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Evaluation of Risk of Acute Stress Disorder and Post-Traumatic Stress Disorder Symptoms During COVID-19 Pandemic in Turkey

COVID-19 Pandemisinde Türkiye'de Akut Stres Bozukluğu ve Travma Sonrası Stres Bozukluğu Riskinin Değerlendirilmesi

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Abstract

This study evaluated the risk of acute stress disorder and post-traumatic stress disorder during the coronavirus disease-2019 (COVID-19) pandemic. This descriptive and correlational study was conducted among Turkey residents, and the study sample consisted of 567 participants. Data were collected using the Impact of Events Scale–Revised and Post-traumatic Stress Disorder Checklist for DSM-5. The Mann–Whitney U test, Kruskal–Wallis test, Spearman correlation coefficients, and Multiple Linear Regression analysis were used in data analysis. Results showed that respondents had high psychological distress and risk of acute stress disorder, and severe post-traumatic stress disorder symptom. Of the participants, 57.5% had normal, 16.8% had mild, 4.1% had moderate, and 21.7% had severe risk levels for acute stress disorder. In addition, 16.4% of the participants were at risk for posttraumatic stress disorder. A strong and positive relationship was found between risk of acute stress disorder and post-traumatic stress disorder. The most important predictor of total post-traumatic stress disorder, reliving, avoidance, and negative change sub-dimensions was total acute stress disorder. Protective steps to minimize the psychological and traumatic effects of the COVID-19 pandemic on the general population in Turkey should be taken.

Keywords: Acute stress disorders, COVID-19, posttraumatic stress disorders

Özet

Bu çalışma, Koronavirüs Hastalığı-2019 (COVID-19) pandemisinde akut stres bozukluğu ve travma sonrası stres bozukluğu riskini değerlendirmiştir. Bu tanımlayıcı ve ilişkisel çalışma Türkiye'de yaşayan bireylerle yürütülmüştür ve çalışma örneklemi 567 katılımcıdan oluşmuştur. Veriler, Olayların Etkisi Ölçeği ve DSM-5 için Travma Sonrası Stres Bozukluğu Kontrol Listesi kullanılarak toplanmıştır. Verilerin analizinde Mann-Whitney U testi, Kruskal-Wallis testi, Spearman korelasyon katsayıları ve Çoklu Doğrusal Regresyon analizi kullanılmıştır. Sonuçlar, katılımcıların yüksek psikolojik sıkıntı yaşadıklarını ve yüksek akut stres bozukluğu riski ile ciddi travma sonrası stres bozukluğu belirtilerine sahip olduklarını göstermiştir. Katılımcıların %57,5'i normal, %16,8'i hafif, %4,1'i orta ve %21,7'si şiddetli akut stres bozukluğu risk düzeyine sahiptir. Ayrıca katılımcıların %16,4'ünün travma sonrası stres bozukluğu açısından risk altında olduğu görülmüştür. Akut stres bozukluğu riski ile travma sonrası stres bozukluğu arasında güçlü ve pozitif yönde bir ilişki bulunmuştur. COVID-19 pandemisinin Toplam travma sonrası stres bozukluğu, yeniden yaşama, kaçınma ve olumsuz değişim alt boyutlarının en önemli yordayıcısı toplam akut stres bozukluğu puan ortalamasıdır. Türkiye'deki genel popülasyon üzerine olan psikolojik ve travmatik etkilerini azaltmak için koruyucu adımlar atılmalıdır.

Anahtar Kelimeler: Akut stres bozuklukları, COVID-19, travma sonrası stres bozuklukları

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1. Introduction

The coronavirus disease-2019 (COVID-19) outbreak in the Hubei province of Wuhan, China, at the end of December 2019 has progressed into a pandemic in a very short time (Turkish Academy of Sciences, 2020). The World Health Organization (2020) recognized the COVID-19 as a pandemic in March (World Health Organization, 2020). COVID-19 is an infectious disease caused by the novel coronavirus called severe acute respiratory syndrome coronavirus-2. The incubation period varies between 2 and 14 days, and most cases occur 5 days after exposure. Symptoms such as headache, sore throat, rhinorrhea, and gastrointestinal symptoms, as well as fever, dry cough, fatigue, myalgia, and dyspnea, are observed (Sharma et al., 2020).

