



Research Article

The Mediating Role of The Meaning of Life in the Effect of Spiritual Well-Being on Post-Traumatic Growth During the Covid-19 Pandemic Process

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Abstract

Considering the effects of the COVID-19 epidemic on mental health, it has been determined that there is a need to focus on the positive parts of the post-traumatic results of the pandemic together with spiritual concepts. For this purpose, the mediating role of the meaning of life in the effect of spiritual well-being on post-traumatic growth during the Covid-19 pandemic process was examined. Within the scope of this general purpose: (a) the moderator role of fear of COVID in the mediating role of the meaning of life in the effect of mental well-being on post-traumatic growth, (b) the mediator role of the meaning of life in the effect of existential regret on post-traumatic growth were examined. The participants in the study consisted of 398 people, 263 women and 135 men, between the ages of 18-62. Data analysis includes correlation and regression analysis. As a result of the analyzes, it was observed that spiritual well-being had a statistically significant and positive effect on post-traumatic growth and the meaning of life had a partial mediating role in this relationship. While the effect of spiritual well-being on the meaning of life is at a significant level, it is observed that the fear of covid has a regulatory role in this effect. In addition, while the meaning of life has a significant effect on post-traumatic growth, it is also seen that existential regret has a regulatory role in this effect. It is thought that this study will provide functional evidence for the post-traumatic growth effects of the COVID-19 outbreak and for possible subsequent outbreaks.

Keywords:

Covid-19 • Post Traumatic Growth • Spiritual Well-Being • Meaning of Life

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eISSN: 2458-9675

Received: 18.06.2023

Revision: 12.07.2023

Accepted: 20.08.2023

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Citation: Ermiş, E. N. (2023). The mediating role of the meaning of life in the effect of spiritual well-being on post- traumatic growth during the Covid-19 pandemic process. *Spiritual Psychology and Counseling*, 8(3), 227–248. <http://doi.org/10.37898/spiritualpc.1288937>

Covid-19 was defined as a global epidemic (pandemic) that started in Wuhan, China on December 31, 2019 (WHO). COVID-19 was heard in Turkey at the beginning of March and as of 18.11.2022, the total number of deaths was reported as 101,307 and the number of cases as 16,976,729 (Sağlık Bakanlığı, 2022). The experience of disease is a natural fact of life that can happen to any individual. In today's conditions, the diagnosis of covid-19 for ourselves or a loved one has become one of these inevitable realities of life. While even the most superficial level of disease can cause adverse effects on individuals, an experience such as Covid-19, where the process cannot be fully predicted, can have many different meanings besides the adverse effects of physical illness.

The COVID-19 pandemic process is considered to be a severely traumatic experience individually and globally (Pietrzak et al., 2021; Yu et al., 2022). When the relevant literature is examined, depression, anxiety, and post-traumatic stress disorder have been reported (Bryant-Genevier et al., 2021). In addition, many psychiatric and psychological-social problems such as feeling of loneliness, fear, social and economic) have been reported (Lo Coco et al., 2021; Jaspal & Breakwell, 2022). In addition to these, it is possible to mention many developmental effects of trauma. When the effects of the pandemic on people are noticed, it makes us think that it is necessary to focus on the strengths that traumatic results will create in people later on, together with spiritual concepts. Because of this, the restorative aspects of this major trauma need to be examined in detail in order to resolve and regulate its effects on people.

Answers were sought to questions such as: Does spiritual well-being provide a basis for continuing the search for meaning in life despite this challenging pandemic? Does questioning and reproducing the meaning in life affect post-traumatic strength? Does existential regret have an impact on the relationship between the meaning in life and post-traumatic growth? How effect does fear of Covid have on these concepts? The events that happen to people have a visible and known dimension, as well as a spiritual dimension. Therefore, approaching the Covid-19 epidemic in terms of spiritual questions can provide an opportunity to be protected from the apparent psycho-social negative effects of the event and to gain positive aspects to be learned from the event. It is important to consider what may be the internal and external protective factors against the risk factors created by the disease. The evidence of this study is also important in terms of reconsidering one's life and giving meaning to trauma through these factors and providing treatment.

Introduction

In addition to the adverse effects that may arise due to the Covid-19 pandemic, there are increasing numbers of studies showing that individuals also show positive changes due to combating such traumatic experiences. This phenomenon, which

is considered posttraumatic growth (PTG), is a term used to describe the positive changes experienced by individuals due to struggling with life crises involving high levels of stress (Tedeschi & Calhoun, 2004). There are different areas where posttraumatic growth is experienced, and the growth experienced in these areas can occur in different ways in different individuals. In other words, an individual may express a positive change in one area but not in other areas. The growth experienced after trauma is gathered into three main groups: the individual's self-perception, relationships, and philosophy of life (Tedeschi & Calhoun 1995).

The covid-19 pandemic process, has affected all humanity in different countries such as China (Yu et al., 2022), Turkey (İkizer et al., 2021), Italy (Livingston & Bucher, 2020). Spain (Rodríguez-Rey et al., 2020), Canada and America (Detsky & Bogoch, 2020); women (Van den Eynde et al., 2020), men (Sharma et al., 2020) individuals in different developmental stages (Ermiş & Bayraktar, 2021), healthcare workers (Benfante et al., 2020) were studied in different sample groups.

