

The Relationship Between Meaning in Life and Subjective Well-Being: Forgiveness and Hope as Mediators

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Abstract The purpose of this study was to investigate whether hope and forgiveness are mediators in the relationship between meaning in life and subjective well-being. The sample consisted of 482 university students. The Meaning in Life Questionnaire, the Scale of Positive and Negative Experience, the Satisfaction with Life Scale, the State Hope Scale, the Dispositional Hope Scale, the Heartland Forgiveness Scale, and the demographic information form were used for data collection. Structural equation modeling was used to analyze the data. Fitness of the hypothesized model was tested through some model specifications. The results of the study indicated that hope and forgiveness fully mediated the relationship between meaning in life and subjective well-being. The findings of the study have contributed to the efforts to understand factors associated with subjective well-being of university students. These findings were discussed in the light of related literature and implications were suggested for university counseling services and future research.

Keywords Subjective well-being · Meaning in life · Hope · Forgiveness

1 Introduction

Subjective well-being has been considered as individuals' evaluation of their lives in terms of satisfaction with various domains of life such as relationships, work, health, meaning, and purpose (Diener and Ryan 2009). These evaluations include both cognitive and affective dimensions: life satisfaction, positive affect, and negative affect (Diener 2000). It

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can be easily stated that individuals who have higher life satisfaction and positive affect and those who have less negative affect have higher feelings of subjective well-being.

Subjective well-being of Turkish adolescents and young adults has been found to be associated with various personal and demographic variables. For instance, need satisfaction (Eryılmaz 2012; Türkdoğan and Duru 2012), self-esteem (Doğan and Eryılmaz 2013; Türkmen 2012), perceived economic status, perceived parental attitudes, and religious beliefs (Tuzgöl Dost 2006), personality (Eryılmaz and Öğülmüş 2010; Doğan 2013), social anxiety (Öztürk and Mutlu 2010), optimism (Eryılmaz and Atak 2011), hope (Şahin et al. 2012), locus of control and perfectionism (Karataş and Tagay 2012) have significant relationship with subjective well-being. In general, those who have higher satisfaction of needs, self-esteem, perceived economic status, democratic parental attitudes, optimism, hope, extraversion, conscientiousness, agreeableness, openness, lower social anxiety, perfectionism, and neuroticism have higher subjective well-being. In global perspective, subjective well-being has been found to be associated with having a job (van der Meer 2014), higher income (Carlsson et al. 2014), attachment styles (Li and Fung 2014), social support and less loneliness (Hombrados-Mendieta et al. 2013), emotional intelligence (Zhao et al. 2013), temperance strength (Shoshani and Slone 2013), perceived autonomy support (Ratelle et al. 2013), and relationship quality (Gere and Schimmack 2013).

Meaning in life is one of the variables that has been examined whether it is related to subjective well-being or not. In the existing literature, there are various conceptualizations for meaning in life. For instance, Frankl (1992) in his well-known book, *Man's Search for Meaning*, states that it is more acceptable to mention the specific meaning of life at a given moment rather than meaning of life in general because of the variability of the meaning of life from person to person or day to day. Whereas philosophers are more interested in the ultimate meaning in life, and psychologists are more concerned with the specific meaning in life, it has been suggested that both types of meaning should be investigated to have a better understanding of meaning (Wong 1989). Wong (1989) identified three components of meaning based on the related literature: (a) cognitive component means individuals' thoughts and interpretations about everyday life events and experiences; (b) motivational component refers to determination and pursuit of personal goals, and (c) affective component refers to individuals' feelings on the question whether life is worth living or not. From the perspective of this approach, in order to talk about a meaningful life, all these three components need to be present in individuals' lives (Wong 1997). Based on the empirical research, Yalom (1980) stated that meaninglessness is associated with psychopathology. Baumeister identified four needs for meaning in life: purpose, values, sense of efficacy, and self-worth. Individuals who have met these needs have likely more sense of meaning in life (Baumeister and Vohs 2002).

Emmons (2003) defined four-dimension taxonomy of meaning, indicating that the goals are essential elements for a meaningful life. This taxonomy includes achievement/work, relationship/intimacy, religion/spirituality, and self-transcendence/generativity. Emmons (2003) suggests measurements of these factors when the meaning of individuals' lives has been assessed. Furthermore, Seligman et al. (2005) pointed out that meaningful life is one of the three components of happiness. Other components of happiness are positive emotion and engaged life. Additionally, Steger et al. (2006) conceptualized meaning in life with two dimensions: presence of meaning and search for meaning. Steger et al. (2006) found that presence of meaning is positively associated with life satisfaction and positive emotions, whereas search for meaning is positively related to neuroticism, depression, and specific negative emotions.

