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RESEARCH

Mediating Role of Anxiety in the Relationship Between Traumatic Stress Symptoms and Ontological Well-being in the Covid-19 Pandemic

Covid-19 Pandemisinde, Travmatik Stres Belirtileri ve Ontolojik İyi Oluş Arasındaki İlişkide Anksiyetenin Aracı Rolü

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Abstract

The purpose of this study is to analyse the intermediary role of anxiety in the relationship between traumatic stress symptoms and ontological well-being in individuals who have been exposed to the Covid-19 pandemic. The study was conducted online with 355 participants. A Socio Demographic Data Questionnaire, the Traumatic Stress Symptom Scale, the State-Trait Anxiety Inventory and the Ontological Well-being Inventory were administered to participants. Most of the participants were between the ages of 18-25 (42%), female (76.9%), university graduates (43.4%) and single (53.5%). It has been found that as traumatic stress symptoms increase, the level of anxiety (state and trait) increases. Later, it was found that, as the level of traumatic stress symptoms and anxiety (state and continuous) increased, the level of ontological well-being decreased. In addition, anxiety was found to have an intermediary role in the relationship between post-traumatic stress disorder and ontological well-being. The Covid-19 pandemic was found to increase traumatic stress symptoms, anxiety levels and to have a negative influence on ontological well-being. therefore, it is important for the mental health of society to develop psychotherapeutic methods and psychosocial support practices for individuals who have been exposed to the covid-19 pandemic, especially for fragile risk groups, to help future social mental health.

Keywords: Covid-19 pandemic, traumatic stress symptoms, anxiety, ontological well-being

Öz

Bu çalışmanın amacı, COVID-19 pandemisine maruz kalan kişilerde travma sonrası stres belirtileri ile ontolojik iyi oluş arasındaki ilişkide anksiyetenin aracı rolünün incelenmesidir. Çalışma, salgın hastalık ve karantinasına maruz kalan 355 katılımcı ile online olarak yürütülmüştür. Katılımcılara, Demografik Bilgi Anketi, Travmatik Stres Belirti Ölçeği, Durumluk–Sürekli anksiyete ölçeği ve Ontolojik İyi Oluş ölçeği uygulanmıştır. Katılımcıların çoğunun, 18-25 yaşları arasında (%42), kadın (%76.9), üniversite mezunu (%43,4) ve Bekâr (%53.5) olduğu görülmüştür. Travmatik stres belirtileri arttıkça anksiyete (durumluk ve sürekli) düzeyinin arttığı, travmatik stres belirtileri ve anksiyete (durumluk ve sürekli) düzeyi arttıkça ontolojik iyi oluş düzeyinin düştüğü bulunmuştur. Bununla birlikte travmatik stres belirtileri ile ontolojik iyi oluş arasındaki ilişkide anksiyetenin aracılık etkisinin bulunduğu tespit edilmiştir. COVID-19 pandemisinin, travma sonrası belirtileri ve anksiyete semptomlarını arttırdığı ve ontolojik iyi oluş üzerinde olumsuz etkileri olduğu saptanmıştır. Bu nedenle, pandemiye maruz kalan bireylerde, özellikle kolay zedelenebilir risk gruplarında, risk faktörlerini ele alan psikoterapotik yöntem ve psikososyal destek uygulamalarının geliştirilmesi gelecekteki toplumsal ruh sağlığı açısından önemli görünmektedir.

Anahtar sözcükler: COVID-19 pandemisi, travmatik stres belirtileri, anksiyete, ontolojik iyi oluş

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THROUGHOUT human history, epidemics have played an important role in natural disasters. COVID-19 is a new virus that has caused a simultaneous and widespread pandemic which has affected a very large number of people in different parts of the world. This pandemic has resulted in fear sweeping through large masses of people, inevitably causing physical harm, but how people have been affected from a mental point of view has yet to be examined. For the duration of epidemics, social harmony deteriorates as problem-solving and coping skills become dysfunctional, and fear and panic overcome individuals (Cheng et al. 2004). It is to be expected that the severe stress factors and fear caused by the pandemic can manifest in a predisposition to serious mental problems and trigger in particular post-traumatic stress symptoms and anxiety. It is also predictable that the effects of the psychological problems caused by the pandemic may last for many years and occur more frequently and repeatedly as time passes. These psychological problems can manifest in the form of psychological reactions such as fear, an intense state of panic, anxiety, meaninglessness, feelings of hopelessness and unhappiness. However, individuals' responses to traumatic situations can be exacerbated due to the influence of previous mental problems.

Feeling stressed and anxious on a daily basis for the duration of the pandemic is also likely to have negative effects on psychological well-being. The traumatic experience of a pandemic can lead to serious problems in the integrity of an individuals' life story, satisfaction with the past, hope for the future, expectations and life satisfaction. Therefore, it is also foreseeable that the trauma caused by the pandemic may have a negative impact on human ontological well-being. In this context, a higher level of anxiety is expected in people who have lost cohesion in their life story and, at the same time, have been subjected to a trauma that they have been unable to place in a meaningful context within their self-integrity. Trauma is any event that threatens or destroys a person's physical and psychological life cohesion, beliefs about the world or people and their close relationships. Psychological trauma refers to states which are characterised by significant changes in a person's life, which threaten their mental health, that require re-adaptation in the face of emotionally and intellectually difficult to cope with events, experiences, or situations (APA 2013). Post-traumatic stress disorder ('PTSD') is the name given to the state of intrusive memories, constantly remembering the past, sleeplessness-nightmares, re-experiencing extreme arousal, avoidance of stimuli related to the traumatic event, inability to make plans about the future, a decrease in vital activity, and guilt associated with negative mood symptoms that are defined as a psychological problem (APA 2013).

The connection between infectious diseases and mental health goes back to ancient times. In natural disasters that also include epidemics, PTSD is the most frequently observed mental disorder. Traumatic life events that occur within the scope of an epidemic can trigger people to experience fear and loss of trust, causing psychiatric disorders such as primarily PTSD but also depression, anxiety, alcohol-substance abuse. There is also a risk of re-recurrence of previous mental problems after trauma (Norris et al. 2002, Galea et al. 2005). Mental problems associated with infectious diseases are now recognized globally among the largest categories of disease types (Prince et al. 2007, Schuster et al. 2012, Shultz et al. 2013, Bromet et al. 2017).

