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Investigation of the Relationships Between Mindfulness, Wisdom, Resilience and Life Satisfaction in Turkish Adult Population

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Abstract

There are many factors that are thought to affect life satisfaction. One of these factors is mindfulness. In addition, it has been observed that resilience and wisdom are associated with both mindfulness and life satisfaction. This study aims to examine the associations between mindfulness, resilience, wisdom, and life satisfaction. Participants consist of 1158 Turkish young adults (79.9% females) between the ages of 18 and 58 (Mage = 21.28, SD = 5.31). Mindfulness Scale, Brief Resilience Scale, San Diego Wisdom Scale, and Life Satisfaction Scale were used as the data collection tools. Structural Equation Modelling and Bootstrapping method were used to examine the role of resilience and wisdom in the relationship between mindfulness and life satisfaction. The results of the structural equation analysis showed that resilience and wisdom had a significant mediating role in the relationship between mindfulness and life satisfaction, and that the role of wisdom was stronger than resilience. The results of the bootstrapping analysis showed that the indirect effects of mindfulness on life satisfaction are significant. We conclude that mindfulness, accompanied by wisdom and resilience, can lead to an increase in life satisfaction. Theoretical and practical implications and limitations were discussed.

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Keywords Mindfulness · Life satisfaction · Resilience · Wisdom

Introduction

Human beings are creatures that manage their lives, can make decisions and have mechanisms for coping with the various difficulties they encounter. In the last 30 year, studies on well-being have become increasingly common in the literature, focusing on the positive and powerful aspects of humans. One of the most important concepts focusing on individual well-being is life satisfaction. Various studies in the literature have revealed that mental health can be positively influenced by increasing life satisfaction (Diener, 2000; Diener et al., 1985; Gündoğar et al., 2007; Güngör, 2011; Okur & Özekes, 2020; Wardle et al., 2004). There are many studies in the literature examining life satisfaction in terms of various variables. In this study, life satisfaction; Wisdom, mindfulness and psychological resilience will be examined in terms of variables.

Life Satisfaction and Mindfulness

The most general definition of life satisfaction can be described as the way individuals assess the quality of their life according to their own criteria. Studies showed that life satisfaction increases when the expectations and needs of individuals are met and decreases when these expectations and needs are not met (Diener, 2000; Diener et al., 1985). Individuals who have high life satisfaction are more productive. Individuals with high levels of life satisfaction have high problem-solving and high stress-coping skills (Altay & Avcı, 2009; Aydıner, 2011; Chow, 2005; Diener et al., 1985; Diener, 2000; Eryılmaz & Ercan, 2011; Karatekin, 2013; Kabasakal & Uz-Baş, 2013; Paolini et al., 2006).

One of the concepts associated with life satisfaction is mindfulness. Recent studies show that mindfulness can affect individuals' lives in many aspects (Deniz et al., 2017; Ülev, 2014; Wang & Kong, 2014; Yıkılmaz & Demir-Güdül, 2015). The concept of mindfulness in its most general sense can be defined as the ability to focus on events happening here and now without bias (Brown & Ryan, 2003). It involves removal of the negative assumptions based on past experiences, protection against bothersome expectations about the future, and concentration on the present moment (Baer et al., 2006). People who fulfill these criteria (i.e., have high mindfulness) are more likely to enjoy the moment and thus have increased life satisfaction. Brown et al. (2007) stated that individuals with high levels of mindfulness have better mental health and greater coping skills. Brown and Ryan (2003) stated that mindfulness has a positive relationship with positive emotions and this may increase life satisfaction. Various studies have revealed a relationship between life satisfaction and mindfulness (Arslan, 2018; De Vibe et al., 2018; Falsafi, 2016; Falkenström, 2010; Sarıçalı & Satıcı, 2017; Ülev, 2014; Yıkılmaz & Demir-Güdül, 2015).