The research findings show that meaning in life has a significant relationship with well-being. In a study carried out among German students ($N = 135$), Schnell (2010) examined distribution of types of meaning and their relationships with various variables. The results revealed that 56 % of the participants were classified as living a meaningful life, 37 % of them were categorized as existentially indifferent, and 7 % were described as suffering from a crisis of meaning. Another finding of the study proposed that those who are existentially indifferent have less positive mood and life satisfaction than those who were categorized as living a meaningful life. Furthermore, Şahin et al. (2012) in their study among Turkish university students found that the two dimensions of meaning in life, which are presence of meaning and search for meaning, significantly predicted subjective well-being. Similar results were found by Doğan et al. (2012) among a sample of Turkish university students. These findings show that presence of meaning positively predicted subjective well-being whereas search for meaning negatively predicted as expected. A study conducted in Australia by Cohen and Cairns (2012) confirmed the negative relationship between high levels of searching for meaning in life and subjective well-being. Halama and Dědová (2007) found that meaning in life significantly predicts life satisfaction among a sample of Slovak adolescents. In a study conducted on adolescents in Hong Kong, meaning in life was found to have significant associations with life satisfaction (Ho et al. 2010). As can be seen from the related literature, there is a strong relationship between meaning in life and subjective well-being.

Hope is an important variable that affects individuals' subjective well-being. Hope is conceptualized as goal-directed thinking which includes two components: agency thinking and pathway thinking. Agency thinking is the motivational part of hope and refers to individuals' perceived capacity toward setting and maintaining goal pursuit. Pathway thinking refers to a sense of confidence about producing solutions to achieve something desired (Snyder et al. 1991). Hope is related to various psychological factors such as positive affect (Ciarrochi et al. 2007), perceptions of parental authoritativeness (Heaven and Ciarrochi 2008) personal adjustment (Gilman et al. 2006), social support (Kemer and Atik 2012), and better academic performance (Rand et al. 2011). Further, in the existing literature, strong associations were found between hope and subjective well-being. For instance, in a recent meta-analytic study, hope was found to be related to happiness (Alarcon et al. 2013). Also, Şahin et al. (2012) found that hope significantly predicts subjective well-being. In keeping with these findings, Valle et al. (2006) found that hope predicts life satisfaction among adolescents. In another study conducted on a Turkish sample, results showed that hope is a significant predictor of subjective well-being (Eryılmaz 2011). There are research findings on the relationship between hope and meaning in life. For example, Varahrami et al. (2010) found a significant relationship between hope and meaning in life. Moreover, in a study on a university sample, meaning in life significantly predicted both trait and state hope, denoting that presence of meaning in life increases individuals' hope level (Dogra et al. 2011). These findings suggest that hope can play a role as a mediator between meaning in life and subjective well-being.

In recent years, an increasing number of studies have been conducted on forgiveness. Researchers state that forgiveness is both an intrapersonal and interpersonal process (McCullough et al. 2000). McCullough et al. (1998) have proposed that individuals might react to any transgression made against them in two different ways: (a) motivation to seek revenge, and (b) motivation to avoid contacting the offender. According to McCullough et al. (1998), when people forgive, they will feel reduced motivation avoidance and seek revenge. Personality is one of the variables that are associated with forgiveness. For instance, agreeableness has been found to have a negative relationship with avoidance

disposition, and neuroticism has been found to have a positive relationship with avoidance disposition. In addition, agreeableness has been found to be a negative predictor of revenge disposition (McCullough and Hoyt 2002). Similarly, Chiaramello et al. (2008) found that inability to seek forgiveness was negatively related to agreeableness and openness. Likewise, empirical studies indicate a significant relationship between forgiveness and well-being (Allemand et al. 2012; Chan 2013). For instance, Tse and Yip (2009) found that forgiving others was positively related to interpersonal adjustment and psychological well-being. Lawler-Row and Piferi (2006), in an adult sample, found that more forgiving people have higher subjective well-being and psychological well-being. In that study, measuring of psychological well-being consisted of six dimensions: environmental mastery, self-acceptance, purpose in life, autonomy, personal growth, and positive relations with others. In all of these six dimensions, it was found that more forgiving people have higher scores than others. In the related literature, the possible relationship between forgiveness and meaningful life has been pointed out. Furthermore, the last phase of the forgiveness process has been defined as finding meaning for the self and others in the suffering (Holter et al. 2008).

