



## An Investigation of the Fear of Covid-19 Levels of Adults in Terms of Psychological Symptoms and Some Demographic Variables\*

Yetişkinlerin Covid-19 Korku Düzeylerinin Psikolojik Belirtiler ve Bazı Demografik Değişkenler Açısından İncelenmesi

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**Abstract:** The aim of this research is to examine the relationship between the fear of Covid-19 and psychological symptoms and whether the fear of Covid-19 differs according to some demographic variables. 574 people (300 female, 274 male) aged 18 years and older participated in the research. The data of the research were provided by using the Covid-19 Fear Scale, Symptom Check List (SCL-90-R) and Personal Information Form. The data were analyzed in the SPSS 24 program. In the study, the fear of Covid-19 and adult psychological symptoms were found to be positively and significantly correlated. In addition, it was found that the Covid-19 fear levels of the participants didn't differ according to gender; on the other hand, it was found that there was a significant difference in terms of the person individuals stayed with during the Covid-19 pandemic process, the place of residence, having children, presence of chronic illness, quarantine as a result of contact, and being infected.

**Keywords:** Pandemic, Covid-19, Fear of Covid-19, Psychological Symptoms.

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**Öz:** Bu çalışmada, Covid-19 korkusunun psikolojik belirtiler ile ilişkisi ve Covid-19 korkusunun bazı demografik değişkenlere göre farklılık gösterip göstermediğinin incelenmesi amaçlanmıştır. Araştırmaya 18 yaş ve üzerinde olan 574 kişi (300 kadın, 274 erkek) katılmıştır. Araştırmanın verileri Covid-19 Korkusu Ölçeği, Psikolojik Belirti Tarama Listesi (SCL-90-R) ve Kişisel Bilgi Formu ile toplanmıştır. Veriler, SPSS 24 programında analiz edilmiştir. Araştırmada yetişkin bireylerde Covid-19 korkusu ile psikolojik belirtiler arasında pozitif yönde anlamlı ilişki olduğu tespit edilmiştir. Ayrıca katılımcıların Covid-19 korkusu düzeylerinin cinsiyete göre anlamlı farklılaşmadığı, Covid-19 pandemi sürecinde birlikte kalınan kişi, yaşanan yer, çocuk sahibi olma, kronik hastalığın bulunması, temas sonucu karantina yaşama ve enfekte olma değişkenlerine göre anlamlı farklılık gösterdiği belirlenmiştir.

**Anahtar Kelimeler:** Pandemi, Covid-19, Covid-19 Korkusu, Psikolojik Belirtiler.

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## 1. Introduction

It is a known fact that humans have had to struggle with some microorganisms on plants and animals in the historical process. It is stated that due to this situation, throughout history millions of people have lost their lives. The World Health Organization (WHO, 2020) reported that infectious diseases are one of the top ten causes of death globally. Coronaviruses are the leading infections that cause epidemics at global level. The biggest epidemic disease associated with infection in recent years is the Coronavirus (Covid-19) because the Covid-19 pandemic has resulted in the death of approximately seven million people worldwide (WHO, 2023).

Covid-19 pandemic caused by coronaviruses has affected the whole world socially, economically and psychologically. In this period, in terms of social life, it has been found that unhealthy eating habits have increased (Dinçer and Kolcu, 2021), and more time is spent on the internet (Yıldırım and İpek, 2020). The pandemic has also had various economic consequences. There are also many research findings reporting the prevalence of psychological health problems during this period (Erdoğan et al., 2020; Cullen et al., 2020; Tükel, 2020; Wu et al., 2020). It has been reported that problem solving skills are insufficient due to increasing fear and anxiety in individuals and conflict among individuals that has increased in this period (Kabeloğlu and Gül, 2021; Koç et al., 2021).

## 2. Literature

### 2.1. Fear of Covid-19 (FCV-19)

Throughout the epidemic, FCV-19 (fear of Covid-19) emerged and this fear affected the lives of individuals negatively. When analysed conceptually, FCV-19 is a type of fear that occurs in result of intolerance to uncertainty and leads to negative affective and symptomatic consequences during the pandemic process (Ahorsu et al., 2020; Duman, 2020). Fear is normal when there is a threat to the existence of the individual and his loved ones and the uncertainty increases (Ng and Kemp, 2020). Pandemics, which are known to cause life threats, pave the way for a sense of fear. It has been determined that fear is among the common psychological reactions in previous pandemics such as SARS, MERS and Ebola (Chew et al, 2020).