The COVID-19 pandemic may create emotional trauma and PTSD on a unique scale. It seems that this pandemic crisis has combined many psychological stress factors that have previously been studied in other outbreaks, but have not previously been

brought together in a global crisis. That millions of people are dying, becoming unemployed and isolated, creates uncertainty in everyday life decisions and in determining future life goals. It has been globally observed that people are beginning to be compelled by a sense of how vulnerable they and their loved ones are. There is also no certainty as to the nature of the outbreak regarding when the worst will come. Thus, it can be stated that the traumatic effect of the epidemic is beyond human comprehension (Caputo and Reichert 2020, Wang et al. 2020).

The most important feature that distinguishes traumatic events from other events is that they pose a life threat, are beyond control and unexpected (Herman 2007). In this context, traumatic experiences can interrupt the cohesion of people's life story. Autobiographical memory studies of psychological trauma have shown that a traumatic life has a disruptive effect on a person's life story (van der Kolk et al. 2002, Conway 2005). When effective coping mechanisms cannot be used as a result of traumatic experiences, a disconnect can arise between an individual's previous and subsequent life history. The emotional and cognitive integrity of an individual's existence can be negatively affected. Traumatic experience, which cannot be positioned in an appropriate setting within an individual's holistic life story, can become the most defining subject of their life, and the individual can become stuck in the traumatic experience (Tuval-Mashiach et al. 2004). Thus, traumatic life can change one's ontological well-being by affecting one's perception, judgment of one's self, others, and the outside world (past, present, future). Accordingly, it can be stated that the integrity of human life can be disrupted by traumatic experiences, this deterioration can also lead to psychopathology or aggravate the course of any existing psychopathology.

According to the theory of positive psychology, a healthy mental functioning cannot be evaluated as the absence of psychopathology, and is recognized as a component of positive indicators of mental health (Seligman and Csikszentmihalyi 2000, Greenspoon and Saklofske 2001). Defined in this context subjective well-being is one of the underlying indicators of mental health manifesting through life satisfaction, high levels of positive emotions and low levels of negative emotions (Diener et al. 2002). Subjective well-being is considered to be the main predictor of the quality of life and mental health of individuals, while it is also considered to be an emotional and cognitive assessment of life satisfaction and human life in the "present" time (Shmotkin 2005, Diener et al. 2018). The emergence of COVID-19 has initially worried people about their health and safety, which can be deemed to have affected subjective well-being. Research findings have shown that pandemics not only increase people's anxiety, but also reduces their subjective well-being (Qiu et al. 2020, Rosen et al. 2020, Xu et al. 2020, Kachanof et al. 2021).

Ontological well-being ('OWB'), a concept suggested by Şimşek (2009) and which has just begun to be studied, focuses on the narrative integrity of an individual's life. OWB is defined as an individual's assessment of cognitive and emotional dimensions viewed through the three-time lines of past present and the future. In other words, it is a way of assessing oneself and the world in a cohesive manner in the past, now, and future time. This individual assessment can stimulate positive emotions in the form of pride, hope, success, satisfaction, well-being, as well as negative emotions such as remorse, frustration, inadequacy, despair, guilt (Lucas 2004, Şimşek 2009). Concurrently, ontological well-being is associated with a person's past experiences and lives and is shaped by a person's experiences. In relation to these concepts, ontological well-being

can be described as the closest approach to individuals' creating life goals and their search for meaning in life (Şimşek 2009). The negative impact that traumatic experiences have on the whole of life can negatively affect an individual's assessment of past, present, and future. It can lead to the weakening of the most basic life skills, such as acquiring purpose, setting goals and the ability to hope. In this perspective, it is possible to reflect on the relationship between ontological well-being and psychological trauma in terms of factors such as the cohesive narrative of the life story, guilt, regret, goal-setting, self-creation and meaning creation in the world. Therefore, further research is required to examine the effect of the COVID-19 outbreak on ontological well-being.

Anxiety is one of the most common disorders after traumatic stress symptoms in individuals who have been exposed to trauma. Psychoanalytic theorist Freud first coined the concept of anxiety, conceptualized it, and investigated its causes (Engler 2013). Freud defined the two types of anxiety as objective anxiety and neurotic anxiety, referring to the concept of continuous anxiety with the term neurotic anxiety. According to Spielberger's (1970) theory of two layered anxiety, anxiety is conceptualized in two different structures as a fixed personality trait and a temporary emotional state. State anxiety occurs due to a condition triggered by dangerous conditions and is temporary. When the dangerous situation disappears, the anxiety level of the situation decreases. Trait anxiety, on the other hand, can be defined as general and continuous anxiety that is not related to a particular event or situation. It occurs in situations where the individual's core values are threatened or as a result of interpreting the situations in which they find themselves as dangerous. Trait anxiety is fixed and is often treated as a personality trait (Öner 1998). But these two types of anxiety are not completely disconnected from each other. People with high levels of trait anxiety experience a higher level of state anxiety in the face of threatening situations (Spielberger 1970). Although extensive overlap has been reported by many researchers, both state and trait anxiety have been recognized as unique structures (Tovilovic et al. 2009).

It can be predicted that individuals may experience various levels of anxiety during the troubled period that occurs/may occur during the pandemic, when physical and mental cohesion is under threat. Various studies have shown significant associations between the COVID-19 pandemic and anxiety (Schuch et al. 2018, Schuch et al. 2019, Caputo and Reichert 2020, Roy et al. 2020, Huang and Zhao 2020, Rossi 2020, Wang et al. 2020). It has also been found that pre-traumatic mood-anxiety disorders are a risk factor for PTSD (Browne et al. 2015, Horsch et al. 2015). PTSD does not usually come up on its own, but is often observed with diseases such as depression, anxiety disorders (Browne et al. 2015).

