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ORIGINAL PAPER

The Relationship Among Spirituality, Self-Efficacy, COVID-19 Anxiety, and Hopelessness During the COVID-19 Process in Turkey: A Path Analysis

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Abstract

This study explores the relationship among spirituality, self-efficacy, COVID-19 anxiety, and hopelessness. The participants are comprised of 418 individuals (282 females and 136 males) in Turkey whose ages range between 18 and 61 years old. The participants completed the following surveys: The Coronavirus Anxiety Scale, the General Self-Efficacy Scale, the Beck Hopelessness Scale, and the Spiritual Orientation Inventory. The relationships among the variables have been examined using path analysis. According to the results, spirituality, self-efficacy, and COVID-19 anxiety have direct effects on hopelessness. The analysis also shows self-efficacy to mediate the relationship between spirituality and hopelessness. The proposed model has good fit indices. The findings are discussed in the context of the literature on COVID-19, spirituality, self-efficacy, and hopelessness, with practical implications for mental health professionals being provided.

Keywords Hopelessness · Spirituality · Self-Efficacy · COVID-19 Anxiety · Turkey

Introduction

The COVID-19 pandemic has been ongoing for over a year, impacting many countries including Turkey. As of October 29, 2021, 245,373,039 cases and 4,979,421 deaths have been confirmed worldwide due to COVID-19, with 7,961,535 cases and 69,998 deaths confirmed in Turkey (World Health Organization, 2021). The outbreak has demonstrated individuals to be emotionally ill-prepared in the face of a biological disaster and has shown how frail and helpless they can be (Serafini et al., 2020). Unprecedented circumstances have increased anxiety in individuals (Asmundson &Taylor, 2020; Jungmann & Witthöft, 2020;

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Moghanibashi-Mansourieh, 2020; Ozamiz-Etxebarria et al., 2020; Shevlin et al., 2020), additionally, it has causing feelings of hopelessness (Hacimusalar et al., 2020; Serafini et al., 2020; Lee, 2020; Trnka & Lorencoca, 2020). Hopelessness has been one of the most significant factors affecting life during the pandemic (Banerjee, 2020). Meanwhile, research has found perceived self-efficacy to be a factor in attenuating psychological distress during the outbreak (Shacham et al., 2020), and spirituality to be a factor in relieving anxiety (Akanni et al., 2021; González-Sanguino et al., 2020; Kasapoğlu, 2020a; Rias et al., 2020), fear of COVID-19 (Kasapoğlu, 2020b) and, death anxiety (Rababa et al., 2021). Dutra and Rocha's (2020) study drew attention to the spiritual needs of societies at such a traumatic time and provided practical examples for spiritual/religious support for improving how all people can cope with the pandemic. This study aims to investigate the effects of spirituality, general self-efficacy, and COVID-19 anxiety on people's hopelessness levels during the COVID-19 pandemic.

Hopelessness

Beck's cognitive theory (Beck et al., 1974) is one of the theoretical approaches toward depression, a common mental health disorder, and suicidal behaviors resulting from depression. Beck conceptualized hopelessness as a cognitive schema that involves negative expectations regarding the future. This model suggests that individuals who are prone to depression perceive themselves as inadequate and defective and negatively interpret the world and the future. These individuals consider life to be full of challenging situations and feel hopeless about the future (Beck, 1964; Blackburn, 2008; Chioqueta & Stiles, 2005; Westefeld et al., 1990). Hopelessness also may increase based on individuals' cognitive distortions and unrealistic ideas (Minkoff et al., 1973). Beck et al. (1989) further clarified the relationship among depression, hopelessness, and suicidal ideation in their study on adult psychiatric outpatients. They found hopelessness to be more significant than depression in terms of explaining suicide.

Zuo et al. (2021) investigated the impact of perceived social support, meaning in life, and epidemic risk levels on hopelessness. The results showed perceived social support and meaning in life to negatively predict hopelessness. Saricali et al.'s (2020) research showed COVID-19-related fear to be a powerful positive predictor of hopelessness. This predictive relationship is partially mediated by mindfulness and humor. Aguglia et al.'s (2021) study evaluated the impact the pandemic has had on the mental well-being of health care workers, focusing on the association among hopelessness, death anxiety, and post-traumatic symptomatology. The findings showed death anxiety to be a potential mediator of the significant association between hopelessness and post-traumatic symptomatology. Padmanabhanunni and Pretorius (2021) found hopelessness during the pandemic to reduce life satisfaction. Kaplan Serin and Doğan (2021) found a significant relationship between their study's participant nursing students' levels of anxiety and hopelessness.