The rapid spread of COVID-19 has resulted in high numbers of deaths, mostly due to respiratory problems. To slow down the pace of the pandemic, compulsory measures such as travel restrictions, transitioning to working from home, school closures, quarantine, and restrictions on social life have been implemented both in our country and globally (Tamiolaki & Kalaitzaki, 2020). The COVID-19 pandemic, which is considered a major life trauma, can lead to psychiatric illnesses such as acute stress disorder and post-traumatic stress disorder (PTSD) (Bo et al., 2021; Liu et al., 2020; Tamiolaki & Kalaitzaki, 2020). In studies conducted with people living in the community, people experienced stress, anxiety, depression, and trauma due to the pandemic (Aslan & Çınar, 2023; Quan et al., 2023).

Studies conducted in different countries during the COVID-19 pandemic have shown that the prevalence of PTSD in the general population ranges from 4.6% to 29.5% (Forte et al., 2020; Liu et al., 2020; Sun et al., 2021). The prevalence of PTSD has increased to 37.9% in hospitalized patients with suspected COVID-19 and to 42.1% in patients who are positive for COVID-19 (Wesemann et al., 2022). PTSD, which is very common during a pandemic, must be taken seriously, as it causes deaths from suicidal ideation, suicide attempt, and suicide (Dutheil et al, 2020). Those who lost a loved one during the pandemic experienced higher levels of trauma and post-traumatic growth was also very low (Carson et al., 2023). Being younger, suffering from pandemic concerns and distress, changes due to the pandemic and previous mental health problems were risk factors associated with PTSD symptoms in perinatal women (Motrico et al., 2023). Religiosity level, gender, relationship status, year of study, physical activity, symptoms of coronavirus, death of a close relative, job loss, and economic status predicted psychological problems of students (Aslan & Çınar, 2023). We can say that different factors are identified for PTSD in different groups.

For this reason, determining the prevalence and risk factors of PTSD in the Turkish population in the early period of the COVID-19 pandemic is important. Expected findings may contribute to the planning of appropriate and adequate mental health services both during and after the pandemic.

2. Method

This study is descriptive and correlational study.

2.1. Aim

This study aimed to evaluate the risk of acute stress disorder and PTSD symptoms during the COVID-19 pandemic.

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2.2. Research Questions

1. What are the levels of acute stress disorder among those living in Turkey during the COVID-19 pandemic?

2. What are the levels of post-traumatic stress disorder among those living in Turkey during the COVID-19 pandemic?

3. Is there a significant relationship between acute stress disorder and post-traumatic stress disorder?

4. What are the sociodemographic factors affecting acute stress disorder and post-traumatic stress disorder?

2.3. Population and Sample

This web-based study was conducted among Turkey residents in 81 provinces from July 3 to August 2, 2020. The study was conducted using an online survey, for which a questionnaire was created using the Google Forms. The snowball sampling technique was used to collect information from participants. The questionnaire link was sent to all researchers' associates, and the respondents were asked to forward or post the links among their contact groups.

In the sample calculation, İkizer et al. (2021)'s study, the prevalence of PTSD (47.9%) according to the PTSD Checklist for DSM-5 (PCL-5) was taken into account (https://sampsize.sourceforge.net/iface/index.html). The sample size was calculated as 384 people with a 95% confidence interval level and a 0.05% margin of error. In this study, the effect size d was determined as 1.553 in the post hoc analysis made with the G*Power 3.1.9.7 program.

Clicking on the questionnaire link loads a summary of the survey on the screen, followed by the consent form. The form was filled out by 716 people. The study sample consisted of 567 participants who met the following inclusion criteria: aged ≥18 years, had no PTSD, and consented to participate in the study. The exclusion criteria included having difficulties with reading and comprehension or disagreeing with the publication of the study results.

