Turkey
[b] Department of Nursing, Faculty of Health Sciences, Eastern Mediterranean University, Famagusta, North Cyprus, via Mersin 10, Turkey

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ABSTRACT

Objective: In this study, it was aimed to determine the relationship between quality of life and the fear experienced due to the COVID-19 pandemic.
Method: This cross-sectional descriptive study was conducted with a total of 1060 participants from Turkey's 65 provinces. The research data were collected through an online questionnaire consisting of three parts: "Personal Information Form", "The Fear of COVID-19 Scale (FCS)" and "World Health Organization Life Quality Scale-Short Form (WHOQOL-BREF)". Independent two-group *t*-test (Student's t-test), and one-way ANOVA test were used to compare the means of groups. The Pearson Correlation Coefficient was calculated to determine the level of correlation between two independent continuous variables. A value of $p < .05$ was accepted as the threshold for statistical significance.
Results: The fear levels of women, married individuals and primary school graduates were found to be high, while quality of life was low among participants with poor economic status, those with COVID-19 symptoms and subjects who had been in close contact with a COVID-19-positive patient. In addition, there was an inverse relationship between the level of fear related to COVID-19 and quality of life (physical and psychological health).
Practice implications: Nurses are recommended to develop new care and evaluation strategies that will cover psychosocial and economic areas, as well as physical health, in order to protect and maintain the well-being of individuals during the COVID-19 pandemic.

Introduction

The novel coronavirus disease (COVID-19) caused by the severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) that started in Wuhan province, China, was declared as pandemic by the World Health Organization (WHO) on March 11, 2020 (Lai et al., 2020; WHO, 2020a, 2020b, 2020c). COVID-19 spread rapidly to all of China and subsequently other countries, causing a global infectious pneumonia outbreak which has claimed countless lives (Bao et al., 2020). In the latest situation report published by the WHO (May 14, 2021), it was stated that the pandemic had caused the death of 3.335.948 people (WHO, 2020a). Although policies developed to combat the pandemic differ between countries, social distancing, lockdowns and stay-at-home orders have become common interventional measures throughout the world (Lin, 2020; Pakpour & Griffiths, 2020). Following the appearance of the first cases in Turkey, the country gradually put necessary measures into force, beginning on the 11th of March 11, 2020. Despite measures and restrictions, the number of cases and deaths has continued to gradually increase. In the most recent situation report published by the Ministry of Health, the number of cases has reached 5.083.996 and the number of deaths was recorded as 44.059 (Ministry of Health, 2021).

Infectious diseases have had an important role in shaping human history (Pappas et al., 2009). The COVID-19 pandemic has also affected the well-being of individuals and nations physically, psychologically, economically and socially, as it has had a great impact worldwide (Nicola et al., 2020; Wang et al., 2020; Wu et al., 2020; Zolotov et al., 2020).

COVID-19 is continuing to spread rapidly, causing significant levels of fear and anxiety among people (Schimmenti et al., 2020). The CDC and WHO emphasize that this fear and anxiety can become increasingly overwhelming and lead to negative emotions in individuals (CDC, 2020; WHO, 2020b). With this fear, some individuals or communities may develop new discriminations and/or stigma against each other, which has been previously shown in Asian countries (Lin, 2020). In addition,

* Corresponding author.
E-mail addresses: aksoyahu91@gmail.com (A. Aksoy), arzuabic@emu.edu.tr (A. Abiç), filizdegirmenci@mersin.edu.tr (F. Değirmenci).

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individuals infected with the virus may experience stigma and social exclusion by healthy individuals, their families or other individuals around them (Zhang et al., 2020). As seen in the SARS and Ebola outbreaks in the past, the fear experienced in the COVID-19 outbreak can also cause psychological health problems, such as adjustment disorder and depression, among individuals (Lin, 2020; Zhang et al., 2020). WHO predicts that the quarantine measures due to COVID-19 can lead to changes in the lifestyle of many people, leading to an increase in loneliness, depression, alcohol and drug use, self-harm or suicide (WHO, 2020c).

