

A MODEL TOWARDS SUBJECTIVE WELL-BEING: THE ROLES OF
DISPOSITIONAL AND STATE HOPE, COGNITIVE FLEXIBILITY, AND
COPING STRATEGIES

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ABSTRACT

A MODEL TOWARDS SUBJECTIVE WELL-BEING: THE ROLES OF DISPOSITIONAL AND STATE HOPE, COGNITIVE FLEXIBILITY, AND COPING STRATEGIES

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The aim of the current study was to test a model that consisted of dispositional hope, cognitive flexibility, state hope, and coping strategies (avoidance, problem-focused coping, and seeking social support) on subjective well-being of university students. The sample of the study included 1222 undergraduate students (601 females and 621 males) from a public university in Ankara, Turkey. In order to collect data, Dispositional Hope Scale, Cognitive Flexibility Inventory, State Hope Scale, Coping with Stress Scale, Positive and Negative Affect Schedule, Satisfaction with Life Scale, and a demographic information form were administered. Structural Equation Modeling (SEM) was employed in order to test the proposed model. The results showed that the proposed model fitted the data along with explaining 79% of the total variance in subjective well-being. According to the findings, dispositional hope, cognitive flexibility, and avoidance failed to have direct effects on subjective well-being, whereas state hope, problem-focused coping and seeking social support had significant direct effects on subjective well-being. That is,

university students who had higher levels of state hope, engaged in less problem-focused coping and more in seeking social support while coping with stress had higher levels of subjective well-being. Moreover, the findings presented significant indirect effects of dispositional hope on coping strategies through state hope and subjective well-being through four possible ways: through state hope, through seeking social support, through state hope and problem-focused coping, and through state hope and seeking social support. Findings of the study were discussed in the light of the existing literature.

Keywords: Subjective Well-being, Hope, Cognitive Flexibility, Coping Strategies

ÖZ

ÖZNEL İYİ OLUŞA YÖNELİK BİR MODEL: SÜREKLİ VE DURUMLUK UMUT, BİLİŞSEL ESNEKLİK VE BAŞA ÇIKMA STRATEJİLERİNİN ROLLERİ

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Bu çalışmanın amacı, sürekli umut, bilişsel esneklik, durumluk umut ve başa çıkma stratejilerinden oluşan bir modelin üniversite öğrencilerinin öznel iyi oluşlarını ne ölçüde açıkladığını incelemektir. Bu çalışmanın örneklemini, Ankara, Türkiye’de yer alan bir devlet üniversitesinde eğitimlerine devam eden 1222 üniversite öğrencisi (601 kadın ve 621 erkek) oluşturmuştur. Veri toplamada, Sürekli Umut Ölçeği, Bilişsel Esneklik Envanteri, Durumluk Umut Ölçeği, Stresle Başa Çıkma Ölçeği, Olumlu ve Olumsuz Duygu Ölçeği, Yaşam Doyumu Ölçeği ve kişisel bilgi formu kullanılmıştır. Önerilen modelin testinde Yapısal Eşitlik Modellemesi analizinden yararlanılmıştır. Sonuçlar, önerilen modelin veri ile uyum sağladığını ve öznel iyi oluşun içinde yer alan toplam varyansın % 79’unu açıkladığını göstermiştir. Bulgulara göre, sürekli umut, bilişsel esneklik ve kaçınma ile öznel iyi oluş arasında anlamlı doğrudan bir ilişki bulunmazken; durumluk umut, problem-odaklı başa çıkma ve sosyal destek arama ile öznel iyi oluş arasında anlamlı doğrudan ilişkiler bulunmuştur.

Daha yüksek seviyede durumluk umuda sahip olan, stresle başa çıkarken daha az problem-odaklı başa çıkma ve daha çok sosyal destek arama stratejilerini kullanan üniversite öğrencilerinin daha yüksek öznel iyi oluş seviyelerine sahip oldukları bulunmuştur. Ek olarak bulgular, sürekli umudun başa çıkma stratejileri ve öznel iyi oluş ile arasında anlamlı ve dolaylı ilişkilerinin olduğunu göstermiştir. Sürekli umut ve başa çıkma stratejileri arasındaki anlamlı dolaylı ilişki durumluk umut aracılığıyla gerçekleşirken, sürekli umut ve öznel iyi oluş arasındaki anlamlı dolaylı ilişkinin durumluk umut; sosyal destek arama; durumluk umut ile problem-odaklı başa çıkma; ve durumluk umut ile sosyal destek arama yolları aracılığıyla gerçekleşebileceği sonucuna varılmıştır. Çalışmanın bulguları, alanyazının ışığında tartışılmıştır.

Anahtar Kelimeler: Öznel İyi Oluş, Umud, Bilişsel Esneklik, Başa Çıkma Stratejileri

To my family

&

To my Minik

&

To our dreams

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CHAPTER I

INTRODUCTION

1.1 Background of the Study

Since the beginning of mankind, people have been searching for happiness and a good life. First attempts to understand what happiness is and how to reach a happy life were made by ancient philosophers. Although three groups of models for happiness were proposed in philosophy as hedonism, desire theories, and eudaimonia, the happiness understandings of hedonism and eudaimonia have taken much more attention which made them the two major happiness/well-being models. Hedonist philosophers preferred to describe well-being as “the greatest balance of pleasure over pain” (Crisp, 2016) by conceptualizing well-being with the experiences of more frequent and lasting positive affect, low negative affect, and satisfying life components (Kahneman, Diener, & Schwarz, 1999; Waterman, 1993; Vittersø, 2003). On the other side, eudaimonia philosophers highlighted the importance of building one’s potential, awareness and open expression of emotions and thought, and acting on them consistent with one’s true self (Ryan & Deci, 2001; Ryff & Singer, 1998). According to eudaimonia philosophers, being challenged, a pursuit of mastery and an effort to expenditure produce well-being for people (Waterman, 1993). Given the conceptualizations of hedonist and eudaimonia philosophers, hedonist point of view provided the philosophical base for subjective well-being whereas eudaimonia perspectives prepared the philosophical basis of psychological well-being. Building on these philosophical understandings of well-being, several theoretical contributions and theories were proposed for the understanding of subjective well-being (e.g., telic theories, bottom-up versus top-down theories,

cognitive theories, judgment theories, and evolutionary theories) and psychological well-being (e.g., Self-Determination Theory: Deci & Ryan, 2000; Psychological Well-being Theory: Ryff & Singer, 1998). In the current study, hedonist perspective on well-being, namely subjective well-being, is under investigation.

Based on the philosophical basis of subjective well-being, the conceptualization of subjective well-being was introduced as the affective and cognitive evaluations of people regarding their lives (Diener, 2000). Deci and Ryan (2008) proposed an operational definition for subjective well-being as “experiencing a high level of positive affect, a low level of negative affect, and a high degree of satisfaction with one’s life.” (p. 1). Given the definition of subjective well-being, the evaluation of these three interrelated components of positive affect, lack of negative affect, and life satisfaction constitute one’s subjective well-being (Diener, Suh, & Oishi, 1997).

Following the philosophical explanation of what happiness or a good life is, after a long silent period, Dodge (1930) identified the need for further understanding toward well-being by noting that well-being theory had not been improved much since the Greek philosophers’ explanation. Even after this conclusion, first tentative theoretical contribution could have been presented by Wilson (1960) after three decades by two postulations as quick satisfaction of needs brings happiness whereas the existence of unmet needs causes unhappiness; and the degree of satisfaction depends on the level of aspiration or adaptation which is affected by past experiences, and comparisons of oneself with others and other factors. These theoretical contributions of Wilson (1960, 1967) paved the way for several theories on understanding subjective well-being. Considering the proposed theories, the most prominent ones towards subjective well-being (telic theories, bottom-up versus top-down theories, cognitive theories, judgment theories, and evolutionary theories) are briefly explained in the following

paragraph and they were explained in detail in the further section of literature review.

Telic theories generally point to the satisfaction of a certain end-point (e.g., inborn needs) as the prerequisite of happiness (Diener & Ryan, 2009). However, there are some telic theories that highlight the satisfaction of other goals than inborn needs as the certain points to be reached for happiness (Michalos, 1980) and some others, such as life plan approaches (Chekola, 1975) that highlight the ongoing fulfillment of a person's life plan as the antecedent of happiness. One of the most powerful theories among these prominent subjective well-being theories is bottom-up versus top-down theories. Following Wilson's contribution, early theories, which were the bottom-up theories, explained subjective well-being as the accumulation of positive and negative moments one experienced while focusing on the external events, situations, and demographic characteristics of individuals (Diener, 1984; Diener & Ryan, 2009). However, since their research on external and situational factors resulted in very small influence of these bottom-up factors (e.g., Andrews & Withey, 1976; Campbell, Converse, & Rodgers, 1976), subjective well-being researchers concluded these bottom-up factors were not sufficient in producing subjective well-being and, as a result, channeled their research focus into more stable and internal factors, which were identified as top-down factors (Diener, Suh, Lucas, & Smith, 1999). In top-down theories, subjective well-being is believed to be the result of individuals' tendency to experience the world and evaluate their experiences in a certain way (Diener & Ryan, 2009). In the research of top-down factors, mostly temperament, personality traits, personality-related variables, and cognitions were studied and, they provided better efficacy in understanding one's subjective well-being (see Diener, 1984, 2000; Diener et al., 1997 for reviews). However, considering the importance of both internal factors and certain external or situational factors, Diener (1984) characterized both top-down and bottom-up factors to be useful in understanding one's subjective well-being, which

highlighted the need for studies that investigated a combination of top-down and bottom-up factors. Another prominent theory group is cognitive theories which pay attention to the cognitions' power in determining one's subjective well-being (Diener & Ryan, 2009). Attention, Interpretation, and Memory Model (AIM), as a cognitive theory of subjective well-being, emphasizes the importance of attention, interpretation, and memory processes in defining one's subjective well-being (Diener & Biswas-Diener, 2008) and suggests that people who pay more attention to positive stimuli, interpret the existed events more positively, and memorize the past event in a more positive way have higher levels of subjective well-being (Diener & Ryan, 2009). Relative standards/judgment theories is another group of prominent subjective well-being theories. According to these judgment theories, subjective well-being comes from the comparison between some standards (e.g., others, and one's own past standards) and the actual conditions (Diener & Ryan, 2009) where the selection of the standards differentiated judgment theories. For instance, in Social Comparison Theory, the comparison standard is accepted to be the other people (Carp & Carp, 1982; Diener, 1984) whereas in Multiple Discrepancy Theory of Satisfaction (Michalos, 1985), it is believed that individuals make comparisons with multiple standards (e.g., others, past experiences, aspirations etc.) and the discrepancy between these standards and one's current condition determines the subjective well-being. Additionally, among judgment theories, Hedonic Treadmill Theory (Brickman & Campbell, 1971), also known as Adaptation Theory, has provided very important contribution to the study of subjective well-being by proposing one's past experience as the comparison standard also with a note that if the positive events continue, they will result in adaptation which will decrease the power of the emotion-evoking events over time (Brickman & Campbell, 1971). The last group, evolutionary theories of subjective well-being, are relatively recent perspectives on subjective well-being. As an example of evolutionary theories, Fredrickson's (1998) Broaden-and-Build Theory, emphasizes the importance of positive emotions and well-being in the survival

process, in addition to the well-known roles of negative emotions (e.g., fear and anxiety) in aiding people with survival. In Fredrickson's theory (1998), positive emotions are believed to help people to broaden their thought-action repertoires, which in turn, build their physical, social, intellectual, and psychological resources over time.