Anxiety within the scope of a pandemic should be addressed within the context of state anxiety. The frequent occurrence of anxiety symptoms in individuals exposed to the epidemic has brought up the need to understand and measure this issue. Distinguishing both anxiety states from each other can indicate at what level individuals are affected by the pandemic. Accordingly, determining how much of the type of anxiety experienced by individuals during the pandemic period is related to the current epidemic and how much is related to a previous mental structure can provide clinical data, but can also be important in terms of psychological intervention. After any traumatic experience, it is important not only for the individual and their family to be able pre-determine which physiological and psychological reactions are normal, which are pathological, whether they will heal by themselves, or whether the illness will become chronic but also for the

mental health of society as a whole (Zlotnick et al. 2002, Pfefferbaum et al. 2014). The Covid-19 pandemic is a global public health emergency (WHO, World Health Organisation 2020). Consequently, the pandemic threatens the mental health and ontological well-being of the community. Given the global scale of the current pandemic, it can be stated that millions of people will need mental care and support. It is imperative that mental health services are ready for these conditions and must be tasked to meet this demand. Evidence-based research data is needed to identify adverse psychological effects, psychiatric symptoms, and any potential factors that are causal during an epidemic. Identifying affected individuals and providing the necessary support quickly are some of the requisite duties of protective mental health services. Giving priority to people and institutions at risk in implementing preventive mental health measures and identifying predisposing factors are the most basic goals (Aker et al. 2008).

It has been suggested that a relationship arises between the traumatic symptoms that develop during the Covid-19 threat and ontological well-being, and the degree of this relationship is also affected by variables such as anxiety. In this study, it is assumed that anxiety (state and trait) is indeed a variable that may affect the relationship between traumatic symptoms caused by the Covid-19 pandemic and ontological well-being. The aim of this research is to examine the intermediary role of anxiety in the relationship between traumatic symptoms and ontological well-being in individuals exposed to the Covid-19 outbreak. In this respect, the following hypotheses were determined for testing under the following six headings. As symptoms of traumatic stress increase, the level of state and trait anxiety increases, and the level of ontological well-being decreases. Additionally, as the level of state and trait anxiety increases, the level of ontological well-being decreases, and state and trait anxiety has a mediating effect on the relationship between traumatic stress symptoms and ontological well-being.

Method

Sample

Due to the nature of the pandemic, it has been assumed that everyone is affected by the pandemic's consequences. Accordingly, the research was designed using the convenience sampling method combined with the relational screening model on individuals over the age of 18. In convenience sampling, data is collected from the main mass in the easiest, fastest and most cost-effective manner (Malhotra 2004). The lower limit on the sample size of the study was calculated to be 195 using the G*Power 3.1.9.2 tool computer programme [f2=0.10, α=.05, number of predictor variables: 15 observed variables]. The study working group consisted of 355 female and male participants.

Within the scope of the study, data was collected from 398 female and male participants who met the inclusion-exclusion criteria determined for the study and 43 of them were removed from the analysis because their scale responses were missing. The criteria for inclusion and exclusion in the research appropriate to and according to the purpose of the study are listed as follows. The inclusion criteria are defined as being over the age of 18 years, a user of social media and of having provided online informed consent. The exclusion criteria are defined as being aged 18 or under, not being a social media user and not giving informed consent.

Procedure

Given the physical isolation resulting from the Covid-19 pandemic, data collection tools were transferred to the "Google Forms" platform and the resulting link was delivered to participants through social communication networks. Before beginning the study, the user-friendliness and technical functionality of the electronic measurements was tested and freed of problems. In the shared link, participants were provided with information on not joining the target group twice. Apart from this, no technical measures have been taken to deter duplicate participation. The resulting link was posted on platforms comprising target groups of participants (using WhatsApp groups, Facebook, etc.) to carry out data collection. Data collection tools comprise: Demographic information form; 16 questions, Traumatic Stress Symptoms Scale; 20 questions, State Anxiety Scale; 20 questions, Trait Anxiety Scale; 20 questions, Ontological Well-being Scale; 24 questions, including a total of 100 questions and 5 web pages. The data collection process started on April 18 and terminated on May 25, 2020. The implementation of the survey on the system was calculated as taking an average time of 15-18 minutes for all participants (n=355). Prior to beginning the process, all participants were given preliminary information about the research and those participants who approved the informed consent form went on to complete the survey. Participation in the research was voluntary and the results were private. A mandatory survey or making payment is likely to reduce voluntary participation. As such, no course credits were awarded nor fees paid in return for filling out the survey.

The Ethics Board of Istanbul Arel University (dated 12.03.2021, no. 2021/06) gave its permission for the research to go ahead. The consent form provides information about the purpose, duration, identity and contact information for the researcher. Only after giving informed consent were participants allowed to begin the survey. During the implementation process of the survey, participants were not required to provide ID documents. It was also stated that the data would only be used for scientific purposes and its anonymity would be preserved.

Measures

Traumatic Stress Symptom Scale (TSSS)

This is a self-report scale developed to assess post-traumatic stress symptoms. Validity and reliability studies were conducted in Turkish (Başoğlu et al. 2001). The scale on which individuals assess themselves for the last month consists of 20 items and is of the four-point Likert type. Item scores range from 0-3 and total points are obtained. The first 17 items on the scale assess the symptoms of PTSD (according to the DSM-IV), and the last six items assess the symptoms of depression. A total score of 25 and above is indicative of PTSD (Başoğlu et al. 2001). The cut-off point of the scale is 38 when all items are taken into account, 25 when PTSD related items are taken into account, and 8 when depression related items are taken into account. Lower symptom groups of the scale; A. Signs of re-experiencing (1,2,3,4,5), B. Signs of avoidance (6,7), C. Cognition and emotional symptoms (8,9,10,11,12,13,14), D. Signs of arousal and responsiveness (15,16,17,18,19,20). Sensitivity and specificity for PTSD were found to be 81% (Başoğlu et al. 2001). The internal consistency coefficient of the scale calculated for this research is 0.94.