In the COVID-19 epidemic, it is thought that the effects of the measures taken to prevent disease spread will have negative results on social life, which may be followed by psychological problems leading to reduced quality of life. In this regard, it is important to reveal the relationship between the fear associated with the COVID-19 pandemic and quality of life. To the best of our knowledge, there are no studies in the literature that have reported on the relationship between the fear experienced during the COVID-19 outbreak and individuals' quality of life. During the COVID-19 pandemic, evidence-based practices are needed to protect and maintain individuals' psychological health, to develop mechanisms to cope with fear, and to increase overall quality of life. In order to be able to develop such interventions, data pertaining to the current and ongoing situation are needed. Therefore, this research was conducted to determine whether there were any relationships between the fear levels of individuals living in Turkey during the COVID-19 outbreak and their quality of life.

Methods

The research was designed as a descriptive and cross-sectional study. The population of the study consisted of individuals over the age of 18 living in Turkey. Since it was not possible for researchers to determine participants via digital media, the convenience sampling method, which is a convenience sampling, and snowball sampling method were used for sampling. In the research, 1328 participants were reached using an online questionnaire between July 3 and August 30, 2020. Individuals who entered invalid data and those under the age of 18 were not included in the study. In total, 1060 participants from Turkey's 65 provinces constituted the sample of the study.

Data collection tools

The research data were collected through an online questionnaire consisting of three parts: “Personal Information Form”, “The Fear of COVID-19 Scale (FCS)” and “World Health Organization Life Quality Scale-Short Form (WHOQOL-BREF)”.

Personal information form

The “Personal Information Form” prepared by the researchers based on the relevant literature includes a total of 12 questions, including nine queries about the socio-demographic characteristics of individuals (age, gender, marital status, educational status, income status, province of residence, residential unit, etc.) and three questions related to the COVID-19 outbreak (whether or not they had experienced COVID-19 symptoms, whether there were any individuals who had been diagnosed with COVID-19 in their close environment (acquaintance), and the degree of social isolation/distancing they were practicing) (Lin, 2020; Nicola et al., 2020; Schimmenti et al., 2020; Wang et al., 2020; Wu et al., 2020; Zolotov et al., 2020).

The Fear of COVID-19 Scale

In the present study, the “The Fear of COVID-19” Scale (FCS) developed by Ahorsu et al. in 2020 and adapted to the Turkish language by Satıcı et al. in 2020, was used to determine the fear level of individuals during the COVID-19 outbreak. This five-point Likert-type scale is one-dimensional and consists of seven items. The lowest score that can be obtained from the scale is 7, and the highest score is 35. There are no reverse scored items in the scale. As the score obtained from the scale increases, individuals' fear levels in association with COVID-19 also increase, and vice-versa. The Cronbach's alpha coefficient of the Fear of COVID-19 Scale was found to be 0.84 (Satici et al., 2020). In this study, the Cronbach alpha value of the scale was also determined to be 0.84.

The World Health Organization Quality of Life Scale-Short Form (WHOQOL-BREF)

The WHOQOL-BREF was developed by WHO in 1998, and the validity and reliability study of the Turkish version was carried out by Eser et al. in 1999, yielding the WHOQOL-BREF-TR form. This scale was used to determine the quality of life of individuals included in the study. The WHOQOL-BREF-TR includes an additional “national” question (a total of 27 items) which was deemed to be significantly associated with general health and quality of life in the Turkish population as per the result of the validity and reliability study. The WHOQOL-BREF-TR has four domains: Physical health, Psychological health, Social Relationships and Environmental health. The scale does not have a total score, and each domain is evaluated within itself. After the data set was prepared, the scores of scale domains were sent to the Turkey WHOQOL center and the results were calculated here. The scores of the domains are evaluated between 4 and 20. Higher scores indicate greater levels of well-being. The Cronbach's alpha internal consistency coefficients of the scale were found to be 0.83 in the physical health, 0.66 in the psychological health, 0.53 in the social relationships and 0.73 in the environmental health domains in the initial study (Eser, Eser, Fidaner, Elbi, & Fidaner, 1999; Eser, Fidaner, Fidaner, Eser, Elbi, & Göker, 1999; Eser, Fidaner, Fidaner, Eser, & Göker, 1999). In this study, Cronbach's alpha internal consistency coefficients of the scale was found to be 0.52 in physical, 0.50 in psychological, 0.67 in social and 0.72 in environmental domains.

