

Psychology Research on Education and Social Sciences, 3(1), 1-12, March 2022 e-ISSN: 2717-7602

dergipark.org.tr/press



Research Article

Investigation of anxiety and psychological well-being in adults during the Covid 19 pandemic period in Turkey¹

Meral KILIC² and Cebrail KISA³

İstanbul Aydın University, Graduate Education, Institute Psychology Department, Istanbul, Turkey.

Article Info

Received: 08 January2022 Revised: 12 February 2022 Accepted: 21 February 2022 Available online: 30 March 2022

Keywords: Adults Anxiety Covid 19 Psychological well-being

2717-7602 / © 2022 The PRESS. Published by Young Wise Pub. Ltd. This is an open access article under the CC BY-NC-ND license



Abstract

The Covid 19 pandemic period has affected people's physical health as well as their psychological aspects. It can be said that this period was a period in which the science of psychology was given great importance. In this study, it was aimed to examine the differentiation of people's anxiety and psychological well-being levels according to different demographic variables during the pandemic period. The research was carried out in accordance with the survey model, one of the quantitative research methods. The participants of the study were selected from the province of Kayseri, which is a medium-level province according to the socio-development index of Turkey. Three hundred and twenty-three adults voluntarily took part in the study as participants. State and Trait Anxiety Inventory and Psychological Well-Being Scale were used as data collection tools, and a demographic form was used to determine the demographic characteristics of the participants. Statistical calculations such as t-test, analysis of variance, regression analysis, pearson correlation were used in the analysis of the data. According to the research findings, in the state anxiety levels of the participants; There was a significant difference according to age, gender, marital status, monthly income, presence of psychiatric illness, presence of mental disorder in the family, alcohol use, presence of previous psychological diagnosis (p<.05). In the trait anxiety levels of the participants; There was a significant difference according to age, gender, marital status, monthly income, presence of psychiatric illness, presence of mental disorder in the family, and previous psychological diagnosis (p<.05). There was a significant difference in the psychological well-being levels of the participants according to the variables of age, education level, marital status, monthly income, presence of psychiatric illness, presence of previous psychological diagnosis (p<.05). In addition, a significant and negative relationship was found between the psychological well-being of the participants and their state anxiety (r=-0.582, p<0.05) and their trait anxiety (r=-0.590, p<0.05). The created regression model; Psychological Well-Being = 63.627 0.186xState Anxiety -0.220xTrait Anxiety. According to the research, it is seen that anxiety (state and trait) explains 40.7% of the change in psychological well-being (R^2 = 0.407). According to the results of the research, the reasons for the differences in anxiety and psychological well-being according to demographic variables can be investigated in the future, and it can be suggested that psychologists should consider this differentiation in practice.

To cite this article

Kılıç, M., & Kısa, C. (2022). Investigation of anxiety and psychological well-being in adults during the Covid 19 pandemic period in Turkey. Psychology Research on Education and Social Sciences, 3(1), 1-12.

Introduction

The Covid 19 pandemic, which affects the whole world, has been the subject of many academic studies. Situations such as closures, unemployment, and fear of death due to illness have created a differentiation in the psychological state of many people. It seems that many reports and studies on the psychological impact of the pandemic have been published recently (Jungmann & Witthöft, 2020; Lopes & Jaspal, 2020; Moghanibashi-Mansourieh, 2020; Shanafelt,

¹ This study produced by the first author master thesis.

² Master student, Istanbul Aydın University, Social Sciences Institutes, Psychology Department, Istanbul. E-mail: meralkilic@stu.aydın.edu.tr ORCID: 0000-

³ Professor, Istanbul Aydın University, Social Sciences Institutes, Psychology Department, Istanbul. E-mail: cebrailkisa@aydin.edu.tr ORCID: 0000-0001-7245-

Ripp, & Trockel, 2020).

Anxiety, depression and stress level in the early stages of the epidemic (Wang et al. 2020), anxiety level of students studying at Changzhi Medical Faculty (Cao et al. 2020), anxiety, stress and depression levels of adults in Spain (Ozamiz-Etxebarria, Dosil- Santamaria, Picaza-Gorrochategui, & Idoiaga-Mondragon, 2020), depression, anxiety and trauma symptoms in the UK (Shevlin et al. 2020), anxiety, depression and health anxiety levels in the Turkish population (Özdin & Bayrak Özdin, 2020), the effects of fear of the Covid-19 epidemic on stress, anxiety and depression (Satici et al. 2020), post-traumatic stress disorder symptoms of patients with covid-19 disease in China (Bo et al. 2020) are some of them.

In many previous studies, it has been found that pandemics cause significant and major traumas to people and increase anxiety (Yıldız, 2014; Lau et al., 2005; Taylor, 2019; Zhang et al. 2020). However, it is very important to determine which characteristics of people's anxiety and psychological well-being are more affected or which group differs from others.

The purpose of this research is to examine the differentiation of anxiety and psychological well-being of adults in Turkey according to different demographic variables during the Covid 19 pandemic. The main problem of the research;

➤ What are the anxiety and psychological well-being levels of adults in Turkey during the Covid 19 pandemic? It is in the form.

The sub-problems of the research are;

- > State and trait anxiety levels of adults in Turkey during the Covid 19 pandemic; Does it differ according to age/gender/educational status/martial status/work type/monthly income/presence of psychiatric illness/mental disorder in the family/cigarette use/alcohol use/presence of previous psychological diagnosis?
- Psychological well-being levels of adults in Turkey during the Covid 19 pandemic; Does it differ according to age/gender/educational status/martial status/work type/monthly income/presence of psychiatric illness/mental disorder in the family/cigarette use/alcohol use/presence of previous psychological diagnosis?
- ➤ Is there a relationship between state and trait anxiety and psychological well-being of adults in Turkey during the Covid 19 pandemic?
- ➤ Is the model to be created between state and trait anxiety as predictors of psychological well-being of adults in Turkey during the Covid 19 pandemic process statistically significant?