As consistent with the theoretical development of subjective well-being, the research on subjective well-being has evolved from research on external or situational factors (e.g., demographic variables, state variables, and contextual variables) to research on internal or more stable factors (e.g., personality, personality-related variables, and cognitions) (Diener, Oishi, & Lucas, 2003). Following the disappointing findings regarding the roles of external or situational factors in the prediction of subjective well-being (e.g., gender: Fujita, Diener, & Sandvik, 1991; age: Charles, Reynolds, & Gatz, 2001; Mroczek & Spiro, 2005; income: Diener, Sandvik, Seidlitz, & Diener, 1993; education: Witter, Okun, Stock, & Haring, 1984; romantic relationship status: Diener & Biswas-Diener, 2008), the findings regarding the roles of internal or more stable factors in predicting subjective well-being have satisfied the subjective well-being researchers (see Diener et al., 1999 for a review). Temperament and personality were concluded to be the strongest predictors of subjective well-being (Diener & Lucas, 1999; Tellegen et al., 1988). Especially the personality traits of extraversion and neuroticism were found to be the robust predictors of subjective well-being in many studies (e.g., DeNeve & Cooper, 1998; Diener et al., 1999; Diener & Lucas, 1999). In addition to the temperament and personality traits, other non-trait personality dispositions (e.g., hope, optimism, self-esteem) were found as significant determinants of subjective well-being (Diener, 1984; Diener & Diener, 1995; Lucas, Diener, & Suh, 1996). However, it is still unclear if these significant personality traits or non-trait personality related variables have a direct association with subjective well-being and are sufficient for the prediction of subjective well-being of individuals (Diener, Napa Scollon, &

Lucas, 2003) or additional situational, contextual, or state variables are needed for a better prediction of subjective well-being by carrying these dispositional variables to increased levels of positive affect and life satisfaction, and decreased level of negative affect. Given Diener's (1984) contention that both internal/dispositional factors and situational/contextual factors may be effective in understanding individuals' subjective well-being, it may be of importance to investigate the complex interplay of dispositional and situational/contextual predictors of subjective well-being and the influence of this interplay in the prediction of individuals' subjective well-being.

Hope, as a psychological strength, is one of the most robust predictors of subjective well-being. Within the framework of Hope Theory (Snyder, 1994, 2002), hope was conceptualized by a trilogy of goals, pathways thinking, and agency thinking. More specifically, hope was defined to be a cognitive and goal-oriented thinking process which is based on the distinguishable beliefs that (a) individuals can plan and produce effective primary and alternative ways in order to attain their goals by their pathways thinking; and (b) with their goal-directed energy, agency thinking, they can reach their goals. Snyder (2000, p. 8) provides the following brief definition for hope as "Hope is the sum of perceived capabilities to produce routes to desired goals, along with the perceived motivation to use these routes". Although the components of hope agency and pathways are presented as distinguishable, they are believed to be reciprocal and additive in the hope process (Snyder et al., 1991) where they are constantly influencing and are being influenced by each other by iterating throughout the hopeful thinking process (Snyder, 2002). In Hope Theory (1994, 2002), high hope is suggested to be associated with greater positive outcomes, whereas low hope is suggested to be associated with greater negative outcomes. Consistently, the findings of national and international studies generally supported this contention that either in the dispositional form or in the state form, both dispositional and state hope were found to be positively associated with positive

outcomes and negatively associated with negative outcomes (see Cheavens & Ritschel, 2014; Çetin Gündüz, 2016 for detailed reviews).

More specifically, both dispositional and state hope were found to be significant correlates and predictors of subjective well-being or its affective and cognitive components of positive affect, lack of negative affect, and life satisfaction in numerous international and national studies (e.g., Bailey, Eng, Frisch, & Snyder, 2007; Bailey & Snyder, 2007; Ciarrochi, Heaven, & Davies, 2007; Demirli, Türkmen, & Arık, 2015; Eryılmaz, 2011; Gültekin & Arıcıoğlu, 2016; Marques, Lopez, & Mitchell, 2013; Muyan & Demir, 2016; O' Sullivan, 2011; Sarıçam, Çelik, & Coşkun, 2015; Sharma & Mathur, 2016; Sigmon & Snyder, 1990; Snyder et al., 1996; Şahin, Aydın, Sarı, Kaya, & Pala, 2012; Uzun Özer & Tezer, 2008). In addition to investigation of hope's correlate and predictor roles in subjective well-being, researchers recently focus on the moderating and mediating roles of hope. In moderation studies of hope, generally the buffering role of hope in the link between adverse experiences and subjective well-being or the strengthening role of hope in the link between positive experiences on subjective well-being was investigated and supported (e.g., Goodman, Disabato, Kashdan, & Machell, 2017; Muyan et al., 2016; Valle, Huebner, & Suldo, 2006; Visser, Loess, Jeglic, & Hirsch, 2013). Considering the mediating roles of hope, hope was found to be a significant mediator in the link between subjective well-being and its predictors, such as purpose in life (Cotton Bronk, Hill, Lapsley, Talib, & Finch, 2009), personality traits (Halama, 2010), self-efficacy (Quan, Huang, Yu, & Liu, 2016), self-compassion (Yang, Zhang, & Kou, 2016), psychological distress (Rustøen, Cooper, & Miaskowski, 2010), and meaning in life (Yalçın & Malkoç, 2015). Given the research on hope and subjective well-being conducted abroad and in Turkey, it can be concluded that both dispositional and state hope not only play simple roles of being a correlate of or predicting subjective well-being, but also have more complex roles of

moderating and mediating in the prediction of individuals' subjective well-being.

Cognitive flexibility is another personality-related and trait like variable that has been found to be an important determinant of subjective well-being. The term "cognitive flexibility" was first presented by Spiro and Jehng (1990, p. 169), referring to "the ability to adaptively re-assemble diverse elements of knowledge to fit the particular needs of a given understanding or problem-solving situation." Following this definition, many different conceptualizations were suggested for this cognitive variable (see Ionescu, 2012 for a detailed review). For instance, cognitive flexibility was defined as the awareness of plausible options and alternatives, willingness to be flexible, and competence on adapting the new situations by Martin and his colleagues (Martin & Rubin, 1995; Martin & Anderson, 1998; Martin, Anderson, & Thweatt, 1998) whereas Dennis and Vander Wal (2010) conceptualized cognitive flexibility as the ability to switch cognitive sets in order to adapt to environmental changes. Different cognitive flexibility conceptualizations share at least three common factors that cognitive flexibility was defined as the ability to change (Canas, Quesada, Antoli, & Fajardo, 2003; Dennis & Vander Wal, 2010); to think of several categories and concepts (Hirt, Devers, & McCrea, 2008; Murray, Sujan, Hirt, & Sujan, 1990); and to perceive multiple perspectives (Bishop et al., 2004; Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007). Cognitive flexibility is believed to be an important determinant of being sufficiently equipped with coping with stress, which leads to well-being (Koesten, Schrodtt, & Ford, 2009).

Regarding the cognitive flexibility research conducted abroad and in Turkey, although a significant amount of research presented a path from affective components of subjective well-being (i.e., positive and negative affect) to cognitive flexibility (see Isen 1990, 2000, 2004 for detailed reviews), recent studies tested the reciprocal relationships between cognitive flexibility and

affective components of subjective well-being (Bar, 2009; Dennis & Vander Wal, 2010; Fernandez-Abascal & Martin Diaz, 2013; Gray, 2004; Salovey, Mayer, & Caruso, 2002; Zambianchi & Ricci Bitti, 2014). Building on the significant correlations among cognitive flexibility and subjective well-being (or its components of positive and negative affect and life satisfaction), the predictor role of cognitive flexibility was tested in some studies abroad (Akbari Chermahini & Hommel, 2012; Metzl, 2009). The predictor role of cognitive flexibility in subjective well-being was also supported in the Turkish context (e.g., Muyan & Demir, 2016; Satan, 2014), especially for the negative affective component of subjective well-being (e.g., Güler, 2015; Gülüm & Dağ, 2012; Gündüz, 2013). Beyond being a correlate or predictor of subjective well-being, cognitive flexibility was found as a mediator in the link between emotion regulation strategies and life satisfaction of university students in Turkey (Küçüker, 2016). Considering the research findings, both international and national studies highlighted not only the significance of cognitive flexibility in predicting subjective well-being, but also the potential of cognitive flexibility in playing more complex roles in the process towards subjective well-being.

