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ORIGINAL ARTICLE
ORİJİNAL ARAŞTIRMA

Evaluation of Psychological Effects of COVID-19 Pandemic Process on Cancer Patients

COVID-19 Pandemi Sürecinin Kanser Hastaları Üzerindeki Psikolojik Etkilerinin Değerlendirilmesi

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ABSTRACT

Aim: Coronavirus-19 pandemic poses a threat both physically and mentally for cancer patients (CPs). We aimed to evaluate anxiety and depression levels of CPs during the pandemic period.

Material and Method: In March 2022, CPs treated with chemotherapy and a control group who without a diagnosis of cancer and psychological disorders were evaluated. Volunteer participants completed a questionnaire form included Patient Health Questionnaire (PHQ-9), General Anxiety Scale (GAD-7) and Coronavirus Anxiety and Obsession Questionnaire (CAS, OCS).

Results: 186 (61%) CPs and 119 (39%) control groups were evaluated. 148 (48.5%) were men and 157 (51.5%) were women. 86.1% were married, 50.7% lived in the city center and 40.1% had primary school education. CPs were older, predominantly female, mostly living in the district, had lower education levels, lower working rates and lower income levels. Depression and anxiety scores were higher in CPs (p=0.041, p<0.001). However, there was no difference between the groups in CAS and OCS scores. GAD-7 was increased by cancers other than breast, curative chemotherapy administration, low education level and low daily television watching in CPs (p=0.049, p=0.031, p=0.028 and p=0.04, respectively).

Conclusion: Coronavirus-19 pandemic triggers anxiety and depression in CPs. The PHQ-9 and GAD-7 are simple administered tests, help to evaluate depression and anxiety.

Keywords: Anxiety, cancer, Coronavirus-19, depression, pandemics

ÖZ

Amaç: Koronavirüs-19 pandemisi, kanser hastaları için bedensel ve ruhsal açıdan tehdit oluşturmaktadır. Çalışmamızda pandemi döneminde, kemoterapi uygulanan kanser hastalarındaki kaygı ve depresyon düzeylerinin değerlendirilmesi amaçlanmıştır.

Gereç ve Yöntem: Mart 2022'de kemoterapi ile tedavi edilen kanser hastaları ile kanser hastalığı ve psikolojik rahatsızlık tanısı olmayan bir kontrol grubu değerlendirildi. Gönüllü katılımcılar Hasta Sağlığı Anketi (PHQ-9), Genel Anksiyete Ölçeği (GAD-7) ve Coronavirüs Anksiyete ve Takıntı Anketi (CAS, OCS) içeren bir anket formu doldurdu. Anksiyete ve depresyon skorları incelendi.

Bulgular: 186 (61%) kanser hastası ve 119 (39%) kanser hastalığı olmayan toplam 305 kişi değerlendirildi. 148'i (%48,5) erkek, 157'si (%51,5) kadındı. %86,1'i evli, %50,7'si il merkezinde ikamet etmekte ve %40,1'i ilkokul mezunuydu. Kanser hastaları daha yaşlıydı, ağırlıklı olarak kadındı, çoğunlukla ilçede yaşıyordu, daha düşük eğitim seviyelerine, daha düşük çalışma oranlarına ve daha düşük gelir seviyelerine sahipti. Çalışmaya dahil edilen kanser hastalarının çoğu meme kanseriydi (%34,4). Kanser hastalarında kilo kaybı, günlük televizyon izleme süresi ve nörolojik şikayetler daha yüksekti. Kanser hastalarında depresyon ve anksiyete puanları daha yüksekti (p=0.041, p<0.001). Ancak CAS ve OCS skorlarında gruplar arasında farklılık yoktu. Kanser hastalarında GAD-7, meme dışındaki kanserler, küratif kemoterapi uygulaması, düşük eğitim düzeyi ve düşük günlük televizyon izleyenlerde yüksekti (sırasıyla p=0.049, 0.031, 0.028 ve p=0.040).

Sonuç: Covid-19 salgını, kanser hastalarında kaygı ve depresyonu tetiklemektedir. PHQ-9 ve GAD-7, basit uygulanan testlerdir, depresyon ve anksiyeteyi değerlendirmeye yardımcı olurlar.

Anahtar Kelimeler: Anksiyete, kanser, koronavirus-19, depresyon, pandemiler

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INTRODUCTION

Pandemics such as the Black Plague, the Cholera and the Spanish Flu epidemics have emerged at various times throughout human history. They have caused serious destruction in societies. The world has been struggling with coronavirus pandemic (Covid-19), since December, 2020 (1). Covid-19, which has a very rapid risk of transmission through droplets, can cause severe respiratory symptoms (2).

