The Impact of COVID-19 on Psychological Adjustment Problems: The Mediating Roles of Meaning in Life and Resilience

Mehmet Emin Şanlı[1] · Murat Yıldırım[2,3] · Izaddin Ahmad Aziz[4,5]

Abstract

While the number of COVID-19 cases has significantly decreased, its lasting effects persist, posing a continued threat to global mental health and well-being. The aftermath of the pandemic raises concerns about psychological adaptation, meaning in life, and resilience among individuals. This study investigated the potential impact of COVID-19 on psychological adjustment problems and explored the mediating roles of meaning in life and resilience in this relationship. The study involved a sample of 481 general publics from Turkey, with 53.8% of participants identifying as male, and ages ranging from 18 to 70 years ($M=26.63$, $SD=6.50$). Using an online survey, participants completed the self-reported measures of COVID-19 impact, meaning in life, resilience, and psychological adjustment problems. The findings revealed that the COVID-19 impact significantly predicted levels of meaning in life, resilience, and psychological adjustment problems. Also, meaning in life and resilience emerged as significant predictors of psychological adjustment problems. Notably, the mediation effects of meaning in life and resilience in the relationship between COVID-19 impact and psychological adjustment problems were statistically significant. These results suggest that the COVID-19 influence may reduce levels of meaning in life and resilience, ultimately leading to increased psychological adjustment problems. These findings have implications for highlighting the importance of incorporating strength-based approaches in guidelines and interventions aimed at promoting positive psychological health in the context of the ongoing COVID-19 pandemic.

Keywords COVID-19 impact · Meaning in life · Resilience · Psychological adjustment · Turkish public

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Introduction

COVID-19 initially emerged in the city of Wuhan in China on December 2019 and rapidly spread throughout the whole world. World Health Organization (WHO) declared the new coronavirus (COVID-19) as a global pandemic on 11 March 2020 (WHO, 2020). The COVID-19 pandemic became a worldwide problem affecting the whole people in the world by rapidly spreading to many countries especially countries in Asia after the breakout in China. Amidst the COVID-19 pandemic, as cases and fatalities increased, nations worldwide implemented a range of restrictions and measures to mitigate the impact of the virus on people's lives. To decrease social contact, it was decided either to have a break or not to permit activities held with crowded human gatherings (Demir, 2022; Dikmen & Bahçeci, 2020; Sarışık et al., 2022). While the pandemic was spreading, good faith measures such as isolation and social distance put into effect by the authorities restricted access of people to mental health services (Gunnell et al., 2020; Rossi et al., 2020). After a while, people started to be affected mentally and physically by these measures. The studies carried out showed that the pandemic started to create public health problems including mental and physical health problems for the general population (Dong & Bouey, 2020). Literature searches have found that during COVID-19 pandemic, people experience severe psychological symptoms such as depression, anxiety, suicidal thoughts, coronavirus stress, fear of infection, feelings of helplessness, communication overload, burnout, loneliness, and extreme stress (Brunoni et al., 2023; Çeri & Çiçek, 2021; Demir & Ateş, 2023; Dilekçi & Limon, 2020; Tanhan et al., 2020; Yıldırım et al., 2021a). Despite all the measures taken to reduce the negative effects of the virus, the available evidence shows that these measures have a negative impact on people's mental health (Brunoni et al., 2023; Salimi et al., 2023). The COVID-19 pandemic has prolonged much more than previous pandemics and has universally disrupted the life of the public and worn out people day by day (Cao et al., 2020; Çiçek et al., 2020; Çiçek & Yıldırım, 2022; Kaya & Dilekçi, 2021; Yıldırım & Güler, 2022; Yıldırım & Çiçek, 2022; Wagner et al., 2023). In this context, it can be said that the COVID-19 pandemic will cause people to experience serious mental problems in the future.