Statistical analysis

All data were evaluated using the SPSS (Statistical Package for Social Science) version 20.0 software (IBM, Armonk, NY, USA). Continuous variables were analyzed after controlling for assumptions associated with normality of distribution and homogeneity of variance via the Shapiro–Wilk and the Levene tests, respectively. The Independent two-group *t*-test (Student's *t*-test) was used for the comparison of two groups, and the one-way ANOVA test was used to compare the means of more than two groups. The Pearson Correlation Coefficient was calculated to determine the level of correlation between two independent continuous variables. Number, percentage, mean and standard deviation values are used as descriptive statistics. A value of $p < .05$ was accepted as the threshold for statistical significance.

Ethical considerations

Before collecting research data, necessary approvals from the Republic of Turkey Ministry of Health General Directorate of Health Services was obtained on June 14, 2020, and Ethics committee approval was provided by the Social Sciences and Humanities Ethics Committee of a state university, on July 3, 2020.

Results

This study found the mean age of the participants was 29.76 ± 11.57. Of the participants, 66.5% were women, 64.1% were single, 81% had at least a university degree, 55.6% had equal the income and expense levels and 66.7% lived in the province. It was determined that the most

common symptoms, related to COVID 19 the participants experienced, were headache (27.5%), muscle pain (16.7%) and sore throat (15.1%), respectively. Also, of the participants, 15.3% had individuals with a diagnosis of COVID 19 in their the immediate environment and 69.8% of these individuals were friends. It was found that approximately half of the participants (48.3%) wear a mask when going out and in compliance with the 1.5 m social distance rule.

When the distribution of the scores from the scales were examined, it was seen that the mean total score obtained from the FCS was 18.13 ± 6.14, the mean score obtained from the physical health sub-domain was 14.85 ± 2.50, the mean score obtained from the psychological health sub-domain was 13.70 ± 2.69, the score obtained from the social relationships sub-domain was 14.21 ± 3.28, and the score from the environmental health sub-domain was 14.00 ± 2.35 (Table 1).

Distribution of FCS and WHOQOL-BREF-TR domain scores according to the socio-demographic characteristics of the participants is given in Table 2. In the study, the average FCS score of females was found to be higher than the males ($p < .001$), the average score obtained from the psychological health sub-domains were found to be significantly lower ($p < .05$). Importantly, while the average FCS score of participants who were married was found to be higher than the single participants ($p < .05$), the average score obtained from the except for the WHOQOL-BREF-TR physical health sub-domain were found to be significantly lower ($p < .001$). While the average FCS score of individuals who were primary school graduates was found to be higher than the other participants ($p < .001$), the average score obtained from the physical and psychological health sub-domains were found to be significantly lower ($p < .05$). Participants whose income was less than their expenditure were found to have statistically lower quality of life scores for all domains ($p < .05$). When evaluated with respect to the place of residence, there were significant differences between subjects in terms of mean scores obtained from the WHOQOL-BREF-TR psychological health ($p < .05$), social relationships ($p < .001$), and environmental health ($p < .001$) domains.

Table 2 shows the distribution of the FCS and WHOQOL-BREF-TR domains scores according to the presence/absence of COVID-19-related symptoms. It was seen that the difference between FCS and WHOQOL-BREF-TR environmental health scores demonstrated significant differences with regard to the presence/absence of fever ($p < .05$). There was a statistically significant difference ($p < .05$) in the mean scores of the WHOQOL-BREF-TR physical health ($p < .001$), psychological health ($p < .001$), and environmental health ($p < .05$) domains when compared between those with and without dyspnea. Individuals with diarrhea were found to have lower mean scores from the WHOQOL-BREF-TR physical health and environmental health ($p < .05$) domains. Participants who experienced sore throat, muscle pain, and headache had significantly lower quality of life scores in all domains ($p < .05$).

Table 1
Distribution of age, FCS and WHOQOL-BREF scores of participants.

Age, scales and sizes	Number of items	Min.	Max.	$\overline{X}$±SD	Cronbach α
Age	–	18	71	29,76 ± 11,57	–
FCS total score	7	7[a]-7[b]	35[a]-35[b]	18.13 ± 6.14	0.845
Physical health (20)	7	4[a]-5.14[b]	20[a]-20[b]	14.85 ± 2.50	0.521
Psychological health (20)	6	4[a]-4[b]	20[a]-20[b]	13.70 ± 2.69	0.503
Social relationships (20)	3	4[a]-4[b]	20[a]-20[b]	14.21 ± 3.28	0.676
Environmental health (20)	9	4[a]-4[b]	20[a]-19.56[b]	14.00 ± 2.35	0.720

[a] Theoretical range.
[b] Observed range.