Spirituality

The COVID-19 pandemic has led to increased interest in investigating the role of religion and spiritual resources for responding to and coping with the pandemic in various societies (Achour et al., 2021). Research before the pandemic showed belief in a higher power, prayer, and meditation to have positive effects in times of crisis (Thompson et al., 2016; Koenig, 2012; Sagaser et al., 2016). Myers et al. (2000, p. 252) defined spirituality as "an awareness of a being or force that transcends the material aspects of life and gives a deep sense of wholeness or connectedness to the universe." They also stated spirituality to include elements such as hope, meaning/purpose of life, meditation and prayer/worship, compassion, altruism, values, belief in the existence of a supreme power, and transcendence. Having high levels of Islamic spirituality has also been shown to allow individuals to reinterpret a crisis so as to provide purpose and meaning (Koenig et al., 2012).

Spirituality may relieve physical, psychological, and even social issues (Luquis et al., 2012). Spiritual well-being has helped individuals deal positively with stressful life events (Bekelman et al., 2009; Dalmida et al., 2011; Jahani et al., 2014; McNulty et al., 2004). Possessing the morale and motivation to hold fast in tough situations without losing hope is regarded among the constituents of spiritual well-being (Sayar & Dinç, 2008). Hope is the expectation regarding the fulfillment of a future purpose (Rideout & Montemuro, 1986). Spirituality involves belief in a higher power, transcendence, prayer, hope, unity with nature, and connectedness (Dein, 2013; Moreira-Almeida & Koenig, 2006; Myers et al., 2000). Walsh (2020) suggested transcendent values to be able to help individuals cope with losses and constraints during the pandemic by promoting meaning, purpose, harmony, and connection.

During the pandemic, researchers have examined spirituality through various variables due to the essential role spirituality has in human life. Achour et al.'s (2021) research revealed a significant positive correlation between well-being and performing prayer, religious activities, and meditation. Other research by Durmuş et al. (2021) found a significant negative correlation between the spiritual well-being of pregnant women and fears of COVID-19 and depression. Rababa et al. (2021) found religious coping and spiritual well-being to be significant predictors of death anxiety in older adults. Lee et al. (2021) reviewed 58 articles and summarized the roles religious groups have played during the COVID-19 pandemic. The review showed religious communities to have served as a critical resource for managing and controlling COVID-19 in many parts of the world.

General Self-Efficacy

Bandura (1977) conceptualized self-efficacy as one's belief in their abilities to plan and execute the courses of action required for managing future-related situations. According to Bandura, individuals can generalize their perceptions of an

ability from any context to assessing different abilities in similar contexts. Ideas on the generalizability of self-efficacy then developed a new concept known as general self-efficacy and derived from self-efficacy. General self-efficacy generally refers to an individual's efficacy beliefs about coping with stressful and challenging life events. In addition, general self-efficacy has also been defined as an individual's general confidence in the face of new, complicated, and unfamiliar situations that may arise in many areas. People with high general self-efficacy are more successful in addressing stressful events and overcoming traumas (Bandura et al., 2001; Benight & Bandura, 2004). They may even view stressful life events as encouraging and challenging opportunities. High self-efficacy creates a protective factor against the negative effects of traumatic events (Joie-La Marle et al., 2021).

Because self-efficacy has critical importance in traumatic situations, it has been one of the variables investigated during the pandemic. For example, Xiong et al. (2020) found a negative relationship between self-efficacy and anxiety, whereas Casali et al. (2021) found a positive relationship between self-efficacy and transcendent character strength. Chong et al.'s (2020) research has additionally shown self-efficacy to have positively affected adherence to precautionary measures during the pandemic. One longitudinal study revealed self-efficacy to be positive alongside positive affect and adaptive performance at work (Joie-La Marle et al., 2021).