Psychological Resilience and Wisdom as Mediator Roles

Psychological resilience is the ability to cope with difficulties, to show resistance against stressful life events, and to develop a positive perspective (Kobasa, 1979; Luthar et al., 2000; Vergili, 2018; Windle, 2011). Resilience is associated with coping with difficult situations, making the right decisions in the face of a crisis, and showing improvement. Based on all of these, resilience can be interpreted as a dynamic process that protects a person by emerging at various moments throughout life (Gizir, 2007). Various studies show that a significantly positive relationship exists between mindfulness and resilience. Mindfulness facilitates coping with stress, increases life satisfaction by making people psychologically resilient (Hülsheger et al., 2013; Keye & Pidgedon, 2013; Lee et al., 2014; Wang et al., 2015).

Linden (2014) suggested that wisdom is one of the most important concepts in terms of resilience. According to him, wisdom is associated with both well-being and resilience. Wisdom generally appears in the literature as a concept that is a subskill in coping with difficult life events (Baltes & Smith, 1990; Staudinger & Glück, 2011). Ardelt (2003) suggests that every human being has wisdom. He defines this concept as a skill that contains cognitive, reflective, and affective dimensions and humans' effort to learn unknown things (Ardelt, 2003; Ardelt & Grunwald, 2018; Ardelt & Oh, 2010). Baumann and Linden (2008) also defined wisdom as assertive skills that exist in everyone and are needed to solve difficult problems in life. Based on these definitions, wisdom emerges as an important variable that facilitates the individual's adaptation to life and coping with the difficulties encountered, and increases well-being.

When the literature on the relationship between mindfulness and wisdom is examined, it is seen that these two concepts are handled on almost the same methodological basis (Verhaeghen, 2019). Mindfulness increases self-transcendence, and wisdom (Pascual-Leone, 2000) because studies on wisdom show that self-transcendence is an important component of wisdom (Ardelt, 2004; Levenson, 2009). When previous studies were examined, results revealing the relationship between mindfulness and wisdom were found (Brienza et al., 2018; Bruya & Ardelt, 2018; Sharma & Dewangan, 2017).

Wisdom is positively related with life satisfaction, resilience, and happiness, and it is negatively related with depression, and anxiety (Bergsma & Ardelt, 2012; Thomas et. all, 2015). As wisdom increases, flexible thinking, empathy, and coping skills improve. Mindfulness can also increase resilience as it can protect the person from cognitive distortions and automatic thoughts. Thus, the individual evaluates the life he wants more objectively, and his life satisfaction can increase. All in all, both wisdom and resilience are important factors that will bring life satisfaction (Ardelt, 1997; Thomas et al., 2015).

The Present Study

In the literature, there are studies on the relationship between mindfulness and life satisfaction (Ba et. al., 2015; Deniz et. al., 2017; Falkenström, 2010; Ülev, 2014; Wang & Kong, 2014; Yıkılmaz & Demir-Güdül, 2015). Likewise, some studies focus on the relationship between mindfulness and resilience and the relationship between resilience and life satisfaction (Hülsheger et. al., 2013; Keye & Pidgedon, 2013; Lee et. al., 2014; Wang et. al., 2015). Moreover, some studies show that wisdom is associated with life satisfaction (Ardelt, 1997; Thomas et. al. 2015). Based on all these findings, it is hypothesized that there are statistically significant relationships between the variables of mindfulness, life satisfaction, resilience, and wisdom (H1). Additionally, mindfulness, resilience, and wisdom are hypothesized to predict life satisfaction. (H2). Although there are studies in which resilience is considered as a mediating variable, no study is encountered in which the variables of this research are discussed together. Likewise, no study has been found in which the concept of wisdom has been used as a mediating variable. Based on these studies, it is hypothesized that resilience and wisdom to have mediating roles in the relationship between mindfulness and life satisfaction (H3).

With the findings obtained from this study, the variables that increase life satisfaction will be examined from a more holistic perspective. Also, the results are expected to contribute to psychoeducational studies, making it easier to increase life satisfaction of individuals. In addition, this study will contribute to determining the competing mediator that plays a bigger role in life satisfaction.