Fear is a functional emotion as it activates avoidance of the source of danger and coping strategies (Steimer, 2002). On the other hand, when it prevents adaptation to conditions, it loses its function and becomes harmful (Garcia, 2017; Shin and Liberzon, 2010). In case of intense fear, individuals may panic instead of reacting rationally. Experienced fear and panic can weaken the individual's ability and resilience to cope with the virus, encourage antisocial behaviours and cause social crises (Ng and Kemp, 2020). Consistent with this situation, Ling et al., (2020) reported that the fear experienced during the pandemic process is effective on people's social behaviours and is among the determinants of conflict.

### 2.2. Psychological Symptoms

Health is defined in the Constitution of the World Health Organization (1989: 1) as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. Considering this definition as one of the basic principles of the WHO Constitution points to the importance of mental health for the individual and society. The Covid-19 pandemic worldwide has threatened the mental health of individuals as well as their physical health. Measures such as physical distance restrictions and quarantine in the Covid-19 process have led to a decrease in interpersonal communication and restriction of social life. Increasing psychological pressure in this process has increased the likelihood of various mental health problems (Xiao, 2020). As a matter of fact, studies in the literature have reported that psychological health problems have become widespread during the pandemic process (Erdoğan et al., 2020; Cullen et al., 2020; Li et al., 2020; Tükel, 2020; Wu et al., 2020;). Anxiety, depression, somatization, and obsessive-compulsive disorder are among the mental health problems that are frequently addressed in the literature (Banerjee, 2000; Huang et al., 2020; Wang et al., 2020; Repon et al., 2021).

Anxiety is felt towards an event that is supposed to occur in the future (Beck, 2005) and is an emotional reaction to a hidden and subjective danger of uncertain origin (Cai et al., 2017; Freud, 1961). According to

the perception of uncontrollability and unpredictability, unpleasant and uncontrollable events create more stress than specific and controllable events. For this reason, it is possible that these events create more fear and anxiety (Barlow, 2001). Anxiety symptoms include constant sweating, trembling, dizziness, heart palpitations, and fear of losing control (Steer and Beck, 1997). It has been determined that there is an increase in anxiety symptoms in the Covid-19 process, independent of the age variable (Hawes et al., 2021; Ran et al., 2020). In addition, it has been determined that being a woman, being young and having a small number of children are predictors of anxiety experienced during the Covid-19 process (Zhang et al., 2021).

Depression is a phenomenon that affects how a person thinks, feels and behaves. Due to depression, the individual's mood, behaviours and thoughts change and his physical health deteriorates over time (Köroğlu, 2006). Depression has various symptoms. These are reluctance, apathy, pessimism, hopelessness about the future, feelings of guilt, decrease in self-esteem, suicidal thoughts, anger, negative body image, increase/decrease in appetite, deterioration in sleep patterns, and concern for health (Beck et al., 1961). Studies show that depression prevents people from enjoying life and reduces their life satisfaction (Aydemir et al., 2009; Britton et al., 2012). Additionally, in their study with adults during the Covid-19 process, Ran et al. (2020) concluded that 18.2% of individuals showed signs of moderate depression.

Somatization refers to strain on various bodily functions (Dağ, 1991: 6). The symptoms of somatization include feeling of faintness and dizziness, difficulty in remembering, pain and numbness in various parts of the body (heart, chest, waist, arm, leg, muscle), nausea, hot/cold flushes, difficulty in breathing, physical weakness (Derogatis, 1992). Studies have revealed that somatization symptoms increase with Covid-19 (Ran et al., 2020).

Obsessive-compulsive symptoms refer to the strain created by unwanted thoughts and behaviors that the individual cannot stop thinking and/or doing (Dağ, 1991: 6). Individuals with obsessive compulsive symptoms generally display an orderly, meticulous and perfectionist attitude. It is among the symptoms that these people are excessively prescriptive and orderly, often hesitant, unsure of anything, and indecisive (Özkan, 2018). In studies conducted on the non-clinical population, it has been determined that the severity of obsessive compulsive symptoms is related to the perceived stress in the pandemic (Robillard et al., 2020). It has also been reported that the increase in somatic symptoms and the frequency of behaviours towards hygiene measures in Covid-19 (hand washing, use of disinfectants, etc.) are also related (Samuels et al., 2021).