2.4. Data Collection and Data Collection Tools

Personal Information Form, Impact of Events Scale–Revised (IES-R), and PTSD Checklist for DSM-5 (PCL-5) were used in data collection. Data collection was started on 3 July 2020 and data collection was completed on 2 August 2020. The study was terminated when the planned study period for the research expired, and the targeted number in the sample calculation was exceeded.

Personal Information Form: This form was developed by researchers and included 11 questions about sociodemographic characteristics including age, sex, marital status, family structure, educational status, employment status, place of residence, diagnosis of a psychiatric disorder, psychiatric treatment, history of psychiatric treatment, and COVID-19 test (Wesemann et al., 2022; Sun et al., 2021; Dutheil et al., 2020; Forte et al., 2020; Liu et al., 2020).

Impact of Events Scale–Revised (IES-R): The IES-R was developed by Weiss and Marmar (1997). Based on 22 statements, participants were asked to decide on how close the IES-R statements

expressed their status during the last 7 days on a 5-point scale between 0 and 4, with higher scores indicating high psychological distress and risk of acute stress disorder (ASD). The IES-R consisted of three subscales: intrusion, hyperarousal, and avoidance. The Cronbach's α for the Turkish version of the IES-R was 0.94 (Çorapçıoğlu et al., 2006).

PTSD Checklist for DSM-5 (PCL-5): The PCL-5 was developed by Weathers et al. (2013). Based on 20 statements, participants were asked to decide on how close the PCL-5 statements expressed their status during the last month on a 5-point scale, between 0 and 4, with higher scores indicating high risk of PTSD. The PCL-5 consisted of four scales mapping on to PTSD symptom clusters in DSM-5: re-experiencing (B criteria), avoidance (C criteria), negative alterations (D criteria), and hyperarousal (E criteria). The Cronbach's α for the Turkish version of the IES-R was 0.94 and 0.97 (Boysan et al., 2017).

2.5. Ethics Committee Approval

The study was approved by University Human Subjects Ethics Committee (Date: 22.06.2020, No: 2020/06-56). The study was performed in accordance with the Declaration of Helsinki. Data were collected online. All participants were informed about the purpose of the study in the Google form and were invited to participate in the study. To ensure the confidentiality of participant information, we did not include any identifying information in the online questionnaire. An electronic informed consent form was acquired from every participant before the commencement of the study.

2.6. Limitations

This study has some limitations. First, the results were based on the participants' statements. Second, data were not collected through face-to-face interviews due to the COVID-19 pandemic. Future studies should be conducted using face-to-face interviews with participants, particularly during the normalization process. Qualitative studies with in-depth interviews can help better identify issues.

2.7. Data Analysis

Statistical analysis was performed using Statistical Package for Social Science for Windows version 25.0 (IBM Corp., Armonk, NY). Descriptive data were expressed as frequency, percentage, mean, and standard deviation. The Kolmogorov–Smirnov test was used to determine whether the data were distributed normally. As the mean total IES-R and PCL-5 scores did not show normal distribution, the use of nonparametric tests in the data analysis was found appropriate. The Mann–Whitney U test was used in the two-group comparisons, and the Kruskal–Wallis test was used to test differences among three groups. Spearman correlation coefficients were used to test correlation between the IES-R and PCL-5. Variables that correlated significantly with the dependent variable were entered into the regression model (enter method) to identify potential indicators of participants' PCL-5 level during the COVID-19 pandemic. A p-value of <0.05 was considered statistically significant.

3. Results

As regards the sociodemographic characteristics of the participants (Table 1), the mean age was 29.6±11.0, 71.4% were female, 66.3% were single, 87.7% had nuclear family structure, 62.1% were

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university graduates, 56.1% were unemployed, and 54.3% lived in the city. Only 5.1% had a psychiatric disease and 3.5% received psychiatric treatment, of which 11.6% had a history of psychiatric illness and 93.5% did not have a coronavirus test.