As consistent with hope and cognitive flexibility, effective coping with stress is another important determinant of well-being (Lazarus, 1993). However, as opposed to dispositional personality-related structures of dispositional hope and cognitive flexibility, coping refers to a more dynamic, process-related, and contextual variable. Following the increased interest in stress studies, scientific studies on coping started four decades ago and have still been ongoing. In the current study, coping with stress was investigated within the framework of Lazarus' (1966, 1991) Transactional Model of Stress and Coping. Before focusing on coping with stress, it is crucial to understand what stress term refers to in Transactional Model of Stress and Coping. In this model, stress refers to the transaction among individuals and their environment where cognitive appraisal (i.e., the evaluation of the reason and extend of the stressful

transaction) and coping (i.e., the process of managing the demands of the transaction and consequent emotions) play vital mediating roles in this transaction (Lazarus & Folkman, 1984). Cognitive appraisal consists of primary and secondary appraisal, where primary appraisal refers to the judgment of the encounter as irrelevant, stressful, or positive, and secondary appraisal refers to the evaluation of coping resources and options (Folkman & Lazarus, 1985). Following the evaluation of the encounter and resources, individuals go toward the next crucial process, which is named as coping. Transactional Model of Stress and Coping conceptualizes coping as “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person.” (Lazarus & Folkman, 1984, p. 141) as opposed to the dispositional perspectives that accept coping as an ego style (Vaillant, 1971, 1977) or as a trait (Carver, Scheier, & Weintraub, 1989). In this model, it is stated that people usually engage in two ways under stressful person-environment transactions; either they engage in the strategies that attempt to the problem directly by acting on the environment or themselves (i.e., problem-focused coping), or they engage in the strategies to regulate their emotional reactions related to the stressful transaction (emotion-focused coping). People who prefer the first option use strategies such as identifying the reasons, learning new skills, producing alternative ways, preparing action plans, and developing new standards which frame problem-focused coping (Folkman & Lazarus, 1985). However, people who prefer the second option of dealing with the regulation of the consequent emotions of stressful transactions use strategies such as distancing, wishful thinking, avoidance, self-isolation, and self-blame, which frame emotion-focused coping (Folkman & Lazarus, 1985). People also engage in some strategies, such as seeking social support, which serves for both problem-focused and emotion-focused coping (Folkman & Lazarus, 1985; Vitaliano, Maiuro, Russo, & Becjer, 1987). Folkman and Lazarus (1980, 1985) indicated that individuals do not use

only one coping strategy rather they engage in complex ways by using both problem-focused and emotion-focused coping strategies.

Regarding the research on coping strategies and their influences on one's subjective well-being, although several studies highlighted the positive influence of problem-focused coping and the negative influence of emotion-focused coping strategies on one's subjective well-being (e.g., Alkan, 2004; Conway & Terry, 1992; Coyle & Vera, 2013; Nunes, de Melo, da Silva Junior, & do Carmo Eulalio, 2016; Topal, 2011), Lazarus (1993) noted that the efficacy of a particular coping strategy depends on the particular person, the particular event, the particular person-environment transaction that evokes stress, the particular period of time that stress is effective, and the type of the outcome; thus referring that there is not any universal criterion to distinct coping strategies to adaptive or maladaptive. Consistently, it is stated that in the circumstances that are reluctant to change or if a particular individual can not do anything to change the situation, emotion-focused coping strategies may provide better adjustment than problem-focused coping strategies; indeed, engaging in problem-focused coping strategies in these situations may be counterproductive and may even result in chronic stress (Folkman & Lazarus, 1980; Lazarus, 1993; Lazarus & Folkman, 1987). Supporting Folkman and Lazarus's contentions, some studies found problem-focused coping to produce more anxiety in uncontrollable stressful conditions (e.g., Cheng, Hui, & Lam, 1999; Miller, Rodolitz, Schroeder, Mangan, & Sedlacek, 1996) and emotion-focused coping strategies to lessen the stress level in uncontrollable stressful conditions (e.g., Chan & Hui, 1995; Holmes & Stevenson, 1990). Moreover, some studies found age differences (e.g., Folkman & Lazarus, 1988) or culture differences (e.g., Phan, 2013) in the influence of coping strategies in individuals' subjective well-being. In addition to the prediction of coping strategies in subjective well-being, moderating and mediating roles of coping strategies were also tested by some studies in the literature. For instance, coping strategies were found to moderate the link

between uncontrollable stress and negative affect (Coyle & Vera, 2013); and mediate the link between subjective well-being and personality traits (e.g., Phan, 2013), parent attachment (Yıldız, 2014), and resilience (Chen, 2016). The significant role of coping strategies on directly predicting subjective well-being as well as moving other key determinants to subjective well-being has been well-supported given the existing research conducted abroad and in Turkey.

As presented above, it can be concluded that both the dispositional variables of dispositional hope and cognitive flexibility, and the situational/contextual variables of state hope and coping strategies are significant factors in understanding subjective well-being of the individuals. More specifically, all of these factors were found to significantly and directly predict subjective well-being of individuals. However, most studies in international and national literature were mostly based on simple prediction models. However, these simple prediction models do not provide information if these significant predictions are based on direct relationships of the selected predictors and subjective well-being or these selected predictors need additional predictors that will help them to reach subjective well-being with their indirect relationships. Considering the lack of studies, especially in national literature in Turkey, to enlighten the above question, it is of great importance to benefit from more complex methods that investigate the influences of all selected dispositional and situation/contextual factors in a model with both their direct and indirect effects on subjective well-being. Consistent with this need, in the current study, instead of isolating the specific influences of each factors, both direct and indirect effects of dispositional hope, cognitive flexibility, state hope, and coping strategies on subjective well-being are under investigation by the hypothesized model.

1.2 Purpose of the Study

The existing literature presents the importance of both dispositional or trait-like variables and situational or contextual variables in the prediction of subjective well-being of individuals. However, beyond finding separate predictors of subjective well-being, subjective well-being researchers highlight the need for understanding when and why individuals are happy and which processes are effective in determining individuals' subjective well-being (Diener, 2000). Considering this emerging need for understanding subjective well-being in a process framework which can cover both dispositional/trait-like and situation/contextual factors and given the concerns and possibilities listed in the above section, it may be of importance to investigate the interplay of both dispositional/trait-like factors and situation/contextual factors in the prediction of subjective well-being. Thus, the purpose of the current study was to test a model that consisted of both dispositional/trait-like factors (dispositional hope & cognitive flexibility) and situation/contextual factors (state hope & coping strategies) in the prediction of subjective well-being. More specifically, the below research question was selected as the main research question of the current study: "To what extent a model that consisted of dispositional hope, cognitive flexibility, state hope, and coping strategies explains subjective well-being?" The hypothesized structural model is presented in Figure 1.

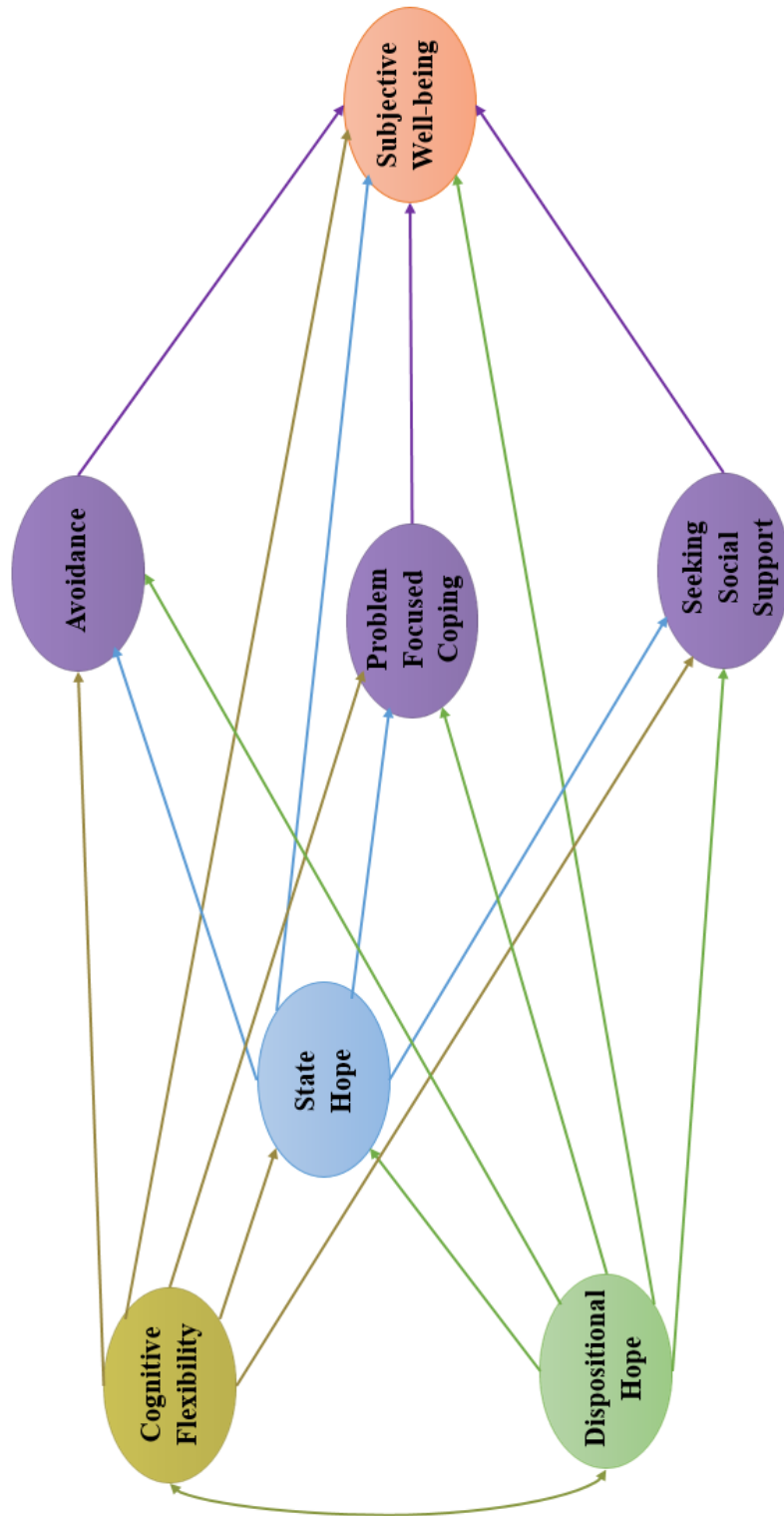


Figure 1. Hypothesized structural model of the relationships among the study variables.

1.3 Significance of the Study

The current study's significance regarding theory, research, practice, and counselor education is articulated in below paragraphs. In its significance on theory section, the possible contributions of this study to Positive Psychology and Hope Theory are explained. In its significance on research section, the possible contribution of this study by studying a complex interplay of different level variables (dispositional, trait-like, situational, and contextual variables) with an advanced statistical method is mentioned. In its significance on practice section, how the findings of this study may be beneficial for counseling practitioners is explained. Lastly, in the significance of this study regarding counselor education section, how this study and its findings may contribute to the integration of Positive Psychology more into counselor education is mentioned.