Method

Research Model

In this study, the state and trait anxiety and psychological state of adults in Turkey during the Covid 19 pandemic were described according to different variables. In this respect, the research is suitable for the survey model, which is one of the quantitative research methods. In addition, it has a relational screening character in terms of investigating the psychological relationship with anxiety levels.

Participants

The province of Kayseri, which is a province in the central region of Turkey, was chosen in the study. Kayseri is a typical city in terms of socioeconomic development. In this respect, the typical sampling method was determined. 323 participants voluntarily participated in the study. The sociodemographic characteristics of the participants are presented in Table 1.

 Table 1

 Socio-demographic Characteristics of the Participants

Va	riables	n	%	
Gender	Female	178	55.1	
Gender	Male	145	44.9	
	25 years and below	71	22.0	
Acc	26-30	77	23.8	
Age	31-35	48	14.9	
	36-40	42	13.0	
	41 years and above	85	26.3	
	Secondary school	16	5.0	
Education Level	High school	46	14.2	
Education Level	University	209	64.7	
	Post gratuated	52	16.1	
Marital Status	Single	156	48.3	
Maritai Status	Married	178 145 71 77 48 42 85 16 46 209 52 156 167 206 45 72 154 169 303 20 285 38 110 213 79 244 278 45	51.7	
	Full time	206	63.8	
Work type	Part time	45	13.9	
· ·	Not working	72	22.3	
In a come (Monthly)	5000 TL and below	154	47.7	
Income (Monthly)	5000 TL and above	169	52.3	
Presence of Psychiatric Disease	There is not	303	93.8	
	There is	20	6.2	
Presence of Mental Disorder in the Family	There is not	285	88.2	
	There is	38	11.8	
Con alvina Chatasa	Yes	110	34.1	
Smoking Status	No	213	65.9	
Alcohol Use Status	Yes	79	24.5	
Auconor Ose Status	No	244	75.5	
Presence of Previous Psychological	No	278	86.1	
Diagnosis	Yes	45	13.9	
Total		323	100.0	

Data Collection Tools

Sociodemographic Data Form

This form consists of 12 questions to determine the sociodemographic characteristics of the participants.

State and Trait Anxiety Inventory

This scale was developed by Spielberger (1966) as two 20-item scales and is used to measure the client's trait and state anxiety levels. The Turkish adaptation of the scale was carried out by Öner and Le Compte, (1985).

Psychological Well-Being Scale

It is an 8-item scale used to describe important components of people's emotional functions, such as satisfaction from positive relationships, feelings of competence, having a purpose, and having a meaningful life (Diener et al. 2009). Although the scale does not provide individual measurements of aspects of psychological well-being, it provides a general idea about positive functions in different areas that we consider important (Telef, 2011).

The reliability coefficients of the scales used in the study were found to be state anxiety scale (0.922), trait anxiety scale (0.896), and psychological well-being scale (0.869).

Data Analysis

In the study, parametric tests were used to determine the differentiation status of adults' anxiety and psychological states according to different socio-demographic variables. The normal distribution of the obtained data was tested and this decision was taken because it showed normal distribution. In the analysis of the data, t-test, analysis of variance, Pearson product of moments and multiple regression analysis were used.

Procedure

The research was carried out in the 2020-2021 academic year. Google Form application was used to collect the data.

Results

Adult State Anxiety

The differentiation status of the state concerns of adults in Turkey during the pandemic period according to different demographic variables is shown in Table 2.

Table 2T-test and ANOVA Results of State Anxiety Scores According to the Descriptive Characteristics of the Participants

Va	ariables	\overline{X}	SS	t	p	Bonferroni
C 1	Female	48.50	15.62	2 207**	0.022*	
Gender	Male	44.61	14.49	2.297**	0.022*	
	25 years and below (1)	49.11	15.21			
Λ	26-30 (2)	49.90	16.29			1>5 2>4
Age	31-35 (3)	46.50	13.88	2.587***	0.037*	1>5, 2>4 2>5
	36-40 (4)	43.38	15.52			2/3
	41 years and above (5)	43.88	14.20			
	Secondary school	42.75	14.30			
Education Level	High school	48.34	14.19	1.303***	0.274	
Education Level	University	46.00	14.16	1.303	0.274	_
	Post graduated	49.57	19.73			
Marital Status	Single	49.28	15.98	2.923**	0.004*	
Mantai Status	Married	44.38	14.11	2.923**	0.004*	
	Full time	46.81	13.39			
Work type	Parttime	49.86	13.06	1.634***	0.197	
	Not working	44.65	15.82			0.001*
T (M. (11)	5000 TL and below	49.72	15.70	3.403**	0.001*	
Income (Monthly)	5000 TL and above	44.04	14.28	3.403***	0.001*	
Presence of Psychiatric	There is not	46.09	14.75	2.007**	0.003*	
Disease	There is	56.80	18.87	-3.086**	0.002*	
Presence of Mental	There is not	45.86	14.44	2.01.0**	0.004*	
Disorder in the Family	There is	53.44	19.09	-2.918**	0.004*	
0 1: 0.	Yes	46.92	15.46	O 4 4 Cylesk	0.004	
Smoking Status	No	46.66	14.58	0.146**	0.884	
A1 1 1 1 1 C	Yes	51.11	17.59	0.07211	0.0024	
Alcohol Use Status	No	45.34	14.13	2.962**	0.003*	
Presence of Previous	No	45.70	14.64			
Psychological Diagnosis	Yes	53.22	17.25	-3.112**	0.002*	