Spielberger State - Trait Anxiety Inventory (STAI)

This is a self-report scale developed by Spielberger and his colleagues (1970) to determine the frequency of an individual's State and Trait Anxiety levels separately. The validity and reliability in Turkey was carried out by Öner and Le Compte (1985). The 40-point scale consists of two different scales. The 4-point Likert scale comprises a measuring system where responses to 1, 6, 7, 10, 13, 16 and 19 are scored in reverse. The total score value of the scale is between 20-80. A high total score indicates that the individual is experiencing high levels of anxiety. The alpha reliability is between 0.83 and 0.87. The reliability of the scale's items varies between 0.34 and 0.72. The calculated internal consistency coefficient of the scale for this research, is 0.71 for State Anxiety and 0.87 for Trait Anxiety.

Ontological Well-being Scale (Life Project Scale)

The Ontological Well-being (Life Project) scale was developed by Şimşek and Kocayörük (2013) in order to evaluate the Life Project (Ontological Well-being) of an individual, taking into account their past, present and future. The self-reported scale, grouped in the form of 'past', 'present' and 'future' consists of 24 items. The assessment is made in the form of a five-factor scale. Participants are expected to answer between "I don't feel that at all" (1 point) and "I feel that very intensely" (5 points). The scale has four sub-dimensions: 'meaninglessness/nothingness', 'activation', 'remorse' and 'hope'. The individuals' pride, disappointment, satisfaction, remorse, sadness, guilt and inadequacy are used to evaluate the past time project along the meaninglessness dimension. The individuals' 'now time' project of being lost, energetic, motivated, excited, empty of feeling, irresponsibility, helplessness and being anxious are assessed on the dimension of the factors of activation and meaninglessness (nothingness). Hope, strength, self-confidence, courage, feeling of the future, waiting and enthusiasm are the factors of hope used to evaluate the future of the individual's life project (Simsek and Kocayörük 2013). The internal consistency coefficient of the scale calculated for this research is 0.61.

Statistical analysis

The hypothetical model intended to be tested in the study was tested using the Lisrel 8.80 software program. The model's compatibility with data was evaluated using the goodness-of-fit test. Acceptable limits for the goodness-of-fit values have been taken to be ≤5 for chi-square/sd; for comparative fit index ('CFI')), non-normed fit index ('NNFI') and goodness-of-fit index ('GFI') ≤0.90; and as ≤0.08 for the root mean square error of approximation ('RMSEA') and the standardized root mean square residual ('SRMR') (Çokluk et al. 2012). In terms of statistical techniques, correlation statistics were used to calculate the mean, standard deviation, simplicity and skew values, Pearson's Correlation Coefficient to determine the association between variables, and structural equation modelling techniques were used to test the structural model. A structural model is a statistical technique that allows testing many correlational or experimental hypotheses simultaneously. There are two types of variables: observed and implicit. Implicit variables comprise observations obtained through direct observation, i.e., observed variables. Each implicit variable has to have an observed variable or variables. Basically, the consistency of the relationship pattern identified by way of

hypothesis to the actual data collected is tested. Compliance is assessed with reference to the specified (CFI, GFI, etc.) compliance values.

Table 1. Demographics and epidemic-related features

Variable		n	%
Age	18-25	149	42
	26-35	23	6.5
	36-50	81	22.8
	51-60	74	20.8
	61 and over	28	7.9
Marital Status	Single	190	53.5
	Divorced/Widowed	45	12.7
	Married	120	33.8
Educational Level	Literate	1	0.3
	Primary School	1	0.3
	Secondary Education - Middle School	3	0.8
	Secondary Education - High School	132	37.2
	Undergraduate	154	43.4
	Postgraduate	64	18
Income Level	Lower	16	4.5
	Middle	307	86.5
	High Bracket	32	9
Past Traumatic Life	No	138	38.9
	Yes, I've had trauma	189	53.2
	Yes, a person close to me has had it	28	7.9
Covid-19 Diagnosed Family member	No	346	97.5
	Yes	9	2.5
Isolation duration	None	21	5.9
	Less than 3 days	6	1.7
	Approximately 1 week	7	2
	1-2 weeks	17	4.8
	3-5 weeks	68	19.2
	1.5-2 months	164	46.2
	More than 2 months	72	20.3
Covid-19 psychological impact	No	113	31.8
	Yes	242	68.2
Fear of loss of relatives	None	81	22.8
	Yes	274	77.2
Fear over job loss	None	325	91.5
	Yes	30	8.5
Infection-related Fear	None	217	61.1
	Yes	138	38.9
Fear of loss of health	None	215	60.6
	Yes	140	39.4
Fear of death	None	268	75.5
	Yes	87	24.5
Total		355	100

Results

The study group comprised 82 (23.1%) males and 273 (76.9%) females. The average age

of the group is 37 (mean:37.47, SD=16.43). Information about the other demographic characteristics of participants is given in Table 1.

It is observed of the demographic characteristics of the participants, that 22.8% were between the ages of 36-50; 53% were single; 43.4% have university degrees; 86.5% self-describe as being in the middle-income bracket; 53.2% that they have had challenging past-life experiences; 97.5% that none of their family has been diagnosed with Covid-19; that 46.2% have undergone 1.5 - 2 months of isolation; 68.2% that they think the coronavirus pandemic has affected their mental state; 77.2% have experienced anxiety about the loss of those close to them; 91.5% have not been experiencing anxiety about losing their jobs; 61.1% of infection-related fear; that 60.9% are not experiencing anxiety about the loss of their health; 75.5% do not experience fear of death. It was also determined that 8.2% (n=29) of the participants received an average score of above 38 points which was established as the cut-off score on the Traumatic Stress Symptom Scale.