Table 1. Sociodemographic characteristics of the participants (n=567)

Characteristics			
Age (X±SD)		29.6±11.0	
		n	**%**
Sex	Female	405	71.4
	Male	162	28.6
Marital status	Single	376	66.3
	Married	191	33.7
Family structure	Nuclear	497	87.7
	Extended	70	12.3
Educational status	Primary school	21	3.7
	Secondary school	15	2.6
	High school	179	31.6
	University	352	62.1
Employment status	Employed	230	40.6
	Not employed	318	56.1
	Retired	19	3.4
Place of residence	City	308	54.3
	Town	221	39.0
	Village	38	6.7
Diagnosis of a psychiatric disorder	Yes	29	5.1
	No	538	94.9
Psychiatric treatment	Yes	20	3.5
	No	547	96.5
History of psychiatric treatment	Yes	66	11.6
	No	501	88.4
COVID-19 test	No	530	93.5
	Yes, test (-)	34	6.0
	Yes, test (+)	3	0.5

X=Mean; SD=Standard Deviation

The average total IES-R score of the participants was 23.72±16.11 and the average total PCL-5 score was 28.23±18.57 (Table 2). In addition, 57.5% of the participants had normal, 16.8% had mild, 4.1% had moderate, and 21.7% had serious risk level for acute stress disorder. In addition, according to PCL-5, 16.4% of the participants were at risk for PTSD.

Table 2. The mean IES-R and PCL-5 score of the participants

Scale	**X±SD**	**Min.**	**Max.**	**Cronbach alpha value**
IES-R				
Intrusion	7.61±6.75	0.00	32.00	0.90
Avoidance	9.91±5.89	0.00	31.00	0.77
Hyperarousal	6.19±5.27	0.00	24.00	0.84
Total IES-R	23.72±16.11	0.00	85.00	0.93
PCL-5				
Re-experiencing	5.40±5.45	0.00	20.00	0.88
Avoidance	2.79±2.24	0.00	8.00	0.84
Negative alterations	11.22±6.97	0.00	28.00	0.90
Hyperarousal	8.79±6.33	0.00	24.00	0.89
Total PCL-5	28.23±18.57	0.00	80.00	0.96

X= Mean; SD= Standard Deviation; IES-R= Impact of Event Scale-Revised; PCL-5= The posttraumatic stres disorder (PTSD) Checklist; Min=Minimum; Max=Maximum

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As shown in Table 3, a strong and positive relationship was found between the IES-R and PTSD (r=0.770). As the participants' acute stress disorder increased, the incidence of post-traumatic stress disorder also increased.

Table 3. Correlation analysis between the IES-R and PCL-5

	1	2	3	4	5	6	7	8	9
Intrusion (1)	1.000								
Avoidance (2)	0.643*	1.000							
Hyperarousal (3)	0.797*	0.648*	1.000						
Total IES-R (4)	0.905*	0.860*	0.899*	1.000					
Re-experiencing (5)	0.721*	0.567*	0.669*	0.730*	1.000				
Avoidance (6)	0.615*	0.535*	0.577*	0.645*	0.800*	1.000			
Negative alterations (7)	0.619*	0.556*	0.667*	0.685*	0.779*	0.793*	1.000		
Hyperarousal (8)	0.688*	0.592*	0.763*	0.756*	0.760*	0.734*	0.859*	1.000	
Total PCL-5 (9)	0.715*	0.612*	0.745*	0.770*	0.886*	0.863*	0.954*	0.938*	1.000

** Correlation is significant at the 0.01 level (2-tailed). IES-R= Impact of Event Scale-Revised; PCL-5= The posttraumatic stres disorder (PTSD) Checklist*

As regards factors that affect the average total IES-R score (Table 4, Appendix 1), female participants (24.47±15.70) had higher scores than the male participants (21.84±17.00; $p<0.05$). Participants with a history of psychiatric treatment (7.47±5.57) had higher scores than those without (6.02±5.21; $p<0.05$). In addition, single participants (6.67±5.49) had higher hyperarousal scores than married participants (5.24±4.67; $p<0.05$). Unemployed participants (6.72±5.66) had higher scores than employed (5.67±4.72) and retired (3.47±2.98) participants ($p<0.05$). Participants with psychiatric diseases (9.00 ± 5.63) had higher scores than those without psychiatric illness (6.03±5.21; $p<0.05$).