Psychological Adjustment Problems

Psychological adjustment means evaluating the general psychological distress and adjustment of the person and how well the psychology of the person works in daily life (Yıldırım & Solmaz, 2021). Studies have revealed that psychological adjustment problems have increased in humans due to the pandemic (Baarck et al., 2021; Killgore et al., 2020). The COVID-19 pandemic caused an increase in depressive symptoms, negative feelings and more loneliness in adolescents (Branje & Morris, 2021). A study carried out on young adults found that young adults showed lower psychological adjustment problems than the other age groups during the COVID-19 crisis (Candeias et al., 2021). Although the effect of the pandemic has decreased, it is determined that such mental health problems that it left behind have serious effects on individual and public health (Wagner et al., 2023). In humans, there appears to be

an increase in mental health problems in the general population due to the fear, uncertainty, and stressors caused by the virus (Brunoni et al., 2023). It was determined that the COVID-19 pandemic has magnified the mental health problems of individuals (Salimi et al., 2023). In a parallel study conducted by Kaya and Koşan (2021), they showed that the primary consequences of the COVID-19 pandemic on university students manifested as heightened levels of depression and anxiety. In addition, it was stated that the nurses who fought at the front during COVID-19 experienced serious psychological adjustment problems (stress, fear, anxiety, etc.) (Chen et al., 2020). In Spain, the effects of the COVID-19 pandemic revealed that the effects of COVID-19 had a noticeable impact on the mental health of citizens and that high levels of COVID-19-related anxiety, increased substance use and loneliness, which were the strongest predictors of psychological adjustment (Valiente et al., 2021).

The Mediating role of Resilience

Many definitions of the concept of psychological resilience can be found in the literature. American Psychological Association (APA, 2014) defines resilience as "the process of adapting well in the face of difficulties, trauma, tragedy, threats and even significant stress sources". Also, resilience means the ability to quickly "recover" from a stressful situation and flexibly adapt to a new situation (Yıldırım & Solmaz, 2022). Exposure to hardships (e.g., poverty, epidemics, bereavement) is a strong indicator of mental dysfunction (Salimi et al., 2023). However, people can react differently to difficulties. Some people experience these challenges significantly and for a long time, while others experience minimal difficulty or even improvement. We call it resilience to make better-than-expected progress in these challenging situations (Troy et al., 2023). Studies have shown that one of the endurable protective factors in the prevention of psychological disorders is resilience (Baluszek et al., 2023; Yıldırım et al., 2022). Individuals with high psychological resilience reported that they had a positive childhood and had a more resilient and more positive self-perception (Kocatürk & Çiçek, 2023). Studies have shown that psychological resilience can help reduce depression and anxiety in healthy people. Studies have shown that protective factors such as resilience and social support can help people maintain their mental health in pandemic situations (Grey et al., 2020; Vos et al., 2021). At the same time, it was stated that one of the most beneficial ways to alleviate psychological disorders such as anxiety, fear of COVID-19 and depression in individuals is to strengthen psychological resilience (Chakeeyanun et al., 2023; Min et al., 2013; Satici et al., 2023). The development of psychological resilience negatively affects psychological adjustment and mediates the reduction of adjustment problems (Song et al., 2019). Individuals with strong psychological resilience can overcome psychological adjustment problems more easily (Veronese et al., 2021). As a result, strong resilience is likely to be associated with lower COVID-19 impact and psychological adjustment problems.

The Mediating role of Meaning in Life

Meaning in life is considered one of the essential components of well-being and mental health as its presence promotes the development and healing in individuals (Steger et al., 2006; Yıldırım et al., 2021b). Additionally, Steger et al. (2006) defined meaning in life as including two dimensions: the presence of meaning and the search for meaning. While the presence of meaning in life is positively associated with life satisfaction and positive emotions, the search for meaning in life is positively associated with depression, neuroticism, and negative emotions (Steger et al., 2006). On the other hand, failing to resolve the meaninglessness of life or an existential crisis can lead to psychopathologies such as depression, anxiety, addiction, aggression, apathy, worse well-being, and physical illness (Glaw et al., 2017). Studies have shown that one of the demonstrable protective factors in the prevention of psychological disorders such as fear of COVID-19, stress, depression and anxiety is the meaning of life (Fong et al., 2023; Lew et al., 2020; Yu et al., 2022). Meaning in life is also a mediator between the reasons for living in individuals, loneliness, and the severity of depressive symptoms, which reduces the likelihood of mental disorders (Heisel et al., 2016). The studies have associated the meaning in life with lower psychological distress (Schnell & Krampe, 2020) and prevention of behavioral disorders (Aviad-Wilchek & Ne'eman-Haviv, 2018; Lew et al., 2020). Another study found that resilience and meaning in life mediate the associations between COVID-19 and mental health outcomes (anxiety, depression, and post-traumatic growth) and serve as important protective factors of mental health (Yu et al., 2022). In a study conducted in Hong Kong, it was stated that meaning in life has a strong mediating role in the impact of COVID-19 and in people with mental distress (Fong et al., 2023). In another comprehensive study, it has been shown that relationships related to the meaning of life, especially family relationships, are accepted as the most important source of meaning in people's lives in all cultures and age groups (Glaw et al., 2017). These results show that the meaning of life is an important structure in predicting and improving mental health during disasters.