Cancer patients (CPs) are elderly patients with high comorbidities, heavy smoking, and suppressed immune systems. Periodic hospital admissions are required due to oncological treatments. These patients are at high risk in Covid-19 pandemic (3). It is also known that Covid-19 infection is more severe and mortal in CPs (2).

Isolation measures due to pandemic, social restrictions, intense media exposure, and the number of cases/deaths announced daily, new mutations and unknowns about the virus have led to an increase in psychiatric problems (4,5). Anxiety and depression are more common in CPs than in the normal population. They adversely affect the treatment process and survival in CPs (6). The patient health questionnaire (PHQ-9) and Generalized Anxiety Disorder-7 (GAD-7) are tests with high sensitivity and effectiveness proven in many countries to evaluate depression and generalized anxiety disorder (6-10). In addition, the Coronavirus Obsession Scale (OCS) and the Coronavirus Anxiety Scale (CAS) are tests that help evaluate obsession and anxiety due to Covid-19 by Lee. (11,12).

In our study, we aimed to determine the anxiety and depression status, coronavirus- related obsessions and anxiety in CPs treated with chemotherapy during Covid-19 pandemic process. Our second aim was to attract clinicians' interest in the anxiety and depression seen in CPs.

MATERIAL AND METHOD

Patients receiving active chemotherapy with a diagnosis of cancer in two centers in March 2022 were evaluated for inclusion in the study.

After obtaining informed written consent from the CPs, a face-to-face questionnaire was filled and a retrospective files and computer records were reviewed.

Criteria for inclusion; 1)age 18-85 years 2)had a cancer diagnosis and was undergoing active chemotherapy treatment, 3)agreeing to fill out the questionnaire, 4) not using psychotropic drugs, being literate, 5)not having an obstacle to communication, 6)not using psychoactive substances and alcohol.

Criteria for exclusion; 1)patients who did not receive oncological treatment, 2)patients using active psychotropic drugs, receiving psychiatric treatment, 3)patients with dementia, mental retardation, 4) patients who did not agree to participate in the questionnaire or patients who reported that they did not want to participate in the study after filling out the questionnaire.

After obtaining informed written consent, the same questionnaire was filled in the control group, which consisted of relatives of patients who applied to the hospital, aged between 18 and 85, without diagnosis of cancer, who did not use psychoactive substances and/or alcohol, who had no communication barriers, and who were literate.

Age, gender, marital status, comorbid diseases, occupation, place of residence, education level, income, coronavirus awareness, neurological symptoms, and presence of epileptic seizures were evaluated. Cancer types of patients and chemotherapy (curative/palliative) treatments were noted. The PHQ-9, GAD-7, CAS and OCS tests translated into Turkish were administered via a questionnaire (5,9,10,13).

Patient health questionnaire (PHQ-9)

PHQ-9 is a scale to determine depression and the severity of depression by questioning the 9 diagnostic criteria in Diagnostic and Statistical Manual of Mental Disorders (DSM)-IV. It was translated into Turkish by Sari et al. and its validity was shown. The cut-off score for PHQ-9 was accepted as nine (7,9). A total of 0-27 points are scored as 1-4 points of minimal depression, 5-9 points of mild depression, 10-14 points of moderate depression, 15-19 points of moderate-severe depression, and 20-27 points of severe depression.

Generalized Anxiety Disorder-7 (GAD-7)

GAD-7 is a test with 89% sensitivity and 82% specificity for evaluating generalized anxiety disorder (8). It is a likert type scale that evaluates what people have experienced in the last 2 weeks with 7-item questions. A total of 0-21 points; cut-off points of 5, 10, and 15 are taken and classified as mild, moderate, and severe anxiety, respectively. The diagnosis of patients with a total score of ten and above should be confirmed by other methods. However, the most acceptable cut-off point was found to be eight in Turkish population (10).

Coranavirus Obsession Scale (OCS)

OCS is a likert-type scale in which people have been asked 4 coronavirus-related questions in the last 2 weeks. An OCS score of bigger and equal seven out of a total of 0-16 points suggests an association between coronavirus and dysfunctional obsession. It has been shown by Kurt et al. that the scale reliably

identifies dysfunctional obsession associated with the pandemic in the Turkish population (13).