COVID-19 Anxiety

Mass tragedies involving contagious diseases cause waves of fear and anxiety that disrupt behavioral and psychological well-being (Balaratnasingam & Janca, 2006). Anxiety is considered to be an emotional response to "a threat to some value that the individual holds essential to his existence as a personality" (May, 1977, p. 205). Hacimusalar et al. (2020) reported anxiety to have caused hopelessness to increase during the current pandemic. Lee (2020) developed the Coronavirus Anxiety Scale to identify cases of dysfunctional anxiety related to the COVID-19 pandemic and found a strong positive relationship between coronavirus anxiety and negative religious coping, extreme hopelessness, and suicidal ideation.

Present Study

Pre-pandemic studies conducted on the relationship between hopelessness, COVID-19 anxiety, spirituality, and general self-efficacy (i.e., the variables of the present study) found a negative relationship between hopelessness and spirituality (Abdollahi & Abu Talib, 2015; Abu Talib & Abdollahi, 2017; Hasanshahi et al., 2018; Williams et al., 2008).

Spirituality provides hope in the most hopeless of circumstances (Cotton et al., 2009). However, a positive relationship is also known to exist between hopelessness and anxiety (Carretta et al., 2014; Marai, 2004). Among the studies conducted during this pandemic, Hacimusalar et al. (2020) similarly found a positive

relationship between hopelessness and anxiety, as did Lee (2020) between hopelessness and COVID-19 anxiety. A significant negative relationship had previously been found between one's level of hopelessness and general self-efficacy (Bozkur et al., 2020; Kezer et al., 2016). Moreover, Banerjee (2020) proposed general self-efficacy belief to be a protective factor against hopelessness during the current pandemic. Bandura had suggested perceived inefficacy to play a vital role in depression, anxiety, stress, and other emotional distress disorders (as cited in Muris et al., 2016, p. 609).

Many studies have found a positive relationship between spirituality and self-efficacy (Adegbola, 2011; Asghari et al., 2014; Han et al., 2014; Jun & Lee, 2016; Rakhshanderou et al., 2020; Wong & Longshore, 2008). Some approaches have shown people's spirituality development to be about cognitive abilities, behaviors, and skills (Oman et al., 2009). Bandura (2003) believed individuals' efficacy beliefs to affect their thoughts about the world, their life, the goals they have set, and actions they choose for achieving their goals. Many recent studies have emphasized spirituality and spiritual health to be able to affect self-efficacy and other psychological perceptions (Rakhshanderou et al., 2020).

Other studies conducted during the pandemic have also indicated spirituality to relieve anxiety (González-Sanguino et al., 2020; Kasapoğlu, 2020a), with pre-pandemic studies supporting this result (Ai et al., 2005; Nelson et al., 2009; Reutter & Bigatti, 2014). Research has shown belief in self-efficacy to be associated with spirituality; these two attributes are therefore regarded as two strong motivators in human development (Adegbola, 2011).

Hopelessness during the pandemic being associated with negative consequences including suicidal behavior has made studying the factors likely to influence this variable crucial. While much research exists on COVID-19, a need for data still exists in order to develop empirical strategies for identifying the factors affecting hopelessness during the outbreak. As a result, the present study aims to explore the extent to which spirituality directly and/or indirectly explains hopelessness through its relationship with general self-efficacy, and COVID-19 anxiety. The diagram of the model created for testing these relationships is shown in Fig. 1.

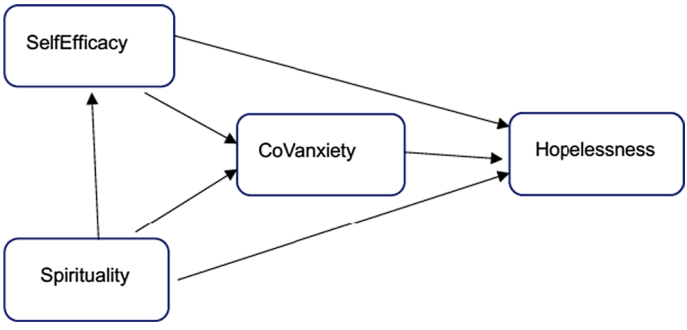

Fig. 1 Tested model

Research Question

Does spirituality influence hopelessness directly or indirectly through general self-efficacy and COVID-19 anxiety variable?