Present Study

Building upon the theoretical and empirical findings discussed above, the current study seeks to investigate the potential mediating roles of meaning in life and resilience in the relationship between COVID-19 impact and psychological adjustment problems. Accordingly, we posit the following hypotheses: (i) COVID-19impact will be negatively associated with meaning in life, and resilience, and positively associated with psychological adjustment problems; (ii) meaning in life and resilience will be negatively associated with psychological adjustment problems, and (iii) meaning in life and resilience will mediate the relationship between COVID-19impact and psychological adjustment problems. The hypothetical model depicting these relationships is presented in Fig. 1.
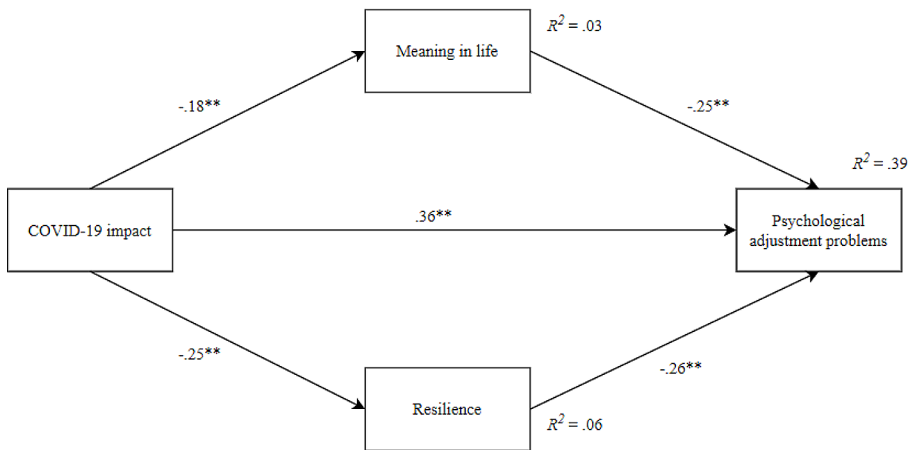
Fig. 1 Structural model shows the relationships between the variables ([**]p<.001)

Method

Participants

The sample for this study consisted of 481 general publics from Turkey, with ages ranging from 18 to 70 years ($M=26.63$, $SD=6.50$). Among the participants, 53.8% identified as male, and 46.2% as female. In terms of marital status, 71.7% were single, while 28.3% were married. Regarding the highest education level completed, the majority of participants (65.1%) had completed an undergraduate degree, followed by a high school diploma (27.2%) and a postgraduate degree (7.7%). In terms of perceived socioeconomic background, nearly two-thirds of the participants (65.3%) reported an average socioeconomic background, while 29.5% reported a below-average background, and 5.2% reported an above-average background. Among the participants, 34.1% reported having tested positive for COVID-19, while 65.9% reported testing negative. In terms of vaccination status, 55.5% of the participants had received the second dose, followed by the third dose at 18.7%, no vaccination at 16.0%, and the first dose at 9.8%.

Measures

The COVID-19 Impact Scale

(CIS; Min et al., 2022) is a self-reported measure consisting of 10 items designed to assess the psychological and emotional stress responses to the COVID-19 pandemic, as well as the challenges faced in daily activities. Participants are asked to rate the extent to which each item reflects their feelings and thoughts using a 5-point Likert scale, ranging from 0 (none) to 4 (very severe/very often). A sample item from the CIS is "Please indicate how much your current life is affected by the COVID-19 related problems." Higher scores on the CIS indicate a greater impact of COVID-19

on an individual's life. The CIS has been validated in Turkish by Yıldırım and Şanlı (2023), indicating good psychometric properties In the current study, the CIS showed excellent internal consistency reliability with a Cronbach's alpha coefficient of 0.91.