Coranavirus Anxiety Scale (CAS)

In addition to its strong psychometric properties, CAS is a test with high sensitivity and specificity that enables discrimination between dysfunctional anxiety and non-anxiety (11). In the scale, participants were asked 5 questions about coronavirus in the last 2 weeks. Out of a total of 0-20 points, the cut-off point was nine (90% sensitivity and 85% specificity) (11). Evren et al. translated the scale into Turkish and the analysis showed that the scale is valid and reliable for assessing the severity of anxiety related to the dysfunctional coronavirus (5).

Individuals who were observed to be at risk for mental illnesses were referred to specialist psychiatrists.

Statistics

SPSS 22.0 (SPSS Inc. Chicago, USA) statistical package program was used in the analysis of the data. Descriptive statistics of evaluation results; numbers and percentages for categorical variables, mean, standard deviation, median, and interquartile range (IQR) for numerical variables. The conformity of the groups to the normal distribution was determined by the Kolmogorov-Smirnov test. When the normal distribution condition was not met in two independent groups, it was evaluated with the Mann Whitney U test. Chi-square test was used to compare qualitative data. Linear regression analysis was performed with logically related predictors of the scales (PHQ-9, GAD-7, CAS, and OCS). Spearman test was used for correlation analysis. Statistical alpha significance level was accepted as $p<0.05$.

RESULTS

A total of 305 participants were included in the study; 186 (61%) CPs and 119 (39%) control group. The median age of the participants was 59 (51.8-65). 148 (48.5%) were male and 157 (51.5%) were female. The demographic and clinical characteristics of patients and control groups are shown in **Table 1**.

CPs were older than the control group (p=0.001). They were female predominant, quit smoking, unemployed, living in a town, low education level, low income and high daily television viewing time (p=0.001, p=0.043, p<0.001, p<0.001, p<0.001, p<0.001 and p=0.001).

125 (67.9%) of CPs had comorbidities and 21.2% of them were multiple. Breast, colorectal, and lung cancer were the most common cancers in the study, respectively. Weight loss and neurological complaints were more common in CPs (p<0.001, p<0.001, **Table 1**).

Table 1. Demographic and clinical characteristics of cancer patients and control groups

	Cancer Patients (%) n= 186 (61.0)	Control Group (%) n= 119 (39.0)	p
Age (median, IQR)	60 (53-68)	56 (50.3-61.8)	0.001*
Gender			0.001†
Female	110 (59.1)	47 (39.5)	
Male	76 (40.9)	72 (60.5)	
Smoking Status, n (%)			0.043†
Non-smoker	92 (50.8)	59 (50.0)	
Active smoker	18 (9.9)	23 (19.5)	
Quit smoking	71 (39.2)	36 (30.5)	
Comorbidities, n (%)			0.055†
Yes	125 (67.9)	19 (50.0)	
No	59 (32.1)	19 (50.0)	
Professional Status, n (%)			<0.001†
Working	37 (24.7)	82 (71.3)	
Non-working	113 (75.3)	33 (28.7)	
Place to live			<0.001†
City	57 (31.5)	95 (79.8)	
District	58 (32.0)	22 (18.5)	
Village	66 (36.5)	2 (1.7)	
Martial Status, n (%)			0.357†
Single	10 (5.6)	6 (5.0)	
Married	148 (83.6)	107 (89.9)	
Widow	17 (9.6)	5 (4.2)	
Divorced	2 (1.1)	1 (0.8)	
Educational Status, n (%)			<0.001†
Illiterate	2 (1.3)	1 (0.8)	
Elementary school	92 (59.0)	18 (15.3)	
Secondary School	26 (16.7)	10 (8.5)	
High School	22 (14.1)	25 (21.2)	
University	14 (9.0)	64 (54.2)	
Weight Loss, n (%)			<0.001†
Absence	93 (53.8)	95 (81.9)	
Presence	80 (46.2)	21 (18.1)	
Daily Television Viewing Time, hour	4 (2-6)	3 (2-5)	0.001*
News Tracking Status, n (%)			0.973†
Absence	15 (8.2)	9 (9.1)	
Presence	168 (91.8)	90 (90.9)	
Coronavirus Anxiety Status, n (%)			0.134†
Absence	27 (15.4)	22 (18.6)	
Some days	89 (50.9)	61 (51.7)	
More than half of the day	11 (6.3)	1 (0.8)	
Everyday	48 (27.4)	34 (28.8)	
Norological Compliant Status, n (%)			<0.001†
Absence	5 (5.3)	42 (40.8)	
Presence	64 (67.4)	33 (32.0)	
Multiple	26 (27.4)	28 (27.2)	
Monthly Revenue Status, n (%)			<0.001†
Minimum wage	87 (51.5)	3 (7.9)	
>6000 Turkish Lira	14 (8.3)	9 (23.7)	
Others	68 (40.2)	26 (68.4)	

*Mann-Whitney U test, †Chi-Square Test

PHQ-9, GAD-7, CAS and OCS scales of the CPs and control group are given in **Table 2**.