Distribution of FCS and WHOQOL-BREF-TR domain scores according to COVID-19-related characteristics are presented in Table 2. A statistically significant difference was found between the participants with and without a COVID-19-positive acquaintance in terms of WHOQOL-BREF-TR physical health scores ($p < .05$). In the study, it was concluded that WHOQOL-BREF-TR psychological health and social relationships score averages demonstrated significant differences when compared with regard to individuals' degree of social isolation/distancing practices ($p < .05$). Lastly, it was found that there were very weak but significant inverse correlations between FCS and both the physical ($r = -0.188$; $p < .05$) and psychological health ($r = -0.077$; $p < .05$) domains of the WHOQOL-BREF-TR (Table 3).

Discussion

Throughout the pandemic, many individuals have been infected and have subsequently succumbed to COVID-19. This is undoubtedly associated with the fact that the COVID-19 pandemic continues to create widespread fear and anxiety among individuals (Ahorsu et al., 2020). The current lack of a vaccine and an effective treatment method for this virus increases these feelings even more. Economic turmoil, social unrest and fear that occur as a result of increasing spread affects the psychological health and well-being of individuals. It has been demonstrated that especially intense fear causes health problems (Bitan et al., 2020; Mazza et al., 2020; American Psychiatric Association, 2020; Wang et al., 2020). A high level of fear can reduce quality of life as well as affecting the physical and psychological well-being of individuals (Nguyen, Nguyen, et al., 2020; Samlani et al., 2020). In this context, the findings of the study were discussed in the light of the literature in terms of the relationship between socio-demographic features of the participants, their COVID-19-related symptoms and COVID-19 outbreak characteristics, and the possible relationships with FCS and WHOQOL-BREF-TR scores.

In our study, it was found that fear of COVID-19 was greater among women. Many studies in the literature show that women are have a greater sense of fear in relation with COVID-19, when compared to men (Limcaoco et al., 2020; Qiu et al., 2020; Sakib et al., 2020). This difference between men and women can be thought to be due to the fact that women are more susceptible to stress than men (Overfield, 2018). However, there are also findings in the literature that do not support our study results. For instance, it was found that men are more likely to experience depression than women (Lee & Crunk, 2020). Cao et al. (2020) found no difference according to gender when comparisons for stress and anxiety (as a result of the COVID-19) were performed in their study including 7143 university students. In the present study, fear of COVID-19 was found to be higher in primary school graduates and married participants. In the literature, it is seen that health literacy is lower among individuals with a low level of education (Bodur et al., 2017; Nguyen, Do, et al., 2020). Therefore, it is not possible for individuals with low education level to reach accurate information about the virus when their low health literacy is taken into account (Nguyen, Do, et al., 2020; Okan et al., 2020). In line with this information, it is an expected result that the level of fear is high in individuals who cannot obtain correct information about COVID-19.

The current study found that low socioeconomic level was associated with decreased quality of life. Social isolation measures within the scope of COVID-19 measures has caused economic crises all over the world. In this context, it is an expected result that individuals' quality of life with low socioeconomic status will be affected more by this crisis. Because, both the fear of being infected with the virus and the fear of not meeting their vital needs economically can cause negative effects in these individuals (Ornell et al., 2020).

In our study, it was found that the quality of life related to physical health was lower in participants who had an acquaintance diagnosed with COVID-19. This finding may be due to the fact that the participants experienced somatic symptoms affected by individuals diagnosed with

Table 2
Distribution of FCS and WHOQOL-BREF Domains scores according to characteristics of the participants.