Meaning in Life Questionnaire - Short Form

(MLQ-SF; Steger & Samman, 2012) is a self-reported measure adapted from the Meaning in Life Questionnaire developed by Steger et al. (2006). The MLQ-SF consists of 3 items that are rated on a 7-point Likert-type scale, ranging from 1 (absolutely untrue) to 7 (absolutely true). A higher score represents greater meaning in life. A sample item is "My life has a clear meaning or purpose". The original version of the Meaning of Life Questionnaire (Steger et al., 2006) was validated in Turkish by Demirbas (2010). In the current study, Cronbach's alpha coefficient for the MLQ-SF was calculated to be 0.83, indicating good internal consistency reliability.

Brief Resilience Scale

(Smith et al., 2008) is a widely used unidimensional self-report measure designed to assess an individual's ability to "bounce back" from stressful situations. The BRS consists of 6 items that are rated on a 5-point Likert-type scale. Possible answers range from 1 (strongly disagree) to 5 (strongly agree). A sample item is "It does not take me long to recover from a stressful event." Negatively coded items are recorded, and an overall score for the BRS can be calculated, with higher scores indicating higher levels of resilience. The BRS has been validated in Turkish by Doğan (2015), demonstrating satisfactory psychometric properties. In the present study, Cronbach's alpha coefficient for the BRS was found to be 0.70, indicating acceptable internal consistency reliability.

Brief Adjustment Scale-6

(BASE-6; Cruz et al., 2020) is a 6-item self-report scale that measures challenges related to psychological adjustment. All items on the scale are scored on a 7-point scale, ranging from 1 (not at all) to 7 (extremely). An example item is "To what extent have you felt irritable, angry, and/or resentful this week?" Higher scores indicate a greater level of psychological maladjustment (Cruz et al., 2020). The psychometric properties of the BASE-6 were investigated in Turkish by Yıldırım and Solmaz (2021), who reported strong internal reliability estimates for the scale. In the present study, the internal reliability estimate of the BASE-6 with the current sample was 0.93, indicating excellent internal reliability.

Procedure

Data for this study were collected using a web-based online survey. Prior to participation, informed consent was obtained from all participants, and they were provided with information about the voluntary nature of the study, the confidentiality of their responses, and the anonymity of the data. Participants were also informed about

the purpose of the study and their rights throughout their involvement in the study, including before, during, and after participation. This study was conducted in adherence to the ethical principles outlined in the Declaration of Helsinki.

Statistical Analysis

In the current study, a structural model was used to investigate the mediating role of meaning in life and resilience in the relationship between COVID-19 impact and psychological adjustment problems (see Fig. 1). Bootstrapping, with 5,000 samples, was employed to analyse the extent to which the relationship between COVID-19 impact and psychological adjustment problems is mediated by meaning in life and resilience, following the approach outlined by Hayes (2009) and Hayes and Preacher (2014). Effect sizes for the indirect effects were estimated using kappa-squared ($\kappa2$) with 95% bootstrapped confidence intervals, and the magnitude of $\kappa2$ was interpreted based on Cohen's criteria (Cohen, 1988) for squared correlation coefficients of 0.01, 0.09, and 0.25, which represent small, medium, and large effects, respectively, as suggested by Preacher and Kelley (2011). All statistical analyses were conducted using SPSS v.26 for Windows, and the macro-PROCESS v4.1 (Hayes, 2012) was utilized for the mediation analysis.

Results

Descriptive Statistics and Correlation Analysis

Table 1 presents descriptive statistics, including measures such as mean, standard deviation, and normality tests, as well as bivariate correlation coefficients and internal consistency reliability estimates for the key variables in this study. Skewness values ranged from -0.73 to -0.31, and kurtosis values ranged from -0.49 to 1.60, falling within the "good" and "acceptable" range for normal distribution, as per conventional criteria for skewness and kurtosis scores $< |1|$ or $< |2|$ (Curran et al., 1996). Correlation analysis revealed that the COVID-19 impact was significantly negatively correlated with meaning in life and resilience and positively correlated with psychological adjustment problems. Also, meaning in life was significantly positively correlated with resilience and negatively correlated with psychological adjustment