^{*}p<0.05, **Indepented t-testi, ***Oneway variance analysis

In order to compare the state anxiety scores of the participants, independent t-test was used to compare two independent groups, and one-way analysis of variance was used to compare more than two independent groups. As a result, it was concluded that there was a statistically significant difference between the state anxiety scores of the participants according to their gender (p<0.05). It was determined that the state anxiety scores of female participants were higher than male participants. It was determined that there was a statistically significant difference between the state anxiety scores of the participants according to their age (p<0.05). Bonferroni was applied to determine the binary group with the difference. It is seen that the state anxiety scores of the participants aged 25 and under are higher than the participants aged 41 and over. It was concluded that the state anxiety scores of the participants aged 26-30 were higher than those aged 36-40 and 41 years and older. It was determined that there was a statistically significant difference between the state anxiety scores of the participants according to their marital status (p<0.05). It is seen that the state anxiety scores of the single participants are higher than the married participants. It was concluded that there was a statistically significant difference between the state anxiety scores of the participants according to their monthly

income (p<0.05). It was concluded that the state anxiety scores of the participants with a monthly income of 5000 TL or less were higher than the participants with a monthly income of more than 5000 TL. It is seen that there is a statistically significant difference between the state anxiety scores of the participants according to the presence of psychiatric illness (p<0.05). It was concluded that the state anxiety scores of the participants with a psychiatric illness were higher than the participants without. It was concluded that there was a statistically significant difference between the state anxiety scores of the participants according to the presence of mental disorder in the family (p<0.05). It is seen that the state anxiety scores of the participants with a family history of mental disorders are higher than those without. It was determined that there was a statistically significant difference between the state anxiety scores of the participants according to their alcohol use (p<0.05). It is seen that the state anxiety scores of the participants who use alcohol are higher than the participants who do not use alcohol. It was concluded that there was a statistically significant difference between the state anxiety scores of the participants who use psychological diagnosis (p<0.05). It is seen that the state anxiety scores of the participants with a previous psychological diagnosis were higher than the participants who did not.

Adult Trait Anxiety

The differentiation status of the trait anxiety of adults in Turkey during the pandemic period according to different demographic variables is shown in Table 3.

Table 3T-test and ANOVA Results of Trait Anxiety Scores According to the Descriptive Characteristics of the Participants

V	ariables	\overline{X}	SS	t	p	Bonferron
C1	Female	56.37	14.09	2 702**	0.000*	
Gender	Male	50.70	13.01	3.723**	0.000*	
	25 years and below (1)	56.60	13.73			
Λ	26-30 (2)	56.89	15.25			1>1 1>5 2>2
Age	31-35 (3)	51.77	12.78	3.204***	0.013*	1>4, 1>5, 2>3, 2>4, 2>5
	36-40 (4)	50.28	13.29			274, 275
	41 years and above (5)	51.64	12.86			
	Secondary school	57.56	13.44			
Education Level	High school	52.89	13.43	1.097***	0.350 0.003* 0.085 0.001* 0.000*	
Education Level	University	53.17	12.67	1.09/	0.330	
	Post graduated	56.15	18.40			
Marital Status	Single	56.16	14.44	2.957**	0.002*	
Maritai Status	Married	51.64	13.02	2.93/***	0.005**	
Work type	Full time	53.11	14.09			
	Parttime	58.08	12.60	2.482***	0.085	
	Not working	53.22	13.77			
In a come o (Monthely)	5000 TL and below	56.59	13.90	3.468**	0.001*	
Income (Monthly)	5000 TL and above	51.31	13.40	3.400	0.001	
Presence of	There is not	53.07	13.47	-3.860**	0.000*	
Psychiatric Disease	There is	65.20	15.49	-3.800	0.000*	
Presence of Mental	There is not	52.91	13.19			
Disorder in the Family	There is	60.65	16.98	-3.274**	0.001*	
C 1: C	Yes	52.34	14.43	1 202**	0.160	
Smoking Status	No	54.59	13.57	-1.382**	0.168	
Alashal Has States	Yes	54.91	16.91	0.707**		
Alcohol Use Status	No	53.74	12.77	0.796**	0.427	
Presence of Previous	No	52.69	13.26			
Psychological Diagnosis	Yes	60.82	15.66	-3.711**	0.000*	

^{*}p<0.05, **Indepented t-testi, ***Oneway variance analysis

To compare the trait anxiety scores of the participants according to their descriptive characteristics, independent t-test was used to compare two independent groups, and one-way analysis of variance was used to compare more than two independent groups. As a result, it is seen that there is a statistically significant difference between the trait anxiety scores of the participants according to their gender (p<0.05). It is seen that trait anxiety scores of female participants are higher than male participants. It is seen that there is a statistically significant difference between the trait anxiety scores of the participants according to their age (p<0.05). Bonferroni test was applied to determine the binary group where there was a difference. It is seen that the trait anxiety scores of the participants aged 25 and under are higher than the participants aged 36-40 and 41 and over. It is seen that the trait anxiety scores of the participants aged 26-30 are higher than those aged 31-35, 36-40 years old and 41 years and over. It was concluded that there was a statistically significant difference between the trait anxiety scores of the participants according to their marital status (p<0.05). It was concluded that single participants had higher trait anxiety scores than married participants. It was concluded that there was a statistically significant difference between the trait anxiety scores of the participants according to their monthly income (p<0.05). It was concluded that the trait anxiety scores of the participants with a monthly income of 5000 TL or less were higher than the participants with a monthly income of more than 5000 TL. It was concluded that there was a statistically significant difference between the trait anxiety scores of the participants according to the presence of psychiatric illness (p<0.05). It is seen that the trait anxiety scores of the participants with a psychiatric illness are higher than the participants without. It was determined that there was a statistically significant difference between the trait anxiety scores of the participants according to the presence of mental disorder in the family (p<0.05). It is seen that the trait anxiety scores of the participants with a family history of mental disorders are higher than those without. It was concluded that there was a statistically significant difference between the trait anxiety scores of the participants according to the presence of a previous psychological diagnosis (p<0.05). It was concluded that the participants with a previous psychological diagnosis had higher trait anxiety scores than the participants without.