Tablo 2. Scores of scales

Scales	Min.	Max.	$\bar{X}$	Ss	Skew	Kurtosis
Traumatic Stress Symptom Scale Total Score of Sub-Dimension Re-experiencing Symptoms	0	15	4.63	3.75	0.744	0.060
Traumatic Stress Symptom Scale Total Score of Sub-Dimension Avoidance Symptoms	0	6	2.26	1.88	0.474	-0.814
Traumatic Stress Symptom Scale Cognition and Mood state symptoms Sub-Dimension Score	0	21	5.78	4.82	0.755	-0.145
Traumatic Stress Symptom Scale Arousal and Responsiveness Symptoms Sub-Dimension Score	0	17	4.44	3.78	0.927	0.300
Traumatic Stress Symptom Scale Total Score	0	54	17.12	12.58	0.754	-0.011
State Anxiety Score	31	67	43.67	7.07	0.312	-0.434
Trait Anxiety Score	21	76	42.15	9.59	0.262	-0.220
Ontological Well-being Inventory Remorse Sub-Dimension core	7	35	15.71	5.67	0.775	0.570
Ontological Well-being Inventory Activation Sub-Dimension Score	5	25	15.21	4.94	0.063	-0.779
Ontological Well-being Inventory Nothingness Sub-Dimension Score	6	30	12.06	5.82	1.037	0.419
Ontological Well-being Inventory Hope Sub-Dimension Score	6	30	22.56	6.03	-0.564	-0.457

Table 3. Correlation between observed variables

	2	3	4	5	6	7	8	9	10	11
Re-experiencing-TSB	.74**	.70**	.67**	.88**	.35**	.51**	.44**	-.33**	.43**	-.18**
Avoidance-TSB	-	.66**	.56**	.79**	.28**	.48**	.39**	-.31**	.39**	-.18**
Cognition&Mood-TSB		-	.76**	.92**	.49**	.65**	.59**	-.51**	.64**	-.32**
Arousal&Responsiveness -TSB			-	.87**	.55**	.66**	.51**	-.45**	.65**	-.27**
TSB Total Score				-	.50**	.67**	.57**	-.48**	.63**	-.28**
State Anxiety					-	.60**	.48**	-.59**	.57**	-.36**
Trait Anxiety						-	.68**	-.66**	.71**	-.45**
Remorse-OWB							-	-.61**	.68**	-.50**
Activation-OWB								-	-.67**	.62**
Nothingness-OWB									-	-.49**
Hope-OWB										-

*p<.05, **p<.01, TSB: Post-trauma symptoms, OWB: Ontological Well-being.

Descriptive statistics derived from the scales applied within the scope of the research are shown on Table 2. When considering the values given in Table 2, the skew values are observed to range from 0.063 to 1.037; the kurtosis values range between 0.011 and 0.814. Given these calculated values, it can be stated that the data is within the limits of normal distribution (Field 2005, Tabachnick and Fidell 2013). The correlation between variables was assessed using the Pearson Correlation Coefficient. The results obtained are shown in Table 3.

A review of obtained correlation values shows that all values are statistically significant. The average points obtained from the Traumatic Stress Symptoms Scale ('TSSS') and the average points obtained between State Anxiety, Trait Anxiety, OWB Scale Remorse and Nothingness sub-dimension shows a positive relationship; in contrast the averages between the OWB Scale Activation and Hope sub-dimension show a negative relationship which is statistically significant. The average points obtained from the State Anxiety Scale and those obtained from the OWB Scale Remorse and Nothingness sub-dimension show a positive relationship; in contrast the average points obtained on the OWB Scale Activation and Hope sub-dimension show a negative relationship which is statistically significant. The average points obtained from the Trait Anxiety Scale and those from the OWB Scale Remorse and Nothingness sub-dimension show a positive relationship; in contrast the averages from the OWB Scale Activation and Hope sub-dimension show a negative relationship which is statistically significant.

Model testing

The goodness-of-fit values of $\chi 2$/sd (371.20 / 71) = 5.23; RMSEA:.11; NNFI:.95; CFI:.96; SRMR:.067; GFI:.87 have been obtained following on from the hypothetical model's scaling model which is intended to be tested within the scope of the research. Upon examination, the values for the goodness-of-fit, the RMSEA and $\chi 2$/ sd values were found to be outside acceptable limits and modification proposals were assessed. It was observed that the addition of an error covariance between the Signs of Re-experiencing and Signs of Avoidance variables observed within the Traumatic Stress Symptoms implicit variable would result in an 88.0 chi-square decrease. It was determined that when the modification was applied to the model the goodness-of-fit values were x2/sd (282.82 / 70) = 4.04; RMSEA:.093; NNFI: .97; CFI: .97; SRMR: .060; GFI: .90 and all values were within acceptable limits. In the measurement model, it was noted that all factor loads ranged between 0.47 and 0.94 and all factor loads were significant at the 0.001 level. After the measurement model test, the structural model test was carried out and the obtained values of the goodness-of-fit for the model were $\chi 2$/ sd (352.92/71) =4.97; RMSEA:.10; NNFI:.96; CFI:.97; SRMR:.078; GFI:.88 and it was determined that all values were within acceptable limits.

When the standardized path coefficients contained in the model are examined, State (β= -.17 $p<.05$) and Trait (β=-.79, $p<.017$ Anxiety effect on Ontological Well-being was negative; whereas Traumatic Stress Symptoms' effect on both Trait (β=.80, $p<.05$) as well as State (β=.68, $p<.05$) Anxiety had a positively predictor effect. When evaluating the effect of Traumatic Stress Symptoms on Ontological Well-being, traumatic stress symptoms have a negative significant predictor effect on ontological well-being when other variables do not have an effect (β= -.71, $p<.05$) but with the effect of intermediary variables, this effect is seen to fall to a level that is not significant (β=.01, $p>.05$).

Accordingly, it was determined that State and Trait Anxiety have a full mediating effect on the relationship between Traumatic Stress Symptoms and Ontological Well-being. Also, Traumatic Stress Symptoms, together with State and Trait Anxiety explain about 81% of the Ontological Well-being variable. As a result, Traumatic Stress Symptoms indirectly affect Ontological Well-being, by affecting both State and Trait Anxiety. Trait Anxiety has a significant share in this indirect effect in terms of path coefficients.