In these studies, some socio-economic variables were found to be associated with or predictive of posttraumatic growth. Among these studies, İkizer et al. 2021 reported that lower education levels predicted PTG and found that economic hardships were also associated with PTG. (İkizer et al., 2021), Posttraumatic growth due to Covid-19 sex, marriage status, professional titles associated with PTG in nurses (Li et al., 2022) Santos et al. (2021) revealed that older men who are functional in terms of working life and who do not work remotely have high levels of psychological well-being. Apart from socio-economic variables, many studies have also addressed different variables such as stress level, ruminative thoughts, coping ways, and psychiatric problems. İkizer et al. (2021), reported that PTG was predicted by deliberate rumination; Post-traumatic stress, PTG and post-traumatic depreciation correlated with each other. Li et al. (2022), found that the total score of Posttraumatic Growth Scale (PTGI) and 3 dimensions (new possibilities, personal strength, spiritual change) differed between nurses-general population and frontline nurses-non frontline nurses. Ways of coping and anxiety were associated with PTG in nurses. According to some studies on the psychological well-being of men during the pandemic, findings on inverse relationships were found between concepts such as anxiety, depression, traumatic stress and emotional representations. It is known that post-traumatic growth plays a moderating role between traumatic stress and distress and psychological well-being and contributes to increasing the level of psychological well-being (Li et al., 2022). In another study; it is stated that young adults have low PTG scores during the pandemic, resilience, family commitment and distress tolerance predict improvement, PTSD symptoms and covid-19 anxiety predict PTG, those with depression symptoms predict lower PTG levels, and Asians report lower PTG compared to Westerners (Hyun et al., 2021). Zhang et al. (2021) argues that the meaning of life facilitates religious

coping. They talk about the necessity of using this evidence as a basic mechanism for how it contributes to mental health problems. Another study examined the mental health consequences of covid-19 in terms of resilience and meaning in life variables. Resilience and meaning in life mediated the relationship between the perceived impact of illness and mental health outcomes (Yu, Yu, & Hu, 2022)

From a positive psychological perspective, negative experiences related to the Covid process, subjective well-being, life satisfaction, meaning of life (Arslan & Yıldırım, 2021), existential emptiness (Sami et al., 2020), and existential anxiety (Tomaszek & Muchacka-Cymerman, 2020) are found in studies.

Recent studies have shown the mediating role of resilience between self-regulation ability and Covid-related post-traumatic growth (Wang, Zhao & Li, 2023); spiritual belief and gratitude and post-traumatic stress disorder are positively related to higher levels of post-traumatic growth (El Khoury-Malhame et al., 2023). In addition, according to a recent study, the relationships between the traumatic effects of the pandemic, which arouses existential anxiety in travelers, and post-traumatic growth were examined. There has been a strong correlation between post-traumatic growth and transformative travel experiences (Liu et al., 2023). Covid-19 stressors, spiritual belief violation, reduced capacity to form meaning from life, and more intense perceived vulnerability have been associated with worsening mental health outcomes (Negri et al., 2023). Considering all these studies, this research has combined the post-traumatic growth caused by Covid-19, the meaning of life and spiritual well-being concepts, which have been discussed separately in the literature, in a single model. It also aims to make important contributions as it tests together a rarely studied concept such as existential regret.

It aims to deal with spiritual well-being, meaning of life, existential regret, fear of Covid, and posttraumatic growth in people who experience the Covid-19 pandemic as a traumatic event that affects people negatively in many dimensions and pushes them to existential inquiries.

Method

Research Design

The general purpose of this study and hypothesis 1 is to examine the mediating role of the meaning of life in the effect of spiritual well-being on posttraumatic growth during the Covid-19 pandemic process. Within the scope of this general purpose: (Hypothesis 2) the moderator role of fear of Covid in the mediating role of the meaning of life in the effect of spiritual well-being on posttraumatic growth, (Hypothesis 3) the moderator role of existential regret in the mediating role of the

meaning of life in the impact of spiritual well-being on posttraumatic growth. Figure 1 illustrates the conceptual model. Hayes’ 3 different models as shown in figure 2 were applied.