The neglect of psychology's missions to help people reach fulfilling lives and nurturing talents lasted for almost half a century because of psychology's preoccupation with fixing mental illnesses, and focusing on problems from World War II to the end of 20th century (Gillham & Seligman, 1999; Seligman & Csikszentmihalyi, 2000). Considering this strong preoccupation, many powerful theories were developed to predict failure, despair, and hopelessness, and to decrease the level of human suffering (Gillham & Seligman, 1999). However, this fixing-the-problem focus blinded scholars to work on human strengths, which made the developed theories incompetent in the prediction of qualities that make our lives worthwhile, such as hope, compassion, love, creativity, and well-being (Gillham & Seligman, 1999). The "half-baked"ness of psychology or the neglect of the positive focus of psychology was portrayed by Myers (2000) who reports that for each article on positive affects (i.e., joy, happiness, or life satisfaction), there are 21 articles on negative affects (i.e., anger, anxiety, and depression). With the development of positive psychology

network, research on positive constructs has increased, however positive psychology is still a young discipline where many of its contentions are needed to be researched and assessed by scholars within different samples and across different cultures. Consistently, Diener and his colleagues (1997) noted that the contentions of Positive Psychology were mostly examined within Western cultures and were not replicated across diverse cultures. Considering that the current study has the theoretical framework of Positive Psychology and worked on several positive qualities (i.e., hope, cognitive flexibility, coping, and subjective well-being) that make our lives worthwhile, it serves for the identified need for exploring what is right about humans. By exploring the relationships between positive constructs of dispositional hope, cognitive flexibility, state hope, and coping strategies and how these relationships influence subjective well-being of Turkish university students, this study may contribute to the positive psychology movement in Turkey.

Additionally, in accordance with the stated need for exploring the influences of not only dispositional or contextual factors but also their combined influences in subjective well-being research, the present study searches for the prediction of both dispositional (dispositional hope), trait-like (cognitive flexibility), state (state hope), and contextual (coping strategies) factors in subjective well-being by not only with their direct influences but also with their influences on a process model that was suggested by Hope Theory (Snyder, 1994, 2002). Therefore, the current study may be of importance for its trial to meet the recent need of subjective well-being research in understanding how and why and by which processes people become happier and reach more satisfying lives. By examining the complex interplay between these positive constructs, this study may give a more holistic picture for understanding the subjective well-being of this particular sample of Turkish university students. Moreover, by testing and validating the sequence of the variables in a process model that is suggested by Hope Theory in the prediction of subjective well-being, where dispositional and

trait-like variables predict state variables which predict contextual variables in the prediction of subjective well-being, this study may contribute to the development and research of Hope Theory in Turkey.

As the current study aims to provide a holistic perspective for subjective well-being by presenting complex interplay among the study variables, an advanced method of analysis, SEM, was used in the study. Using this advanced analysis method may encourage further Turkish researchers to study complex relationships among positive constructs and their influences on people's happiness, rather than working with simple prediction models where only the direct effects could be tested and indirect effect and paths towards happiness are ignored. Considering that there is not any study on examining these selected dispositional/trait like variables (dispositional hope/cognitive flexibility) and situational/contextual (state hope/coping strategies) variables at the same time in a model in the prediction of subjective well-being either in international or national literature, and the frequent usage of simple prediction models which are likely to prevent researchers to display mechanisms that may play roles in the routes towards subjective well-being, the present study may be of significance regarding research. Moreover, testing such a model with an advance method of analysis among university students may be especially important since university students have started to pay more attention to their happiness as did 7,204 university students from 42 countries, most of whom ranked their happiness (69% of them) and life satisfaction (62% of them) at the top of the importance scale (Suh, Diener, Oishi, & Triandis, 1998).

Regarding practice, since this study was conducted with university students, it may be worthwhile to mention the possible contribution of the present study in practice, especially among university students. Considering the increased focus of university students on their happiness and life satisfaction as well as the stressful transitional university period from adolescence to young adulthood

with their strivings for reaching academic success, developing and sustaining satisfying relationships, and dealing with the challenges of adult life (e.g., job interviews, money concerns), university students are in a need for findings ways to deal with the different stressors they face and keep their subjective well-being at higher levels. To satisfy this need, university counseling services may play vital roles. By presenting preventive services, university counseling practitioners may prepare university students against upcoming stressors or they may help university students to be equipped more sufficiently before the challenges strike them. In addition, by presenting developmental services, university counseling practitioners may assist university students to use their already existing qualities in more efficient ways and may aid them to increase their abilities to deal with stressful life events. Thus, the findings of the current study may help practitioners while they design their preventive or developmental services in their campuses. The findings of current study may present significant contributors of subjective well-being in university students. Based on the findings, university counseling services may benefit from individual or group interventions or processes that aim to increase the levels of hope and cognitive flexibility, and to educate students for the most appropriate coping strategies for the particular person-environment transactions with the main aim of assisting university students to have more positive affect, low negative affect, and higher satisfaction in their lives.

Finally, considering the potential significance of the present study in counselor education, it may contribute to the educational practice of Positive Psychology and Hope Theory in Turkish universities. As consistent with the international development of positive psychology movement, the study of positive qualities has been ignored compared to the study of negative qualities in Turkey, as well. In other words, fixing-the-problem perspective has been valid and found to be more important than building-the-strengths perspective in helping people reach better lives in Turkey, as well. As consistent with this perspective, universities

have been educating counselor candidates within the frameworks of the theories that are mostly focused on identifying and solving problems, rather than focusing on human strengths that can naturally help them to overcome their problems. By highlighting the importance of positive qualities in defining one's subjective well-being among Turkish university students, the present study may contribute to the accumulation of knowledge on the efficacy of the study of Positive Psychology for helping people to reach more satisfying and happier lives. As the accumulation of knowledge increases, counselor educators in Turkish universities may be more convinced for the role of positive qualities and may be more willing to incorporate the study of Positive Psychology and consequent theories of positive qualities (e.g., Hope Theory) into their counselor education programs.

1.4 Definitions of the Terms

Dispositional Hope refers to the combination of one's perceived capabilities to produce plausible routes towards their desired goals (pathways component of hope), along with the perceived mental energy or motivation to use the produced routes towards their desired goals (agency component of hope) (Snyder, 2000). Dispositional hope was measured by Dispositional Hope Scale (Snyder et al., 1991) in the current study.

Cognitive Flexibility refers to the ability that enables individuals to switch their cognitive sets in order to adapt to the changing environmental conditions (Dennis & Vander Wal, 2010). Cognitive flexibility was measured by Cognitive Flexibility Inventory (Dennis & Wander Val, 2010) in the current study.

State Hope refers to the combination of one's perceived capabilities to produce plausible routes (pathways component of hope), along with the perceived mental energy or motivation to use the produced routes (agency component of hope)

towards specific and present goal-oriented situations (Snyder, 2000). State hope was measured by State Hope Scale (Snyder et al., 1996) in the current study.

Coping refers to “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person.” (Lazarus & Folkman, 1984, p. 141). Considering coping strategies, although generally two general categorizations of problem-focused coping and emotion-focused coping were proposed in coping literature (Folkman & Lazarus, 1980; Lazarus & Folkman, 1984), in the current study, the coping strategies of problem-focused coping, seeking social support (which serves both problem-focused and emotion-focused coping; Folkman & Lazarus, 1985), and avoidance (which is a form of emotion-focused coping) were investigated, as measured by Coping with Stress Scale (Türküm, 2002).

Problem-focused coping refers to the direct attempts of the individual to the stressful person-environment transaction and acting on changing the environment or themselves to manage or alter this specific transaction that causes stress (Folkman & Lazarus, 1980, 1985).

Seeking social support refers to the individuals’ effort to get instrumental or emotional support from their social support resources in order to manage the stressful transaction and regulate their emotions which are the consequences of the particular stressful transaction (Folkman & Lazarus, 1985).

Avoidance refers to the withdrawal from the stressful transaction in order to regulate the consequent emotions of the stressful transaction by ways such as distancing oneself from the problem, self-isolation, or wishful thinking (Folkman & Lazarus, 1980).

Subjective Well-being refers to the affective and cognitive evaluations of individuals regarding their lives (Diener, 2000). Thus, subjective well-being consists of affective components of positive and negative affect and cognitive component of life satisfaction.

Positive Affect refers to the extent which an individual experiences the feelings of positive mood states, such as joy, elation, contentment, pride, affection, enthusiasm, excitement, and alertness (Diener et al., 1999; Watson, Clark, & Tellegen, 1988). Positive affect is measured by the ten items of Positive and Negative Affect Schedule (Watson et al., 1988).

Negative Affect refers to the extent which an individual experiences the feelings of aversive mood states, such as guilt and shame, sadness, angry, anxiety, depression, and envy (Diener et al., 1999; Watson et al., 1988). Negative affect is measured by the other ten remaining items of Positive and Negative Affect Schedule (Watson et al., 1988).

Life Satisfaction refers to the cognitive-judgmental process that individuals evaluate their global life satisfaction (Diener, Emmons, Larsen, & Griffin, 1985). Life satisfaction is measured by Life Satisfaction Scale (Diener et al., 1985).

CHAPTER II

LITERATURE REVIEW

In this chapter, the related literature with regard to the study variables of subjective well-being, dispositional and state hope, cognitive flexibility, and coping strategies are reviewed. Firstly, the theoretical framework of the study is introduced. Then, the literature review of each study variable is presented. In doing so, conceptualizations of the variables, theories/approaches of the variables, and studies on the variables are covered, respectively, starting with the endogenous variable of subjective well-being, and followed by dispositional and state hope, cognitive flexibility, and coping strategies.

2.1 Theoretical Framework: Positive Psychology

Until World War II, psychology had been working on three distinct missions, namely healing/fixing mental illnesses, helping people to achieve more productive and fulfilling lives, and identifying/nurturing high talent (Seligman & Csikszentmihalyi, 2000). However, after the war and continuing in Cold War, with the encouragement (e.g. research grants) of Veteran Affairs and National Institute of Mental Illness, scholars put all their effort just on the first mission of curing the mental illnesses while the other two missions that focus on strengths and aim to help individuals to achieve fulfilling lives were forgotten (Gillham & Seligman, 1999; Seligman & Csikszentmihalyi, 2000). Seligman (2002) reasoned this focus change in psychology as in the case of wars, social turmoil, trouble, and poverty; it was perfectly natural that the focus could be changed to defense and damage. On the other hand, he (2002) suggested that in times of peace without any major social turmoil or war, societies change their focus from

damage and defense to the search for the best things in life and what makes a life worth living. Seligman (2002) exemplified Golden Age Greece, Victorian England, and 15th century Florence that enabled individuals and societies to ask questions about their happiness and worthwhile lives, thus, provided the early roots of positive psychology framework. The massive practice of “What is wrong with people?”, focusing on the darker side of the human-beings, trying to “fix” the people, putting people in a passive/victim position, and underestimating people’s resilience potential in mainstream psychology lasted for almost half a century. However, following the improved conditions (e.g., increased peace and prosperity) in the society in the United States, mental health practitioners started to ask the question of “What is right with people?” which was the beginning force of the positive psychology initiation (Gillham & Seligman, 1999; Snyder & Lopez, 2007).