Method

Participants and Procedure

The study uses the convenience sampling method (Gravetter & Forzano, 2012) to gather data from participants 18 years or older. Individuals accepted the online consent form and completed a survey in Turkish. The data were collected using the online survey software, Google Forms, rather than in person due to social isolation during the COVID-19 outbreak. From December 2020 to January 2021, 418 responses were collected from people living in Turkey.

Table 1 shows that demographic characteristics for the 418 participants, 282 females (67.5%) and 136 males (32.5%), with ages ranging from 18 to 61 ($M = 33.47$, $SD = 10.26$). The group consists of 127 (30.4%) people with a high school diploma or less and 291 (69.6%) with an undergraduate degree or higher; 201 (48.1%) participants are single, and 217 (51.9%) are married. Of the participants, 235 are employed (56.2%) and 183 are unemployed (43.8%); 182 (43.5%) have a relative who has had COVID-19. Forty-four participants (10.5%) have a history of anxiety disorders.

Table 1 Demographic variables ($N = 418$)

Variables	Category	Frequency	Percent
Gender	Female	282	67.5%
	Male	136	32.5%
Age		M = 33.47	SD = 10.26
Education	High school and below	127	30.4%
	Undergraduate and Higher	291	69.6%
Marital status	Single	201	48.1%
	Married	217	51.9%
Job	Employed	235	56.2%
	Unemployed	183	43.8%
History of anxiety disorders	Yes	44	10.5%
	No	374	89.5%
A close family member had COVID-19	Yes	182	43.5%
	No	236	56.5%

Measures

The Coronavirus Anxiety Scale

The scale was developed by Lee (2020) to identify cases of dysfunctional anxiety associated with the COVID-19 crisis. It is a one-dimensional 5-item, 5-point Likert-type scale (0 = never, 4 = every day for the last two weeks). The scale was translated into Turkish by Akkuzu et al. (2020). For the exploratory factor analysis, a single-factor structure of the scale was found to explain 58% of the total variance. The confirmatory factor analysis shows the fit indices to be within acceptable limits ($\chi^2 = 52.204$; $p < 0.001$; χ^2 / df = 10; GFI = 0.98; AGFI = 0.95; CFI = 0.97; RMSEA = 0.09). The internal consistency reliability coefficient was calculated to be 0.82 and test–retest reliability as $r = 0.88$.

Beck Hopelessness Scale

This scale was developed by Beck et al. (1974) and first adapted to Turkish by Seber et al. (1993). Its validity was studied later by Durak and Palabıyıkoğlu (1994). The scale consists of 20 items, with the exploratory factor analysis revealing three factors. Of the total variance, the factor of feelings and expectations toward the future explains 28%, loss of motivation explains 8%, and hope explains 6.6%. The reliability analyses indicate a Cronbach alpha of $\alpha = 0.78$. Correlations among the three factors range from 0.48 to 0.59 ($p < 0.001$). The Beck Depression Scale was chosen as the concurrent validity criterion with a correlation coefficient of $r = 0.69$ ($p < 0.001$).

General Self-Efficacy Scale

The scale was developed by Sherer et al. (1982) and adapted into Turkish by Yıldırım and İlhan (2010), who also conducted validity and reliability studies. The exploratory factor analysis of the scale revealed three factors to explain 41.47% of the total variance, with the first factor explaining 20.2%, the second factor 11.9%, and the third factor 9.5%. The reliability analyses indicate an internal consistency of $\alpha = 0.80$. Test–retest reliability was calculated at $r = 0.69$ ($p < 0.01$). This 5-point Likert-type scale consists of 17 items, with items 2, 4, 5, 6, 7, 10, 11, 12, 14, 16, and 17 being reverse scored. A higher score on the scale indicates stronger self-efficacy beliefs.