### 2.3. The Current Study

In studies related to Covid-19 and mental health; often, anxiety (Repon et al., 2021; Srivastava et al., 2020; Wang et al., 2020), depression (Repon et al., 2021; Wang et al., 2020), somatization (Huang et al., 2020) and obsessive-compulsive symptoms (Banerjee, 2000), and the prevalence and severity of symptoms were evaluated. Although psychological symptoms are common in individuals throughout the Covid-19 pandemic, it can be stated that the number of studies examining the relationship of these symptoms with FCV-19 are limited.

During the pandemic process, various measures were taken to protect against the virus and reduce the risk of transmission. Some of these measures are avoiding situations that require close contact such as handshaking and hugging, washing hands frequently and for at least twenty seconds, using disinfectants frequently and not getting in crowded environments. At the same time, individuals were quarantined if they were infected or in contact. It was also declared that there are various symptoms of Covid-19 (Ministry of Health, 2023). Statistics for individuals who died and were infected/contacted by Covid-19 were frequently announced through the media, and there were uncertainties in many issues during the pandemic process. Studies have shown a relationship between anxiety and uncontrollability/uncertainty (Gu et al., 2020), loneliness and depression (Elsayed et al., 2019). In addition, the fact that repetitive behaviours and washing symptoms in obsessive-compulsive symptoms (Dağ, 1991) and the suggested measures in the pandemic process are in common and the extraordinary stressful and challenging

emotional conditions of the pandemic may have created a risk for somatization symptoms in individuals (Hall et al., 2017). Considering that this situation may have created a suitable basis for anxiety, depression, somatization and obsessive compulsive disorder, these four psychological symptoms were examined in the present study.

When the studies in the literature on demographic variables are examined, it can be seen that there is inconsistency in results regarding the variables of gender (Arisoy and Çay, 2021; Gencer, 2020; Memiş-Doğan and Düzel, 2020), who the individual stayed with during the pandemic process (Arpacioğlu et al., 2021; Hatun et al., 2020) and where the pandemic process was spent (Arisoy and Çay, 2021; Srivastava et al., 2020). In addition, the Ministry of Health (2023) stated that if individuals are infected, there is a risk of virus transmission to the people they come into contact with, the risk of transmission increases in crowded environments, and the symptoms are more severe in individuals with chronic diseases. For this reason, demographic variables such as gender, who the individual stayed with during the pandemic process, where the individual lived mostly in this process, having children, chronic illness, having experienced quarantine and being infected were discussed in the research. It is thought that examining the fear of Covid-19 in terms of psychological symptoms and some demographic variables will constitute a scientific basis for the measures to be taken to protect psychological health in possible pandemic conditions. In this context, the aim of the research is to examine the relationship between FCV-19 and psychological symptoms and whether there is a difference in FCV-19 level according to various demographic variables. Answers to the following research questions were sought:

1. Is there a significant correlation between FCV-19 and psychological symptoms (anxiety, depression, somatization and obsessive compulsive symptoms)?
2. Does the level of FCV-19 differ significantly in terms of various variables:
  - a. Gender, who the individuals stayed with during the pandemic, the place individuals lived mostly during the pandemic, having children, having a chronic disease, experiencing quarantine due to contact, being infected (Covid-19 positive).

### 3. Method

#### 3.1. Research Design

The objective of this research is to analyse the association between psychological symptoms (anxiety, depression, somatization and obsessive compulsive symptoms) and FCV-19 and whether FCV-19 varies significantly according to some demographic variables. In this respect, correlational survey model, which is one of the quantitative research methods, was employed in the research. In correlational survey model, type of correlation and comparative relationships can be examined (Crano and Brewer, 2002; Karasar, 2003).

#### 3.2. Study Group

In the study, data were collected from 580 individuals aged 18 and over; however, six individuals weren't included due to incomplete and incorrect information. 574 (300 females and 274 males) individuals participated in the study (Table 1). Participants were included in the research through convenient sampling, which is non-probability sampling type (Bal, 2020).