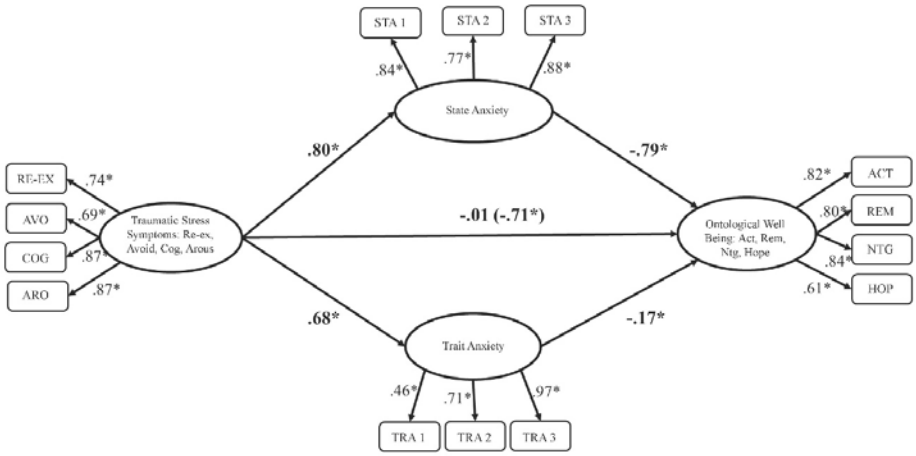

Figure 1. Standardized path coefficients for the hypothetical Model, *p<.05.

Re-ex: Traumatic Stress Symptom Scale Re-experiencing Symptoms Sub-Dimension Total Score; Avoid: Traumatic Stress Symptom Scale Avoidance Symptoms Sub-Dimension Total Score; Cog: Traumatic Stress Symptom Scale Cognition and Mood State Symptoms Sub-Dimension Total Score; Arous: Traumatic Stress Symptom Scale Arousal and Responsiveness Symptoms Sub-Dimension Total Score; Rem: Ontological Well-being Scale Remorse Sub-dimension Total Score; Act: Ontological Well-being Scale Activation Sub-Dimension Total Score; Ntg: Ontological Well-being Scale Nothingness Sub-Dimension Total Score; Hop: Ontological Well-being Scale Hope Sub-Dimension Total Score; STA 1-3: Spielberger State and Trait Scale State Anxiety Sub-Dimension items 3 packets; TRA 1-3: Spielberger State and Trait Scale Trait Anxiety Sub-Dimension items 3 packets

Discussion

The aim of this study has been planned in order to evaluate the relationship between post-traumatic stress symptoms, state and trait anxiety types and the ontological well-being of individuals exposed to the Covid-19 pandemic. The hypothesis that "the level of state anxiety increases as symptoms of traumatic stress increase" has been confirmed. Accordingly, a positively significant association was found between traumatic stress symptoms and state anxiety scores. In psychological trauma studies, PTSD has been found to have a high incidence of occurrence alongside other psychopathologies (McFarlane 2004). Community-based studies conducted in various countries during the Covid-19 pandemic have found that participants experienced various levels (intense, moderate, and mild) of anxiety symptoms (Marroquín et al. 2020Odriozola-González et al. 2020, Shevlin et al. 2020, Wang et al. 2020). Anxiety is known to be the usual reaction occurring in the face of uncertainty, threats and extraordinary life events. Anxiety provides the spiritual energy necessary for survival, and a certain amount of it can be considered useful to motivate individuals to take precautions (wearing masks, distancing, and other hygienic practices). However, the pandemic has taken on permanence and is accompanied by economic losses, raising important elements that feed anxiety, fear and despair. This finding is in line with findings from previous studies.

The hypothesis that "the level of trait anxiety increases as symptoms of traumatic stress increase" has been confirmed. Accordingly, a positively significant correlation was found between traumatic stress symptoms and trait anxiety scores. The severity of trauma perception can be shaped by personality traits, methods of coping with trauma, previous experiences of trauma, and ways of interpreting trauma. Previously experienced traumas can lead to greater sensitivity to a later stressful event or lead to a more severe feeling of subsequent traumatic experiences (Kılıçoğlu 2007, Ross 2007). It can be said that in individuals with high levels of chronic anxiety, in particular, it can lead to the traumatic event being felt more severely. The fact that it is unclear how long the pandemic will last and when a return to normal life will be possible are the most important elements feeding the individual with high Trait Anxiety's anxiety, fear, and hopelessness. In this study, the fact that traumatic stress symptoms affect ontological well-being through Trait Anxiety more shows that these people are more susceptible to subsequent traumas due to previous traumas. This can also be interpreted as the fact that trait anxiety further increases the effects of PTSD. The fact that a trauma experienced makes the person more sensitive to the next trauma, may be related to the biological changes caused by the learned fear and also to the fact that this fear is constantly kept alive in the brain located memory centres in order to protect the person (Ataoğlu et al. 2019, Ehlers and Clark 2000). In this context, it can be predicted that people who previously had trait anxiety problems will be more affected by the Covid-19 threat. This finding is in line with findings from previous studies.

The hypothesis that "the level of ontological well-being decreases as traumatic stress symptoms increase" has been confirmed. It was observed that there was a significant association between traumatic stress symptoms and the OWB Remorse and meaninglessness/nothingness sub-dimension in a positive direction, and between OWB activation and the hope sub-dimension in a negative direction. This finding is consistent with reports of low life satisfaction levels of individuals with PTSD (Karatzias et al. 2013). As a result of traumatic experiences, it has been suggested that a person's sense of cohesion in their life story has broken down, and in parallel, negative self- and world perception may have developed. Tuval-Mashiach and colleagues (2004) explain this deterioration or destruction by the fact that an uncontrollable and mentally painful traumatic event, that is incompatible with the perception of the self and the world existing in the previous life story, causes the individual to shatter within their current framework of existence. A trauma victim who is unable to use healthy coping mechanisms cannot position the traumatic experience in question in an appropriate framework in their entire life story. In this case, the individual cannot integrate the pre-trauma and post-trauma (Tuval-Mashiach et al. 2004). Janoff-Bulman's (1989) socio-cognitive model suggests that intrusive thoughts and permanent stress reactions such as extreme arousal may originate from failed attempts to integrate trauma-related information to previous beliefs (about the self and the world in general).