Method

Participants

The study group consisted of adults over 18 years of age. The study group was contacted online via the Internet due to the COVID-19 pandemic, and the data were collected via Google Forms. There were 1158 participants in the study, consisting of 925 female (79.9%) and 233 (20.1%) male individuals. The participants were between 18 and 58 years of age, and the mean age was 21.28 ($SD = 5.31$). There were 1061 (91.6%) single participants, and 97 of them were married. In terms of educational status, 9 (0.8%) of the participants were primary school graduates, 614 (53%) were high school graduates, and 535 (46.2%) were university graduates.

Before collecting the data, ethical approval was obtained from Scientific Research and Publication Ethics Committee on 23 July 2020 (Approval No: 2020-7-36). Later, necessary permissions were obtained by contacting the developers of the measurement tools to be used in the study. The data of the study were collected during the COVID-19 pandemic. Therefore, the data were collected on the internet via Google Forms. The information about the study, the voluntary participation, and the confidentiality of the study were explained in detail in the starting section.

Next, informed consents were obtained from the participants, and then the data were collected.

Measures

Mindful attention awareness scale The Mindful Attention Awareness Scale (MAAS), which was developed by Brown and Ryan (2003) and adapted into Turkish by Özyeşil et al. (2011), was used in the study to determine the mindfulness levels of the participants. The six-point Likert-type scale consists of 15 items and has a one-dimensional structure. There are no reversed items in the scale. Higher total scores indicate higher levels of mindfulness. The fit indexes obtained in the confirmatory factor analysis were found to be sufficient. Factor loadings of the scale were observed to range between 0.48 and 0.81. In addition, the Cronbach's alpha internal consistency coefficient was found as 0.80, and the test–retest reliability was calculated as 0.86 (Özyeşil et. al, 2011). In the present study, the reliability coefficient of the scale for the total score was found to be good ($\alpha = 0.794$; $\omega = 0.796$).

Brief Resilience Scale The Brief Resilience Scale, which was developed by Smith et al. (2008) and adapted into Turkish by Doğan (2015), was used in the study to determine the psychological resilience levels of the participants. The five-point Likert-type scale consists of six items and has a one-dimensional structure. Since there are reversed items in the scale, the scores of these items had to be converted before the total score was obtained. High scores indicates that the individuals have high levels of psychological resilience. The fit indexes obtained in the confirmatory factor analysis were found to be sufficient. Factor loadings of the scale were observed to range between 0.63 and 0.79. In addition, the Cronbach's alpha internal consistency coefficient, which was calculated to test the reliability of the scale, was calculated as 0.83. In the present study, the reliability coefficient of the scale for the total score was found as good ($\alpha = 0.866$; $\omega = 0.868$).

San Diego Wisdom Scale The San Diego Wisdom Scale, which was developed by Thomas et al. (2017) and adapted into Turkish by Akkaya (2019), was used in the study to determine the levels of wisdom among the participants. The five-point Likert-type scale consists of 24 items and has six sub-dimensions, each of which consists of four items. Since there are reversed items in the scale, the scores of these items had to be converted before the total score was calculated. It was assumed that the level of wisdom would increase as the total score increases. The fit indexes obtained in the confirmatory factor analysis, which was performed to verify the six-factor structure of the San Diego Wisdom Scale, were found to be sufficient. In addition, the Cronbach's alpha internal consistency coefficient, calculated to test the reliability of the scale, was found as 0.80, and the test–retest reliability was calculated as 0.93 (Akkaya, 2019). In the present study, the reliability coefficient of the scale for the total score was found as good ($\alpha = 0.803$; $\omega = 0.804$).

Satisfaction with Life Scale The Satisfaction with Life Scale, which was developed by Diener et al. (1985), was used in the study to determine life satisfaction levels of the participants. The scale was adapted into Turkish by Köker (1991). Recently, the adaptation study was performed again by Dağlı and Baysal (2016) to

test the reliability and validity of the scale. The scale, which was developed as a one-dimensional structure, consisted of five items. There are no reversed items in the scale, and it has a Likert-type scoring system. The lowest and highest scores that could be obtained from the scale are 5 and 35. High scores indicates high levels of life satisfaction. The fit indexes obtained from the confirmatory factor analysis were found to be sufficient. Factor loadings of the scale were observed to range between 0.72 and 0.89. In addition, the Cronbach's alpha internal consistency coefficient, which was calculated to test the reliability of the scale, was found as 0.80 by Köker (1991) and as 0.88 by Dağlı and Baysal (2016). The test–retest reliability of the scale was determined as 0.85. In the present study, the reliability coefficient of the scale for the total score was found as good ($\alpha = 0.840$; $\omega = 0.842$).