Although a growing body of the literature demonstrates a relationship between meaning in life and subjective well-being, there is a need to understand the underlying mechanism of this relationship. In the current study, mediator effects of both hope and forgiveness in the link between meaning in life and subjective well-being are investigated. Previous research separately investigated the role of hope and forgiveness in the relationship between study variables. Therefore, examining concurrent mediating effects of hope and forgiveness might contribute to the existing literature on subjective well-being. In summary, the purpose of the study is to investigate mediating effects of both hope and forgiveness between meaning in life and subjective well-being among Turkish university students. For this purpose, based on the previous literature, the following hypotheses will be examined: (a) Meaning in life significantly positively predicts subjective well-being. (b) Forgiveness mediates the relationship between meaning in life and subjective well-being. (c) Hope mediates the relationship between meaning in life and subjective well-being.

2 Method

2.1 Participants

Study group consists of 482 (334 females, 148 males) university students from a university in Turkey. Their ages ranged from 18 to 31; the mean age of participants was 21, with a standard deviation of 1.76 years. Eighty-nine participants (18.5 %) were freshman, one hundred and seventy-four (36.1 %) were sophomores, fifty-nine (12.2 %) were juniors, and one hundred and sixty (33.2 %) were seniors. Majority of the participants were student at the social studies teacher education (178, 36.9 %), English language teaching (94, 19.5 %), and preschool teacher education (68, 14.1 %).

2.2 Instruments

The Satisfaction with Life Scale (SWLS) (Diener et al. 1985) was used to measure cognitive component of the subjective well-being of students, which is life satisfaction. The SWLS consists of five items and each item was answered on a 7-point scale (ranging from 1 = strongly disagree to 7 = strongly agree). Sample items include “I am satisfied with

the conditions of my life” and “So far, I have gotten the important things I want in life”. The SWLS was adapted to Turkish by Köker (1991). In the current study, Cronbach alpha coefficient of the scale was found to be 0.80.

The Scale of Positive and Negative Experience (SPANE) (Diener et al. 2010) was used to determine affective part of subjective well-being. The SPANE is a 12-item self-report scale and includes general positive (e.g., “good” and “pleasant”) and negative feelings (e.g., “bad” and “angry”). Each item was scored on a 5-point scale (ranging from 1 = very rarely or never to 5 = very often or always). The SPANE was adapted to Turkish by Telef (2011). Cronbach alpha coefficient of the Turkish version of the scale was found for positive feelings and negative feelings 0.88 and 0.83, respectively. In this study, reliability coefficient of positive feelings subscale was found to be 0.82, and negative subscale was found to be 0.72.

The Meaning in Life Questionnaire (MLQ) is designed by Steger et al. (2006) to measure meaning in life. The MLQ is a 10-item scale of the presence of, and the search for, meaning in life. Each item was answered in 7-point scale (ranging from 1 = absolutely untrue to 7 = absolutely true). Sample items include “I understand my life’s meaning” and “My life has a clear sense of purpose”. The alpha coefficients of the original form of the scale are ranging between 0.81 and 0.92 for two subscales. Two-factor structure of the original version of the scale was identified by explanatory and confirmatory factor analysis (Steger et al. 2006). The MLQ was adapted to Turkish by Demirbaş (2010). Reliability values of the Turkish version of the scale were 0.87 for presence of meaning subscale and 0.88 for search for meaning subscale. Two-factor structure of the Turkish version was confirmed by both explanatory and confirmatory factor analysis (Demirbaş 2010). In the present study, alpha coefficients for presence of meaning and search for meaning subscales found to be 0.81, 0.90, respectively.