Table 1: Demographic Features of the Participants

Variable	Category	n	%
Gender	Male	274	47.7
	Female	300	52.3
Age	18-25 years	135	23.5
	26-35 years	211	36.8
	36-45 years	97	16.9
	≥46 years	131	22.8
The place individuals lived mostly during the Covid-19 pandemic	Village/Town	114	19.9
	District centre	181	31.5
	City centre	109	19.0
	Metropolitan city centre	170	29.6
The state of having children	Yes	327	57.0
	No	247	43.0
With whom the Covid-19 pandemic process was spent	Alone	87	15.2
	With my nuclear family	371	64.6
	With my extended family (spouse, child, mother and/or father)/with relatives	116	20.2
The state of having chronic disease	Yes	150	26.1
	No	424	73.9
The state of contacting an infected (positive) individual and experiencing a quarantine process during the Covid-19 pandemic process	Yes	171	29.8
	No	403	70.2
The state of being infected (positive) during the Covid-19 pandemic process	Yes	140	24.4
	No	434	75.6

### 3.3. Ethical Considerations

Before starting the research, permission was obtained from the relevant researchers for the use of the scale. In addition, ethical approval was obtained from the Ethics Committee of a foundation university (Decision No: 2021-32-13). Informed Consent Form was presented to the participants during data collection stage. Individuals who used the internet due to the Covid-19 epidemic participated in the research on an online platform on a voluntary basis.

### 3.4. Data Collection Tools

*The Fear of Covid-19 Scale (FCV-19S)*: It was employed to determine FCV-19 levels of the people who participated in the study. The scale was improved by Ladikli et al. (2020). One factor structure exists for the seven items on the five-point Likert scale. Cronbach alpha internal consistency coefficient of FCV-19S was .86; while correlation coefficient obtained as a result of the test-retest applied with an interval of 15 days was .86. A high value on the scale demonstrates a high level of FCV-19 (Ladikli et al., 2020). The reliability coefficient of the scale in the current study is 0.95. In the current study, standardized factor loads of the scale are between .80 - .92. The goodness of fit values of the scale indicate that the factor structure shows high fit ( $\chi^2 = 27.445$ ;  $df = 11$ ;  $p = .004$ ; CFI = .99; TLI = .98; IFI = .99; PNFI = .51; RMSEA = .07).

*Symptom Check List (SCL-90-R)*: It was employed to understand the psychological symptom levels of the individuals. The scale was finalized by Derogatis (1977). Studies for reliability and validity in Turkey were conducted by Dağ (1991). SCL-90-R consists of 10 subscales and 90 items. In this study, 45 items including obsessive compulsive symptoms, somatization, anxiety and depression were used. The scale is a 5-point Likert-type data collection tool, with a score ranging between 0 and 4 (0 = None at all, 4 = A lot) for each item. The scale's internal consistency Cronbach alpha coefficient is .97 (Dağ, 1991). The scale's reliability coefficients in the present study were .98 for somatization; .97 for obsessive compulsive symptoms; .98 for depression and .98 for anxiety dimension. In the current study, the standardized factor loads of the scale were .80 - .93; for somatization; .76 - .88 for obsessive compulsive symptoms; .76 - .92 for depression and .84 - .92 for anxiety. Goodness of fit values of the scale show that the factor structure has an acceptable fit ( $\chi^2 = 2722.661$ ;  $df = 928$ ;  $p = .000$ ; CFI = .90; TLI = .90; IFI = .90; PNFI = .80; RMSEA = .08).

*Personal Information Form*: The researcher's personal information form was utilised to learn the socio-demographic data of the participants. Personal Information Form included 12 questions on gender, educational status, age, marital status, where individuals mostly stayed during the Covid-19 pandemic, whether they were in contact and quarantined, whether they were infected, etc.

### 3.5. Data Analysis

The analysis was conducted with SPSS 24.0 program and it was tested at 95% confidence level. Before analysing the research data, the suitability of the data with parametric statistical methods was tested (Table 2).

**Table 2:** Normality Test Results for the Variables of FCV-19S and Symptom Check List

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	<i>n</i>	<i>p</i>	Statistic	<i>n</i>	<i>p</i>
FCV-19S	.163	574	.000	.882	574	.000
Anxiety	.157	574	.000	.857	574	.000
Depression	.153	574	.000	.886	574	.000
Somatization	.124	574	.000	.901	574	.000
Obsessive compulsive symptoms	.141	574	.000	.908	574	.000

$p < .05$

When Table 2 is checked, it can be seen that normality couldn't be achieved according to the results of the normality test performed for the FCV-19S and symptom check list variables ( $p < .05$ ). Because of this reason, in data analysis, non-parametric independent groups Spearman Correlation Test, Mann-Whitney U Test, Kruskal Wallis-H test were utilized. The correlation between the scores was analysed with Spearman Correlation Test, the difference between two-group variables was analysed with Mann-Whitney U Test, and the difference between three or more group variables was analysed with Kruskal Wallis-H Test. In case of finding significant results with Kruskal Wallis-H Test, Bonferroni corrected Mann-Whitney U Test was applied to calculate in favour of which group the difference between paired groups was.