Although Positive Psychology has its early roots in ancient philosophers’ teachings on what happiness, good life, and good society is (e.g., Aristotle’s teachings; Deci & Ryan, 2008; Ryan & Deci, 2001), the term of “positive psychology” was first mentioned by Abraham Maslow in 1954 with his note of “Science of psychology has been far more successful on the negative than on the positive side... It is as if psychology has voluntarily restricted itself to only half its rightful jurisdiction, the darker, meaner half.” (p. 354) In accordance with Maslow’s conclusion, but after 40 years of his note, Martin Seligman (1999) reintroduced positive psychology and noted that “...psychology was half-baked, literally half-baked. We had baked the part about mental illness; we had baked the part about repair of damage... The other side's unbaked, the side of strength, the side of what we're good at.” In between the first recognition of the need for positive psychology movement and Seligman’s speech at the first Positive Psychology Summit in 1999, there were studies on positive topics by some of the behavioristic, social and humanistic psychologists. However, an integrated network that could bring these researchers together was missing, which resulted

in leading those positive studies to isolation (Diener, 2009) and failing to attract a cumulative/empirical body of research (Seligman & Csikszentmihalyi, 2000). Thus, although the roots of Positive Psychology was so old as it was based on ancient philosophers' thoughts on character values, virtues, and the good society (e.g., Aristotle's teachings), with the following studies of behavioral, social, and humanistic psychologists' on positive topics, positive psychology is a young discipline whose development was accelerated with the establishment of a positive psychology network that has brought together scholars and practitioners who were studying on human strengths and whose development is still ongoing.

Positive Psychology is defined as an umbrella term that encompasses "the study of positive emotions, positive character traits, and enabling institutions" (Seligman, Steen, Park, & Peterson, 2005, p. 410). As expressed, Positive Psychology offers perspectives at two levels, namely individual level and group level. More specifically, Positive Psychology includes the study of individuals' subjective experiences, such as well-being, satisfaction, flow, and happiness and individuals' traits or dispositions, such as capacity for love, courage, hope, gratitude, patience, forgiveness, creativity, spirituality, wisdom, and humor at the individual level, whereas it includes the study of interpersonal virtues such as civility, sense of community, tolerance, moderation, work ethic, and altruism at the group level (Harris, Thoresen, & Lopez, 2007, p. 3; Seligman & Csikszentmihalyi, 2000).

In order to understand what Positive Psychology offers for improving ones' potential and achieving happiness, first it is important to understand how Positive Psychology sees human nature. Horney (1950) presented three understandings for the nature of humans; (a) the basic instincts of humans are destructive and should be controlled, (b) human nature is both good and bad where good impulses strive to overcome the bad impulses, (c) human has a tendency towards good by self-realization. Positive psychology benefits from

the last understanding that people have a natural tendency toward growth and good. In a similar vein, Seligman (2002) proposed the human nature within positive psychology framework as it emphasizes the development of human's natural positive potential where it is possible for both good and bad or positive and negative. Given their view of human nature, positive psychologists and humanistic psychologists shared many values. Building on these shared values, Joseph and Linley (2004) highlighted the importance of Rogers' vision on shaping Positive Psychology's view about human nature by their saying that "Deep down, Rogers proposed, human beings are striving to become all that they can be." (p. 355)

Positive Psychology aims to serve as a catalyzer for the focus change in psychology from being stuck in working only on negative to working also on developing positive qualities (Seligman & Csikszentmihalyi, 2000). Positive Psychology has its unique, genuinely integrative, and applicable ways to go beyond the traditional dichotomies and divisions of mainstream psychology (Linley & Joseph, 2004). As for the ultimate goal, Positive Psychology, the science of positive experiences, personal traits, and institutions offers ways to enhance one's quality of life and well-being, and prevents the possible adversity and pathologies (Seligman & Csikszentmihalyi, 2000).

Positive Psychology searches for a more balanced and complete view of human functioning (Snyder & Lopez, 2007). In positive psychology framework, it is strongly stated that psychology is not only the study of pathology, but also the study of strengths and virtues; treatment is not only to fix what is broken, but also to nurture what is best; the search for what is best is not based on wishful thinking, faith, or self-deception, but rather relies on understanding the unique problems of humans in all its complexity and adapting what is best via the scientific method (Seligman & Csikszentmihalyi, 2000).

Positive Psychology takes in various theories and researches that have the aim of studying “the conditions and processes that contribute to the optimal functioning of people, groups, and institutions.” (Gable & Haidt, 2005, p. 103) Thus, Positive Psychology ensures a collective identity which provides a common language and voice for the researchers who study human flourishing and potential development (Linley & Joseph, 2004).

As explained above, Positive Psychology is the extended family of various theories that provide insights and explanations on human strengths, virtues, and potentials. Based on this understanding, in the current study, a number of strengths or positive variables were included in the prediction of one of the main concepts of positive psychology, subjective well-being. More specifically, as a psychological strength hope, as a positive trait-like variable cognitive flexibility, as positive determinants coping strategies were chosen for the prediction of subjective well-being. While designing the study by selecting potential positive predictors of subjective well-being and identifying the sequence of these predictors in the model, Hope Theory’s sequence of positive variables in producing positive and negative emotions (Snyder, 2002) was benefitted. Hope Theory will be explained in detail in the further section of the conceptualization of hope.

2.1.1 Eastern Perspectives on Positive Psychology

Positive Psychology researchers have the purpose of identifying human strengths and the pathways towards better lives (Synder & Lopez, 2007). Since today’s positive psychology was shaped by the researches in Western countries, it is expected that the origins of the theory have paid more attention to the experiences and values of Western people (Teramoto Pedrotti, Snyder, & Lopez, 2007), but recently many researchers are getting interested in paying more attention and regard to other historical and cultural contexts of Positive

Psychology in order to understand unique ways associated with living well (e.g. Leong & Wong, 2003; Schimmel, 2000; Sue & Constantine, 2003). Thus, the neglected wisdoms of Eastern traditions have started to be consulted to see different perspectives about human strengths (Teramoto Pedrotti et al., 2007).

Easterns value the natural ups and downs of life challenges and seek to achieve the balance of the good and the bad throughout their life, which distinguishes them from Westerns who believe in a more linear path of goods towards optimal functioning and well-being (Teramoto Pedrotti et al., 2007). Eastern cultures define optimal functioning with a spiritual journey that involves transcendence and enlightenment, as opposed to the intrapersonal views of Westerns (Teramoto Pedrotti et al., 2007). In order to understand what Eastern perspectives can offer for the development of Positive Psychology, four major Eastern disciplines, namely Confucianism, Taoism, Buddhism, and Hinduism, and their shared emphases on what a good life is are introduced briefly below.

Confucianism is a philosophical and religious system that was developed by Confucius. The teachings of Confucius strongly stress the importance of looking to the welfare of others and morality is accepted as the cure for “the devils of that time” (Teramoto Pedrotti et al, 2007, p.38). In order to achieve moral existence, five virtues were presented as humanity, duty, etiquette, wisdom, and truthfulness. Humanity has the most power since it was accepted to cover the other four virtues. Duty refers to the duty of treating others well; etiquette supports the proper behaviors and good manners by also being sensitive for the feelings of other people. Lastly wisdom and truthfulness indicate that people must make an effort to engage in wise decisions consistent with listed virtues and be true to their wise decisions and the listed virtues, as well. Enlightenment comes with the continual striving for these virtues according to Confucianism.

Taoism is a philosophical and religious system that was developed by Lao-Tzu. According to Taoism, every follower needs to live in the light of Tao, the Way, which refers to the energy that frames everyone (Teramoto Pedrotti et al., 2007) and is the power which “envelops, surrounds, and flows through all things, living and non-living” (Li & Yang, 2010, p. 297). Since Tao can not be taught to others, it is hard to explain and is best experienced by fully participating in life (Teramoto Pedrotti et al., 2007). Both good and bad experiences are welcome and Tao is said to cover the balance and harmony between contrasting concepts. The well-known Tao symbol of “Ying and Yang” represents the “ever-changing balance of opposing forces and desires” (Teramoto Pedrotti et al., 2007, p. 40). The most important goal is to reach naturalness and spontaneity in Taoism as it was stated that the virtues of humanity, justice, temperance, and propriety are needed to be experienced naturally and in spontaneity (Teramoto Pedrotti et al., 2007).

Buddhism is a philosophical and religious system whose teachings are based on Buddha (Teramoto Pedrotti et al., 2007). In Buddhism, it is believed that from birth, people are suffering that comes from desires, and making the self free of every desire, namely the state of nirvana, provides peace and lessens the suffering (Schumann, 1974). In Buddhism, the virtues of love, compassion, joy, and equanimity are accepted as the most important virtues (Sangharakshita, 1991) which can be gained by divorcing oneself from the desires.

Hinduism is a philosophical and religious system and also a cultural practice that highlights the interconnectedness of all things (Teramoto Pedrotti et al., 2007). The harmony among all individuals and things is stated as “the unifying principle underlying all of Earth.” (Stevenson & Haberman, 1998, p. 46). In this tradition, the goal of the individual is to live the life fully and correctly that enables him/her to go to the afterlife directly without re-experiencing life’s lessons via reincarnation which means to return to Earth to go on strivings to reach necessary

enlightenment (Stevenson & Haberman, 1998). Therefore, the ultimate goal is achieving ultimate self-knowledge and striving for self-betterment (Teramoto Pedrotti et al., 2007). This tradition differs from the previous traditions in the way that it focuses more on individual. However, taking the welfare of others into consideration is encouraged as well, as a pathway to improve oneself (Teramoto Pedrotti et al., 2007).