The Heartland Forgiveness Scale (HFS) was developed by Thompson et al. (2005) to measure individuals’ forgiveness level. The HFS consists of 18 items and is a 7-point scale (ranging from 1 = almost always false than true to 7 = almost always true of me). The scale is designated to measure three components of forgiveness, namely “forgiveness of self”, “forgiveness of others”, and “forgiveness of situation”. Sample items include “It is really hard for me to accept myself once I’ve messed up” and “I continue to be hard on others who have hurt me”. Internal reliability of the original form of the scale were found between 0.72 and 0.87 for subscales and overall. The scale is adapted to Turkish by Bugay and Demir (2010). Cronbach alpha coefficients of Turkish version of the HFS were 0.64 for forgiveness of self subscale, 0.79 for forgiveness of others subscale, 0.76 for forgiveness of situation subscale, and 0.81 for overall. Structural validity of the Turkish version was explored through factor analyses and three-factor structure was confirmed (Bugay and Demir 2010). In the current study, alpha coefficients for subscales and overall found to be 0.60, 0.76, 0.66, and 0.80, respectively.

The Dispositional Hope Scale was developed by Snyder et al. (1991) to measure one’s hope level. The scale consists of 12 items including four items for pathways dimension, four items for agency dimension, and remaining four items are fillers. Participants were asked to rate each item on a 4-point scale (ranging from 1 = definitely false to 4 = definitely true). Sample items include “I energetically pursue my goals” and “There are lots of ways around any problem”. Internal consistency coefficients of the original form ranged from 0.74 to 0.84 for overall. The DHS was adapted to Turkish by Akman and Korkut (1993). In their study, data suggested one-factor solution. In another study conducted with Turkish high school students, Kemer (2006) found two-factor structure for Turkish version of the DHS with the same item-loadings onto factors as in the original version. Alpha

coefficient of the Turkish form of the scale was 0.65, test–retest coefficient was 0.66 (Akman and Korkut 1993). Two-factor structure indicated that Cronbach alpha coefficient were 0.72 for pathways subscale, 0.66 for agency subscale, and 0.51 for overall (Kemer 2006). In this study, internal reliability were 0.74 for pathway subscale, 0.70 for agency subscale, and 0.82 for overall scale.

The State Hope Scale was designated to determine individuals' hope regarding specific, present goal-related situations by Snyder et al. (1996). The SHS is an 8-point Likert type scale (ranging from 1 = definitely false to 8 = definitely true) and has six items. Sample items include “At the present time, I am energetically pursuing my goals” and “I can think of many ways to reach my current goals”. Cronbach alpha coefficient of the original form was computed as 0.88 for overall, for subscales ranged from 0.52 to 0.59. The SHS was adapted to Turkish by Denizli (2004). The original two-factor structure was confirmed within adaptation study. Internal consistency coefficient of the Turkish form of the scale was found to be 0.48 for total scale, 0.58 for pathways thinking subscale, and 0.66 for agentic thinking subscale. In the present study, reliability coefficients of the scale were found to be 0.76 for pathways thinking subscale, 0.79 for agentic thinking subscale, and 0.84 for overall scale.

2.3 Procedure

The participants completed scales on the voluntary basis. Prior to collecting data, students were informed about the purpose of the study. They were also reported that they should not write down any personal information and that answers would be kept confidential. Questionnaire packets contained a brief demographic form, followed by other study scales.

The scales were administered to 505 students. Prior to data analysis, responses of participants were reviewed. The responses of eleven individuals who left most of the scale items unanswered were removed from the data set. Eight cases were univariate outliers because of exceeded a z score of ± 3.29 . These cases were also excluded from the data set. By using Mahalanobis distance, four cases were determined as multivariate outlier and were deleted. Finally, 482 cases were included in the data analysis. An analysis of multicollinearity of the data set showed that Variance Inflated Factor values are all lower than 5, and no tolerance value is below 0.10, which suggests that there is no multicollinearity among the study variables. The data were analyzed by structural equation modeling using the maximum likelihood method. Firstly, means and standard deviations for all observed variables were examined. Secondly, correlations among study variables were assessed. Thirdly, measurement model was tested using confirmatory factor analysis. Finally, structural model of latent variables was tested. Latent variables of the hypothesized model were meaning in life, subjective well-being, forgiveness, and hope. Items of presence of meaning subscale were used as indicators of meaning latent variable. Correlation coefficients between search for meaning and other study variables were presented, but that subscale was not used within structural model analysis.

3 Results

The means, standard deviations, and correlations among study variables are displayed in Table 1. As seen, all the observed variables have significant relationship except between search for meaning and forgive self, forgive others, trait hope, and state hope. Also, there are negative significant relationships between negative affect and other observed variables

except search for meaning. As expected, these two observed variables have positive significant relationship.