Social traumas such as epidemics cause significant changes in a person's life outlook (Duman 2019). It has been suggested that traumatic life events fundamentally affect a person's connection, control and sense of meaning systems (Akcan 2018). In a study conducted during the Covid-19 pandemic, 67.5% of participants questioned the meaning of life and expressed increased concern about the future (Karataş 2020). Traumatic events raise questions about life priorities, which causes the redefinition of the self (Wattanasuwan 2005, Walsh 2007). Trauma can disrupt a person's self-perception.

Thus, disconnections can occur between the past, present and future lives in the self-perception of individuals (Noble and Walker 1997). Findings that show a statistically significant decrease in psychological trauma symptoms (when the reconstruction of the life story from the beginning happens) demonstrates a significant relationship between these two conditions (Pennebaker 1997).

The most common emotion in psychological trauma is guilt and remorse (Hathaway et al. 2010). The perception that actions taken in the course of a traumatic life are wrong, unjust, irresponsible and that the resulting trauma was preventable have been associated with PTSD symptoms (Pereda et al. 2011). The main source of these negative emotions can be formulated as the lack of control over the traumatic event, the inability of the individual to use healthy defense mechanisms during their traumatic life. There are also research results that show that feelings such as remorse, inadequacy, and guilt arise after the development of a traumatic life beyond control (Kubany 1994, Browne et al. 2015, Horsch et al, 2015). This condition can be associated with ontological feelings of remorse and meaninglessness. In connection with this approach, it is observed that people who blame themselves for the cause of the traumatic event suppress their perception of the traumatic event and again avoid the stimuli associated with the traumatic event. For this reason, it may be stated that remorse can be an instrumental factor in maintaining traumatic stress symptoms. References to feelings of remorse, self-blame, and meaninglessness have a significant relationship with PTSD symptoms (Crisford et al. 2008). Guilt due to remorse contributes to the avoidance defence mechanisms that perpetuate the symptoms of traumatic stress by preventing the traumatic event after the trauma from integrating with previous beliefs (Kubany 1994). A negative state of emotions created by a mental trauma in the past portion of the life story affects the entire life story negatively, and can have an exacerbating effect on the consequences of traumatic stress symptoms of meaninglessness, despair, remorse, lack of energy. This finding is in line with findings from previous studies.

The hypothesis that "the level of ontological well-being decreases as the level of state and trait anxiety increases" has been confirmed. It was observed that there was a significant association between traumatic stress symptoms and the OWB remorse and meaninglessness/nothingness sub-dimension in a positive direction, and between OWB activation and the hope sub-dimension in a negative direction. OWB, research findings have been found that the dimension of "meaninglessness" is associated with psychopathologies such as depression and anxiety (Şimşek and Kocayörük 2013). Ontological well-being is still a concept at the theoretical level, and the numbers of research papers on this topic in the canon is quite small (Kaba, 2020). As there are no published studies examining the relationship between ontological well-being and anxiety on those individuals exposed or not exposed to the Covid-19 pandemic, it is not possible to have a comparative discussion on this study's findings. However, subjective well-being (studies examining the relationship between life satisfaction and emotional and cognitive assessment of a person's life in the "now" time) and Covid-19 have put forward research findings that show that the epidemic reduces people's subjective well-being and increases anxiety levels (Kachanof et al. 2021, Wang et al. 2021). It is considered normal for a person to experience a sense of fear and panic in situations such as a pandemic, in which effects and outcomes are unpredictable. Current risks, because of their potential power, affect the present moment, as well as harming the sense of hope and confidence in the future (Beck 1992).

It is predictable that people with high anxiety levels have difficulty creating their own life projects, taking responsibility for negative events, and in doing so have negative thoughts about themselves. When a Covid-19 trauma triggers an individual's anxiety, individuals with low trait anxiety may show fewer symptoms of anxiety than those with state anxiety. This may also be due to the fact that people with state anxiety are better able to cope with anxiety and evaluate their anxiety about Covid-19 more realistically. Individuals with high chronic anxiety make efforts to gain more control over uncontrollable life events, but this can prevent them from enjoying current life. This can cause insomnia, fatigue and a lack of energy. Trait anxiety can lead a person to constantly make predictions about the future during the pandemic process, focusing more on the negatives, planning the future instead of planning their daily lives. It can be expected that this chronic anxiety process and the fragmented history that will result afterwards will exacerbate the outcomes of the life project now and in direction of the future. Accordingly, it can be said that situations such as "meaninglessness, non-existence, despair, remorse, effectiveness" found in the life story of people who show signs of traumatic stress are affected by anxiety. This finding is consistent with previous research information.

The relationship between traumatic stress symptoms and ontological well-being has a mediating effect of status and persistent anxiety hypothesis has been confirmed. According to research findings, it was determined that state and trait anxiety have a full mediating effect on the relationship between traumatic stress symptoms and ontological well-being. In addition, traumatic stress symptoms, together with state and trait anxiety explain about 81% of the ontological well-being variable. Trait anxiety has a significant share in this indirect effect in terms of path coefficients. In other words, as symptoms of post-traumatic stress increase, the level of ontological well-being also decreases. When anxiety symptoms are included in this relationship, the level of ontological well-being falls further.

Since studies examining the mediating role of anxiety in the relationship between traumatic stress symptoms caused by the Covid-19 pandemic and ontological well-being have not been found, it is not possible to discuss the findings of this study comparatively. However, our findings on the mediating role of anxiety fit the expectations of the framework of trauma-related theories. It has been put forward that people develop negative cognitions associated with the self, the world, or other people after traumatic events which shake their belief systems (Janoff-Bulman 1989, Resick and Schnicke 1992). Anxiety about illness and death caused by a pandemic impacts people's deep-rooted beliefs about the world. According to Janoff-Bulman (1989), beginning in their childhood years, people carry fundamental beliefs that the world is a 'just' place, that other people are 'good' and that life was 'controllable'. Traumatic experiences shake these so-called assumptions, leading a person to question these basic beliefs about himself and the world, to realize his own knowledge and vulnerability to harm. In the recent period, it can be argued that all these assumptions regarding human strength have been fundamentally shaken by the fact that the epidemic has spread to almost all countries at the same time, by the fact that the number of patients and deaths has increased rapidly and that economic and social losses have become dramatically visible.