Figure 1.
The tested moderated mediation model

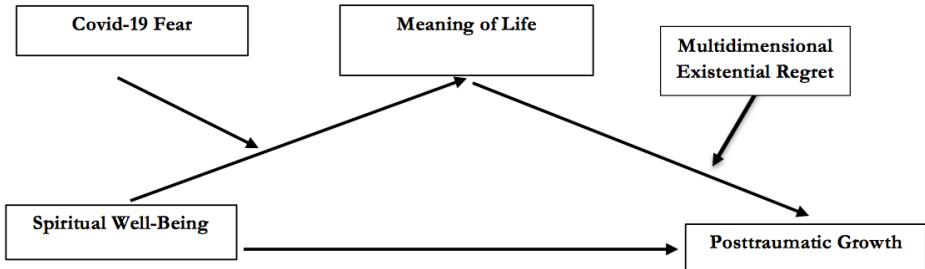
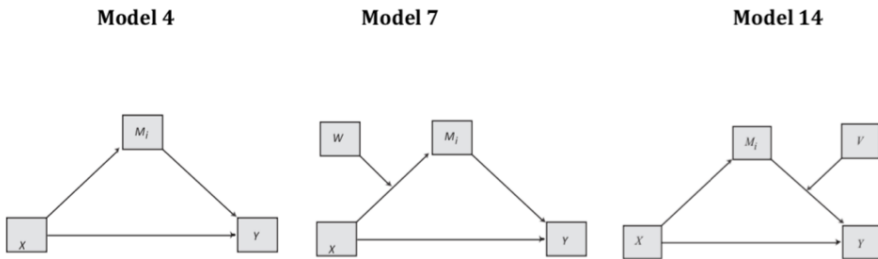


Figure 2.
Models of Hayes (Hayes, 2018)



Study Group

The age of the research participants was between 18 and 62 (Mean= 38.52; SD= 6.64). 263 of 398 people are women and 135 are men. Participants were included in the sample with the conditions of being able to read and write and being of age in accordance with the principle of volunteering. These three conditions were also determined as exclusion criteria. Convenience sampling method was used and consent form was given before the scales. Questionnaires were applied to the research participants via google form and the study took approximately 20 minutes.

Data collection tools

Demographic information form (age, gender) and the scales listed below were used. The scales were determined a good reliability scores. A Cronbach Alpha value greater than 0.60 indicates reliability of the scales. This shows that the internal consistency of the scales in this study has a good score (Özdamar, 2015).

The Multidimensional Existential Regret Scale: The scale was created by Reker and Truckle (2009) and adapted into Turkish by Ermiş and Bayraktar (2021). The scale includes 34 items. It is divided into 5 sub-factors. It is a 7-point Likert type scale and the overall internal consistency coefficient is .94. The overall scale reliability coefficient for this study was .94. Having a higher score on the scale represents an excess of existential regret.

Meaning of Life Scale: This scale, which is the work of Steger, Frazier, Oishi, and Kaler (2006), was adapted into Turkish by Akın and Taş (2011). It has 10 items and 2 sub-dimensions. Getting more points as a result of the evaluation means that life has a lot of meaning. The meaning sub-dimension of the 7-point Likert-type scale is .82, and the reliability coefficient for the sought meaning sub-dimension is .87 (Steger et al., 2006). The overall reliability coefficient found in this study was .71.

Spiritual Well-Being Scale: The scale created by Ekşi and Kardeş (2017) has 29 items. The overall reliability coefficient of the scale, which has a 5-point Likert rating, is .88. In this study, it was determined as .92. Getting a high score from the scale represents an excess of spiritual well-being.

Posttraumatic Growth Scale: Tedeschi and Calhoun (1996) own the original scale. The scale was translated into Turkish by Aydın and Kabukçuoğlu (2020). Higher scores on the scale represent a higher rate of mental development after major traumatic events. The scale, which has a 6-point Likert scale, has 23 items and 5 sub-factors. The reliability coefficient of the scale is .93. The calculated for this study is .94.

Covid-19 Fear Scale: The scale, which was created as 7 items in 2020 by Ahorsu et al., was translated into Turkish by Artan, Meydan and Irmak (2021). The reliability coefficient for the 5-point Likert scale was calculated as .82. For this study, it was determined as .85. A high score in the assessment of the scale represents a high fear of the disease.

Data Analysis

SPSS program was preferred for the analysis of the data and outliers were scanned and removed from the data before the analysis. “Reliability Analysis” was performed and applied to the scales. In line with the proposed model, its role as a mediator and moderator was investigated. The Mahalanobis method determined the outlier value, and multiple normality criterion was met.

The normality of the data can be tested depending on whether the skewness and kurtosis values are between ± 3 regarding the Q-Q plot (Chan, 2003) and its distribution (Shao, 2002). Independent sample t-test, one-way analysis of variance and Bonferroni were used to determine the difference between groups in comparing the data. Regression analysis and Pearson correlation analysis were performed with Process Macro for SPSS developed by Hayes (2018).

Results

According to dealing with spiritual well-being, meaning of life, existential regret, fear of Covid, and posttraumatic growth in the individual who experience the Covid-19 pandemic our results are shown at below.