Considering the brief descriptions of the listed Eastern traditions, each of them emphasizes the importance of virtue and human strengths on their way to the transcendence and good life (Teramoto Pedrotti et al., 2007). Two constructs, namely compassion for others and the search for harmony or life balance, are the most commonly indicated constructs for good life among these Eastern traditions. (Teramoto Pedrotti et al., 2007). Therefore, it may be useful to focus on these two constructs to understand what Eastern perspectives can offer for the field of Positive Psychology. Given the common construct of compassion for others, it refers to looking outside of oneself and thinking the welfare of others as one cares for and identifies with others (Teramoto Pedrotti et al., 2007). Within Eastern perspectives, compassion is believed to be a necessary way to achieve good life and is needed to transcend one's physical existence as understanding and connecting with others help individuals to foster self-understanding (Teramoto Pedrotti et al., 2007). Considering the other common construct of the search for harmony / life balance, the harmonizing principle is accepted to be a central component of the life in Eastern ways (Teramoto Pedrotti et al., 2007). In contrast to the Western idea that good life comes with pursuing individual goals without ties to duty, in Eastern cultures harmony is the way to achieve happiness as Confucian teachings introduce duty as the primary virtue (Teramoto Pedrotti et al., 2007); Buddhist teachings propose the state of nirvana as reaching the peacefulness by the complete harmony, balance, and equilibrium (Sangharakshita, 1991); and Hinduism teachings emphasize that all people are interconnected with the unifying principle (Stevenson & Haberman, 1998).

Therefore, considering the common emphasis on compassion and harmony in Eastern way of life, Positive Psychology could benefit from these factors in understanding the unique ways of Eastern people to achieve happiness and in identifying different possible ways to happiness for both Western and Eastern people all around the world.

2.2 Conceptualizations of the Study Variables

The conceptualizations of the study variables (historical backgrounds and theories) are presented below. The presentation of the conceptualization starts with the endogenous variable of the study, namely subjective well-being. Then the conceptualizations of the study variables of hope, cognitive flexibility, and coping strategies are presented, respectively.

2.2.1 Conceptualization of Subjective Well-being

In order to understand the conceptualization of subjective well-being, first it may be more appropriate to understand the journey of well-being construct and how it evolved to distinct well-being constructs of subjective and psychological well-being.

It has all started with the question of what happiness / a good-worthwhile life is. The “well-being” construct and what well-being consists in was first discussed by the philosophers. The question of what well-being consists in produced different models for well-being in philosophy. Crisp (2016) listed the models of well-being as hedonism, desire theories, and objective list theories while noting that the real debate belonged to hedonism and objective list theories that emphasize eudaimonia. Consistently, hedonic well-being and eudaimonic well-being models were referred to be the major well-being models in well-being literature (Kashdan & Steger, 2007; Ryan & Deci, 2001). Hedonists (e.g.,

Epicurus, Bentham) answered the question of what well-being consists in as “the greatest balance of pleasure over pain” (Crisp, 2016). Hedonic well-being consists in frequent and lasting positive affect, lower occurrences of negative affect, satisfactory life components, and display of behaviors for the preservation of such states (Kahneman et al. 1999; Waterman, 1993; Vittersø, 2003). Considering the characterization of hedonic well-being, it is considered as the philosophical basis of subjective well-being.

On the other hand, eudaimonic well-being involves the pursuit of building one’s potential and an inclination of being open to tension and excitement when faced with challenges and uncertainty in life (Ryan & Deci, 2001; Ryff & Singer, 1998). The awareness of emotions and thoughts, open expression of them, and acting on them in line with one’s true self are located in the core of eudaimonic well-being (Ryan & Deci, 2001). As opposed to parameters of hedonic well-being, eudaimonic well-being is strongly associated with being challenged, a pursuit of mastery and competence, and an effort expenditure (Waterman, 1993). Given their conceptualization, eudaimonic well-being provided a philosophical basis for psychological well-being and its theories. Self-Determination Theory (Deci & Ryan, 2000) and Psychological Well-being Theory (Ryff & Singer, 1998) are two theories that are related to eudaimonic approach towards well-being. Self-Determination Theory (Deci & Ryan, 2000) presents three psychological needs as relatedness, autonomy, and competence to reach eudaimonic well-being whereas Psychological Well-being Theory (Ryff & Singer, 1998) refers to six domains of autonomy, environmental mastery, positive relationships with others, personal growth, purpose in life, and self-acceptance as the components of eudaimonic well-being.

In the current study, the model of hedonic well-being, namely “subjective well-being” is under investigation. The conceptualization of subjective well-being has been under debate for as long as philosophers have been trying to address what

happiness is. Various characteristics such as pleasure, love, wisdom, positive emotions, satisfaction were suggested for a fulfilled happy life (McMahon, 2006; Diener et al., 2003).

Subjective well-being was conceptualized as individuals' affective and cognitive evaluations of their lives (Diener, 2000), where the affective evaluation consists of the evaluation of positive and negative affect, and the cognitive evaluation covers global life satisfaction and domain satisfactions. Accordingly, Deci and Ryan (2008) presented the operational definition of subjective well-being as "experiencing a high level of positive affect, a low level of negative affect, and a high degree of satisfaction with one's life" (p. 1). As depicted in its definitions above, subjective well-being has the primary components of positive affect, lack of negative affect, and life satisfaction. These interrelated components form subjective well-being (Diener et al., 1997).

Although these components are interrelated, it was indicated that they were moderately correlated with one another, and conceptually related (Diener et al., 2003), which highlighted the importance of each component as a distinct construct and which also suggested the need for the higher order of subjective well-being (Stones & Kozma, 1985). Moreover, Lucas et al. (1996) provided evidence for the notion that these components are theoretically distinct and empirically separable. In their study on the discriminant and convergent validity of the components of subjective well-being, they found positive affect, negative affect, and life satisfaction as empirically distinct constructs. Consistently, in the current study, subjective well-being was investigated as a higher order construct that consisted of higher levels of positive affect, lower levels of negative affect, and higher levels of life satisfaction.

2.2.1.1 Theories of Subjective Well-being

In 1930, Dodge implied that our current understanding of happiness/well-being theory still owed much to Greek philosophers because the theory has not been advanced so much since then. Even after Dodge's conclusion, the first tentative theoretical formulation was introduced by Wilson (1960) after a three decade long silent era. Wilson (1967) indicated that his early formulation in 1960 could be summarized with two postulations as "the prompt satisfaction of need causes happiness, while the persistence of unfilled needs causes unhappiness." and "the degree of fulfillment required to produce satisfaction depends on adaptation or aspiration level, which is influenced by past experience, comparisons with others, personal values, and other factors." (p. 302) Following these theoretical contributions of Wilson (1960), numerous theories have been proposed and tested. Diener et al. (1999) referred the biggest advancement in theoretical contributions as the shift from the first postulation of Wilson to the second postulation of him (1967). More specifically, Diener and his colleagues (1999) highlighted the importance of shifting the focus from the external, situation, contextual (bottom-up) factors to the internal (top-down) factors that affect subjective well-being. Below, brief explanations of the most prominent theories towards subjective well-being are provided.

2.2.1.1.1 Telic Theories

According to telic theories, satisfying a certain end-point (e.g., a need or a goal) brings happiness (Diener & Ryan, 2009). Some theories (i.e., need theories) put inborn needs as the certain point and suggest that in order to reach well-being, certain inborn needs are needed to be fulfilled by people (Diener & Ryan, 2009) whereas some theories (i.e., goal theories) put not only inborn needs but also other goals arise from additional sources as the certain point and suggest that certain goals are consciously being sought by people, which in turn results in

higher well-being when they are satisfied (Michalos, 1980). In addition to the end-point focused telic theories, it was also stated that it might be more satisfying to be on the way towards one's goals and strive to satisfy them (Scitovsky, 1976). Moreover, there are also life-plan approaches in telic theories. More specifically, some telic theorists, such as Chekola (1975), stated that the ongoing fulfillment of a person's life plan, which consisted of the integrated set of a person's goals, could bring happiness. In a similar vein, Brunstein (1993) found that perceived progress towards goals brought positive changes in subjective well-being in his longitudinal study. Given these perspectives, Diener et al. (1999) concluded that the types and structure of the end-points (goals based on satisfying inborn needs or goals based on other additional personal sources), the success of one's achieving his/her goals, and the rate of progress toward satisfying his/her goals could potentially influence emotions and life satisfaction of a person.

2.2.1.1.2 Bottom-up versus Top-down Theories

Following Wilson's contribution (1960), early theoretical formulations are based on bottom-up theories (Diener et al., 1999). Bottom-up theories indicated that the perceived subjective well-being of an individual was based on the accumulation of positive and negative moments that she/he experienced (Diener, 1984). In other words, experiencing a positive/happy moment would result in experiencing subjective well-being, and the more positive/happy experiences would bring higher subjective well-being (Diener & Ryan, 2009). In bottom-up theories, researchers focused on the external events, situations, and demographic characteristics that influence happiness of individuals. Consequently, many researches were conducted to investigate the effectiveness of these bottom-up factors on subjective well-being. However, researches yielded small effect sizes for these factors (Diener et al., 1999). For instance, Campbell et al. (1976) found the demographic variables of age, sex, income, race, education, and marital satisfaction to account for less than 20% of the total variance in subjective well-

being. Even worse, in Andrews and Withey's (1976) study, these demographic variables could account for only %8 of the total variance in subjective well-being. As a result of these disappointing findings, researchers turned their attention into individual factors to explain subjective well-being of individuals (Diener et al., 1999). This new attention provided the basis of top-down theories.

In contrast to bottom-up theories, top-down theories indicated that the perceived subjective well-being of an individual is based on the inherent propensities of an individual to experience the world in a certain way (Diener & Ryan, 2009). Democritus's following quotation summarizes the perspective of the top-down theories: "a happy life does not depend on good fortune or indeed on any external contingencies, but also, and even to a greater extent, on a man's cast of mind...The important thing is not what a man has, but how he reacts to what he has" (as cited in Tatarkiewicz, 1976, p. 29). Thus, an individual with a more positive state of mind can interpret a certain event as happier than an individual with a more negative state of mind, which puts the positive attitude into a more important place than the actual events for producing subjective well-being (Diener & Ryan, 2009).

Considering that the same events do not affect every individual at the same degree implies the importance of internal factors (personality traits, cognition etc.) and the certain events (wedding, divorce, the death of a loved one) that increase or decrease subjective well-being of individuals; both theories may partly be right. Consistently, Diener (1984) indicated that since individuals' reactions were based on their subjective perceptions and certain life events were pleasurable to most individuals, both top-down and bottom-up factors might be useful to understand one's subjective well-being, which highlighted the need for further researches on the influence of accumulated events on personality factors and cognitions while predicting subjective well-being. Therefore, it may be of importance to study the interplay of bottom-up (external, situational, and

contextual factors) and top-down (internal, dispositional, and trait-like factors) factors in understanding the subjective well-being of the individuals.