Table 2. Depression, anxiety, coronavirus anxiety and obsession scales of cancer patients and control groups

	Total (%) n=305 (100.0)	Cancer Patients (%) n= 186 (61.0)	Control Group (%) n= 119 (39.0)	p
PHQ-9, n=295				<0.001†
minimal depression	110 (57.3)	70 (38.3)	40 (35.7)	
mild depression	104 (35.3)	71 (38.8)	33 (29.5)	
moderate depression	26 (8.8)	22 (12.0)	4 (3.6)	
moderate severe depression	9 (3.1)	5 (2.7)	4 (3.6)	
severe depression	7 (2.4)	5 (2.7)	2 (1.8)	
PHQ-9, n=295				0.041†
≤9	253 (85.8)	151 (82.5)	102 (91.1)	
>9	42 (14.2)	32 (17.5)	10 (8.9)	
PHQ-9, (median, IQR)	4 (2-8) 5.4±5.0	6 (2-8) 6.2±5.0	3 (0-6.8) 4.2±5.0	<0.001*
GAD-7, n=294				0.635†
mild anxiety	257 (87.4)	157 (86.3)	100 (89.3)	
moderate anxiety	27 (9.2)	19 (10.4)	8 (7.1)	
severe anxiety	10 (3.4)	6 (3.3)	4 (3.6)	
GAD7, n=294				0.511†
<8	280 (95.2)	175 (96.2)	105 (93.8)	
≥8	14 (4.8)	7 (3.8)	7 (6.2)	
GAD-7, (median, IQR)	2 (1-3) 2.7±2.9	2 (2-4) 3.0±2.8	1 (1-1.8) 2.1±3.0	<0.001*
CAS, n=300				0.252†
<9	293 (97.7)	176 (96.7)	117 (99.2)	
≥9	7 (2.3)	6 (3.3)	1 (0.8)	
CAS, (median, IQR)	0 (0-0) 0.8±2.2	0 (0-1) 0.9±2.4	0 (0-0) 0.5±1.9	0.097*
OCS, n=301				0.448†
<7	275 (91.4)	169 (92.3)	106 (89.8)	
≥7	26 (8.6)	14 (7.7)	12 (10.2)	
OCS, (median, IQR)	1 (0-3) 2.2±3.0	1 (0-3) 2.1±3.1	1 (0-3) 2.3±3.0	0.311*

*Mann-Whitney U test, †Chi-Square Test, PHQ-9; Patient Health Questionnaire-9, GAD-7; Generalized Anxiety Disorder-7, CAS; Coronavirus Anxiety Scale, OCS; The Obsession with covid-19 Scale

Severe depression was observed in 2.7% of CPs when graded according to PHQ-9. It was more than the control group (2.7% vs 1.8%, p<0.001). Also, CPs had higher PHQ-9 scores than the control group. (p=0.041). Severe anxiety was observed in 3.3% of CPs when classified according to GAD-7. It was similar to control group (3.3% vs 3.6% p=0.635). However, GAD-7 scores in CPs were higher than the control group (p<0.001). No difference was observed in CAS and OCS scores between CPs and control groups (p=0.097, p=0.311). When the correlation between the questionnaires in the whole group was examined, the most significant correlation was found between CAS and OCS (p<0.001).

In the linear regression analysis; factors affecting PHQ-9, GAD-7, CAS and OCS in CPs were evaluated (**Table 3**).

Having cancer type other than breast, administration of curative chemotherapy, lower education level and lower daily television viewing increased GAD-7 (p=0.049, p=0.031, p=0.028, p=0.04). CAS score was higher in active workers than in non- workers (p=0.035).

DISCUSSION

Pandemics are one of the major health problems. In relation to the prevalence, severity and control process of the pandemic, intense financial and moral losses are experienced, and it can cause serious trauma to individuals. In our study, CPs who underwent chemotherapy were affected by Covid-19 pandemic period in terms of mental disorders. CPs were at higher risk for depression and anxiety than the control group. Coronavirus anxiety and obsession scores was similar to the literature. Diagnosed with breast cancer, had palliative chemotherapy, had a high education level, and had a long time to watch television daily were found to have a lower risk of developing anxiety i n CPs during Covid-19 pandemic.