Psychological Well-being of Adults

The variation in psychological well-being of adults in Turkey during the pandemic period according to different demographic variables is shown in Table 4.

Table 4T-test and ANOVA Results of Psychological Well-being Scores According to the Descriptive Characteristics of the Participants

Va	riables	\overline{X}	SS	t	p	Bonferron	
Cardan	Female	43.34	9.04	0.517**	0.608		
Gender	Male	42.85	7.72	0.51/***	0.008		
	25 years and below (1)	40.94	9.21				
Λ	26-30 (2)	42.49	8.47			2>1 1>1	
Age	31-35 (3)	44.16	8.40	2.477***	0.044*	3>1, 4>1, 5>1	
	36-40 (4)	45.54	7.96			5/1	
	41 years and above (5)	43.72	7.76				
	Secondary school	47.43	6.87				
T. d	High school	41.08	9.43	O C Calcalcale	0.037*	1>0 1>4	
Education Level	University	43.55	7.65	2.866***		1>2, 1>4	
	Post graduated	41.88	10.45				
M : 10.	Single	41.80	8.89	2.720**	0.007*		
Marital Status	Married	44.35	7.87	-2.739**	0.007*		
	Full time	43.26	8.37				
Work type	Parttime	40.68	8.48	2.547***	0.080		
	Not working	44.25	8.57				
I	5000 TL and below	41.96	9.11	-2.372**	0.018*		
Income (Monthly)	5000 TL and above	44.18	7.71	-2.3/2	0.018**		
Presence of Psychiatric	There is not	43.42	8.24	2.486**	0.013*		
Disease	There is	38.60	10.64	∠.480 [™]	0.013**		
Presence of Mental	There is not	43.44	8.12	1 000**	0.050		
Disorder in the Family	There is	40.68	10.53	1.898**	0.059		
Smoking Status	Yes	42.96	8.42	-0.244**	0.807		
-		6					

	No	43.20	8.51		
Alcohol Use Status	Yes	41.54	9.39	-1.915**	0.056
Alcohol Use Status	No	43.63	8.10	-1.913	0.030
Presence of Previous	No	43.69	8.05		
Psychological	Yes	39.57	10.06	3.066**	0.002*
Diagnosis	168	39.37	10.00		

^{*}p<0.05, **Indepented t-testi, ***Oneway variance analysis

In order to compare the psychological well-being scores of the participants according to their descriptive characteristics, independent t-test was used to compare two independent groups, and one-way analysis of variance was used to compare more than two independent groups. As a result, it was determined that there was a statistically significant difference between the psychological well-being scores of the participants according to their age (p<0.05). Bonferroni test was applied to determine the binary group where there was a difference. It is seen that the psychological well-being scores of the participants aged 31-35, 36-40 and 41 and over are higher than the participants aged 25 and under. It was determined that there was a statistically significant difference between the psychological well-being scores of the participants according to their educational status (p<0.05). Bonferroni test was applied to determine the binary group where there was a difference. It is seen that the psychological well-being scores of the participants whose education level is primary school are higher than the participants whose education level is high school and graduate. It was concluded that there was a statistically significant difference between the psychological well-being scores of the participants according to their marital status (p < 0.05). It is seen that the psychological wellbeing scores of married participants are higher than those of single participants. It was concluded that there was a statistically significant difference between the psychological well-being scores of the participants according to their monthly income (p<0.05). It is seen that the psychological well-being scores of the participants with a monthly income of more than 5000 TL are higher than the participants with a monthly income of 5000 TL or less. It was concluded that there was a statistically significant difference between the psychological well-being scores of the participants according to the presence of psychiatric illness (p<0.05). It is seen that the psychological well-being scores of the participants who do not have a psychiatric disease are higher than the participants who have it. It was concluded that there was a statistically significant difference between the psychological well-being scores of the participants according to the presence of a previous psychological diagnosis (p<0.05). It was concluded that the psychological well-being scores of the participants without a previous psychological diagnosis were higher than the participants with a psychological diagnosis.

The Relationship Between Adults' Anxiety and Psychological Well-Being

Table 5Pearson Correlation Test Results for the Relationship Between Adults' Anxiety and Psychological Well-Being Scores

-	State Anxiety	Trait Anxiety	Psychological Well-Being
State Anxiety	-	0.690**	-0.582**
Trait Anxiety		-	-0.590**
Psychological Well-Being			-

^{*}p<0.05, **p<.01

In the study, Pearson correlation was used to test the relationship between the scores of adults from the scales. A statistically significant and positive correlation was found between state anxiety and trait anxiety (r=0.690, p<0.05). A statistically significant and negative correlation was found between psychological well-being and state anxiety (r=-0.582, p<0.05) and trait anxiety (r=-0.590, p<0.05).

Anxiety as a Predictor of Adults' Psychological Well-Being

In the study, the situation of creating an appropriate model of adults' anxiety as a predictor of their psychological well-being was examined. The Multiple Regression Analysis performed accordingly is given in Table 6.