Table 1
Descriptive statistics of socio-demographic variables

	Variables	N	%
Gender	Female	263	66.1
	Male	135	33.9
Age	Under 20 years old	30	7.5
	20-29	168	42.2
	30-39	67	16.8
	40-49	37	9.3
	50-59	36	9.0
	60 +	60	15.2
Educational Status	High school and below	48	12.1
	University and above	350	87.9
Marital status	The married	150	37.7
	Single	248	62.3
Working Status	Employment	172	43.2
	Unemployment	226	56.8
Economical Status	Low	25	6.2
	Middle	226	56.8
	Good	134	33.7
	High	13	3.3
Status of Being in the Risk Group for Covid	Yes	107	26.9
	No	291	73.1
Knowledge Level About Covid	Totally enough	262	65.8
	Partly insufficient	136	34.2
Perception of covid Severity	Not serious	7	1.8
	A little serious	19	4.7
	Serious	84	21.1
	Quite serious	158	39.7
	So serious	130	32.7
Total		398	100.0

The sociodemographic characteristics of the participants are given in Table 1. Independent t-test and one-way analysis of variance were used to compare post-traumatic growth scores. There was a difference between the post-traumatic growth scores in terms of gender ($p < 0.05$). Posttraumatic growth scores of women were higher than men. According to the different age groups, there is an intentional difference between the post-traumatic growth scores as expected ($p < 0.05$). Bonferroni was applied to find the group that made the difference. It was determined that the post-traumatic growth scores of adults aged 40-49 were higher than adults aged 20-29 ($p < 0.05$). It was found that there was no significant difference between the post-traumatic growth scores related to Covid and other socio-demographic characteristics asked to the participants ($p > 0.05$).

Table 2.

Correlation between meaning of life scale, spiritual well-being scale, posttraumatic growth scale, covid fear scale and multidimensional existential regret scale

	1	2	3	4	5
1- Meaning of Life Scale		0.165**	0.342**	0.113**	-0.107**
2- Spiritual Well-Being Scale			0.222**	0.025**	-0.092**
3- Posttraumatic Growth Scale				0.121**	-0.048**
4- Covid-19 Fear Scale					-0.124**
5- Multidimensional Existential Regret Scale					

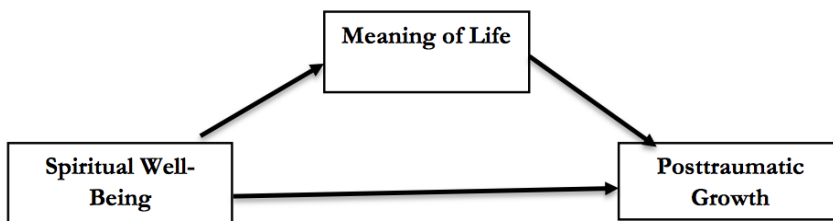
*p<0.05, **p<.01

Pearson correlation analysis was applied to test the relationship between the scales. As a result, between the meaning of life scale, spiritual well-being scale ($r=0.165$, $p<0.05$), posttraumatic growth inventory ($r=0.342$, $p<0.05$), fear of covid scale ($r=0.113$, $p<0.05$) has shown a statistically significant and positive relationship and, multidimensional existential regret scale ($r=-0.107$, $p<0.05$) has a statistically significant and negative relationship.

It is seen that there is a statistically significant and positive correlation between spiritual well-being scale and posttraumatic growth inventory ($r=0.222$, $p<0.05$). It is seen that there is a statistically significant and positive relationship between the posttraumatic growth scale and fear of covid scale ($r=0.121$, $p<0.05$). It is seen that there is a statistically significant and negative relationship between fear of covid scale and multidimensional existential regret scale ($r=-0.124$, $p<0.05$).

Figure 3.

The mediating role of the meaning of life in the effect of spiritual well-being on posttraumatic growth (Analysis of hypothesis 1)



We aimed to examine the mediating role of the meaning of life in the effect of spiritual well-being on posttraumatic growth during the Covid-19 pandemic process as a main hypothesis. Table 3 illustrates the mediating role of the meaning of life in the effect of spiritual well-being on posttraumatic growth.

Table 3.*The mediating role of the meaning of life in the effect of spiritual well-being on posttraumatic growth*

Effect	B	Std. Error of the Estimate	T	p	Result
Spiritual Well-being → Posttraumatic Growth	0.2607	0.0574	4.5383	0.0000*	Accepted
Direct Effect	B	Std. Error of the Estimate	T	P	Result
Spiritual Well-being → Meaning of Life → Post-traumatic Growth	0.1999	0.0553	3.6151	0.0003*	Accepted
Indirect Effect	B		CI		Result
Spiritual Well-being → Meaning of Life → Post-traumatic Growth	0.0608		(0.0226, 0.1052)		Significant

*p<0.05

In the analysis, 5000 resampling options were preferred with the Bootstrap technique. It is suggested that the Bootstrap method produces more reliable results than the traditional mediation analysis method. In the impact analyzes made with Bootstrap, the values in the 95% confidence interval (CI) obtained as a result of the analysis should not contain zero in order to support the research hypothesis (Hayes, 2018).

In the proposed design, the effect of spiritual well-being on post-traumatic growth was examined before the mediation role test, and a statistically significant and positive effect was found ($\beta=0.2607$, $p<0.05$). Afterwards, an analysis of the mediating role of the meaning of life was made and it was determined that the values in the 95% confidence interval did not contain 0, and that it had a mediating role in the model (0.0226, 0.1052).

The direct effect is at the level of .1999 and the indirect effect is at the level of .0608. The total effect is at the level of .2607. It is concluded that the mediation effect is statistically significant as the Bootstrap lower and upper bound confidence interval values (CI) do not include zero at the 95% confidence interval.