## 4. Results

According to Spearman Correlation Test results, a positive strong correlation was found between FCV-19S and somatization, depression, anxiety. On the other hand, a positive moderate correlation was found between FCV-19S and obsessive compulsive symptoms ( $p < .01$ ) (Table 3).

**Table 3:** Spearman Correlation Test Results of the Analysis of the Correlation Between FCV-19S and Psychological Symptoms

Psychological Symptoms	FCV-19S
Anxiety	.73*
Depression	.72*
Somatization	.74*
Obsessive compulsive symptoms	.69*

\* $p < .01$

According to Mann-Whitney U test results, it was concluded that FCV-19 scores didn't significantly differ in terms of gender ( $p > .05$ ) (Table 4).

**Table 4:** Mann-Whitney U Test Results of FCV-19 in Terms of the Variable of Gender

Variable	Category	<i>n</i>	Mean rank	U	<i>p</i>
Gender	Male	274	290.34	40321.500	.693
	Female	300	284.91		

\* $p < .05$

According to the Kruskal Wallis-H Test results, a statistically significant difference was observed with regard to FCV-19 between the samples in terms of the person they spent the Covid-19 pandemic process with ( $p < .05$ ) (Table 5). According to Mann-Whitney U Test results, statistically significant difference was observed between the participants who spent the pandemic process alone and those who spent the process with their nuclear family in terms of FCV-19 scores ( $p < .0166$ ) (Table 6). When mean ranks are taken into consideration, it can be seen that participants who spent the pandemic process alone have higher FCV-19 scores when compared with the participants who spent the pandemic process with their nuclear family. No statistically significant difference was found between the participants who spent the Covid-19 process alone and those who spent the process with their extended family and between the participants who spent the process with their nuclear family and those who spent the process with their extended family ( $p > .0166$ ). When the general results and mean ranks are considered, it can be seen that FCV-19 scores of the participants who spent the pandemic process alone are higher than those of the participants who spent the pandemic process with their nuclear family (Table 6).

**Table 5:** Kruskal Wallis-H Test Results of FCV-19 Scores with Regard to the Variable of the Person Participants Spent the Pandemic with

Variable	Category	<i>n</i>	Mean ranks	$X^2$	<i>p</i>
Person (s) Covid-19 pandemic process was spent with	Alone	87	329.32	7.826	.020*
	With my nuclear family	371	275.40		
	With my extended family (spouse, child, mother and/or father)/with relatives	116	294.85		

\* $p < .05$

**Table 6:** Mann-Whitney U Test Results of FCV-19 Scores in Terms of the Variable of the Person Participants Spent the Pandemic With

Variable	Category	<i>n</i>	Mean ranks	Total ranks	U	<i>p</i> *
Person (s) Covid-19 pandemic process was spent with	Alone	87	264.90	23046.50	13058.50	.005*
	With my nuclear family	371	221.20	82064.50		
	Total	458				
	Alone	87	108.41	9432.00	4488.00	.175
	With my extended family (spouse, child, mother and/or father)/with relatives	116	97.19	11274.00		
	Total	203				
	With my nuclear family	371	240.20	89113.50		
	With my extended family (spouse, child, mother and/or father)/with relatives	116	256.16	29714.50		
	Total	487			20107.00	.284

\* For Post Hoc Analyses, Bonferroni correction was  $p < .0166$

Kruskal Wallis-H Test was conducted to find out whether FCV-19 scores differed significantly with regard to the variable of the place participants lived mostly during the pandemic process and statistically significant difference was found in FCV-19 scores in terms of the variable of the place participants lived mostly during the pandemic process ( $p < .05$ ) (Table 7). Mann-Whitney U Test was conducted to understand from which group the difference resulted. The results showed that FCV-19 scores differed significantly between participants who lived in village/town and those who lived in city centre; between participants who lived in district centre and those who lived in city centre; between participants who lived in city centre and those who lived in metropolitan city centre ( $p < .0125$ ) (Table 8). When the general results and mean ranks are considered, it can be seen that participants who lived in city centre had higher FCV-19 than the participants who lived in metropolitan city centre, village/town and district centre (Table 8).