Table 6Regression Analysis Results Regarding the Model Between Psychological Well-Being and Anxiety of Adults

The dependent variable	Independent variables	ß	SH	Beta	t	p	F	Model (p)	R2	Durbin Watson
Psychological Well-Being	Constant	63.627	1.473	-	43.202	0.000*	109.833		0.407	2.097
	State Anxiety	-0.186	0.033	-0.334	-5.613	0.000*		0.000*		
	Trait Anxiety	-0.220	0.036	-0.360	-6.052	0.000*				
*p<0.05										

•

Multiple linear regression analysis was conducted to investigate the effect of the state anxiety and trait anxiety scales used in the study on the psychological well-being scale. As a result of the multiple linear regression analysis, it was concluded that the regression model established was statistically significant when the F value and the significance level corresponding to this test value were examined (F=109.833; p<0.05). Considering the beta coefficient values, test values and significance levels of the independent variables state anxiety and trait anxiety; It was concluded that state anxiety (t=-5.613, p<0.05) and trait anxiety (t=-6.052, p<0.05) had a statistically significant effect on psychological well-being. A 1-unit increase in state anxiety causes a 0.186 (β =-0.186) decrease in psychological well-being, and a 1-unit increase in trait anxiety causes a 0.220 (β =-0.220) decrease in psychological well-being. It is seen that 40.7% of the change in psychological well-being is explained (R2=0.407). Durbin Watson value between 1.5 and 2.5 in the established model indicates that there is no autocorrelation problem (DW=2.097).

Conclusion and Discussion

According to the research findings, in the state anxiety levels of the participants; There was a significant difference according to age, gender, marital status, monthly income, presence of psychiatric illness, presence of mental disorder in the family, alcohol use, presence of previous psychological diagnosis (p<.05). In addition, in the trait anxiety levels of the participants; There was a significant difference according to age, gender, marital status, monthly income, presence of psychiatric illness, presence of mental disorder in the family, and previous psychological diagnosis (p<.05). When attention is paid, there is no difference between the state anxiety and trait anxiety levels of the participants, except for alcohol use. The differentiation in all other variables is similar. Pandemic period; In this respect, it can be said that the variables mentioned in the research findings cause anxiety disorders differently.

It has now been proven according to all research findings that the Covid 19 pandemic process causes changes in the psychological state of people. It has been determined that the quarantine process causes burnout in humans, increases anxiety, increases the stress level, creates traumatic effects (Zhao et al. 2020), and results similar to previous epidemic studies. For example, it has been observed that Sars virus develops psychological symptoms in half of the population. Similarly, anxiety levels increased in Sars (Cheng et al. 2004; Mihashi et al. 2009; Bandelow & Michaelis, 2015). It is seen that there are similar findings in our study. In addition to the high trait and state anxiety levels of the participants, they differ according to different variables.

As a result of the study, a significant difference was observed in the psychological levels of the participants according to the variables of age, education status, marital status, monthly income, presence of psychiatric illness, presence of previous psychological diagnosis (p<.05). In addition, a significant and negative relationship was found between the psychological well-being of the participants and their state anxiety (r=-0.582, p<0.05) and their trait anxiety (r=-0.590, p<0.05). The created regression model; Psychological Well-being= 63.627 -0.186 State Anxiety -0.220 Trait Anxiety. According to the research, it is seen that anxiety (state and trait) explains 40.7% of the change in psychological well-being (R2 = 0.407). This can be interpreted as the pandemic's impact on people's psychological well-being. This finding seems to have been proven by many studies (Jungmann & Witthöft, 2020; Lopes & Jaspal, 2020; Moghanibashi-Mansourieh, 2020; Shanafelt et al. 2020; Talidon & Toquero, 2020; Yang et al. 2020). In the research, not only the decrease in psychological well-being levels, but also the difference in which variable is examined. Accordingly, it varies according to age, education level, marital status, income, previous psychological diagnosis and presence of psychological illness. In the research findings, it is seen that the psychological well-being levels of those aged 25 and under are at the lowest level compared to other groups and differ according to other groups. This situation can be thought of as the fact that young people and children are more affected by the Covid 19 pandemic process. This confirms the fact that young people and children have a desire to socialize and move more. In Turkey, it has

been seen on social media that university students have expressed their demands about starting face-to-face education at universities during the pandemic process.

In our research, there is a finding that the participants' trait and state anxiety levels are higher in favor of women. However, this difference is not observed in psychological well-being levels. Similar finding is Wang et al. (2020) in the research conducted in China. In Turkey, on the other hand, in the results of the research conducted by Çölgeçen and Çölgeçen (2020), women's state of developing higher anxiety was also observed, which is in line with the research findings.

In our study, single people have higher trait anxiety levels and married people have higher state anxiety levels. This finding is also reported by Hacimusalar et al. (2020) show similarity according to the study.

In our study, it was found that primary school students had the lowest state anxiety scores in terms of state anxiety, while trait anxiety scores were higher for high school and university students. When attention is paid, it can be said that the students in this group are the groups that have a lot of obligation in terms of school attendance. In a study conducted in China, it was observed that the level of depressive symptoms was higher in groups below the university level (Wang et al. 2020). In Turkey, it can be suggested that the effect of school on students' psychology and making them happy should be investigated in this respect.

In our study, differentiation was also observed according to marital status, and it was found that single people had higher anxiety levels in both types of anxiety than married people. This finding, Cao et al. (2020), it is parallel to the finding that the anxiety levels of acquaintances and relatives are lower.

Again, in our study, the finding that participants with a previous psychiatric disorder and the presence of a psychological illness had a higher level of anxiety, Mazza et al. (2020) according to the study conducted in Italy. According to Lai et al. (2020) examined the situation of people infected in the pandemic, not the state of having a psychological disorder before. Wu et al. (2005) found in their study that there are similar disorders such as anxiety, post-traumatic stress disorders, and depression after the Sars virus pandemic. A finding similar to the findings in our research is seen in the research conducted by Duan & Zhu (2020). Accordingly, it was found that the increase in stress, anxiety and suicidal tendency was higher in people diagnosed with psychopathology during the pandemic process. The results of our research are similar to the results of our research.