Table 1 Descriptive statistics and correlations

Variable	Descriptive statistics				Reliability	Correlations			
	Mean	SD	Skewness	Kurtosis	α	1.	2.	3.	4.
COVID 19 Impact	15.85	8.48	0.22	-0.27	0.91	1	-0.18^{**}	-0.25^{**}	0.47^{**}
Meaning in life	16.09	3.86	-0.73	0.36	0.83		1	0.35^{**}	-0.40^{**}
Resilience	18.78	4.05	0.02	1.60	0.70			1	-0.44^{**}
Psychological adjustment	19.93	9.32	0.31	-0.49	0.93				1

Not. ** $p<.01$

Table 2 Unstandardized coefficients for the mediation model

Antecedent		Consequent			
		M_1 (Meaning in life)			
		Coeff.	SE	t	p
X (COVID-19impact)	a_1	−0.08	0.02	-4.05	<0.001
Constant	i_{M1}	17.40	0.37	47.33	<0.001
		$R^2=0.03$ $F=16.37; p<.001$			
		M_2 (Resilience)			
X (COVID-19impact)	a_2	−0.12	0.02	-5.62	<0.001
Constant	i_{M2}	20.66	0.38	54.41	<0.001
		$R^2=0.06$ $F=31.58; p<.001$			
		Y (Psychological adjustment problems)			
X (COVID-19impact)	c'	0.40	0.04	9.97	<0.001
M_1 (Meaning in life)	b_1	−0.59	0.09	-6.39	<0.001
M_2 (Resilience)	b_2	−0.60	0.09	-6.39	<0.001
Constant	i_y	34.42	2.16	15.97	<0.001
		$R^2=0.39$ $F=99.85; p<.001$			

Note. SE=standard error. *Coeff*=unstandardized coefficient. *X*=independent variable; *M*=mediator variable; *Y*=dependent variable

Table 3 Standardized indirect effects

Path	Effect	SE	BootLLCI	BootULCI
Total indirect effect	0.12	0.02	0.08	0.17
COVID-19impact–> Meaning in life–> Psychological adjustment problems	0.05	0.02	0.02	0.08
COVID-19impact–> Resilience–> Psychological adjustment problems	0.07	0.02	0.04	0.10

Note. Number of bootstrap samples for percentile bootstrap confidence intervals: 5,000

problems. Additionally, resilience was significantly negatively correlated with psychological adjustment problems.

Mediation Analysis

The findings from the mediation analysis are reported in Tables 2 and 3, and Fig. 1. The results revealed that COVID-19 impact had a significant negative predictive effect on meaning in life ($\beta = -0.18$, $p<.001$) and resilience ($\beta = -0.25$, $p<.001$). Specifically, COVID-19 impact accounted for 3% of the variance in meaning in life and 6% of the variance in resilience. Additionally, COVID-19impact ($\beta=0.36$, $p<.001$), meaning in life ($\beta = -0.25$, $p<.001$), and resilience ($\beta = -0.26$, $p<.001$) all had significant predictive effects on psychological adjustment problems. Together, these three variables accounted for 39% of the variance in psychological adjustment problems. Importantly, the indirect effects of COVID-19impact on psychological adjustment problems via meaning in life (effect=0.05, 95% CI [0.02, 0.08]) and

resilience (effect = 0.07, 95% CI [0.04, 0.10]) were also statistically significant. This suggests that meaning in life and resilience partially mediate the relationship between the COVID-19 impact and psychological adjustment problems.

Discussion

This study investigated the mediating role of the meaning of life and resilience in the relationship between COVID-19 impact and psychological adjustment problems among individuals. We provided evidence supporting the roles of resilience and meaning in life in the association between COVID-19 impact and psychological adjustment problems. These findings support the hypotheses of this study. In the literature review, it is thought that this research is the first study to examine the relationship in the context of the COVID-19 impact on individuals in Turkey, and therefore, this research will contribute significantly to the mental health field of individuals after COVID-19.