**Table 7:** Kruskal Wallis-H Test Results of FCV-19 Scores with Regard to the Variable of the Place Individuals Lived Mostly During the Covid-19 Pandemic

Variable	Category	<i>n</i>	Mean rank	$X^2$	<i>p</i>
The place individuals lived mostly during the Covid-19 pandemic	Village/Town	114	281.68	24.307	.000*
	District centre	181	264.80		
	City centre	109	356.51		
	Metropolitan city centre	170	271.33		

\* $p < .05$



**Table 8:** Mann-Whitney U Test Results of FCV-19 Scores in Terms of the Variable of the Place Individuals Lived Mostly During the Covid-19 Pandemic

Variable	Category	n	Mean ranks	Total rank	U	p*
The place individuals lived mostly during the Covid-19 pandemic	Village/Town	114	152.38	17371.50	9817.50	.481
	District centre	181	145.24	26288.50		
	Total	295				
	Village/Town	114	99.40	11332.00	4777.00	.002*
	City centre	109	125.17	13644.00		
	Total	223				
	Village/Town	114	144.89	16517.50	9417.00	.687
	Metropolitan city centre	170	140.90	23952.50		
	Total	284				
	District centre	181	128.07	23180.50	6709.50	.000*
	City centre	109	174.44	19014.50		
	Total	290				
District centre	181	173.49	31401.50	14930	.631	
Metropolitan city centre	170	178.67	30374.50			
Total	351					
City centre	109	166.89	18191.50	6333.50	.000*	
Metropolitan city centre	170	122.76	20868.50			
Total	279					

\* For Post Hoc Analyses, Bonferroni correction was  $p < .0125$ .

According to Mann-Whitney U Test results, it was found that FCV-19 level was statistically significantly different in terms of the variable of having children ( $p < .05$ ). According to the results, participants who have children have higher FCV-19 (Table 9).

**Table 9:** Mann-Whitney U Test Results of FCV-19 Scores with regard to the Variable of Having Children

Variable	Category	n	Mean ranks	U	p
Having children	No	327	268.28	34100.500	.001*
	Yes	247	312.94		

\* $p < .05$

The Mann-Whitney U test was used to see if the variable of having children affected the differences in FCV-19 scores significantly. The findings of the investigation revealed a statistically significant difference between the FCV-19 levels in the various samples with regard to the state of having chronic disease ( $p < .05$ ). According to these results, participants with chronic conditions had greater FCV-19 scores (Table 10).

**Table 10:** Mann-Whitney U Test Results of FCV-19 Scores in Terms of the Variable of Having Chronic Disease

Variable	Category	n	Mean ranks	U	p
The state of having chronic disease	Yes	150	393.79	15856.500	.000*
	No	424	249.90		

\* $p < .05$

According to Mann-Whitney U Test results, statistically significant difference was observed between the samples with different states of contacting an infected (positive) individual and experiencing a quarantine

process during the Covid-19 pandemic process and the state of being infected (Covid-19 positive) ( $p < .05$ ). According to the results, FCV-19 level was observed to be higher in participants who experienced quarantine as a result of infection when compared with those who didn't experience a quarantine but were infected and those who weren't infected (Table 11).

**Table 11:** Mann-Whitney U Test Results of FCV-19 Scores in Terms of the Variable of Experiencing Quarantine as a Result of Infection and Being Infected

Variable	Category	<i>n</i>	Mean ranks	U	<i>p</i>
The state of experiencing a quarantine during the Covid-19 pandemic process	Yes	171	346.30	24402	.000*
	No	403	262.55	.000	
The stage of infection experienced during the Covid-19 epidemic	Yes	140	342.76	22643	.000*
	No	434	269.67	.000	