Spiritual Orientation Scale

Kasapoğlu (2016) developed the Spiritual Orientation Scale (SOS) for evaluating individuals' levels of spirituality. Myers et al. (2000, p. 252) defined spirituality as "an awareness of a being or force that transcends the material aspects of life and gives a deep sense of wholeness or connectedness to the universe". This scale is a 7-point Likert-type with 16 items. Its exploratory factor analysis reveals a single factor explaining 47.50% of the total variance. Its confirmatory factor analysis shows

acceptable levels of fit for the single-factor structure (χ^2 / $df_{(100)}$ = 2.39, p = 0.000; RMSEA = 0.06, RMR = 0.05, GFI = 0.93, AGFI = 0.90, CFI = 0.95, IFI = 0.95, NFI = 0.92). Validity was measured using the spirituality sub-dimension from the Wellness Evaluation of Lifestyle Scale (Witmer & Sweeney, 1992) and adapted into Turkish by Doğan (2004). SOS shows a significant positive and moderate correlation with the sub-dimension of spirituality ($r = 0.57$; $p < 0.01$). The internal reliability of the scale was calculated as $\alpha = 0.87$ and its test–retest reliability measured over a 2-week interval to be 0.84 ($p = 0.000$). The scale items are shown in Table 2.

Data Analysis

The present study examines the relationship hopelessness has with spirituality, general self-efficacy, and COVID-19 anxiety, first by calculating the descriptive statistics (mean, standard deviation, skewness, and kurtosis) and analyzing the relationships among the variables using Pearson's r and point-biserial correlation (r_{pb}). The related literature states point-biserial correlation calculation to be a special case of the Pearson product-moment correlation, which is used when one of the variables has two categories (e.g., gender; Field, 2009).

The relationships among the variables were tested through path analysis using structural equation modeling (SEM). The suitability of the data for SEM analyses was examined first by exploring multicollinearity and normality (Teo et al., 2013). VIF values less than 10 indicate no multicollinearity to be present in the data set (Kline, 2015). Skewness and kurtosis values were then calculated in regard to the normality of the data. The skewness of the variables was found to vary between 1.49

Table 2 Items from the SOS

Item number	Items
1	I feel the presence of a supreme power in the depths of my soul
2	My spiritual experiences give me peace
3	I feel loved by a divine being
4	Only an infinite being can understand humans on the eventual point
5	Prayer/meditation is an integral part of my spiritual life
6	My belief in a divine power helps me cope with life's challenges
7	One can find answers once one truly seeks the meaning of their life
8	My belief in a divine being influences my behavior
9	I am able to feel closer to what I believe in by praying
10	My belief in a divine being gives meaning to my life
11	Prayer/meditation gives me emotional support
12	My communication with the spiritual dimension is good for my mental health
13	I feel protected by a higher power
14	I experience a sense of wholeness in the serenity of prayer/meditation
15	Watching nature in admiration strengthens my spiritual feelings
16	My faith strengthens my communications with those around me

and -1.61, while the kurtosis values varied between 1.89 and -0.14. Skewness and kurtosis values within the range of ± 2 are considered acceptable for normal distribution (George & Mallery, 2019). Therefore, the results show the data to be suitable for SEM analyses. The goodness of fit of the structural model was calculated using the ratio $\chi 2$ */df*, *SRMR*, *RMSEA*, *CFI*, and *NFI* (Kline, 2015). A 95% confidence interval was used to ensure the significance of the indirect and direct effects from the variables included in the SEM, in addition to the application of a bootstrap analysis with 1000 resamples (Preacher & Hayes, 2008). Data analyses were conducted using IBM SPPS Statistics and the AMOS Graphics package program.

A mediation model was used for examining the direct and indirect effects of spirituality through general self-efficacy and COVID-19 anxiety. The mediation model investigated the mediator effects of the variables in explaining the relationship between the independent and dependent variables, as well as the effects of the independent variables on the dependent variable (Baron & Kenny, 1986).

Baron and Kenny (1986) proposed three requirements to need to be fulfilled when testing a mediation model: (i) a significant relationship must exist between the independent variable and the mediating variable, (ii) a significant relationship must exist between the mediating variable and the dependent variable, and (iii) adding the mediation model to the model must diminish the effect of the independent variable on the dependent variable.