3.1 Measurement Model

There were four latent variables (meaning in life, SWB, forgiveness, and hope) and 13 observed variables in measurement model. Maximum Likelihood estimation was employed to assess the model. For assessing model fit, Chi square goodness of fit test, CFI (Comparative Fit Index), GFI (Goodness of Fit Index), SRMR (Standardized Root Mean Square Residual) and RMSEA (Root Mean Square Error of Approximation) values were used. A nonsignificant Chi square value means that the model fits the data. Chi square, however, is affected by sample size (Tabachnick and Fidell 2007). For that reason, other fit indexes have been used for evaluating model fit. In the related literature, it is recommended that a cut-off value close to 0.95 for CFI and 0.08 for SRMR means a relatively good fit (Hu and Bentler 1999); a cut-off point of 0.90 for GFI would indicate a good fit (Kelloway 1998); a value of about 0.08 or less for RMSEA represents a reasonable fit to data (Browne and Cudeck 1993). Results were as follows: χ^2 (59, N = 482) = 196.27, $p < 0.01$; RMSEA = 0.070 (90 % CI 0.059–0.080); SRMR = 0.051; CFI = 0.97, GFI = 0.94. Also, all the 13 observed variables significantly loaded on their latent variables which means that latent variables properly measured.

3.2 Structural Model

In the current study, fitness of the hypothesized model was tested through some model specifications. In the first step, partially mediated model with two mediators and a direct path from meaning in life to SWB were tested. This model showed a reasonable fit to the data: χ^2 (60, N = 482) = 238.27, $p < 0.01$; RMSEA = 0.079 (90 % CI 0.068–0.089); SRMR = 0.074; CFI = 0.96, GFI = 0.93. However, the standardized path coefficient from meaning in life to SWB was non-significant ($\beta = 0.08$). Therefore, in the second step that path was excluded and a fully mediated model was tested. This model suggested adequate fit to the data: χ^2 (61, N = 482) = 238.98, $p < 0.01$; RMSEA = 0.078 (90 % CI 0.068–0.088); SRMR = 0.074; CFI = 0.96, GFI = 0.93. In addition, the standardized path coefficients from forgiveness to SWB ($\beta = 0.32$) and from hope to SWB ($\beta = 0.56$) were statistically significant. These values indicate that the model is acceptable (Fig. 1). Also, 50 % of the variance in SWB was accounted for by forgiveness and hope. Furthermore, 39 % of the variance in hope and 11 % of the variance in forgiveness were accounted for by meaning.

Finally, forgiveness and hope fully mediated the relationships between meaning in life and SWB. In other words, increased meaning in life predicted greater forgiveness which predicted greater SWB. More meaning in life predicted increased hope, greater hope predicted greater SWB.

4 Discussion

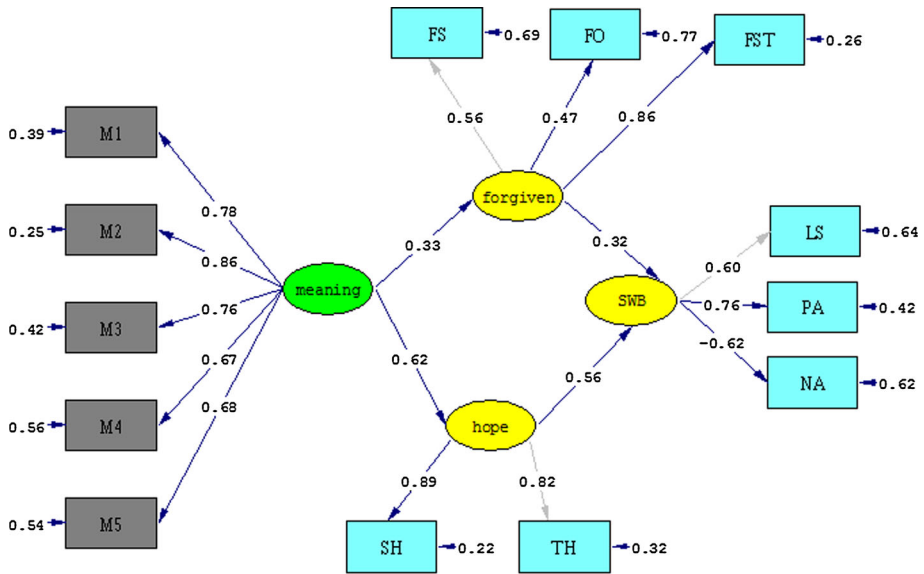
The present study aimed to test the mediation effects of both hope and forgiveness for the relationship between meaning in life and subjective well-being among a Turkish university student group. The best-fitting model within the study supports the fully mediation effects of hope and forgiveness between meaning in life and subjective well-being. In other words,