The significance of the direct effect was examined to determine whether the mediating role was partial or complete. It was observed that the direct effect was significant even when the meaning of life variable was present, but the effect coefficient decreased. Thus, it was observed that it is a partial mediator of the meaning of life ($\beta=0.1999$, $p<0.05$). The relevant hypothesis (1) has been accepted.

Hayes's PROCESS macro Model 7 (figure 4) and Model 14 (figure 5) were used to perform the mediation analysis within the scope of the research. There are some presumptions in the use of models. In Table 4, the moderator role of fear of Covid in the effect of spiritual well-being on the meaning of life, and in Table 5, the moderator role of existential regret in the impact of the meaning of life on posttraumatic growth is discussed.

Table 4.

The moderator role of fear of covid in the effect of spiritual well-being on meaning of life

	β	Standart Error	t	p	CI
Spiritual well-being(X)	0.0584	0.0188	3.1025	0.0021*	(0.0214, 0.0955)
Fear of covid (W)	0.1349	0.0623	2.1675	0.0308*	(0.0125, 0.2573)
Interaction(X*W)	-0.0066	0.0033	-2.0084	0.0453*	(-0.0230, -0.0001)

R² =0.049

*p<0.05

The effects of the independent variable (X), moderator (W), and interaction (X*W), which is the model of the research, on the dependent variable (Y), which is the outcome variable, are given. This effect is significant because the p-value in the table is less than 0.05 and also the confidence interval values do not contain 0 (zero). While the effect of spiritual well-being on the meaning of life was statistically significant, it was determined that fear of covid had a moderator role in this effect (p<0.05). The percentage of explanation of this model was found to be 4.9% (R²=0.049).

Table 5.

The moderator role of existential regret in the effect of meaning of life on posttraumatic growth

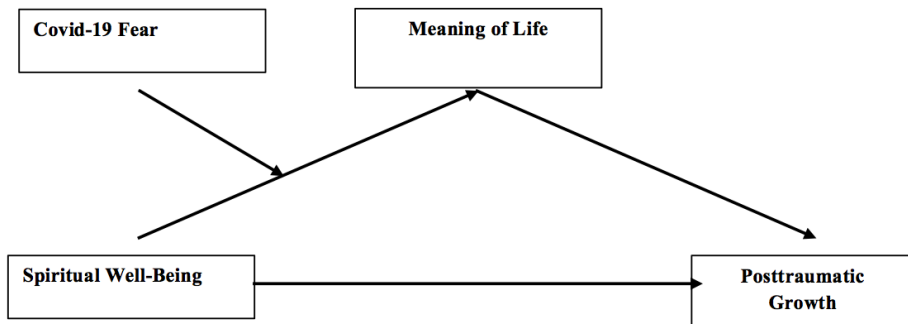
	β	Standart Error	t	p	CI
Meaning of life (X)	0.9950	0.1462	6.8043	0.000*	(0.7075, 1.2825)
Existential regret (W)	-0.0145	0.0283	-0.5102	0.6102	(-0.0702, 0.0413)
Interaction (X*W)	-0.0105	0.0039	-2.7018	0.0072*	(-0.0181, -0.0029)

R²=0.133

*p<0.05

Figure 4.

The moderator role of fear of covid in the mediating role of meaning of life in the effect of spiritual well-being on posttraumatic growth (Analysis of hypothesis 2).



The effects of the independent variable (X), moderator (W), and interaction (X*W), which is the model of the research, on the dependent variable (Y), which is the outcome variable, are given. This effect is significant because the p-value in the Table

is less than 0.05 and also the confidence interval values do not contain 0 (zero). While the effect of meaning of life on post-traumatic growth was found to be significant, existential regret was found to have a moderator role in this effect ($p < 0.05$). The percentage of disclosure of this model was found to be 13.3% ($R^2 = 0.133$).

Table 6.

The moderator role of fear of covid in the mediating role of meaning of life in the effect of spiritual well-being on posttraumatic growth

	B	Standard Error	t	p	CI
Spiritual Well-Being (X)	0.0584	0.0188	3.1025	0.0021*	(0.0214, 0.0955)
Covid-19 Fear (W)	0.1349	0.0623	2.1675	0.0308*	(0.0125, 0.2573)
Interaction (X*W)	-0.0066	0.0033	-2.0084	0.0453*	(-0.0230, -0.0001)
	B		CI		
Mediator	Low	0.0933			(0.0280, 0.1682)
	Middle	0.0552			(0.0159, 0.0976)
	High	0.0224			(-0.0385, 0.0788)

* $p < 0.05$

The effects of the independent variable (X), moderator (W), and interaction (X*W), which is the model of the research, on the dependent variable (Y), which is the outcome variable, are given. This effect is significant because the p-value in the table is less than 0.05 and also the confidence interval values do not contain 0 (zero).

While the effect of mental well-being on post-traumatic growth is statistically significant, it is seen that fear of covid has a moderator role in this effect ($p < 0.05$).

The mediating role of the meaning of life in the effect of mental well-being on post-traumatic growth has been examined, and according to the data in the 95% confidence interval of this model, the meaning of life plays a mediating role. It is seen that the mediating role is significant when the fear of Covid is low and moderate, and there is no mediation role when the fear is high. According to this result, the relevant hypothesis (2) has been accepted.