On the analysis of factors affecting the average total PCL-5 score (Table 4, Appendix 1), those aged 18–35 (29.34±19.41) had higher scores than those aged 36–72 (25.32±15.88; $p<0.05$). Female participants (30.64±18.07) had higher scores than male participants (22.18±18.48; $p<0.05$).

Single participants had higher scores (29.51±19.14) than married ones (25.70±17.17; $p<0.05$). Moreover, unemployed respondents (11.94±7.07) had higher negative alterations scores than employed (10.31±6.72) and retired (10.31±7.18) respondents ($p<0.05$). Participants with psychiatric illness (11.17±6.45) had higher hyperarousal scores than those without (8.67±6.30; $p<0.05$).

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Table 4. Factors affecting the mean IES-R and PCL-5 score of the participants

	Total IES-R X±SD	**Total PCL-5 X±SD**
Age (years)		
18–35	24.01±16.28	29.34±19.41
36–72	22.96±15.67	25.32±15.88
Z	-0.583	-2.000
P	0.560	**0.045**
Sex		
Female	24.47±15.70	30.64±18.07
Male	21.84±17.00	22.18±18.48
Z	-2.282	-5.068
P	**0.022**	**0.000**
Marital status		
Single	24.71±16.61	29.51±19.14
Married	21.77±14.93	25.70±17.17
Z	-1.920	-2.258
P	0.055	**0.024**
Employment status		
Employed	23.05±14.93	26.24±17.51
Not employed	24.60±16.97	29.81±19.30
Retired	17.15±13.74	25.84±16.75
x^2	3.598	3.896
P	0.165	0.143
Place of residence		
City	24.16±15.52	29.24±18.44
Town	23.55±17.04	27.57±19.16
Village	21.13±15.35	23.78±15.50
x^2	2.431	3.547
P	0.296	0.170
Diagnosis of a psychiatric disorder		
Yes	29.86±18.47	33.10±19.09
No	23.39±15.92	27.96±18.52
Z	-1.897	-1.320
P	0.058	0.187
History of psychiatric treatment		
Yes	28.40±17.24	30.26±16.78
No	23.11±15.87	27.96±18.79
Z	-2.388	-1.025
P	**0.017**	0.306

X= Mean; SD= Standard Deviation; x^2= Kruskal–Wallis test; z= Mann–Whitney U test; IES-R= Impact of Event Scale-Revised; PCL-5= The posttraumatic stres disorder (PTSD) Checklist

According to the regression analysis (Table 5), the most important predictor of total PCL-5 (β = 0.539), re-experiencing (β = 0.950), avoidance (β = 0.684), and negative alterations (β = 0.347) sub-dimensions was total IES-R (p<0.05). The most important predictor of the hyperarousal dimension was the hyperarousal sub-dimension of IES-R (β = 0.478, p<0.05).

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Table 5. Results of multiple linear regression analysis evaluating effective factors on PTSD