Table 1 Means, standard deviations and Pearson correlation coefficients of study variables

Variables	M	SD	r												
			PM	SM	FS	FO	FST	LS	PA	NA	TH	SH			
PM	29.39	4.89	–												
SM	19.98	8.83	-0.23**	–											
FS	28.71	5.90	0.21**	-0.06	–										
FO	25.63	8.04	0.14**	-0.07	0.20**	–									
FST	28.03	6.50	0.21**	-0.12**	0.48**	0.42**	–								
LS	25.02	5.58	0.39**	-0.18**	0.22**	0.17**	0.27**	–							
PA	22.87	3.70	0.32**	-0.13**	0.30**	0.17**	0.33**	0.46**	–						
NA	15.88	3.72	-0.23**	0.14**	-0.27**	-0.17**	-0.30**	-0.30**	-0.54**	–					
TH	26.12	3.82	0.46**	0.01	0.40**	0.17**	0.37**	0.43**	0.39**	-0.32**	–				
SH	19.16	3.44	0.48**	-0.04	0.32**	0.13**	0.33**	0.48**	0.42**	-0.34**	0.73**	–			

PM presence of meaning, SM search for meaning, FS forgive self, FO forgive others, FST forgive situation, SH state hope, TH trait hope, LS life satisfaction, PA positive affect, NA negative affect

** $p < 0.01$



Chi-Square=238.98, df=61, P-value=0.00000, RMSEA=0.078

Fig. 1 The finalized structural model. Rectangles indicate observed variables and ovals indicate latent variables. Factor loadings are standardized coefficients. *FS* forgive self, *FO* forgive others, *FST* forgive situation, *SH* state hope, *TH* trait hope, *LS* life satisfaction, *PA* positive affect, *NA* negative affect

meaning in life is related to subjective well-being through forgiveness and hope. These results suggest that increased meaning in life predicted greater forgiveness that predicted greater subjective well-being. More meaning in life, also, predicted increased hope, which then positively influenced subjective well-being. Further, Kline (2011) has proposed that standardized direct effect can be considered to be smaller when it is below 0.10, medium when it is around 0.30, and larger when it is above 0.50. Thus, it can be stated that hope has a larger effect on subjective well-being (standardized path value = 0.56), whereas forgiveness has a medium effect on subjective well-being (standardized path value = 0.32).

In the related literature, there are studies that investigate the direct relationship between subjective well-being and other study variables (Chan 2013; Doğan et al. 2012; Şahin et al. 2012) while there is no study that examines indirect relationships. It has been stated that a sense of meaning is one of the protective factors of mental health (Taylor, et al. 2000). Additionally, hope theory proposed that hopeful thoughts include goal-directed thoughts, finding pathways, and being motivated to use those pathways (Snyder et al. 2002). Supporting our findings of mediational effects, McGregor and Little (1998) found that goal efficacy is related to happiness and goal integrity is related to meaning. In other words, according to the results of that study, perceiving the goals as achievable is associated with well-being, and perceiving goals to be consistent with personal values, commitment and self-identity are positively associated with meaning.

In the existing literature, forgiveness has been found to be associated with well-being (McCullough 2000). Forgiveness, in part, can be conceptualized as a prosocial change in individuals' emotions, thoughts, or behaviors towards others (McCullough and Witvliet 2002). These changes might include awareness and acceptance of strong emotions such as

anger, letting go of previously unsatisfied needs, modifying thoughts toward others, developing empathy toward others, and building a new story of the situation (Malcolm and Greenberg 2000). These positive changes might result in the increase of subjective well-being. Furthermore, Stillman et al. (2009) found that social exclusion might lead to reduced global perception of life as meaningful. This finding shows the importance of interpersonal relationships in meaning in life. As stated earlier, forgiveness is both intra-personal and interpersonal process. Thus, when individuals are satisfied with their relationships, they might feel meaning in their life and this might lead them to forgive transgressions. On the other hand, our finding that presents a relatively small proportion of the variance in forgiveness explained by meaning should be taken into consideration. Additionally, Worthington (2005) has proposed four potential benefits of forgiveness: physical, mental, relational, and spiritual health. These four areas of life contribute to individuals' lives somehow. To be satisfied with interpersonal relationships, and maintaining physical and psychological health are strongly related to happiness. If people feel satisfied in these aspects of their lives, they will likely be happier. In other words, in line with our findings, forgiving oneself, others, or situations will increase one's subjective well-being.