Data Analysis

In the data analysis, Skewness and Kurtosis values were examined to determine whether the data had a normal distribution. It was observed that Skewness and Kurtosis values of the scales were normally distributed, ranging between -1.5 and $+1.5$ (Tabachnick & Fidell, 2013). Pearson product-moment correlation coefficient was calculated for the relationships between variables. The structural Equation Model was used for testing the mediating relationship between the variables (Kline, 2015).

According to Structural Equation Modeling, the RMSEA, and SRMR values are expected to be below 0.08, and the $\chi 2$/sd ratio to be below 3 (Hu & Bentler, 1999; Kline, 2015). In addition, the ratio of $\chi 2$/df could vary depending on the sample size. It has been reported that this rate could increase as the number of samples increases. In such a case, other fit values could be considered (Kline, 2015). The sufficiency of the conformity between the model and data could be obtained by looking at fit indexes such as GFI, CFI, TLI, RMSEA, and SRMR. These fit indexes should have acceptable values according to the results of the analysis. In other words, the indexes such as GFI, CFI, TLI being 0.90 and above (Bentler & Bonet, 1980; Schermelleh-Engel & Moosbrugger, 2003; Tabachnick & Fidell, 2013), and indexes such as SRMR and RMSEA less than 0.08 (Brown & Cudeck, 1993; Hoe, 2008; Keith, 2019; Schumacker & Lomax, 2004) are acceptable fit values.

The relationship between mindfulness and life satisfaction was examined taking into consideration the mediating roles of resilience and wisdom. Mindful Attention Awareness Scale was parcelled as three factors, taking into account the correlations between items, and factor loadings while testing structural equation models (Little et al., 2002; Nasser-Abu Alhija & Wisenbaker, 2006). To provide additional evidence on whether the direct and indirect effects of the variables in the tested models were significant, Bootstrap analysis was performed within a confidence interval of 95% using 10,000 resampling. In Bootstrap analysis, the examined effect is considered to be significant when the confidence intervals do not include zero (Preacher & Hayes, 2008).

Results

Descriptive Statistics and Correlations

The correlations between mindfulness, resilience, wisdom, and life satisfaction levels of the participants, and mean, standard deviation, and reliability values of the scales are presented in Table 1.

As shown in Table 1, there are significant relationships between mindfulness, resilience, wisdom, and life satisfaction. The results of the analysis demonstrated that there were positive relationships between mindfulness and resilience (r = 0.32, $p < 0.01$), wisdom (r = 0.45, $p < 0.01$) and life satisfaction (r = 0.32, $p < 0.01$). In addition, it was observed that resilience had positive correlations with wisdom (r = 0.54, $p < 0.01$) and life satisfaction (r = 0.34, $p < 0.01$); and life satisfaction had a positive correlation with wisdom (r = 0.36, $p < 0.01$).

To test the mediating roles of resilience and wisdom for the relationship between mindfulness and life satisfaction via the structural model, the variables should have a normal distribution. Accordingly, it was observed that the Skewness values of the variables ranged between − 0.24 and 0.17, while the Kurtosis values were found to range between − 0.51 and 0.37. It was concluded that the data had a normal distribution (Tabachnick & Fidell, 2013). In addition, Cronbach's α and McDonald's ω reliability coefficients of the variables were found to range between 0.79 and 0.86.