Variables	B	SE	β	t	P
Re-experiencing (R=0.742, R^2=0.551, F=137.699, p<0.05)					
Sex	-1.063	0.287	-0.106	-3.700	0.000
Place of residence	-0.338	0.208	-0.046	-1.620	0.106
Avoidance	-0.177	0.051	-0.229	-3.444	0.001
Hyperarousal	-0.038	0.073	-0.044	-0.525	0.600
Total IES-R	0.268	0.034	0.950	7.805	0.000
Avoidance (R=0.647, R^2=0.419, F=101.147, p<0.05)					
Sex	-0.763	0.161	-0.154	-4.742	0.000
Avoidance	-0.010	0.029	-0.026	-0.341	0.734
Hyperarousal	-0.021	0.041	-0.049	-0.512	0.609
Total IES-R	0.095	0.019	0.684	4.945	0.000
Negative alterations (R=0.703, R^2=0.494, F=77.870, p<0.05)					
Age	-0.043	0.029	-0.068	-1.458	0.146
Sex	-2.501	0.477	-0.162	-5.242	0.000
Marital status	-0.340	0.601	-0.023	-0.566	0.572
Employment status	0.353	0.462	0.029	0.764	0.445
Avoidance	0.038	0.084	0.032	0.453	0.650
Hyperarousal	0.401	0.121	0.303	3.319	0.001
Total IES-R	0.150	0.057	0.347	2.650	0.008
Hyperarousal (R=0.780, R^2=0.609, F=96.310, p<0.05)					
Age	-0.021	0.024	-0.036	-0.884	0.377
Sex	-1.570	0.382	-0.112	-4.108	0.000
Marital status	-0.200	0.481	-0.015	-0.416	0.678
Employment status	0.445	0.373	0.040	1.195	0.233
Diagnosis of a psychiatric disorder	0.278	0.869	0.010	0.319	0.749
History of psychiatric treatment	-0.082	0.594	-0.004	-0.138	0.890
Avoidance	0.063	0.068	0.058	0.931	0.352
Hyperarousal	0.574	0.097	0.478	5.924	0.000
Total IES-R	0.099	0.045	0.253	2.187	0.029
Total PCL-5 (R=0.783, R^2=0.613, F=147.906, p<0.05)					
Age	-0.053	0.060	-0.032	-0.894	0.372
Sex	-5.784	1.095	-0.141	-5.280	0.000
Marital status	-0.424	1.395	-0.011	-0.304	0.761
Avoidance	-0.094	0.196	-0.030	-0.481	0.631
Hyperarousal	0.895	0.281	0.254	3.187	0.002
Total IES-R	0.621	0.132	0.539	4.707	0.000

IES-R= Impact of Event Scale-Revised; PCL-5= The posttraumatic stres disorder (PTSD) Checklist; PTSD= Posttraumatic stres disorder; B=unstandardized beta; SE=standard error; β= standardized beta; F=Analysis of varyans; R^2= Adjusted R Square

4. Discussion

In this study, the psychological distress and risk of acute stress disorder in the early period of the pandemic was 21.7%. In a study conducted in Egypt during the COVID-19 pandemic, the average IES-R score was higher and 41.4% of the participants had high risk for acute stress disorder (El-Zoghby et al., 2020). A study conducted in Spain reported that 36.6% of the participants had serious risk for acute stress disorder (Paulino et al., 2021). Cankardaş et al. (2023) showed that 67.9% of university students had symptoms of acute stress ranging from moderate to extreme. In line with these results, the population of Turkey have moderate levels of acute psychological response to a pandemic.

In a study of PTSD, the participants' PTSD symptom severity according to PCL-5 was 16.4%. In studies conducted in China, although the cut-off value of the scale was 33, the prevalence of PTSD was very low (7% and 4.6%) (Liu et al., 2020; Sun et al., 2021). In another study conducted in Italy,

the prevalence of PTSD was high (29.5%; Forte et al., 2020). In Germany, the prevalence of PTSD is 37.9% in patients hospitalized for suspected COVID-19 and 42.1% in those who are positive for COVID-19 (Wesemann et al., 2022). The studies reported that a PTSD prevalence of 15.5% (Quan et al., 2023) and 61.2% (Aslan & Çınar, 2023) in university students and >40% in pregnant and postpartum women (Motrico et al., 2023). These results suggest that the Turkish population has a moderate risk for pandemic-related PTSD.