\* $p < .05$

## 5. Discussion

The aim of this study is to examine the relationship between FCV-19 and psychological symptoms and whether there is a difference in FCV-19 level according to various demographic variables. A positive and statistically significant correlation was observed between the FCV-19 and psychological symptoms. In this context, it was concluded that as the FCV-19 of the participants increased, somatization, obsessive-compulsive symptoms, depression and anxiety symptoms also increased. Studies in literature support this finding. In an investigation conducted by Koç et al. (2021) which included 385 people, anxiety symptoms were observed in 14.5% of the participants, and depressive symptoms were observed in 17.1% as a result of the study. In another investigation, it was reported that 2% of the participants that have received treatment and recovered about a month later during the pandemic had major depression and 12% had anxiety (Yılbaş, 2021). In an investigation by Repon et al. (2021), it was determined that 44% of the participants had depression and 78% had anxiety symptoms. In their study evaluating the mental health consequences of FCV-19, Fitzpatrick et al. (2020) concluded that more than 25% of the participants had moderate to severe anxiety symptoms and the participants had high depressive symptoms. In a study by Perz et al. (2022), a moderate relationship was observed between FCV-19 and general anxiety disorder. Similarly, in another research, a positive correlation was observed between FCV-19 and obsession and anxiety (Srivastava et al., 2020). With the emergence of Covid-19, radical changes have occurred in many subjects and areas such as the way individuals work, the use of social areas, curfews, social isolation, and hygiene habits. In addition, individuals have experienced doubts about whether they are carriers of Covid-19 and are exposed daily to long-term uncertainty, health threats and the knowledge that there are people who suddenly lost their lives. In addition, individuals may not have been able to establish adequate face-to-face relations with their family and friends during the pandemic process and may have been deprived of social support compared to before the pandemic. Therefore, the increase in vital risk factors and the decrease in protective factors under pandemic conditions can be interpreted as a suitable basis for obsessive-compulsive symptoms, somatization, depression and anxiety symptoms in individuals.

In the study, it was found that FCV-19 didn't show significant difference by gender. This result indicates that the level of FCV-19 didn't vary with respect to gender. This finding is consistent with research results revealing that FCV-19 has similar emotional consequences in males and females (Bisht et al., 2021; Kalafatoğlu and Yam, 2021; Perz et al., 2022). In literature, there are also studies which show that FCV-19 is higher in females than in males (Bitan et al., 2020; Doshi et al., 2021; Fitzpatrick et al., 2020; Kasapoğlu, 2020; Srivastava et al., 2020). On the other hand, there is also research reporting that men have a higher FCV-19 than women (Aksoy and Atılgan, 2021; Alnazly et al., 2021). The result that there was no significant difference between the FCV-19 and the gender variable may be due to the fact that the Covid-19 pandemic changed the lives of all people similarly regardless of gender (change in daily routines, measures taken to protect from the transmission of the disease; quarantine, social distance, use of masks, hes code, working

remotely, etc.). On the other hand, it can be seen that there are no consistent results in the literature in terms of gender. This can be explained by the fact that the researches are conducted in different cultures and the culture is effective in expressing emotions (Van Hemert et al., 2007).

In the current study, it was found that the FCV-19 levels of the participants who spent the pandemic process alone were higher than the participants who spent the pandemic process with their nuclear family. In a research conducted by Hatun et al. (2020), it is observed that the results of the current study are supported. In another study, it was found that individuals who stayed with their families had higher FCV-19 levels than those who were alone (Arpacioğlu et al., 2021). It is noteworthy that social support from the family, sharing feelings within the family and support are important in order to overcome the psychological depression and stress induced by the Covid-19 pandemic. It is stated that there is a strong and consistent relationship between social cohesion and social support and being healthy (Coyne and DeLongis, 1986). In a research by Cao et al. (2020), it was stated that there is a negative significant relationship between social support and anxiety in studies conducted on Covid-19, and living with the family during the pandemic process was reported to be a protective factor for anxiety and normal fear against Covid-19. Social support, healthy communication and sharing of emotions during the pandemic process can be an important factor in effectively dealing with the fear of Covid-19. Therefore, the level of fear of Covid-19 may have increased as those living alone during the pandemic were deprived of adequate social support.

Another variable discussed in the study is where the pandemic process was mostly spent. It was found that the FCV-19 level of the participants who lived in the city centre was higher than the participants who lived in the metropolitan city centre, village/town and district centre. Contrary to the current finding, it was found that individuals who lived in the city centre and district reported lower FCV-19 than those living in the village (Arısoy and Çay, 2021), and individuals who lived in in urban areas reported lower FCV-19 than those living in the rural areas (Mohd Kassim et al., 2022). There are also studies which show that the level of FCV-19 doesn't differ according to living in rural and urban areas (Srivastava et al., 2020). According to study results, FCV-19 increases in areas where the cases are in high levels (Fitzpatrick et al., 2020). Factors such as the fact that health opportunities are relatively more limited in provincial centres compared to metropolitan cities, infectious diseases cause dangerous deaths in crowded areas (Bayhan 2020), more Covid-19 cases are seen in provincial centres than villages and towns, and it is more difficult to fulfil the recommended measures during the pandemic may have increased the FCV-19 in those living in provincial centres.