Measurement Models

In the study, the mediating roles of resilience and wisdom in the relationship between mindfulness and life satisfaction were examined using three different structural equation models. The measurement models were evaluated in the first step before testing hypotheses about the structural models. The measurement models showed acceptable fit indices ($\chi 2 = 843.40$, df = 164, SRMR = 0.053, RMSEA = 0.060 [%90 CI = 0.034, 0.047], GFI = 0.92, CFI = 0.92, TLI = 0.91).

To provide additional evidence on whether the direct and indirect relations of the variables in the tested models were significant, Bootstrap analysis was performed within a confidence interval of 95% using 10,000 resampling. In Bootstrap analysis, the examined effect is considered to be significant when the

Table 1 Descriptive statistics and correlation results ($N = 1158$)

Variables	Mean	SD	α	ω	Skewness	Kurtosis	1	2	3
1. Mindfulness	57.40	11.03	.794	.796	− .021	− .292	1		
2. Resilience	17.20	5.11	.866	.868	− .057	− .333	.315**	1	
3. Wisdom	85.75	10.80	.803	.804	− .239	.372	.448**	.535**	1
4. Life Satisfaction	12.77	4.01	.840	.842	.165	− .510	.317**	.341**	.359**

**$p < 0.01$

confidence intervals do not include zero (Preacher & Hayes, 2008). The results of the analysis performed on the models tested are presented below.

Structural Models

Alternative structural models in which wisdom and resilience are mediating variables have been tested to explain the relationship between mindfulness and life satisfaction (Table 2). First, wisdom and resilience were included in the model as full mediator variables (Model 1). This model showed insufficient fit. However, all links between variables were statistically significant. Second, a direct path from mindfulness to life satisfaction was added, and resilience and wisdom were included in the model as partial mediating variables (Model 2). The tested structural model had an acceptable fit, and all links between variables were statistically significant. In the third step, a direct path from wisdom to resilience was added (Model 3). This model had acceptable fit values. However, the link from mindfulness to life satisfaction was not statistically significant ($\beta = 0.06$, $p = 0.260$). In addition, the link from mindfulness to resilience had a negative coefficient ($\beta = -0.15$). Comparing the alternative models, Model 2 had better goodness-of-fit indices, and lower AIC and ECVI values (Table 2). The structural model and standardized path coefficients for Model 2 are presented in Fig. 1.

Looking at the Model 2, mindfulness significantly and positively correlated with resilience ($\beta = 0.37$, $p < 0.001$, 95% CI = 0.31, 0.43), wisdom ($\beta = 0.62$, $p < 0.001$, 95% CI = 0.56, 0.68) and life satisfaction ($\beta = 0.15$, $p < 0.01$, 95% CI = 0.04, 0.25). In addition, life satisfaction was significantly and positively correlated with wisdom ($\beta = 0.29$, $p < 0.001$, 95% CI = 0.13, 0.46), and resilience ($\beta = 0.13$, $p < 0.05$, 95% CI = 0.01, 0.25). When the coefficients were examined, wisdom and resilience indirectly explained the relationship between mindfulness and life satisfaction ($\beta = 0.23$, $p < 0.001$, 95% CI = 0.15, 0.31). According to Model 2, it can be argued that the role of wisdom was stronger than resilience in the relationship between mindfulness and life satisfaction. In other words, when wisdom and resilience were included in the model together, the mediating role of wisdom was found to be stronger. The results of the bootstrap analysis are presented in Table 3.

Table 2 Fit indices about three measurement models

Models	$\chi 2$	df	SRMR	RMSEA[90% CI]	GFI	CFI	TLI	AIC	ECVI
Model 1	1073.97	166	.087	.069[.065–.073]	.916	.894	.879	1161.96	1.00
Model 2	843.40	164	.053	.060[.056–.064]	.924	.921	.908	935.40	.808
Model 3	852.02	165	.054	.060[.056–.064]	.923	.920	.908	942.02	.814