Figure 5.

The moderator role of multidimensional existential regret in the mediating role of the meaning of life in the effect of spiritual well-being on posttraumatic growth (Analysis of hypothesis 3)

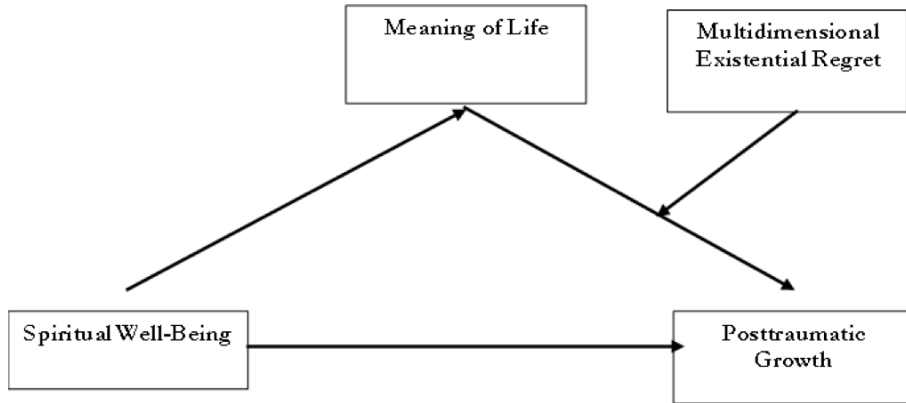


Table 7.

The moderator role of multidimensional existential regret in the mediating role of the meaning of life in the effect of spiritual well-being on posttraumatic growth

	<i>B</i>	Standard Error	t	p	CI
Meaning of Life (X)	0.9272	0.1459	6.3562	0.0000*	(0.6404, 1.2139)
Multidimensional Existential Regret (W)	-0.0063	0.0281	-0.2249	0.8221	(-0.0616, 0.0489)
Interaction (X*W)	-0.0089	0.0039	-2.3057	0.0216	(-0.0165, -0.0013)
	<i>B</i>			CI	
Mediator	Low	0.0814		(0.0302, 0.1396)	
	Middle	0.0569		(0.0202, 0.1007)	
	High	0.0376		(0.0041, 0.0860)	

*p<0.05

The effects of the independent variable (X), moderator (W), and interaction (X*W), which is the model of the research, on the dependent variable (Y), which is the outcome variable, are given. This effect is significant because the p-value in the table is less than 0.05 and also the confidence interval values do not contain 0 (zero).

While the effect of mental well-being on post-traumatic growth was found to be statistically significant, existential regret was found to have a moderator role in this effect (p<0.05). While the effect of mental well-being on post-traumatic growth was found to be significant, the mediating role of existential regret in this effect was also tested. According to the confidence interval of the model, existential regret played a

mediating role. Accordingly, existential regret is statistically significant, albeit at low, medium and high levels. In this case, the relevant hypothesis (3) has been accepted.

Discussion

The epidemic period, which negatively affects the biological and psychological dynamics of individuals, is a process dominated by uncertainty and fear worldwide due to the unpredictability of the physical consequences of the pandemic and long-term quarantines. The process of combating Covid-19, a continuous life event involving high levels of stress, has affected adverse reactions and/or positive development, along with questioning the meaning of life, spiritual well-being, and existential regret in individuals. Studies examining the concepts of the Covid-19 pandemic process and post-traumatic growth seem to have various and specific research patterns. In this context, it is aimed to deal with the post-traumatic growth related to the Covid-19 pandemic process holistically in the context of spiritual well-being, the meaning of life, existential regret, and fear of covid. The main hypothesis of the study is that the meaning of life has a mediating role between spiritual well-being and post-traumatic growth. The hypothesis has been confirmed. In the same model, it has been revealed that the fear of Covid-19 has a moderating effect between spiritual well-being and the meaning of life. Finally, it has been determined that existential regret has a moderating role in the mediating role of the meaning of life in the effect of spiritual well-being on post-traumatic growth.

As a result of the analysis performed to compare the post-traumatic growth scores of the participants according to their socio-demographic characteristics, it was seen that the post-traumatic growth scores of the female participants were higher than the male participants. In a study conducted with adults, it was found that women have higher levels of post-traumatic growth compared to men (Gokmen & Deniz, 2020). This finding seems to be compatible with studies in the literature reporting improvement in favor of women (Linley & Joseph, 2004; Vishnevsky et al., 2010; Sebutekin, 2018; Karatas, 2020). In addition to studies that found that women are more likely to increase post-traumatic growth, there are also studies where the gender difference is not significant (Polantinsky & Esprey, 2000; Vishnevsky et al., 2010).