Characteristics		FCS		WHOQOL-BREF							
				Physical health		Psychological health		Social relationships		Environmental health	
	n	$\overline{X}$(±SD)	*t*-Test/p	$\overline{X}$(±SD)	*t*-Test/p	$\overline{X}$(±SD)	*t*-Test/p	$\overline{X}$(±SD)	*t*-Test/p	$\overline{X}$(±SD)	t-Test/p
Gender[a]											
Female	705	18.90 (±6.06)	5.853 < 0.001*	14.79 (±2.47)	−1.078/ 0.281	13.55 (±2.65)	−2.631/ 0.009*	14.16 (±3.20)	−0.754/ 0.451	14.06 (±2.24)	1.016/ 0.310
Male	355	16.59 (±6.03)		14.96 (±2.57)		14.01 (±2.73)		14.32 (±3.43)		13.90 (±2.55)	
Marital status[a]											
Married	381	18.66 (±6.38)	2.117/ 0.034*	14.98 (±2.62)	1.311/ 0.190	14.59 (±2.38)	8.648/ <0.001*	14.72 (±3.08)	3.894/ <0.001*	14.36 (±2.24)	3.764/ <0.001*
Single	679	17.83 (±5.99)		14.77 (±2.43)		13.20 (±2.72)		13.93 (±3.36)		13.80 (±2.38)	
Education level[b]											
Primary school	7	26.57 (±1.81)	6.250/ <0.001*	12.08 (±1.66)	4.834/ 0.002*	12.00 (±1.63)	5.525/ 0.001*	13.33 (±4.92)	0.788/ 0.500	13.71 (±1.92)	1.676/ 0.171
Secondary school	10	14.50 (±7.32)		14.91 (±3.43)		12.73 (±3.77)		13.46 (±4.04)		13.20 (±3.12)	
High school	184	17.55 (±6.53)		14.46 (±2.65)		13.09 (±2.92)		13.97 (±3.57)		13.71 (±2.37)	
University and above	859	18.22 (±6.01)		14.95 (±2.45)		13.86 (±2.60)		14.28 (±3.19)		14.08 (±2.33)	
Income status[b]											
Income is less than expenses	157	18.64 (±6.73)	0.850/ 0.427	13.94 (±2.69)	14.517/ <0.001*	12.80 (±3.03)	12.207/ <0.001*	12.76 (±3.53)	19.338/ <0.001*	12.33 (±2.41)	65.094/ <0.001*
Income is equal to expenses	589	18.13 (±5.98)		14.88 (±2.54)		13.74 (±2.63)		14.37 (±3.21)		14.02 (±2.20)	
Expenses are less than income	314	17.85 (±6.14)		15.24 (±2.22)		14.08 (±2.51)		14.64 (±3.08)		14.80 (±2.15)	
Living settlement unit[b]											
Village/town	52	18.26 (±6.50)	0.198/ 0.820	14.24 (±3.12)	1.699/ 0.183	12.73 (±2.39)	3.677/ 0.026*	12.35 (±3.19)	8.967 < 0.001*	12.49 (±2.40)	15.040/ <0.001*
District	301	17.94 (±6.22)		14.83 (±2.57)		13.80 (±2.81)		14.25 (±3.26)		13.79 (±2.46)	
Province	707	18.20 (±6.09)		14.90 (±2.42)		13.73 (±2.64)		14.34 (±3.26)		14.21 (±2.25)	
Fever[a]											
I had/I have	48	16.16 (±6.24)	−2.270/ 0.023*	14.26 (±2.93)	−1.672/ 0.095	13.26 (±2.87)	−1.164/ 0.245	13.83 (±3.44)	−0.829/ 0.407	13.12 (±2.87)	−2.656/ 0.008*
I did not have	1012	18.22 (±6.13)		14.88 (±2.48)		13.72 (±2.68)		14.23 (±3.27)		14.05 (±2.31)	
Cough[a]											
I had/I have	89	18.44 (±7.01)	0.452/ 0.652	14.49 (±2.68)	−1.397/ 0.163	13.68 (±2.73)	−0.074/ 0.941	14.02 (±3.24)	−0.585/ 0.558	13.55 (±2.60)	−1.889/ 0.059
I did not have	971	18.10 (±6.06)		14.88 (±2.48)		13.70 (±2.68)		14.23 (±3.28)		14.04 (±2.32)	
Dyspnoea[a]											
I had/I have	60	17.28 (±6.76)	−1.100/ 0.272	13.64 (±2.71)	−3.858/ <0.001*	12.42 (±3.14)	−3.827/ <0.001*	13.35 (±4.10)	−1.694/ 0.095	13.18 (±2.79)	−2.371/ 0.021*
I did not have	1000	18.17 (±6.10)		14.92 (±2.47)		13.78 (±2.64)		14.26 (±3.22)		14.05 (±2.31)	
Diarrhea[a]											
I had/I have	41	17.43 (±6.14)	−0.735/ 0.463	13.88 (±2.96)	−2.536/ 0.011*	13.08 (±2.80)	−1.496/ 0.135	13.36 (±4.13)	−1.355/ 0.183	12.98 (±3.06)	−2.199/ 0.033*
I did not have	1019	18.15 (±6.15)		14.89 (±2.48)		13.73 (±2.68)		14.25 (±3.24)		14.04 (±2.31)	
Sore throat[a]											
I had/I have	160	18.07 (±6.08)	−0.125/ 0.900	14.25 (±2.59)	−3.296/ 0.001*	13.28 (±2.64)	−2.136/ 0.033*	13.34 (±3.25)	−3.682/ <0.001*	13.55 (±2.27)	−2.633/ 0.009*
I did not have	900	18.14 (±6.16)		14.95 (±2.47)		13.78 (±2.69)		14.37 (±3.26)		14.08 (±2.35)	
Muscle pain[a]											
I had/I have	177	17.96 (±5.82)	−0.404/ 0.686	13.98 (±2.32)	−5.121/ <0.001*	13.10 (±2.36)	−3.587/ <0.001*	13.37 (±3.42)	−3.747/ <0.001*	13.64 (±2.29)	−2.242/ 0.025*
I did not have	883	18.16 (±6.21)		15.02 (±2.50)		13.82 (±2.73)		14.38 (±3.23)		14.08 (±2.35)	
Headache[a]											
I had/I have	291										