The limitations of our study are; limited number of participants, in the second year of the pandemic, when the severity of Covid-19 infection eased. Persons at risk for mental disorders were referred to specialist psychiatrists, and psychiatrist comments could not be evaluated due to the limited number of patients.

Table 3. Linear regression analysis of depression, anxiety, coronavirus anxiety and coronavirus obsession scales in cancer patients

Variables	PHQ-9		GAD-7		CAS		OCS	
	β (%95 CI)	p	β (%95 CI)	p	β (%95 CI)	p	β (%95 CI)	p
Age (>65 years)	-0.518 (-1.464 - 0.427)	0.246	1.196 (-3.390 – 5.781)	0.574	1.376 (-2.952 – 5.704)	0.490	0.683 (-3.997 – 5.363)	0.752
Gender (female)	-0.367 (-1.284 – 0.550)	0.389	-1.366 (-5.750 – 3.019)	0.504	-1.010 (-5.315 – 3.296)	0.609	-3.709 (-8.184 – 0.767)	0.095
Tumor type (breast cancer)	0.424 (-0.587 – 1.435)	0.367	-5.255 (-10.484 – -0.026)	0.049	1.301 (-3.871 – 6.472)	0.583	1.645 (-3.692 – 6.982)	0.508
Treatment type (Palliative CT)	1.022 (-0.166 – 2.211)	0.083	-6.681 (-12.626 - -0.735)	0.031	3.515 (-2.229 – 9.259)	0.200	0.802 (-5.266 – 6.871)	0.774
Comorbidities (Presence)	0.220 (-0.582 – 1.022)	0.550	-0.584 (-4.634 – 3.465)	0.754	-2.000 (-5.968 – 1.968)	0.284	-0.889 (-5.022 – 3.244)	0.642
Smoking status, (smoker)	-0.419 (-1.578 – 0.740)	0.435	-1.426 (-7.084 – 4.232	0.587	-1.196 (-6.383 – 3.992)	0.615	-2.030 (-7.804 – 3.745)	0.452
Professional status, (Non-working)	-0.384 (-1.296 – 0.528)	0.366	3.103 (-1.673 – 7.879)	0.178	-5.097 (-9.748 - -0.446)	0.035	-1.432 (-6.307 – 3.442)	0.527
Place to live (City)	-0.418 (-1.292 – 0.455)	0.307	-0.196 (-4.415 – 4.023)	0.920	-0.012 (-4.600 – 4.577)	0.996	-1.033 (-5.340 – 3.273)	0.605
Civil status (Married)	-0.584 (-1.680 – 0.511)	0.258	0.363 (-5.368 – 6.094)	0.891	-3.300 (-9.805 – 3.204)	0.281	-3.479 (-9.329 – 2.370)	0.215
Educational status (Middle school and below)	0.159 (-0.456 – 0.775)	0.570	3.626 (0.482 – 6.769)	0.028	2.607 (-0.892 – 6.105)	0.126	2.552 (-0.656 – 5.761)	0.107
Weight loss (Presence)	-0.377 (-1.558 – 0.805)	0.489	-3.054 (-9.209 – 3.101)	0.295	2.262 (-4.034 – 8.558)	0.437	2.913 (-3.370 – 9.195)	0.326
Daily television viewing Time, hour	-0.010 (-0.122 – 0.102)	0.851	-0.618 (-1.202 - -0.033)	0.040	0.161 (-0.404 – 0.726)	0.535	0.052 (-0.545 – 0.649)	0.849
Coronavirus anxiety status (Presence)	-0.128 (-0.962 – 0.705)	0.736	2.330 (-2.036 – 6.695)	0.262	0.732 (-3.979 – 5.443)	0.733	-0.321 (-4.776 – 4.135)	0.876
Neurological compliant status (Presence)	0.172 (-0.453 – 0.797)	0.549	-0.666 (-3.945 – 2.614)	0.661	1.569 (-1.436 – 4.574)	0.268	1.873 (-1.474 – 5.220)	0.241
Monthly revenue status (Minimum wage)	-0.662 (-1.395 – 0.071)	0.072	2.790 (-0.965 – 6.545)	0.129	-0.434 (-4.335 – 3.466)	0.807	-0.850 (-4.682 – 2.983)	0.632

PHQ-9; Patient Health Questionnaire-9, GAD-7; Generalized Anxiety Disorder-7, CAS; Coronavirus Anxiety Scale, OCS; The Obsession with Covid-19 Scale

Cancer disease can negatively affect patients both physically and psychologically. Psychological complaints are high in individuals diagnosed with cancer (14). Especially in an uncertain period such as a pandemic, both the burden of the fight against cancer, the necessity of treatment and the fear of being affected by the pandemic trigger psychological problems in CPs. In addition, there are studies reporting that Covid-19 infection also causes mental disorders (15).