Recommendations

Recommendations for Further Research

After the research, the following suggestions can be presented to the researchers;

- > Our research was conducted in a typical city in Turkey, and it can be investigated whether there is a differentiation in different socio-economic level provinces.
- The research is quantitative in nature and focused on anxiety and psychological well-being. However, a detailed research on the sub-dimensions of anxiety and psychological well-being can be defeated both qualitatively and quantitatively. For quantitative studies, it can be recommended to do at least over 10000 people for different variables.
- The concepts of anxiety and psychological well-being, which are the most relevant psychological structures during the Covid 19 pandemic period, were examined. The sub-dimensions of these concepts can be examined in depth with qualitative research.
- > Studies can be conducted on anxiety and psychological well-being levels and the effect of the pandemic in these periods when the pandemic process begins to end and after the pandemic.
- Considering that the pandemic is caused by many factors such as unemployment, loneliness, the thought of not being able to marry, interruption or the end of one's career, in addition to its direct and direct impact on health, it is possible to research the anxiety and stress-increasing situations that will replace the pandemic after the pandemic with these variables.
- In this study, which explains psychological well-being with anxiety in Turkey, the most important source of anxiety was seen as a pandemic. In the next period, comparisons can be made by investigating the explanations of psychological well-being of different causes of anxiety.

Recommendations for Applicants

After the research, the following suggestions can be made for people working in the field of psychology;

- It may be recommended to approach the psychological diagnosis and therapy processes by taking into account the different effects of different groups after the pandemic and after the pandemic.
- Considering the impact levels of students at different education levels in the transition to normal life after the pandemic, seminars, training and therapies that provide guidance and rehabilitation can be applied.
- Being aware of the high anxiety states that indicate that single and lonely people are affected by the pandemic, it can be recommended to offer psychological help.
- > Therapies that include measures to increase awareness of post-pandemic high anxiety states and to have more psychological resilience in similar situations that may occur after the pandemic can be offered to people who have a psychological disorder and have previously received psychiatric support.

Biodata of Authors



Meral Kiliç; she graduated from Istanbul Aydin University, Department of Physchology. He received training in the field of psychology and attended seminars. He currently serves as a psychologist for parents, children and adults. **E-mail:** merallklc@gmail.com **Phone:** 0553 470 97 83 ORCID: 0000-0002-2656-3720



Prof. Dr. CEBRAIL KISA, Psychiatrist & Psychotherapist: He completed his medical and psychiatry specialty training in Ankara University Faculty of Medicine and Ankara Numune Training and Research Hospital Psychiatry Clinic in 1995 and 2001. He received the title of professor of psychiatry in 2018. He worked as a "chief assistant" in Ankara Numune Training and Research Hospital Psychiatry Clinic between 1997-2013 and as a "lecturer" in Ankara Dışkapı Yıldırım Beyazıt Training and Research Hospital Psychiatry Clinic between 2013-2018. He still continues to work in Istanbul Aydın University Faculty of Medicine, Department of Mental Health

and Diseases, Turkey **E-mail:** cebrailkisa@aydin.edu.tr **Phone**: +90 5336344868 ORCID: 0000-0001-7245-0842

References

Bai, Y., Lin, C.C., Lin, C.Y., Chen, J.Y., Chue, C.M., & Chou, P. (2004). Survey of stress reactions among health care workers involved with the SARS outbreak. *Psychiatric Services*, 55(9), 1055–1057. https://doi.org/10.1176/appi.ps.55.9.1055

Bandelow, B., & Michaelis S. (2015) Epidemiology of Anxiety Disorders in The 21st Century. *Dialogues in Clinical Neuroscience*, 17(3), 327-335.

Barlow, D. H. (2004). Anxiety and its disorders: The nature and treatment of anxiety and panic. New York: Guilford press.

Bo, H., Li, W., Yang, Y., Wang, Y., Zhang, Q., Cheung, T., Wu, X., Xiang, Y. (2021). Posttraumatic stress symptoms and attitude toward crisis mental health services among clinically stable patients with COVID-19 in China. *Psychol Med*, *51*(6),1052-1053. doi: 10.1017/S0033291720000999

Brown, K., & Wang, R. C. (2020). Politics and science: The case of China and the coronavirus. Asian Affairs, 51(2), 247-264.

Cai, H., Tu, B., Ma, J., Chen, L., Fu, L., Jiang, Y., & Zhuang, Q. (2020). Psychological Impact and Coping Strategies of Frontline Medical Staff in Hunan Between January and March 2020 During the Outbreak of Coronavirus Disease 2019 (COVID-19) in Hubei, China. *Medical Science Monitor*, 26. https://doi.org/10.12659/MSM.924171

Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J. & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, 287, 112934. https://doi.org/10.1016/j.psychres.2020.112934

Chan, A.O., & Huak, C.Y. (2004). Psychological impact of the 2003 severe acute respiratory syndrome outbreak on health care workers in a medium size regional general hospital in Singapore. *Occupational Medicine*, 54(3), 190-196. https://doi.org/10.1093/occmed/kqh027

Chan, J. F. W., Yuan, S., Kok, K. H., To, K. K. W., Chu, H., Yang, J., et al. (2020). A familial cluster of pneumonia associated with the 2019 novel coronavirus indicating person-to-person transmission: a study of a family cluster. *The Lancet, 395*(10223), 514-523.

Choi, E. P. H., Hui, B. P. H., & Wan, E.Y.F. (2020). Depression and anxiety in Hong Kong during COVID-19. *International Journal of Environmental Research and Public Health*, 17(10), 3740.

Chu, D. K., Akl, E. A., Duda, S., Solo, K., Yaacoub, S., Schünemann, H. J., et al. (2020). Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. *The Lancet*, 395(10242), 1973-1987.