Post-traumatic growth scores were compared according to the age of the participants. Adults aged 40-49 have higher post-traumatic growth scores than younger adults aged 20-29. In another study conducted with adolescents and advanced adults, it was found that the elderly were less affected by traumatic events. Among the possible reasons for this, the functioning of defense mechanisms, coping mechanisms, and increased mental development levels with age can be counted (Bulut et al., 2005). This is consistent with the study findings. As the age increases, the capacity to

mentally and spiritually process the negative situations experienced increases, it can be thought that the post-traumatic growth level of the adults between the ages of 40- and 49 is higher compared to the young adults between the ages of 20-29.

According to a study, as the age level increases, post-traumatic growth also increases, and people can react more calmly to traumatic situations at a younger age. It has been said that this is because they can cope better with stressful situations (Park et al., 2005). Contrary to these findings, there are studies in the literature showing that there is no difference between the post-traumatic growth levels of adults between the ages of 18-60 (Gökmen and Deniz, 2020; Bilge & Bilge, 2021). Findings about age cancer patients between 40-79 ages have higher PTG scores than younger patients; in breast cancer survivors, leukemia survivors has no significant difference between ages (Danhauer et al., 2013). Findings about ages are not consistent in traumatic experience (cancer, earthquake, traffic accident, etc.) survivors (Seo & Lee, 2020; Cha & Bang, 2019).

It has been confirmed that the meaning of life has a mediating role in the effect of spiritual well-being on post-traumatic growth during the Covid-19 pandemic, which is the main hypothesis of the study. The relationship of the concept of spirituality with personality (MacDonald, 2000), seeking the meaning of life (Park, 2005), coping (Parkgment, 1997; Shah et al., 2011), well-being (Emmons, 1999), and mental health (Koenig, 2011). In the study, it has been concluded that spiritual beliefs are an important variable in reducing the compelling aspects of traumatic events. Variables associated with spiritual beliefs have been found to be protective factors in crisis situations such as Covid-19, especially in relation to the idea of going to another realm after death, performing funeral rites and mourning. For this reason, It is recommended to encourage and support individual belief, which can be a useful resource in order to process the traumatic experience and show post-traumatic growth (Biancalani et al., 2022). Santos et al. (2021) indicated that distress and emotional designs were inversely related to spiritual well-being. Post-traumatic growth has a moderated role between traumatic stress and psychological well-being.

In a study conducted with cancer patients, it has been shown that there are positive relationships between post-traumatic growth and the existence of meaning in life, search for meaning, and life satisfaction (Mostarac & Brajković, 2022). Yu et al. (2022), who also revealed that there is a positive relationship between the search for meaning in life and post-traumatic growth, showed that the participants showed a strong willingness to make sense of and approve of the depression caused by the epidemic, but still lack the idea and sense of an important goal in their life. Having a lot of meaning in life has a positive effect on the increase in negative effects against stress and trauma and on mental balance (Nowicki et al., 2020; Ran et al., 2020); therefore, the meaning of life has been positively possessed by post-traumatic growth. In another

study explanations between meaning of life, mental distress and post-traumatic growth were investigated in first aid volunteers operating in Covid-19 Italy. The meaning of life, the thing between psychological distress and post-traumatic growth is a mediating variable (Pino, Cunegatti, & D'Angelo, 2022). Without further concluding, the concept of meaning of life in the results of the Covid-19 process is transportation as well as repetition mediating groups in the relationship between positive coping methods and post-traumatic growth. It has existed to support the phenomenon of post-traumatic growth, in which the methods of achieving positive effects in people strengthen their sense of control and to practice life (Xin & Ting, 2022).

Various study findings show that people with a high need for meaning and sense of meaning have lower levels of stress and anxiety and have more mature coping methods. Having a sense of meaning in life plays a key role in coping with stressful life events and traumatic situations. This result also supports a healthier mental functioning and less mental confusion (Halama, 2014).

The second hypothesis of the study, spiritual well-being, has been shown to have a moderating role in the mediating role of the meaning of life on post-traumatic growth. As the level of fear of Covid in adults decreases, the relationship between the meaning of life and spiritual well-being becomes stronger. The relationship between spiritual well-being and post-traumatic growth is mediated by the meaning of life, but this mediating effect is significant only when the fear of Covid is low to moderate. Accordingly, when the fear of Covid is at a high level, it has been seen that the meaning of life does not mediate spiritual well-being and post-traumatic growth. In this relationship, the fear of Covid creates a disruptive effect when it rises above a certain level. In the evaluation of the findings, it was seen that the concept of fear of Covid was also evaluated with different negative mood measurement tools within the scope of the relevant literature.

In a study on Covid-19, subjective well-being and post-traumatic growth mediated between Covid stress and psychological trauma and were found to be protective factors for trauma symptoms (Veronese, Mahamid & Bdier, 2022). Another study of mothers with young children found a negative relationship between fear of Covid-19 and spiritual well-being and devotion to God. During the COVID-19 epidemic, the relationship between the spiritual well-being of individuals over the age of 65 and their fear of coronavirus was investigated, and it was observed that as their spiritual well-being levels increased, their fear of coronavirus decreased (Durmuş & Durar, 2022). In another study with Iranian students, it was found that spiritual beliefs caused a reduction in Covid-19 fear level (Ariapooran et al., 2022) and the overall effects of spiritual and existential well-being were associated with a reduction in students' perceived fear of Covid-19 (Nooripour et al., 2022). In a study conducted on caregivers of patients with chronic diseases, it was determined that mental well-being predicted Covid-19 anxiety and fear (Akkuş et al. 2022).