2.2.1.1.3 Cognitive Theories: Attention, Interpretation, and Memory Model

Associated with top-down theories, cognitive theories emphasize cognitions' power in defining one's subjective well-being (Diener & Ryan, 2009). In this section, Attention, Interpretation, and Memory Model (AIM; see Diener & Biswas-Diener, 2008 for a detailed review), as an example of cognitive theories, is introduced. AIM covers the basic components of positive attitude/thinking that are necessary for well-being: attention, interpretation, and memory (Diener & Biswas-Diener, 2008). According to Diener and Biswas-Diener (2008), positive thinking is not equal to only looking at the bright/shining side of events, rather it includes giving attention to positive stimuli as success and blessings, engaging in positive interpretation of events, and remembering the past events based on a positive memory bias. With regard to attention component, it is indicated that our brains are limited to effectively take in every single stimuli around us, thus we need to choose what we give attention to, which may result in overlooking of other things and have direct effects on our subjective well-being (Diener & Biswas-Diener, 2008). Diener and Ryan (2009) indicated that people who could pay more attention to positive stimuli were inclined to succeed better in their overall well-being. Considering interpretation and memory components, Diener and Biswas-Diener (2008) demonstrated that people who had higher subjective well-being interpreted the ambiguous and neutral events in a positive way and tended to recall events in a more positive way than they actually were. In a similar vein, Lyubomirsky and Tucker (1998) found happy participants, compared to unhappy participants, to evaluate their old experiences more positively and consequently provided their reflections on those experiences in ways that cultivated their moods, which all together led to the conclusion that

similar events were experienced and evaluated differently by happy and unhappy participants. To sum up, people with higher levels of subjective well-being have been shown to pay attention to positive stimuli, interpret the events in a positive way, and remember events positively (Diener & Ryan, 2009).

2.2.1.1.4 Relative Standards / Judgment Theories

Relative standards or judgment theories suggest that subjective well-being is the outcome of a comparison between some standards (e.g., one's past standards, others, goals, or ideas) and the actual conditions (Diener & Ryan, 2009). If the existing condition exceeds the selected standard, consequentially subjective well-being results (Diener, 1984). The selection of the standards which will be used as comparison baseline produced different theories.

In social comparison theory, the comparison standard is other people (Diener, 1984). If an individual compares himself or herself with other people and find himself or herself better off than others, that individual will experience subjective well-being (Carp & Carp, 1982; Michalos, 1980). However, it is important to note that social comparison does not bring subjective well-being automatically, rather people selectively choose others to compare themselves (Taylor, Wood, & Lichtman, 1983; Wills, 1981; Wood, Taylor, & Lichtman, 1985).

Another judgment theory, Multiple Discrepancy Theory of Satisfaction, belongs to Michalos (1985). According to this theory, people make comparisons based on multiple standards that consist of others, past experiences, aspirations and ideal satisfaction levels, goals, and needs (Diener et al., 1999). Subjective well-being level is determined by the discrepancy among the current condition and the selected standards.

Hedonic Treadmill Theory (Brickman & Campbell, 1971), also known as Adaptation Theory, is another well-known theory under this group of theories. In this theory, the comparisons are based on a person's own past experience where the superiority of current events than the past standard brings subjective well-being (Diener, 1984). However, the continuity of positive events will result in adaptation, consequently raise the standard, and the power of the events that evoke emotions will decrease over time (Brickman & Campbell, 1971). Hedonic Treadmill Theory (Brickman & Campbell, 1971) suggested that the good or bad events that are stronger compared to old standards influence subjective well-being for a short period and individuals adapt and return to their hedonic neutrality quickly. Initial empirical support was provided by Brickman, Coates, and Janoff-Brickman (1978) with their findings that lottery winners could not be found happier than non-winners and participants who had paraplegia were not significantly unhappier than the participants without paraplegia. However, recent studies had contradictory findings with the suggestions of the theory that people return to their previous set-points. For instance, Lu (1999) found positive life events to predict life satisfaction of the participants after two and a half-year period. Additionally, Lucas, Clark, Georgellis, and Diener (2003) found that after significant life events like marriage, the adaptation occurred at average a few years whereas after the death of the partner, adaptation to widowhood took about eight years to return their baseline in life satisfaction. Furthermore, participants were not found to go back to their initial life satisfaction completely after unemployment (Lucas et al., 2003) and divorce (Lucas, 2005).

Considering the need for updating this theory, Diener, Lucas and Napa Scollon (2006) provided a revision for Hedonic Treadmill Theory by identifying five points to be revised. First, people do not have hedonically neutral set-points as the theory suggested rather most people are happy and have above neutral happiness (Biswas-Diener, Vittersø, & Diener, 2005; Diener & Diener, 1996; European Values Study Group & World Values Survey Association, 2005).

Second, people have individual set-points which are partly determined by their temperaments, as opposed to the early suggestions of the theory. Third, people may have multiple set-points for happiness, given the separable components of subjective well-being (Lucas et al., 1996). Fourth, under some specific conditions, the set-points for well-being can change (Fujita & Diener, 2005), in contrast with the claim of the theory (Brickman & Campbell, 1971) that people are not able to do much for changing their long-term subjective well-being levels. Fifth and the final, although the theory suggested that adaptation to circumstances happens in similar ways for every people, people differ in their adaptation to events, since some of them change their set-points and others do not in reaction to some external events. However, in their revision paper, although they found these revisions necessary, Diener et al. (2006) indicated that with or without the revision of these points, adaptation is still a very important concept and Hedonic Treadmill Theory (Brickman & Campbell, 1971) represents a turning point in conceptualizing happiness.

Consistent with the role of temperament in adaptation process, Headey and Wearing (1989) proposed Dynamic Equilibrium Theory, which suggests that life events result in changes in subjective well-being, but over time individuals return to their baseline subjective well-being levels which are influenced by their temperaments and personality. In short, this theory integrated adaption with personality (Diener, 2000). In this theory, it is suggested that after adaptation, people return to their baselines for positive affect and negative affect which are determined by the personalities they had. With the following revisions (Headey, 2006) that aimed to make the theory more dynamic and better account for understanding subjective well-being, The Dynamic Equilibrium Theory tries to explain the links among three set of variables as stable personal characteristics, life events, and well-being and ill-being (Headey, 2008).

2.2.1.1.5 Evolutionary Theories

Evolutionary theories are relatively recent theories of subjective well-being. Evolutionary models of subjective well-being highlight the advantages of well-being and pleasure in aiding people in survival (Diener & Ryan, 2009). It has long been recognized that negative emotions, such as fear and anxiety, protect us against environmental threats. However, the adaptive advantages of positive emotions and well-being in survival are recent topics. Fredrickson's Broaden-and-Build Theory (Fredrickson, 1998) focuses on the role of positive feelings in helping individuals. Specifically, positive feelings were suggested to allow individuals to broaden the thought-action repertoires they had which consequently build individuals' resources, namely social, intellectual, physical, and psychological resources, over time (Fredrickson, 1998). In other words, it was suggested that a state that came from a higher level of subjective well-being and positive affect helped individuals' explore their environment and approach new goals more confidently which aided to gain important resources (Diener & Ryan, 2009). Diener and Biswas-Diener (2008) summarized the adaptive advantages of positive emotions in Broaden-and-Build Theory as they serve to energize individuals to broaden their various resources, which in turn, leads to increased subjective well-being. The empirical support for the role of positive emotion in broadening one's thought-action repertoire, building one's personal resources, and boosting resiliency and well-being has been validated by several studies (see Fredrickson, 2004 for a detailed review).

2.2.1.2 Trends in Subjective Well-being Research

In line with the development of perspectives on understanding subjective well-being, early studies focused on the external factors on subjective well-being (Diener, Oishi et al., 2003). More specifically, demographic variables of individuals, such as gender, age, income, education, relationship status, were

investigated as the major antecedents for one's subjective well-being (see Diener, 1984; Diener et al., 1999; Diener et al., 1997; Diener & Ryan, 2009; Wilson, 1967 for detailed reviews). However, these studies resulted in either contradictory findings or small effects of the demographics on subjective well-being.

Specifically, in their review papers, Diener and Ryan (2009) indicated that women and men did not significantly differ with regard to their subjective well-being levels. Moreover, Fujita et al. (1991) found gender to explain less than 1% of the total variance in well-being. Similarly, age was believed to be a significant predictor of subjective well-being as in early studies youth was introduced as a significant predictor of happiness (e.g., Bradburn & Caplovitz, 1965; Wilson, 1967), however, recent studies presented different patterns for age on well-being. For instance, Mroczek and Spiro (2005) found life satisfaction to increase from the age of 40 to 65 before its decrease only close to approaching to death. Additionally, in their longitudinal study, Charles et al. (2001) presented a different pattern for the influence of age on subjective well-being as positive and negative affect slightly decreased with age. Income was another frequently investigated predictor of subjective well-being where the common sense of more money brings more happiness was tested. Studies couldn't find a linear relationship between income and subjective well-being (Diener & Ryan, 2009; Diener et al., 1997; Diener et al., 1999). To exemplify, Diener, Horowitz, and Emmons (1985) found that the wealthiest Americans had only slightly higher happiness than the Americans with average income. Moreover, Diener et al. (1993) found that income change (either decrease or increase) did not influence subjective well-being of participants. Education was also proposed to be a significant predictor of subjective well-being. However, in their meta-analytic study, Witter and colleagues (1984) could not find any clear trend among education and subjective well-being and concluded that education had small and positive influence on subjective well-being by accounting for only 1 % to 3% of

the total variance in subjective well-being. Considering the demographics, involving in a romantic relationship is one of the most robust positive predictor of subjective well-being (see Diener & Biswas-Diener, 2008 for a review). For instance, Lucas et al. (2003) found married participants to experience higher levels of subjective well-being than their non-married counterparts with the finding that people had a fast adaptation to their marriage and returned to their baseline levels of subjective well-being. There were also studies that investigated the prediction of a group of demographic variables together on subjective well-being. For instance, Campbell et al. (1976) found that the demographic factors of age, sex, income, race, education, and marital status altogether explained less than 20% of the total variance in subjective well-being. Similarly, using the same demographic factors, Andrews and Withey (1976) could find only 8% of the total variance in subjective well-being.