Çölgeçen, Y., & Çölgeçen, H. (2020). Covid-19 pandemisine bağlı yaşanan kaygı düzeylerinin değerlendirilmesi: Türkiye Örneği. *Turkish Studies*, 15(4), 261-275. https://dx.doi.org/10.7827/TurkishStudies.44399

Diener, E., Biswas-Diener, R., Choi, D., Kim-Prieto, C., Oishi, S., Tov, W., & Wirtz, D. (2009). *Assessing well-being*. E. Diener, (Ed.), New measures of well-being (p.247-266). Berlin: Springer.

- Duan, L., & Zhu, G. (2020). Psychological interventions for people affected by the COVID-19 epidemic. *The Lancet Psychiatry*, 7(4), 300-302. https://doi.org/10.1016/S2215-0366(20)30073-0
- Epishin, V. E., Salikhova, A. B., Bogacheva, N. V., Bogdanova, M. D., & Kiseleva, M. G. (2020). Mental Health and the COVID-19 Pandemic: Hardiness and Meaningfulness Reduce Negative Effects on Psychological Well-Being. Psychology in Russia. State of the Art, 13(4), 75-89.
- Fernandez, R.S., Crivelli, L., Guimet, N.M., Allegri, R.F., & Pedreira, M.E. (2020). Psychological distress associated with COVID-19 quarantine: latent profile analysis, outcome prediction and mediation analysis. *Journal of Affective Disorders*, 277, 75-84. https://doi.org/10.1016/j.jad.2020.07.133
- Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S., Wang, Y., Fu, H., & Dai, J. (2020). Mental health problems and social media exposure during COVID-19 outbreak. *PLOS One*, 15(4). https://doi.org/10.1371/journal.pone.0231924
- Guan, W. J., Ni, Z. Y., Hu, Y., Liang, W. H., Ou, C. Q., He, J. X., et al. (2020). Clinical characteristics of coronavirus disease 2019 in China. New England journal of medicine, 382(18), 1708-1720.
- Hacimusalar, Y., Kahve, A. C., Yasar, A. B., & Aydin, M. S. (2020). Anxiety and hopelessness levels in COVID-19 pandemic: A comparative study of healthcare professionals and other community sample in Turkey. *Journal of Psychiatric Research*, 129, 181-188. https://doi.org/10.1016/j.jpsychires.2020.07.024
- Huang, Y., & Zhao, N. (2020). Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey. *Psychiatry Research*, 288, 112954. https://doi.org/10.1016/j.psychres.2020.112954
- Jungmann, S. M., & Witthöft, M. (2020). Medically unexplained symptoms in children and adolescents: Illness-related self-concept and parental symptom evaluations. *Journal of Behavior Therapy and Experimental Psychiatry*, 68, Article 101565. https://doi.org/10.1016/j.jbtep.2020.101565
- Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., ... and Hu, S. (2020). Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Network Open*, 3(3), e203976-e203976. https://doi.org/10.1001/jamanetworkopen.2020.3976
- Liu, Y., Gayle, A. A., Wilder-Smith, A., & Rockl, V.J. (2020). The reproductive number of COVID-19 is higher compared to SARS coronavirus. *Journal of Travel Medicine*, 27(2), 1-4.
- Lopes, B. C. d. S., & Jaspal, R. (2020). Understanding the mental health burden of COVID-19 in the United Kingdom. *Psychological Trauma: Theory, Research, Practice, and Policy, 12*(5), 465–467. https://doi.org/10.1037/tra0000632
- Mazza, C., Ricci, E., Biondi, S., Colasanti, M., Ferracuti, S., Napoli, C., &Roma, P. (2020). A nationwide survey of psychological distress among Italian people during the COVID-19 pandemic: Immediate psychological responses and associated features. *International Journal of Environmental Research and Public Health*, 17(9), 3165. https://doi.org/10.3390/ijerph17093165
- McIntosh, K., Dees, J. H., Becker, W. B., Kapikian, A. Z., & Chanock, R. M. (1967). Recovery in tracheal organ cultures of novel viruses from patients with respiratory disease. *Proceedings of the National Academy of Sciences of the United States of America*, 57(4), 933-940.
- Mertens, G., Gerritsen, L., Duijndam, S., Salemink, E., & Engelhard, I. M. (2020). Fear of the coronavirus (COVID-19): Predictors in an online study conducted in March 2020. *Journal of Anxiety Disorders*, 74, 102258. https://doi.org/10.1016/j.janxdis.2020.102258
- Mertens, G., Gerritsen, L., Duijndam, S., Salemink, E., & Engelhard, I. M. (2020). Fear of the coronavirus (COVID-19): Predictors in an online study conducted in March 2020. *Journal of Anxiety Disorders*, 74, 102258.
- Moghanibashi-Mansourieh, A. (2020). "Assessing the Anxiety Level of Iranian General Population During COVID-19 Outbreak.", *Asian Journal Of Psychiatry*, 51, 102076.
- Öner, N., & Le Compte A. (1985). *Durumluk ve Sürekli Kaygı Envanteri Elkitalı uyarlaması*, İstanbul Boğaziçi Üniversitesi Yayımları. Ozamiz-Etxebarria, N., & Dosil-Santamaria, M., Picaza-Gorrochategui, M., & Idoiaga-Mondragon, N., (2020). Stress, anxiety, and depression levels in the initial stage of the COVID-19 outbreak in a population sample in the northern Spain. *Cad Saude Publica*, 36(4):e00054020. doi: 10.1590/0102-311X00054020.
- Özdin, S., & Bayrak Özdin Ş. (2020). Levels and predictors of anxiety, depression and health anxiety during COVID-19 pandemic in Turkish society: The importance of gender. *Int J Soc Psychiatry*, 66(5), 504-511. doi: 10.1177/0020764020927051.
- Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., & Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. *General Psychiatry*, 33(2). 1-12.
- Satici, B., Gocet-Tekin, E., Deniz, M. E., & Satici, S. A. (2020). Adaptation of the Fear of COVID-19 Scale: Its association with psychological distress and life satisfaction in Turkey. *International Journal of Mental Health and Addiction*, 1-9.
- Shanafelt, T., Ripp, J., & Trockel, M. (2020). Understanding and Addressing Sources of Anxiety Among Health Care Professionals During the COVID-19 Pandemic. *JAMA*, *323*(21), 2133-2134. doi: 10.1001/jama.2020.5893.
- Shevlin, M., McBride, O., Murphy, J., Miller, J. G., Hartman, T. K., Levita, L., ... & Bennett, K. M. (2020). Anxiety, Depression, Traumatic Stress, and COVID-19 Related Anxiety in the UK General Population During the COVID-19 Pandemic. *BJPsych Open*, 6(6): e125. doi: 10.1192/bjo.2020.109
- Spielberger, C. D. (1966). Theory and research on anxiety. In Spielberger, C. D. (Ed.). Anxiety and behavior. Cambridge: Academic Press.