Depression is one of the most common mental disorders that can cause social and economic losses. It has a high prevalence (10-50%) in CPs. Depression may increase mortality by negatively affecting adherence to treatment and treatment outcomes in CPs (6). The rates of depression increased in Covid-19 outbreak. It has been shown that depression is especially higher in patients with advanced age, female gender, and breast cancer (16). In our study, we found significantly higher depression scores compared to the control group in a significant proportion of CPs (94.5%) most of whom had breast cancer and were at an advanced age compared to the control group. This result is thought to be related to the long-lasting pandemic period, which negatively affects cancer patients. In studies, somatic symptoms that may be related to the cancer itself and its treatment can be seen in CPs, and it is discussed whether this will affect the results of the survey. In our study, both weight loss and neurological complaints were more frequent in CPs.

Conditions such as loss of interest, difficulty in controlling stress and sadness, difficulty concentrating, sleep disorders, fatigue, restlessness, tension and irritability are symptoms of anxiety. Anxiety is more common in females and its prevalence increases with age. Covid-19 significantly increases anxiety and stress (17). In our study, in line with the literature, anxiety scores were higher in older CPs in which female gender was dominant. However, there was no difference between the groups in the analysis based on the eight cut-off points determined in the Turkish validity study. It is thought that the cut-off score may differ depending on the sample size or the heterogeneity of the examined groups and may affect the results.

It has been reported that marital status, age and education level may not be associated with depression and post-traumatic stress disorder in pandemics (18). In studies conducted during the Covid-19 period, there are controversial results between factors such as age, marital status, occupation, educational status and parenting status, and the development of anxiety and depression (19). However, the risk of developing depression and anxiety disorder was high in people with female gender and low education level. In our study, anxiety risk was high in CPs with female gender and low education level, and it was compatible with the literature. In addition, the

risk of anxiety increased due to the lack of information about Covid-19 in CPs, whose daily TV viewing time is short, and due to increased stress in those who received curative chemotherapy, in case the treatment process was adversely affected by the infection.

CAS and OCS, were developed to examine the anxiety and obsession problem caused by Covid-19. The score rates in the CAS and OCS, differ between studies. While the rate of high CAS score is between 3.2-4%, high rate of OCS score has been reported between 5.5-13%. In our study, the rates of high CAS and high OCS scores were 3.3% and 7.7% in CPs, respectively. It was consistent with the literature (20). Also, similar to the literature, there was a significant relationship between CAS and OCS in our study (5). In addition, considering that most of the society was vaccinated and faced with Covid-19 infection until the study period, our study shows that anxiety and obsession due to Covid-19 continues even in the later stages of pandemic.

Intensity of depression and anxiety were mostly mild in our study. Severe depression was shown to occur in approximately 5.5% of participants and severe anxiety in 3.4%. In a study conducted in China at the beginning of the pandemic, 16.5% of the participants had severe depression and 28.8% had moderate anxiety (4). The reason for the high rates in the Asian population may be that the pandemic started in this region and rapidly affected many people until the infection was understood, sudden and multiple deaths, intense restrictions by the country's policy, and the trauma experienced was more severe.

CONCLUSION

Covid-19 pandemic affects health systems and the country's economy in different dimensions. In Covid-19 pandemic, the risk of developing depression and anxiety in CPs was found to be high. PHQ-9, GAD-7, CAS and OCS are easily applicable tests and identify people at risk for anxiety and depression.

ETHICAL DECLARATIONS

Ethics Committee Approval: Approval was granted by the Ethics Committee of Recep Tayyip Erdoğan Univercity Medical School (Date: 15/03/2022, no: 2022/59).

Informed Consent: Because the study was designed retrospectively, no written informed consent form was obtained from patients.

Referee Evaluation Process: Externally peer-reviewed.

Conflict of Interest Statement: The authors have no conflicts of interest to declare.

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