Although we did not use the search for meaning subscale in the structural model, correlation coefficients between that subscale and other variables were examined. In zero-order correlations, there was no significant relationship between search for meaning and forgiving oneself, forgiving others, hope. Even though it is significant, the relationship between positive affect and search for meaning was quite weak ($r = -0.13$, $p < 0.01$). Similar results were obtained in a study conducted by Steger et al. (2009). In their study, there were no significant correlations between search for meaning and positive affect in the 18–24 age group ($N = 791$). There might be some complex associations among these variables. Additionally, in the existing literature, there are various explanations about search for meaning. On the one hand, search for meaning is regarded as a healthy part of life. On the other hand, it is considered to be a dysfunctional process (Dezutter et al. 2014). Future research should continue to examine the relationship between search for meaning and other study variables. Also, characteristics of those who are searching for meaning and their experiences in the process of searching for meaning might be investigated.

The findings of this study have contributed to the efforts to understand factors that are associated with subjective well-being of university students. University counseling services should not ignore the mediating effects of hope and forgiveness in the relationship between meaning in life and subjective well-being. Psycho-educational programs can be provided for students within the scope of counseling services to enhance happiness. These programs should have some modules on meaning in life, hope, and forgiveness. For instance, students might be supported to gain some effective skills on self-awareness, self-understanding, and identifying life goals. Furthermore, students might be taught the model of forgiveness process when needed. The model proposed by Enright and his colleagues includes four phases which are (a) confrontation of anger, gaining awareness, (b) considering forgiveness as an option, (c) reframing, empathy, accepting the pain, (d) deepening/creating new meaning from suffering (Holter et al. 2008). As can be seen from this forgiveness model, finding a meaning from the experiences completes the forgiveness process. Moreover, Catalano et al. (2004, p. 102) described components of positive youth development. Some of the components include promoting social, emotional, cognitive, behavioral, and moral competencies, fostering self-determination, spirituality, and clear and positive identity, and building beliefs in the future. These elements of the effective youth development programs should be taken into consideration by services of university

counseling centers. Additionally, in the context of forgiveness studies, counselors might help students to change their emotions, thoughts, and behaviors toward a problematic situation. Furthermore, teaching related skills can enhance students' hope level. For instance, some of these skills might include learning self-talk about success, thinking of goals and setbacks as challenges, recalling past successes, finding friends and role models, etc. (Snyder 1995, p. 358). These strategies are expected to lead to enhancement of the sense of personal agency and pathways. Thus, students will be happier when they use these strategies. Based on these findings, it can be proposed that college counselors might offer meaning-making services to those who need counseling on meaningfulness. Baumeister and Vohs (2002, p. 613) describe global meaning-making as a process of setting a long-term belief system. Within these activities, counselors may ask students to write specific life experiences. Then, counselor and clients may work together to reconstruct those experiences in an effort to find meaning. These strategies will enhance individuals' hope and forgiveness, which may further lead to increasing subjective well-being.

Interpretations of the current study should be approached cautiously; since, it has some limitations. Firstly, all of the data were collected from university students living in one city in Turkey, which limits the generalizability of the current findings. Secondly, all of the measures were gathered through self-report scales, which have some potential response misrepresentations. Finally, the study was conducted with cross-sectional design, thus causal direction of the relationships must be interpreted cautiously. Besides, Maxwell and Cole (2007) stated that cross-sectional design generates substantially biased estimates of the effects of mediators. These authors suggest using longitudinal data to test mediation effects. Thus, further research with longitudinal design might be conducted to provide a better understanding of the study variables.

In conclusion, despite its limitations, the current study presents a significant contribution to the existing literature on subjective well-being and related factors among university students. Research findings proved mediational effects of hope and forgiveness between meaning in life and subjective well-being. In the context of university counseling services, the roles of hope and forgiveness must be taken into consideration and psycho-educational programs should consider the effects of these variables on well-being.

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