In the present study, a strong and positive relationship was found between risk of acute stress disorder and PTSD. This finding suggests that as the severity of the risk of acute stress disorder increases, the symptom severity of PTSD also increases. A study reported that being infected with life-threatening physical diseases such as a pandemic disease or fear of being infected can be a traumatic experience (Sun et al., 2021). In addition, practices such as quarantine and social limitations can increase the stress level as they disrupt work, social, or school life and can lead to PTSD as threat perception worsens (Roccella, 2020). Thus, people who show an acute psychological response to COVID-19 in the early period of disease spread should be identified before their functionality deteriorates and PTSD develops. Once determined, they should undergo a psychiatric evaluation and reinforced with early psychosocial interventions.

In this study, women, single participants, unemployed people, people with psychiatric illnesses, and those with a history of psychiatric treatment had a higher risk of acute stress disorder. Yasar et al. (2022) found that acute stress disorder is higher in non-healthcare workers, females, and singles. Paulino et al. (2021) reported that women, unemployed people, people with low educational level, people living in rural areas, and people with chronic diseases are at risk for acute stress disorder. According to Carmassi et al. (2023), acute stress disorder was high in participants with mental health problems and younger and female respondents during the lockdown. El-Zoghby et al. (2020) reported higher average IES-R score in young people, women, people with a higher education level, people living in urban areas, and people with a history of chronic disease. In the comparison of study findings, women are an important risk group for acute stress disorder, although the risk factors vary from one culture to another. It can be said that women, especially housewives, have high levels of stress, anxiety, and depression, and this situation is affected by the number of children, increased workload, and need for help with housework (Sagar et al., 2022). It can also be said that the lack of emotional support has negative effects on women and single people, and the lethality of the disease has negative effects on psychological status and psychiatric symptoms (Thibaut & van Wijngaarden-Cremers, 2020).

Finally, the results of the present study reveal that young people, women, single individuals, unemployed people, and people with psychiatric diseases are at risk for PTSD. Karatzias et al. (2020) found that young people, men, people living in the city, people living with their children, and people who perceived themselves as having high risk of being infected with COVID-19 are at risk for PTSD. Moreover, the risk of PTSD was high in participants who had more than a case of COVID-19 within their families (Louis et al., 2023). Risk factors for PTSD in patients who have survived COVID-19 infection were female and young age, as well as economic losses or living alone (Medina-Ortiz et al.,

2023). One study showed that the risk of PTSD was lower in married men, and those with higher education and income (Yang et al., 2022). Those who had financial concerns, experienced financial loss, worried about the spread of the disease, and faced social isolation experienced higher levels of post-traumatic stress disorder (Bonsaksen et al., 2020). We can say that women are at risk and having social support is a protective factor.

5. Conclusion

During the COVID-19 pandemic, the study participants had high psychological distress and risk of acute stress disorder, and the severity of PTSD symptom were high. As the psychological stress levels experienced by the participants in the acute period increased, the severity PTSD symptom also increased. Variables such as age, sex, marital and employment status, place of residence, and a history of psychiatric disease affected the PTSD levels of the participants.

The results of this study can be used to offer some recommendations. It is crucial to take protective steps to minimize the psychological and traumatic effects of COVID-19 on the general population in Turkey. Acute stress disorder and PTSD screening regarding the pandemic process is necessary, and those at risk should receive psychiatric evaluation and treatment. Studying the factors affecting the trauma levels of individuals in larger and specific samples can greatly contribute to the planning of intervention studies. In addition, preventive mental health studies (problem solving, coping with stress, psychological resilience, etc.) may prevent the development of PTSD. Single people, women, and those with a psychiatric history can receive psychological support via telephone or internet-based applications. Television programs can be made to facilitate and strengthen family support, communication, and assistance. Studies can be carried out on television and social media to cope not only with the physical symptoms of the disease but also with the psychological symptoms it may cause. In the post-pandemic period, individuals suffering from post-traumatic stress disorder should be monitored. They also supported with both medication and psychological treatments, and plans should be made to reduce isolation by increasing participation in social activities.

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Conflict of Interest

All authors report no conflict of interest.

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