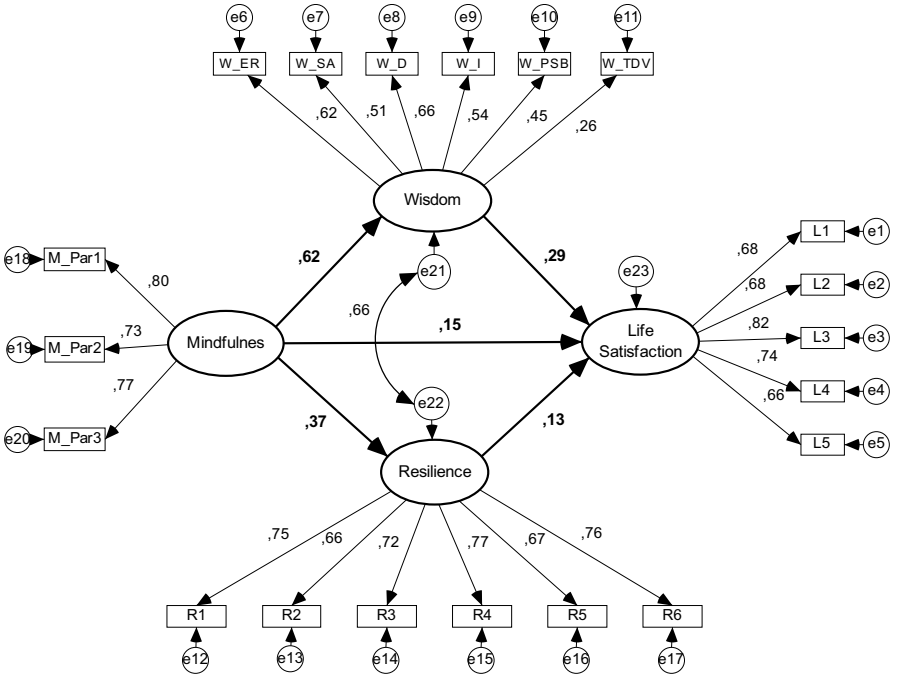

Fig. 1 The role of psychological resilience and wisdom between mindfulness and life satisfaction

Table 3 Results of the bootstrap analysis on the role of psychological resilience and wisdom in the relationship between mindfulness and life satisfaction

Model paths			Coefficient	CI %95	
				Lower	Upper
Direct effects					
Mindfulness	Wisdom		.624**	.562	.682
Mindfulness	Resilience		.371**	.308	.432
Wisdom	Life satisfaction		.289**	.132	.464
Resilience	Life satisfaction		.134	.008	.250
Mindfulness	Life satisfaction		.150*	.041	.253
Indirect effects					
Mindfulness	Wisdom + Resilience	Life satisfaction	.230**	.158	.313

CI confidence interval

*$p < .01$, **$p < .001$

Discussion

According to the present findings, it is observed that psychological resilience and wisdom have significant mediating roles in the relationship between mindfulness and life satisfaction. When addressing resilience and wisdom as competing

variables, it was found that the role of wisdom was stronger. According to the results, a significant and positive relationship has been found between mindfulness and resilience. Studies in the literature also support our findings (Hülsheger et al., 2013; Keye & Pidgedon, 2013; Kobasa, 1979; Lee et al., 2014; Luthar et al., 2000; Wang et al., 2015). Another finding from the study is the presence of a significant and positive relationship between mindfulness and wisdom. No study in the literature is encountered to have tested the relationship between the two variables. This finding is expected to draw researchers' attention to this topic and contribute to the literature.

The finding of the study is also supported by previous studies that life satisfaction has a positive and significant relationships with mindfulness (De Vibe et al., 2018; Falkenström, 2010; Ülev, 2014; Yıkılmaz & Demir-Güdül, 2015), wisdom (Ardelt, 1997; Baltes & Staudinger, 2000; Bergsma & Ardelt, 2012; Lyster, 1996; Thomas et al., 2015), and resilience (Akbar et al., 2014; Çelik et al., 2017; Rourke, 2004; Uz-Baş & Yurdabakan, 2017). The variables of this study are observed to have significant relationships among themselves. However, there was no study on the mediating roles of resilience and wisdom for the relationship between life satisfaction and mindfulness. Some studies showed similar results that resilience (Bajaj & Pande, 2015; Pidgeon & Keye, 2014) and wisdom (Ardelt, 1997; Thomas et al., 2015) may have a significant predictive role of mindfulness for life satisfaction.