(*continued on next page*)

Table 2 (*continued*)

Characteristics		FCS		WHOQOL-BREF							
				Physical health		Psychological health		Social relationships		Environmental health	
	n	$\overline{X}$(±SD)	*t*-Test/p	$\overline{X}$(±SD)	*t*-Test/p	$\overline{X}$(±SD)	*t*-Test/p	$\overline{X}$(±SD)	*t*-Test/p	$\overline{X}$(±SD)	t-Test/p
		18.38 (±6.08)	0.815/ 0.415	14.23 (±2.46)	−4.993/ <0.001*	13.12 (±2.65)	−4.341/ <0.001*	13.64 (±3.60)	−3.293/ 0.001*	13.54 (±2.34)	−3.940/ <0.001*
I did not have	769	18.03 (±6.17)		15.08 (±2.48)		13.92 (±2.67)		14.43 (±3.12)		14.18 (±2.33)	
Any ind. diagnosed with COVID 19[a] in the immediate environment											
Have	162	17.54 (±5.69)	−1.323/ 0.186	14.27 ± (2.64)	−3.180/ 0.002*	13.45 (±2.69)	−1.300/ 0.194	14.27 (±3.70)	0.262/ 0.793	13.88 (±2.40)	−0.726/ 0.468
Do not have	898	18.23 (±6.22)		14.95 (±2.46)		13.75 (±2.68)		14.20 (±3.20)		14.03 (±2.34)	
Degree of proximity with the ind. diagnosed with COVID-19 (n: 162)[a]											
Relative	49	16.53 (±5.29)	−1.497/ 0.136	14.83 (±2.50)	1.772/ 0.078	13.67 (±2.58)	0.684/ 0.495	14.34 (±3.29)	0.136/ 0.892	14.07 (±2.10)	0.669/ 0.505
Friend	113	17.98 (±5.82)		14.03 (±2.67)		13.35 (±2.75)		14.25 (±3.88)		13.80 (±2.53)	
How to apply social isolation[b]											
Definitely not going out of the house	43	16.81 (±6.51)	2.350/ 0.071	13.99 (±3.23)	2.421/ 0.065	12.85 (±3.41)	4.305/ 0.005*	14.63 (±4.33)	4.452/ 0.004*	13.91 (±2.44)	0.668/ 0.572
Going out of the house in compulsory situations	457	18.51 (±6.12)		14.76 (±2.55)		13.49 (±2.73)		13.81 (±3.27)		13.96 (±2.35)	
Going out like before	48	16.54 (±6.72)		14.91 (±2.60)		13.51 (±2.64)		14.08 (±3.85)		13.64 (±2.69)	
Going out with mask and in compliance with the 1.5 m distance rule	512	18.05 (±6.05)		14.99 (±2.37)		13.98 (±2.56)		14.55 (±3.09)		14.09 (±2.30)	

[a] Student's *t*-test.
[b] One-way variance analysis.
* $p < .05$.