The results showed that COVID-19 impact had a negative effect on meaning in life, and resilience, and a positive effect on psychological adjustment problems. This suggests that those who experience more COVID-19 impacts report lower levels of meaning in life and resilience and more symptoms of psychological adjustment problems. In a study conducted in Turkey, it was shown that COVID-19 impact positively and significantly predicts the meaning of life, life satisfaction, and resilience, while fear of COVID-19 predicts resilience negatively and significantly (Karataş & Tagay, 2021). In other studies, it was found that the COVID-19 crisis causes psychological adjustment problems that increase thoughts of depression, anxiety, stress, loneliness and loss of hope (Elmer et al., 2020; Fong et al., 2023; Rivera et al., 2021). In a study conducted during the COVID-19 pandemic in Greece, it was observed that individuals with high levels of resilience and meaning in life had lower levels of anxiety, and there was a negative significant relationship between the COVID-19 pandemic and meaning in life and resilience (Tsibidaki, 2021). In a study conducted to measure its effectiveness on resilience and meaning in life during the COVID-19 pandemic, it was found that there is a positive and significant relationship between meaning in life and resilience (Haddadi et al., 2021). In another similar study, it was stated that hope is an important driver of resilience and life satisfaction (Rivera et al., 2021). While pandemic-related stressors negatively affect psychological adjustment problems, psychological resilience could serve as a protective function that limits this effect. In a study conducted in Turkey, it was found that resilience negatively predicts psychological maladjustment and positively predicts life satisfaction (Yıldırım et al., 2022). These findings proved that meaning in life and resilience enable the regulation of psychological factors on people's mental health and the protection of people's mental health. Therefore, psychological resources and strengths support coping with adverse life situations such as the COVID-19 pandemic, which has the potential to cause serious mental health consequences and reduce anxiety, stress, depression and adjustment problems. Therefore, it can be assumed that meaning in life and resilience have a protective function for individuals in terms of mental health, but COVID-19 impact increases psychological adjustment problems.

The results also indicated that meaning in life and resilience have negative impacts on psychological adjustment problems. This suggests that individuals who have a greater sense of meaning in life and the ability to overcome stressful situations, experience lesser symptoms of psychological adjustment problems. Studies have shown that fear of illness and fear of the unknown are associated with mental and physical health effects and predict negative social behaviours, including mental disorders, poor physical health, and unhealthy behaviours (Shigemura et al., 2020; Yıldırım et al., 2020). Individuals who have experienced COVID-19 impact may experience more fear of coronavirus, which may cause poor mental health and increase the risk of psychological adjustment problems. These results are consistent with the results of previous studies on COVID-19 impact and psychological adjustment problems on mental health (Ahorsu et al., 2020; Li et al., 2020; Shigemura et al., 2020; Yıldırım et al., 2020). A similar study showed that resilience is associated with psychological maladjustment (Liu et al., 2014).

Most importantly, meaning in life and resilience were found to mediate the relationship between COVID-19 impact and psychological adjustment problems. In a study conducted on healthcare workers during the COVID-19 outbreak, it was reported that resilience acts as an important mediator between fear of coronavirus and mental health problems (Yıldırım et al., 2020). These results are consistent with previous studies on the relationship between resilience and mental health (Liu et al., 2014; Yıldırım & Arslan, 2022). The theoretical basis for this prediction is that excessive psychological adjustment problems related to COVID-19 impact may lead to poor mental health (Ahorsu et al., 2020; Shigemura et al., 2020; Sloan et al., 2020; Yıldırım et al., 2020). In addition, it was determined that the functional characteristics of resilient individuals have better mental health by buffering the effect of fear on mental health problems in the face of adversities (Yıldırım, 2019; Shigemura et al., 2020). It shows that the meaning of life predicts positive well-being and individuals with a higher meaning of life experience less stress-related distress and repetitive negative thoughts, and that the relationship between the meaning of life and repetitive negative thinking may be mediated by boredom (Ostafin & Proulx, 2020). These findings suggest that those who experience greater COVID-19 impact-related stressors have lower levels of meaning in life and resilience, which in turn leads to greater psychological adjustment problems. Most importantly, the meaning of life and resilience were found to mediate the relationship between the impact of COVID-19 and psychological adjustment problems.

The current study results showed that in Turkish society, as in other countries, the COVID-19 pandemic has negative consequences on the well-being of individuals even in the post-pandemic period (Jamshaid et al., 2023). Importantly, we determined that the relationship between the impact of COVID-19 and psychological adjustment problems was mediated by meaning in life and resilience. Therefore, we think that intervention programs based on these variables can be used preventively and therapeutically.