Another finding of the study is that the FCV-19 is significantly higher in the participants who have children than those who don't have children. This finding is consistent with other research results in the literature (Arısoy and Çay, 2021; Fitzpatrick et al., 2020). In a study by Cardoso de Sá et al. (2020), it was reported that 52.9% of parents found it difficult to maintain social distance between children, that children couldn't continue to use masks or that they mightn't accept the use of masks, and as a result, parents were worried about their children getting infected. Therefore, the difficulties experienced by the participants who have children in fulfilling the pandemic measures may increase the anxiety of losing their children. It can be stated that this situation may have increased the level of FCV-19.

In the study, it was found that the FCV-19 was higher in individuals with chronic diseases than those without chronic diseases. There are studies in literature that support this finding (Bakioğlu et al., 2021; Bitan et al., 2020; Srivastava et al., 2020). On the contrary, Gencer (2020) reported that FCV-19 didn't differ significantly in terms of the state of having chronic disease. Bitan et al. (2020) found that when personal risk is high, individuals' ability to cope may weaken and this may affect the general level of fear. Scientific research has revealed that mortality is increased in those with chronic diseases (Tekin and Avkan-Oğuz, 2020). This scientific result has been frequently emphasized in the media, especially during the Covid-19 process, and it has been reported by various media channels that Covid-19 symptoms are more severe in individuals with chronic diseases. These factors may have increased the FCV-19 in individuals with chronic diseases.

In the study, it was found that the FCV-19 was higher in infected individuals than in non-infected individuals. In addition, it was designated that the FCV-19 was higher in those who experienced the quarantine process as a result of contact with an infected (positive) individual than in those who didn't experience the quarantine process. When the literature is examined, it is seen that there are studies supporting the current research findings. In the study of Kardeş (2020), it was determined that the fear of infection and death in a short period of time, which started rapidly, was at a high level in people who were in contact or diagnosed with Covid-19. In another study, it was reported that fear continues in people who are infected and who continue their lives (Wang et al., 2020). In a meta-analysis examining the effect of social isolation and quarantine, it was stated that the freedom and social isolation restrictions during the quarantine process cause various emotions such as fear, distress and tension (Brooks et al., 2020). It can be stated that positive or contacted individuals perceive a significant threat to both their physical existence and the individuals they are in a relationship with. Possible harm to themselves and their environment may have caused more fear in individuals.

## 6. Limitations and Suggestions

The results obtained from this study should be evaluated within the framework of limitations. This research is limited to individuals aged 18 years and over. Future studies examining children's and adolescents' fear of Covid-19 may be planned. In addition, in this study, the participants were not compared in terms of their developmental stages. Developmental stages such as emerging adulthood, young adulthood, etc. can be examined comparatively in future research. Since the data were collected during the pandemic, the data collection process was carried out on online platforms. Therefore, data couldn't be collected from individuals who weren't in the digital environment or who didn't have the ability to use digital devices. Reasons such as constantly learning new information about Covid-19, periodical changes in the number of circumstances, and higher number of cases in some provinces may have affected the data collection process. Depression, anxiety, somatization and obsessive-compulsive symptoms were discussed in the study. In future studies, the relationship of FCV-19 with different psychological symptoms can be examined. When considered in terms of application area, access to mental health services can be facilitated, especially during pandemic processes.

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### Çıkar Çatışması/ Conflict of Interest

Yazar(lar) çıkar çatışması bildirmemiştir.  
The authors have no conflict of interest to declare.

### Yazarların Katkıları/Authors Contributions

Çalışmanın Tasarlanması: Yazar-1 (%50), Yazar-2 (%50)

Conceiving the Study: Author-1 (%50), Author-2 (%50)

Veri Toplanması: Yazar-1 (%100), Yazar-2 (%0)

Data Collection: Author-1 (%100), Author-2 (%0)

Veri Analizi: Yazar-1 (%100), Yazar-2 (%0)

Data Analysis: A Author-1 (%100), Author-2 (%0)

Makalenin Yazımı: Yazar-1 (%50), Yazar-2 (%50)

Writing Up: Author-1 (%50), Author-2 (%50)

Makale Gönderimi ve Revizyonu: Yazar-1 (%50), Yazar-2 (%50)

Submission and Revision: Author-1 (%50), Author-2 (%50)

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