Results

Descriptive Statistics and Correlational Analysis

Table 3 displays the variables' descriptive statistics and the correlation coefficients in the study. The skewness values range from 1.49 to -1.61, and the kurtosis values range between 1.89 and -0.14. The Cronbach alphas for the scales are above acceptable limits ($\alpha = 0.79$ and 0.87; Büyüköztürk et al., 2010). Correlational analyses show hopelessness to be significantly and positively correlated with COVID-19 anxiety ($r = 0.10$, $p < 0.01$) and negatively correlated with general self-efficacy ($r = -0.40$, $p < 0.01$) and spirituality ($r = -0.32$, $p < 0.01$). No statistically significant relationship was found between COVID-19 anxiety and spirituality ($r = -0.08$, $p > 0.05$), and self-efficacy ($r = -0.07$, $p > 0.05$).

Path Analysis

According to Table 3, a significant relationship exists among spirituality as the independent variable, hopelessness as the dependent variable, and general self-efficacy as one of the mediating variables. Likewise, a significant relationship exists between the mediating variable of general self-efficacy and the dependent variable of hopelessness. No relationship has been found between spirituality and the other mediating variable, COVID-19 anxiety. A significant relationship was found for COVID-19 anxiety with general self-efficacy and hopelessness.

Table 3 Correlation matrix and descriptive statistics of the variables

	COVID-19 anxiety	Self-efficacy	Hopelessness	Spirituality
COVID-19 anxiety	–	− .07	.19**	− .08
Self-efficacy		–	− .40**	.26**
Hopelessness			–	− .32**
Age	− .23**	.12*	− .06	.19**
Gender	− .12*	.09	.00	− .07
Education	− .22**	.22**	− .18**	.19**
Job	.06	− .25**	.13*	− .12**
Marital status	.21**	− .10	.06	− .28**
HAD	− .23**	.15**	− .09	.06
CFM COVID-19	− .11*	− .04	− .05	− .05
M	1.95	63.59	4.35	104.56
SD	2.51	11.21	3.85	7.43
Skewness	1.36	− .40	1.49	− 1.61
Kurtosis	1.38	− .14	1.72	1.89
Cronbach Alpha	.79	.87	.85	.84

$N = 418$, $^{**}p < .01$, $^{*}p < .05$, *HAD* History of anxiety disorders, CFM COVID-19 = A close family member had COVID-19

Because four of the six correlations among the variables are significant, a mediation model has been established between these variables for testing the indirect and direct paths from the variable of spirituality to hopelessness through general self-efficacy as well as from the variable of general self-efficacy to hopelessness through COVID-19 anxiety. The tested model shows the goodness-of-fit indices to be ideal: $\chi 2 / df_2 = 1.85$, $p = 0.157$, $RMSEA = 0.045$, $CFI = 0.98$, $GFI = 0.99$, $AGFI = 0.98$, $NFI = 0.97$, and $SRMR = 0.036$ (Hu & Bentler, 1999; Kline, 2015; Şimşek, 2007). The standardized path coefficients for the model are presented in Fig. 2.

Bootstrap resampling over 1000 iterations was used to test the significance for the coefficients indicating the direct and indirect effects from spirituality, self-efficacy, and COVID-19 anxiety on hopelessness. According to the bootstrap analyses, spirituality ($\beta = 0.26$, $p < 0.01$, 95% CI [0.36, 0.172] directly and significantly increased general self-efficacy. Spirituality ($\beta = -0.22$, $p < 0.01$, 95% CI [-0.321, -0.119] and self-efficacy ($\beta = -0.33$, $p < 0.01$, 95% CI [-0.417, -0.262] directly and significantly decrease hopelessness. COVID-19 anxiety ($\beta = 0.15$, $p < 0.01$, 95% CI [0.065, 0.241] directly and significantly increase hopelessness. Additionally, spirituality ($\beta = -0.09$, $p < 0.01$, 95% CI [-0.139, -0.053] indirectly and significantly decrease hopelessness. These three variables explain 22% ($R^2 = 0.22$) of the variance in hopelessness in the model. Findings on the standardized path coefficients for the model are reported in Table 4.