- Taylor, S. (2019). The psychology of pandemics: Preparing for the next global outbreak of infectious disease. Cambridge: Scholars Publishing.
- Wang, C., & Zhao, H. (2020). The impact of COVID-19 on anxiety in Chinese university students. Frontiers in Psychology, 11, 1168.
- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C.S., ve Ho, R.C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 Coronavirus Disease (COVID-19) epidemic among the general population in china. *International Journal of Environmental Research and Public Health*, 17(5), 1729. doi: 10.3390/ijerph17051729
- Wu F., Zhao S., Bin Y., Chen Y., Wang W., Song, Z., et al. (2020). A new coronavirus associated with human respiratory disease in China. *Nature*, 579(7798), 265-269.
- Wu, P., Fang, Y., Guan, Z., Fan, B., Kong, J., Yao, Z., ... and Hoven, C. W. (2009). The psychological impact of the SARS epidemic on hospital employees in China: exposure, risk perception, and altruistic acceptance of risk. *The Canadian Journal of Psychiatry*, 54(5), 302-311.
- Xiang, Y. T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., & Ng, C. H. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *The Lancet Psychiatry*, 7(3), 228-229.
- Xiao, X., Zhu, X., Fu, S., Hu, Y., Li, X., & Xiao, J. (2020). Psychological impact of healthcare workers in China during COVID-19 pneumonia epidemic: A multi-center cross-sectional survey investigation. *Journal of Affective Disorders*, 274, 405-410. https://doi.org/10.1016/j.jad.2020.05.081
- Yan, J., Kim, S., Zhang, S. X., Foo, M. D., Alvarez-Risco, A., Del-Aguila-Arcentales, S., & Yez, J. A. (2021). Hospitality workers' COVID-19 risk perception and depression: A contingent model based on transactional theory of stress model. *International Journal of Hospitality Management*, 95. https://doi.org/10.1016/j.ijhm.2021.102935
- Yehudai, M., Bender, S., Gritsenko, V., Konstantinov, V., Reznik, A., & Isralowitz, R. (2020). COVID-19 fear, mental health, and substance misuse conditions among university social work students in Israel and Russia. *International Journal of Mental Health and Addiction*, 1-8.
- Yıldız, İ., Çıkrıkçılı, U., & Yuksel, Ş. (2020). Karantinanın Ruhsal Etkileri ve Koruyucu Önlemler. Ankara, Türkiye Psikiyatri Derneği.
 Yuan, Y., Liu, Z. H., Zhao, Y. J., Zhang, Q., Zhang, L., Cheung, T., ... and Xiang, Y. T. (2021). Prevalence of Post-traumatic Stress Symptoms and Its Associations with Quality of Life, Demographic and Clinical Characteristics in COVID-19 Survivors During the Post-COVID-19 Era. Frontiers in Psychiatry, 12, 646. https://doi.org/10.3389/fpsyt.2021.665507
- Zhang, W., Wang, K., Yin, L., Zhao, W., Xue, Q., Peng, M., Min, B., Tian, Q., Leng, H., Du, J., Chang, H., Yang, Y., Li, W., Shangguan, F., Yan, T., Dong, H., Wang, Y., Cosci, F., & Wang, H. (2020). Mental Health and Psychosocial Problems of Medical Health Workers during the COVID-19 Epidemic in China. *Psychotherapy and Psychosomatics*, 89, 242-250. https://doi.org/10.1159/000507639
- Zhang, X., Norton, J., Carri re, I., Ritchie, K., Chaudieu, I. ve Ancelin, M.-L. (2015). Generalized anxiety in community-dwelling elderly: Prevalence and clinical characteristics. *Journal of Affective Disorders*, 172, 24–29. https://doi.org/10.1016/j.jad.2014.09.036
- Zhao, J., Lee, M., Ghader, S., Younes, H., Darzi, A., Xiong, C., & Zhang, L. (2020). Quarantine fatigue: First-ever decrease in social distancing measures after the COVID-19 outbreak before reopening the United States. arXiv:2006, 03716v2.
- Zhou, F., Yu, T., Du, R., Fan, G., Liu, Y., Liu, Z., et al. (2020). Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study. *The Lancet, 395*(10229), 1054-1062.
- Zhu, N., Zhang, D., Wang, W., Li, X., Yang, B., Song, et al. (2020). A novel coronavirus from patients with pneumonia in China, 2019. New England Journal of Medicine, 382(8), 2-14.
- Zhu, Y., Zhang, L., Zhou, X., Li, C., & Yang, D. (2021). The impact of social distancing during COVID-19: A conditional process model of negative emotions, alienation, affective disorders, and post-traumatic stress disorder. *Journal of Affective Disorders*, 281, 131–137. https://doi.org/10.1016/j.jad.2020.12.004