During the Covid-19 pandemic, which has triggered death awareness, negative perceptions about the future are the main source of anxiety. Knowledge of the past can lead to anxiety, affecting our interpretation of the possible dangers in the future. When

situations that trigger anxiety arise, unconscious or conscious coping mechanisms come into play, trying to calm and reduce anxiety through attempts to take precautions against the dangerous situation. Anxiety can leave a person unable to function when it cannot be controlled, whilst the performance of its function in a healthy way is possible when control is achieved. While the Covid-19 pandemic poses a threat to the "present" in the acute period, in its current phase we also see that it poses a threat to the "past and future". The threat of extinction is destroying the integrity of the "meaning" we attach to past, present and future.

In the face of stressful events, people with high levels of chronic anxiety can be hurt more easily and more frequently, compared to those with low levels of chronic anxiety. At the same time, they experience state anxiety in a more frequent and severe perceptual pattern (Leal et al. 2017). Post-traumatic individual's references to the cause of trauma, self-blame, and the perception that the world is a dangerous place, influence their thoughts about trauma. Non-functioning control strategies increase the level of anxiety, which in turn prevents the processing of traumatic material, sustaining post-traumatic symptoms (Roussis and Wells 2006). It can be said that this self-contradictory effect exacerbates the negative consequences that it exerts over ontological well-being. It can be said further that the dimensions of fatigue, low energy, inability to enjoy life, feelings of despair, ontological well-being sentiments are related to the efforts of individuals with chronic anxiety to control events and plan the future.

It should be noted that there are some limitations that should be taken into account when evaluating the results of this study. Data from the study was collected online through social communication networks due to quarantines and curfews. For this reason, self-reporting was based on the assessment of traumatic stress symptoms and anxiety, whereas clinical observation and examination were not included. This may have led to an over-estimation of the prevalence of the subject. Secondly, due to pandemic conditions, the participants of the study excluded individuals who did not use the internet, consisting only of a group that used computers. Therefore, since poorer and less educated people have limited access to the internet compared to wealthier and more educated people, this can be considered to have caused a sampling bias. It should be noted that the Covid-19 pandemic has a stronger impact on the lower socio-economic groups of the population; therefore, the results may be limited to the current socio-economic group.

It can be said that this study is important because the data was collected during the beginning of the pandemic in order to measure the initial mental effects of trauma. To determine community-level mental health interventions, future studies will need to track the course of mental health outcomes caused by the pandemic. In the future, it can be said that longitudinal studies with at-risk individuals may provide more information about the relationships between existing variables. It would also be appropriate to recommend that research be conducted with participants living in different regions and that different socioeconomic levels are included. In the future, it may be stated that collecting face-to-face data from participants in interview environments designed by community mental health screening institutions in accordance with pandemic conditions, will provide more in-depth information about trauma, anxiety and ontological well-being.

According to the results of this study, reducing anxiety, especially chronic anxiety, seems to be a very important intervention in order to overcome potential mental

problems associated with the Covid-19 pandemic. The answer to when the epidemic will end and when life will return to normal is still unclear. Nevertheless, receiving psycho-social support can reduce state anxiety. Regular and accurate information flow can reduce the uncertainty inherent in the pandemic. This intervention can reduce people's state anxiety and help them cope with the negative emotions caused by this epidemic. In this context, some applications to alleviate psychological problems that may occur due to the Covid-19 pandemic (reports, news and booklets explaining the possible psychological consequences of the outbreak and the risk groups it may affect, psychological counselling services, etc.) may be considered effective. For people with high trait anxiety, more professional psychological support programs (psychoeducation, supportive psychotherapy) may work.

The mental trauma of individuals affected by the epidemic should be studied, they should be supported and developed to re-establish goals and aims. By means of this, it will be possible to have a positive effect on feelings of remorse, meaninglessness, guilt, leading to increased hope and sufficient life self-activation. Additionally, it can be stated that reducing anxiety and using it as a coping strategy will also reduce potential psychological problems. A decrease in anxiety will support a more realistic assessment of what may happen in the future, the ability to think and act more cohesively between the past, present, and future. It can also be said that this situation will have a positive effect on ontological well-being.

However, the launch of social state support and aid networks for the economic problems experienced by at-risk groups during this epidemic also appears to be vital in combating anxiety. If this situation is not treated appropriately, the burden associated with PTSD and anxiety can bring more severe consequences than the health problems caused by the virus itself. It could lead to a longer, deeper and more chaotic health crisis in Turkey. Governments that take more effective psycho-social and economic measures can support individuals to maintain their mental health throughout life and to come out of trauma with growth. Post-traumatic empowerment can occur as a protective factor against the threats posed by epidemic disease. It can contribute to changes in matters such as individual development, life perspective and future configuration by affecting individual self-regard and relationships (Üzar-Özçetin and Hiçdurmaz 2017).

Conclusion

This study is one of the first community-sampled studies to examine the associations between traumatic stress symptoms, anxiety, and ontological well-being during the Covid-19 pandemic. It has been shown that post-traumatic stress symptoms and anxiety (state and trait), which we consider as being two discrete types of psychopathologies derived from the pandemic experience, have a significant effect on ontological well-being. Traumatic stress increases the symptoms of anxiety (state and trait); increased levels of traumatic stress symptoms and as the level of anxiety (state and trait) increases the ontological well-being decreases, and the relationship between traumatic stress symptoms and ontological well-being is affected by anxiety (state and trait) through an intermediary effect. It has been concluded that trait anxiety in particular is a risk factor in the relationship between traumatic stress symptoms and ontological well-being. Developing specific strategies for addressing and managing state and trait anxiety separately seems important for the community's mental health. Individuals with

different levels of state and trait anxiety may perceive the virus as being more or less threatening. Therefore, these individuals can evaluate the situation they are in as being better or as worse. This awareness and accompanying interventions can lead to healing and an opportunity to restore ontological well-being. In order to identify chronic anxiety problems that make individuals vulnerable in times of crisis and to meet their needs, special interventions and strategies need to be developed.

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