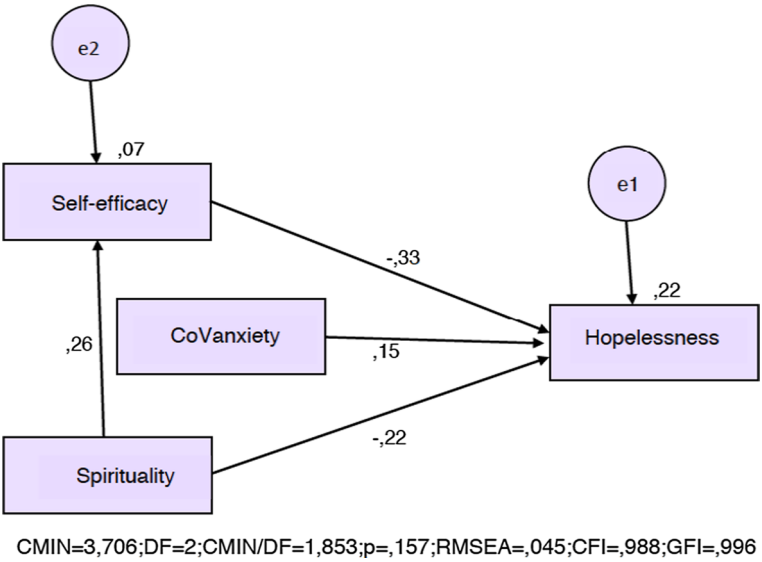

Fig. 2 Standardized path coefficients for the model

Table 4 Estimated parameters and 95%CIs for the SEM paths

Direct link					Estimated	95% CI (Lower, Upper)	*p*
Hopelessness	←			Spirituality	− .22	− .321, − .119	.002
Hopelessness	←			Self-efficacy	− .33	− .417, − .262	.001
Hopelessness	←			COVID-19 anxiety	.15	.065, .241	.002
Self-efficacy	←			Spirituality	.26	.172, .36	.001
Indirect link					Estimated		
Hopelessness	←	Self-efficacy	←	Spirituality	− .09	− .139, − .053	.001

Discussion

The current study has investigated the relationship among spirituality, self-efficacy, COVID-19 anxiety, and hopelessness for individuals living in Turkey during the COVID-19 process. The results have determined spirituality, general self-efficacy, and COVID-19 anxiety to be significant predictors of hopelessness. Furthermore, the findings show general self-efficacy to mediate the relationship between spirituality and hopelessness, explaining 22% of the variation in hopelessness scores.

According to the model the present study has confirmed, spirituality reduces hopelessness (i.e., increases hope) both directly and through general self-efficacy indirectly. This finding is consistent with the results of other studies that have been conducted during the pandemic. Zou et al. (2021) found the meaning of life whereas Sarıçalı et al. (2020) found mindfulness to negatively predict hopelessness. Some

efforts are also found with recommendations in the form of letters to the editor. These letters emphasize developing a solid relationship with the transcendent to be able to increase hope during the pandemic (Heidari et al., 2020; Roman et al., 2020). The previous research results have also point to similar findings between spirituality and hopelessness (Abdollahi & Abu Talib, 2015; Abu Talib & Abdollahi, 2017; Hasanshahi et al., 2018; Williams et al., 2008). Abdollahi and Abu Talib's (2015) study found spirituality to moderate the relationship between hopelessness and suicidal ideation. Their results indicated higher suicidal ideation for those with high hopelessness and low spirituality, as opposed to those with high spirituality. Williams et al. (2008) examined the role of spirituality in presenting concerns, diagnosis, psychopharmacologic treatment, and spiritual orientation among students seeking treatment at a university counseling center. Their analysis found spirituality to be inversely correlated with hopelessness. The findings of the current study and other studies indicate spirituality to act as a buffer against hopelessness.

The current findings are in-line with the thesis that spiritual and transcendent values may foster meaning, purpose, harmony, and connections during COVID-19 (Walsh, 2020) and provide hope in extremely hopeless situations (Cotton et al., 2009). During the COVID-19 pandemic, spiritual values can help alleviate individuals' physical, psychological, and social problems (Luquis et al., 2012). In addition, these values can help individuals give new meaning to crises (Koenig et al., 2012), thus reducing their hopelessness levels by seeing themselves to be more competent at overcoming difficulties. In other words, they may develop fewer negative expectations for the future.