Contributions and Implications of the Research

This study contributes to the existing literature in the following ways. It was found that resilience and meaning in life mediate psychological adjustment problems with the impact of COVID-19. It is thought that this will contribute to further studies. Mediation studies do not directly test for causation but are invaluable in providing evidence that can help change treatment and intervention approaches (Windgassen et al., 2016). Examining the mechanisms between variables is a fundamental requirement for understanding the associations between the analyzed variables. In practical terms, the available evidence supports resilience-based interventions aimed at protecting people's mental health, improving their quality of life guiding a meaningful life, and providing important evidence for improvement. To protect people's mental health, it is very important to effectively combat diseases with long-term effects such as pandemics. Early intervention, education, group therapies and individual therapies, and interventions that will increase the level of resilience and meaning of life for people to get rid of the traumas they have experienced can aim to determine how people can protect their mental health and thus continue their lives without experiencing psychological problems in times of crisis.

The findings of this study have direct implications for counselling and psychotherapy, particularly in the context of the COVID-19 pandemic. The profound effects of the pandemic on individuals' psychological health underscore the need for mental health professionals to address the psychological adjustment problems caused by the pandemic. Firstly, given that the COVID-19 impact significantly predicted levels of meaning in life, resilience, and psychological adjustment problems, counsellors should focus on helping individuals find and maintain a sense of meaning and purpose in their lives, even amidst the challenges posed by the pandemic. Incorporating meaning-centred interventions into counselling sessions can potentially enhance individuals' well-being and coping abilities. Secondly, the study identified resilience as a significant predictor of psychological adjustment problems. This highlights the importance of enhancing individuals' resilience during counselling and therapy. By promoting resilience-building strategies, counsellors can assist individuals in navigating the stressors and uncertainties brought on by the pandemic more effectively. Furthermore, the mediation effects of meaning in life and resilience suggest that these two factors play a crucial role in mitigating the negative impact of the COVID-19 pandemic on individuals' psychological health. As such, counsellors should integrate interventions that specifically target and strengthen both meaning in life and resilience within their therapeutic approaches to promote positive psychological changes among individuals affected by the COVID-19 pandemic. Positive psychological changes represents improvements in an individual's psychological well-being, mindset, or outlook that go beyond their pre-existing state such as increased optimism, a greater sense of purpose, enhanced coping mechanisms, and improved mental well-being.

Limitations of the Study

This study has some limitations. First, this is a cross-sectional study conducted at specific time points. Therefore, it is difficult to draw positive or negative conclusions about the relationships between study variables. Second, we used a questionnaire that was securely created online for data collection. Responses from people without Internet access, especially older adults (60+), could not be fully evaluated. Third, given the cross-sectional nature of the study design, it was difficult to conclude causal relationships between study variables. Therefore, longitudinal studies are needed to confirm the causality of associations between study variables. In addition, we cannot generalize the results of this study to the population. Random selection of participants is highly encouraged in future studies.

In conclusion, this study provides insights into the relationships between resilience, meaning in life, and psychological adjustment to COVID-19 impact in Turkey. To cope with COVID-19 impact and psychological adjustment problems, meaning in life and resilience have a positive relationship with increasing individuals' ability to bounce back from stressful situations in highly motivated and creative ways.

Data Availability The datasets generated during and/or analysed during the current study are available from the corresponding author [MY] upon reasonable request.

Declarations

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Ethical approval was obtained from the Batman University Ethics Committee.

Informed Consent Consent was obtained from all participants included in the study.

Disclosure of Potential Conflicts of Interest The authors declared no conflicts of interest concerning the research, authorship, and/or publication of this article.

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Authors and Affiliations

Mehmet Emin Şanlı[1] · Murat Yıldırım[2,3] · Izaddin Ahmad Aziz[4,5]

✉ Murat Yıldırım
   muratyildirim@agri.edu.tr; muratyildirimphd@gmail.com

[1] Health Vocational School, Batman University, Batman, Turkey

[2] Department of Psychology, Faculty of Science and Letters, Ağrı İbrahim Çeçen University, Fırat Mahallesi Yeni Üniversite Caddesi No: 2 AE/1, Ağrı 04100, Turkey

[3] Department of Social and Educational Sciences, Lebanese American University, Beirut, Lebanon

[4] Special Education Department, College of Education, Salahaddin University-Erbil, Erbil, Iraq

[5] English Department, College of Education, Bayan University, Erbil, Iraq