In the study conducted by Arslan and Yıldırım (2020), it was found that coronavirus stress and fear are associated with a decrease in meaningful life and optimism and an increase in depressive symptoms. Another study revealed that coronavirus fear and stress affect meaningful coping levels, mental and subjective well-being. At the same time, it creates a mediating effect in the relationship between the level of meaning-based coping and the concepts of spirituality, Covid anxiety and subjective well-being and it was found that spirituality also played an important role in the relationship between meaning-based coping and coronavirus anxiety (Arslan & Yıldırım, 2021).

In the study, the hypothesis that existential regret has a moderator role in the mediating role of the meaning of life in the effect of spiritual well-being on post-traumatic growth was supported. When existential regret diminishes, the link between the meaning of life and post-traumatic growth becomes stronger. In all three cases, where existential regret is both low, moderate, and high, the mediating effect of the meaning of life between spiritual well-being and post-traumatic growth continues. In a study, people who stated that there were negative changes in their lives during the Covid-19 pandemic stated that life became meaningless in this process. Their fear of death and anxiety levels increased to a level that would affect their lives. Participants with an increased level of anxiety mainly reported a negative change in the meaning of life and a sense of existential emptiness (Sami et al., 2020). It was thought that high level of anxiety in the Covid-19 process could increase feelings of existential emptiness, so it could bring up feelings of existential regret, and the increase in the level of existential regret in the findings of this study is consistent with the fact that the relationship between the meaning of life and post-traumatic growth has decreased.

In some studies, in which the Covid process is evaluated from an existential perspective, it is claimed that there is an increase in the meaningfulness of life. One study investigated the experiences of family members grieving due to COVID-19. The findings revealed that those who lost their loved ones due to illness experience this experience as an existential one. Participants stated that this experience led to creating new meanings for life and loss. In addition, the experience of grief helped people develop some post-traumatic experience (Abdekhodaie, 2022). According to another study, significant results were observed between seeds of meaning-making and post-traumatic growth in some clinical cases. Therapists reported that in this clinical sample, they experienced their clients' existential problems as an opportunity to explore more deeply than before. It was revealed that the clients stated that the COVID-19 process, although frightening, experienced unexpectedly positive changes in their lives, and that they reconsidered the purpose in their lives together with existential questions, and that therapy contributed to them thinking about how they could continue to transform and develop a power in the context of their medical condition in the context of their lives as a whole (Gordon et al., 2021). A study

of cancer patients found that the disease increased existential fears and anxieties and triggered thoughts about the meaning of life. It has also shown that meaning-centered interventions are effective in supporting personal development as a result of important life events related to the cancer experience (Carreno & Eisenbeck, 2022). In a study on transformative life experiences, it was studied with the recognition of emotions such as existential anxiety, fear and regret by people. The study revealed that those who are willing to engage with their existential concerns are more likely to rediscover their reality and make room for potential growth and development. Existential anxieties and fears can cause destruction after ignoring behaviors, but if confronted, it can help to take charge of one's own existence (Davidov & Russo-Netzer, 2022). According to a study, existential fear and anxiety caused by COVID-19 decreased life satisfaction and this mediation relationship was also detected after post-traumatic growth. According to the structure of the study, the past trauma of the person is associated with the intense existential anxiety felt with the pandemic and the existential crises that occur. Guiding explanations have been identified between the symptoms of post-traumatic stress and the existential fear that is felt from time to time. After such traumatic effects, the idea of fate and the fears that arise with death will come to the surface. The necessity of methods that include such spiritual outcomes, intervention and care methods should be considered.

In order to cope with existential crises, it is recommended to think and work on concepts such as guilt, regret, embarrassment, unhappiness, meaninglessness and emptiness anxiety (Tomaszek & Muchacka-Cymerman, 2020). Chronic traumatic events have cumulative effects, either positive or negative, on exposed individuals. Understanding the factors that affect post-traumatic growth in a particular physical illness will also make it easier to understand the Covid-19 process. Although the Covid-19 pandemic is not yet completely over, even though this epidemic is over, the findings obtained on the subject can shed light on coping with many other physical diseases and epidemics that may occur in the future at the individual and social level.

The Covid-19 process, a traumatic experience for the whole world, includes negative consequences and positive changes, as in many traumatic experiences. It is seen that the meaning of life, spiritual well-being, existential regret, and fear of Covid have different effects on these positive changes, which are called post-traumatic growth. As a result, the Covid-19 epidemic, a physical health problem within the scope of the bio-psycho-social model, should be evaluated with a holistic perspective based on internal factors such as spiritual well-being and the meaning of life.

Ethical approval. Ethics committee approval was received by the Istanbul Kultur University Ethics Committee on 17.06.2020 with decision number 2020.45.

Peer-review. One more professional peer was asked for an opinion on the evaluation of the article and a

positive response was received.

Funding. No funding support was received.

Disclosure statement. There is no additional disclosure information.

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