This study has found a significant positive relationship between COVID-19 anxiety and hopelessness. This finding is in-line with the results from Lee (2020). The present outbreak presents a grave threat to individual lives and health. When considering constraints such as social isolation and the uncertainty that consolidates this grave threat, anxiety is inevitably expected to increase hopelessness. Meanwhile, one expected result is that increased general self-efficacy perceptions decrease individuals' hopelessness levels (i.e., they become more hopeful). This is because, while hopelessness is the belief that negative situations will occur and one can do nothing to change them (Abela & Seligman, 2000), self-efficacy is related to one's belief in being able to overcome the tasks faced (Bandura, 1977). To the author's knowledge, no similar studies conducted during the pandemic have found comparable findings. However, prior research supports the present study's results (Bozkur et al., 2020; Hasanshahi et al., 2018; Kezer et al., 2016; Najafi & Foladjang, 2007).

While those who consider themselves capable of facing hardship try harder to handle and overcome hardship (Bandura et al., 2001; Benight & Bandura, 2004), those who feel themselves incapable give in to difficulties easily and feel anxious, depressed, and hopeless (Muris et al., 2016). During the uncertain times of the pandemic, self-efficacy has been promoted to protect against hopelessness (Banerjee, 2020). The present study's findings support this incentive.

Another finding from this research is that spirituality positively affects general self-efficacy. This finding resembles the results of very few studies that have evaluated these two variables during the pandemic. Casali et al. (2021) found a positive relationship between self-efficacy and transcendent character strength. Likewise,

the previous research results also support this finding (Adegbola, 2011; Asghari et al., 2014; Han et al., 2014; Jun & Lee, 2016; Rakhshanderou et al., 2020; Wong & Longshore, 2008). Adegbola (2011) carried out a study to assess the relationship spirituality has with self-efficacy and quality of life in adult patients and found a strongly significant correlation to exist among the variables. This finding suggests that the more spiritual beliefs an individual has, the higher their levels of self-efficacy and quality of life. Rakhshanderou et al. (2020) carried out a study to examine the relationship between spirituality and perceived self-efficacy among college students. They found a significant positive relationship between spirituality and self-efficacy.

Those who believe potential threats to be unmanageable tend to exaggerate them, while those high in spirituality are also high in self-efficacy (Sullivan & Atkins, 2009). These two features are strong motivations in human development (Adegbola, 2011). Such individuals may be able to cope better with the stressful and threatening circumstances of the pandemic.

Study Limitations

This study has several limitations that bear upon the generalizability and interpretation of the findings and should be addressed. Data were collected from a sample without chronic disease. Therefore, the results cannot be generalized to chronic disease cases. This study also performed a cross-sectional analysis of the data. The relationships among the variables being correlational does not imply cause and effect. The findings are based on data obtained from self-report measures, which carry the risk of bias. Despite these limitations, the study's findings provide valuable data to mental health professionals dealing with the mental health issues caused by the COVID-19 pandemic.

Conclusion

An individual who perceives the COVID-19 outbreak as a threat to their life can lead them to have adverse reactions and cause anxiety and hopelessness. However, based on the findings of this study, we can say individuals during the pandemic are able to strengthen their self-efficacy to the extent to which they are able to benefit from spiritual resources. As a result, they will be able to cope better with the stress of uncertainty and reduce their negative expectations for the future. This research also suggests that education around spirituality might give people positive beliefs in their self-worth and future.

Psychosocial interventions that promote spirituality and self-efficacy may help lower hopelessness levels by assisting the population in enduring and overcoming uncertainty, loss, and restrictions. For example, Dutra and Rocha (2020) provided practical examples in military chaplaincy and hospital chaplaincy. Additionally, the effects from techniques used in existential anxiety and stress interventions in

third-generation cognitive-behavioral therapies can also be specifically utilized for those suffering from the psychological consequences involving COVID-19 anxiety.

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Declarations

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval The present study involves the use of human participants. The study was approved by Istanbul 29 Mayıs University Scientific Research and Publication Ethics Board (decision number: 2020/04–05) and was conducted in accordance with the Helsinki Declaration.

Informed Consent All participants viewed an informed consent page and consented to participation in the study.

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