The findings show that individuals with higher levels of mindfulness are wiser. This may be because the person can focus better on the events happening around him. When the person is in here and now, it may be easier to combine the pieces of information. Since the flexible thinking skills, empathetic approaches, and experiences of individuals with high levels of wisdom will improve their coping skills, it can be expected that their mindfulness level will increase, too. Likewise, people with high mindfulness, and who approach events more objectively can improve their resilience. The mindfulness can protect the person from cognitive distortions and ruminations and help them produce more reasonable solutions (Keye & Pidgedon, 2013; Lee et al., 2014; Wang et al., 2015). Since individuals with high levels of psychological resilience have skills such as coping with difficulties or stress, their ability to focus on strategies to cope with difficult events may increase, too.

According to the findings of the present research, mindfulness can increase wisdom and resilience, and help people become more aware of their lives. Moreover, wisdom and resilience are important concepts that will bring life satisfaction (Akbar et al., 2014; Bajaj & Pande, 2015; Baltes & Staudinger, 2000; Bergsma & Ardelt, 2012; Rourke, 2004; Thomas et al., 2015). In other words, the wise and resilient person can get rid of the negative effects of negative experiences as s/he evaluates her/his life by focusing on here and now.

The main finding of the present research is that psychological resilience and wisdom are competitive variables in the relationship between mindfulness and life satisfaction, and it is revealed that the meaningful role of wisdom is stronger than resilience. It is underlined that wisdom is more important variable than other life conditions (Linden, 2014; Lyster, 1996). It is thought that the effect of wisdom is due to its multidimensional structure (Thomas et al., 2015). The reason

might be that wisdom is a concept that also includes resilience. In other words, individuals with high wisdom may also have high resilience.

Limitations and Suggestions

The present study has some limitations. The first limitation is that the data had been collected during the COVID-19 pandemic. The pandemic process may affect the results of the study as it restricts individuals' lives in various ways and is likely to cause a variety of psychological damage. In addition, the data were collected using an online form due to COVID-19 measures. Another limitation is that since digital platforms are mostly used by young adults in Turkey, the age range of the sample may be biased. Another disadvantage is that some participants did not answer some questions. Moreover, the study is limited to the qualities measured by the scales that were used. At the same time, the fact that the research is based on a cross-sectional basis is another limitation.

Various recommendations can be presented to other researchers in the field. Improving our stress coping strategies and focusing on the present moment by removing past or future concerns can be beneficial for the ability to increase life satisfaction. To improve coping skills (i.e., psychological resilience and wisdom levels), one must not hesitate to seek psychological help when necessary. Various training programs can be designed to increase individuals' resilience and improve their mindfulness levels to increase their life satisfaction. Considering the limitations of studies on wisdom in the literature, it may be promising for researchers to investigate the different effects of wisdom on people's lives. Again, due to the low number of studies in the literature investigating the competitive aspects between mediating variables, researchers may carry out studies on this subject to further elucidate the nature of the relationship. Repeating the models established here on different sample groups, expanding upon them with different variables, and enriching the study's findings by using qualitative methods are recommended for future studies. At the same time, longitudinal studies are recommended.

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Author Contributions Hasan Kütük and Osman Hatun designed the model and carried out the implementation. Osman Hatun analysed the data and performed the calculations. Halil Ekşi encouraged Hasan Kütük to investigate and supervised the findings of this work. Hasan Kütük and Osman Hatun wrote the manuscript with input from all authors. Füsun Ekşi supervised the final version of the this work.

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Data Availability The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Code Availability Not applicable.

Declarations

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

Consent to Participate Informed consent was obtained from all participants for being included in the study.

Ethical Approval The study protocol has been approved by the Human Research Ethics Committee of Marmara University (No: 2020-7-36; date: 23.07.2020). The study was performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki and its following updates.

Consent for Publication The authors affirm that human research participants provided informed consent for publication of the tables and figures.

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

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