Table 3
Pearson correlation coefficients between FCS and WHOQOL-BREF domains scores of participants (n: 1060).

	FCS	Physical health	Psychological health	Social relationships	Environmental health
	r	r	r	r	r
FCS	1	–	–	–	–
Physical health	−0.188*	1	–	–	–
Psychological health	−0.077*	0.653*	1	–	–
Social relationships	−0.008	0.493*	0.538*	1	–
Environmental health	−0.052	0.561*	0.560*	0.567*	1

* $p < .05$.

COVID-19 in their immediate surroundings. In our study, it was found that individuals who wear a mask while going out and complied with the 1.5-meter distancing rule had higher levels of fear, while their quality of life in the psychological health and social relationships were lower. It is to be expected that individuals in fear will practice protective measures more strictly than other individuals. At the same time, distant interpersonal communication may affect psychological health and social relationships, which, in turn, may have resulted in decreased quality of life in these domains.

It was determined that, as the fear scores of the participants (related to COVID-19) increased, their quality-of-life scores related to the physical health domain decreased. In some studies, it has been stated that the fear and anxiety associated with the COVID-19 outbreak causes physical symptoms that cannot be medically explained in individuals (Chew et al., 2020; Colizzi et al., 2020). In Italy, it was reported that individuals with health problems were not applying for health services due to the fear of being infected with COVID-19 (Lazzerini et al., 2020). In addition, people experienced difficulties in accessing nutrition and cleaning products due to lockdowns aimed at preventing COVID-19 spread. Based on all these, this finding we have obtained may be associated with various factors such as, physical symptoms caused by fear and anxiety during the pandemic, negative effects on physical health due to not being treated, and inability to satisfy self-care needs.

In our study, it was found that, as the score obtained from FCS increased, the score obtained from the psychological health domain of quality of life decreased. According to the results of published studies, it is seen that fear of COVID-19 adversely affects psychological well-being and leads to anxiety, stress and depression (Holmes et al., 2020; Lee, 2020; Lee & Crunk, 2020; Mazza et al., 2020). In addition, it is has been shown that intense fear decreases quality of life by triggering stress, anxiety and depression (Repišti et al., 2020). In America's State of Mind Report, it was emphasized that the use of anxiolytic drugs had increased in American adults after the COVID-19 pandemic (Express Scripts, 2020). Therefore, it is evident that fear of COVID-19 affects the psychological health and well-being of individuals. For this reason, it is important for individuals to obtain correct information about COVID-19 and receive psychological support, in order to increase quality of life and reduce fear.

Conclusion

In our study, it was found that COVID-19-related fear was higher in women compared to men, and in married individuals compared to those that were single. It was also determined that COVID-19-related fear levels decreased with increased education level. In addition, it was found that, as the income levels of the participants decreased, their

quality of life decreased in all domains. Participants who did not show signs of fever during the pandemic had higher levels of fear and the participants who experienced sore throat, muscle pain and headache had lower quality of life scores for all domains. It was found that the quality of life related to physical health was lower among participants with COVID-19-positve acquaintances. Finally, we also found that, as the score from FCS increased, the scores obtained from the physical and psychological health domains of WHOQOL-BREF-TR decreased.

Implications for nursing practice

The COVID-19 pandemic has created fear in our country and throughout the world. The fear caused by the pandemic also adversely affects individuals' quality of life in Turkey. The following points are our suggestions for good nursing practices during the pandemic:

- To consider and assess the quality of life of individuals in the physical, psychological, social and environmental fields, as well as their fears.
- To evaluate individuals with regard to economic status since this appears to be a factor that significantly affects these areas.
- To develop new strategies to provide necessary care.
- To integrate these strategies through online media.

Limitations

This research is limited to the data of the participants who have internet access and can use digital tools, such as smartphones, computers, tablets, etc., to fill the data collection tools. Additionally, data procurement was limited to a period of around two months. The last limitation of the research is that the most of the participants are at least a bachelor's degree.

Declaration of competing interest

The authors report no actual or potential conflicts of interest.

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Author contributions

Study design: AA, AA, FD, DYV.
Data collection: AA, AA.
Data analysis: FD, DVY.
Manuscript writing: AA, AA, FD, DYV.

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