Given the disappointing findings of demographics, researchers turned their attention to internal, top-down, and personality-related factors. In their literature review, Diener and Lucas (1999) concluded that personality is one of the strongest and robust predictors of subjective well-being. Temperament and personality traits are two widely examined constructs that were found to be significant in their relation to subjective well-being (Diener et al., 1999). For instance, regarding temperament, Tellegen et al. (1988) found genes to account for 40% of the total variance in positive affect and 55% of the total variance in negative affect in their twins study. Regarding personality traits, extroversion and neuroticism were consistently found to be associated with subjective well-being (DeNeve & Cooper, 1998; Diener et al., 1999; Diener & Lucas, 1999). Except from temperament and personality traits, other non-trait personality dispositions, such as optimism, hope, self-esteem were also found to be significant in explaining subjective well-being (Diener, 1984; Diener & Diener, 1995; Lucas et al., 1996; Snyder & Lopez, 2007). Thus, as expected, personality and personality-related variables were found to play a significant role on

subjective well-being (Diener et al., 1999; Diener & Lucas, 1999). However, as indicated by Diener and his colleagues (2003), it is unclear if these personality traits or non-traits uniquely predict subjective well-being or need additional situational/contextual processes to carry the individuals to a happy and satisfying life. Therefore, it may be especially important to study both the unique direct relationships of dispositional variables on subjective well-being and the indirect relationships of dispositional variables via situational and contextual variables.

2.2.2 Conceptualization of Hope

Hope is one of the core virtues that is introduced to have a direct relationship with one's capacity to achieve happiness (Seligman, 2002). To date, several attempts were conducted to define hope. For instance, Dufault and Martocchio (1985) defined hope as the confident but uncertain expectation of reaching a possible and significant future good. Other definitions included a cognitive and rational process, an affect related construct, a personality trait, a coping mechanism, a spiritual process, and an interpersonal process (Bergin & Walsh, 2005). Until 1960's, three theories were introduced to understand hope: Stotland's theory of hope (Stotland, 1969), Averill, Catlin, and Chon's theory of hope (Averill, Catlin, & Chon, 1990), and Snyder's Hope Theory (Snyder, 1994, 2002).

Stotland's theory (1969) introduced hope as "an expectation greater than zero of achieving a goal" (p. 2), in which higher hope levels indicate perceived higher probability of reaching a goal. In this theory, it is suggested that in order to activate hope, it is necessary to have minimum level of goal importance (Stotland, 1969). As a distinct characteristic, instead of asking individuals their expectations towards their goals, in this theory behavioral outcomes, which are the reactions of current antecedent conditions, are observed and evaluated (Snyder, 1995). Stotland's theory provides a parsimonious structure for hope and

pays attention to the individuals' cognitive analysis of goal-oriented outcomes (Stotland, 1969).

Considering Averill and his colleagues' theory of hope (1990), hope was accepted as an emotion with its prototypic rules, namely prudential rules, moralistic rules, priority rules, and action rules. Prudential rules indicate that hope consists in some uncertainty, but these uncertainties should be reasonable and there should be a reasonable or realistic chance of attainment (Averill et al., 1990). Moralistic rules indicate that the object of hope should be individually and socially acceptable (Averill et al., 1990). Priority rules indicate the object of hope should be of sufficient importance, and action rules indicate that people should be willing to take necessary actions to attain their goals (Averill et al., 1990). Averill's theory of hope has a social constructionist framework.

Lastly, given Snyder's Hope Theory (Snyder, 1994, 2002), it is the most widely used and researched hope model among other hope theories. The construct of hope was conceptualized and used within the framework of Hope Theory in the current study. Hope Theory introduces hope as "a positive motivational state that is based on an interactively derived sense of successful (a) agency (goal-directed energy), and (b) pathways (planning to meet goals)" (Snyder, Irving, & Anderson, 1991, p. 287). In other words, hope is defined as "the sum of perceived capabilities to produce routes to desired goals, along with the perceived motivation to use those routes" (Snyder, 2000, p. 8). As highlighted in its definition, the trilogy of goals, pathways, and agency is at the heart of hope. In Hope Theory, it is assumed that all human actions are goal directed (Snyder, 2002) and goals are accepted to be the anchors of Hope Theory (Snyder, 1994; Snyder, Cheavens, & Sympson, 1997). The goals should be of sufficient value or importance to evoke the following thought processes (Snyder, 2002). In Hope Theory, there are two general types of goals where Type 1 refers to positive goal outcome, namely reaching for the first time, sustaining present goal outcome,

increasing what has already been initiated, whereas Type 2 refers to negative goal outcome, namely deterring so that it never appears, and deterring so that its appearance is delayed (Snyder, 2002).

In Hope Theory, it was indicated that people constantly think about how to get from one point to another by generating plausible and usable routes (Snyder, 2002). This process of producing ways or routes to the desired goals was introduced as pathways thinking (Snyder et al., 1991). More specifically, pathways thinking was defined as “the perceived ability to produce plausible routes to goals.” (Snyder, 2000, p. 9). In this theory, it was suggested that people with higher levels of pathways thinking were more certain on their pathways for the desired goals, better and more effective at producing alternative ways once the primary route failed, and more cognitively flexible and faster thinkers for tailoring existing pathways compared to people with lower levels of pathways thinking (Snyder, 2002).

However, in order to initiate and sustain the routes that they generated via their pathways thinking people also need motivation or willpower or mental energy, which refers to agency thinking (Snyder, 2002). Agency thinking was proposed as especially significant in case of blockage of existing pathways to desired goals since it is believed to help individuals to channel their necessary motivation to the best alternative pathway (Snyder, 2000). The components of hope, pathways and agency thinking, were referred to be reciprocal, additive, and positively related (Snyder et al., 1991) as they are continuously affecting and are being affected by each other (Snyder, 2002). The below figure (Figure 2) represents the operation of Hope Theory.

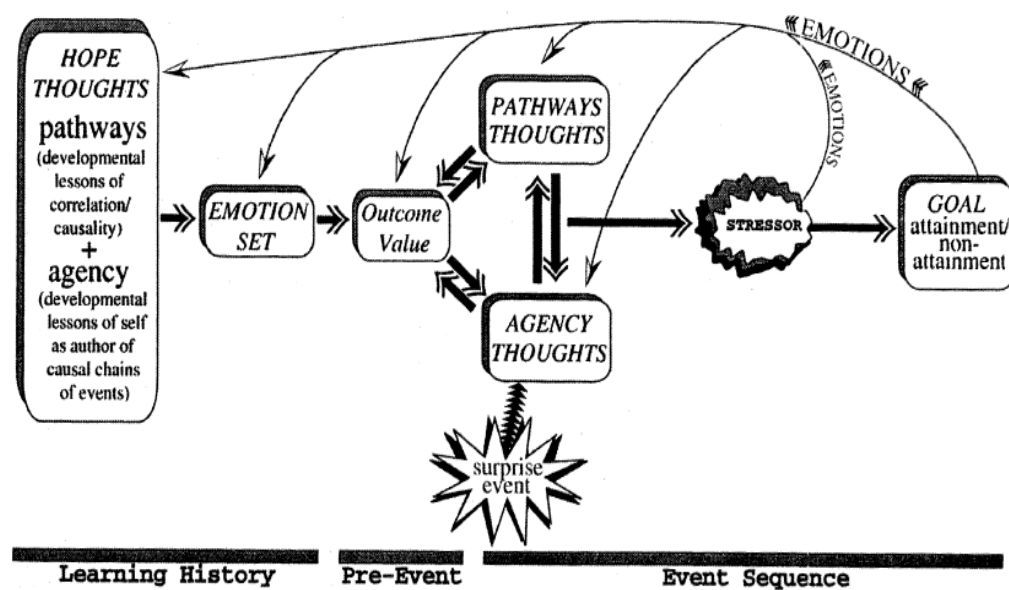


Figure 2. Schematic of feed-forward and feed-back functions involving agentic and pathways goal-oriented thoughts in Hope Theory. Adapted from “Hope Theory: Rainbows in the Mind” by C. R. Snyder, 2002, *Psychological Inquiry*, 13(4), p. 254. Copyright 2002 by the Lawrence Erlbaum Associates, Inc.

The progression of goal-oriented hopeful thinking can be followed as moving from left to right. Hope Theory (Snyder, 2000, 2002) explains the progression of hope with the following explanations. The etiology of pathways and agency thinking are placed at the far left part of the figure in the learning history phase with the emotion set, which was inherited by early goal-related activities and dispositional hope. The learning history, specifically the pathways and agency thinking interactively lead individuals to evaluate the desired outcomes in pre-event phase. If the desired outcome has sufficient importance, individuals proceed to event sequence as mental attention continues, and the following cognitive processing includes pathways and agency thoughts. The pathways and agency thoughts iterate throughout the event sequence. The combination of the pathways and agency thinking moves individuals to goal behavior which results in either engaging or disengaging with the desired goal. The attainment or non-

attainment of goals produces emotions which provide feedback for all previous stages and shapes the cognitions of individuals. Thus, contrary to the emotion-based hope theories, emotions are accepted to be “a by-product of goal-directed thought” (Snyder, 2000, p. 11).

Hope Theory (Snyder, 1994, 2002) suggests high hope to be associated with greater positive outcomes, and low hope to be associated with greater negative outcomes. Indeed, this contention of Hope Theory has been generally supported by the findings of hope studies in the past two decades (see Cheavens & Ritschel, 2014; Çetin Gündüz, 2016 for reviews of international and national studies). More specifically, Hope Theory compared individuals with high hope and individuals with low hope and that suggested high hope individuals see setbacks as challenges and cope better with adversity (Snyder, 2002), are more skilled at producing a well-planned primary route combined with other alternative routes towards a desired goal (Irving, Snyder, & Crowson, 1998), have more positive self-talk with affirming and positive internal agency and pathways messages (Snyder, Lapointe, Crowson, & Early, 1998), have a better ability to take others' perspectives (Snyder, Hoza, et al., 1997), think more flexibly (Snyder, 2002), and have enhanced interpersonal skills (e.g., Snyder et al., 1997) as compared to their low hope counterparts. Maybe as a natural consequence of the positive link between hope and these positive outcomes, high hope individuals were found to have positive relationships or predict components of subjective well-being (i.e., positive affect, negative affect, and life satisfaction) in various studies abroad and in Turkey (e.g., Bailey & Snyder, 2007; Cheavens & Ritschel, 2014; Demirli et al., 2015; Dursun, 2012; Marques et al., 2013; Snyder et al. 1996; Şahin et al., 2012; Uzun Özer & Tezer, 2008).

2.2.3 Conceptualization of Cognitive Flexibility

The conclusion that people make sense of their world via their thoughts and cognitions, and then act accordingly (Beck, 1967) has gained much importance since the first recognition of cognitive theorists. Consistently, Roloff and Berger (1982) indicated that people had a social cognition process in which people reached the awareness of alternatives and choices before they determined their decisions to adapt their behaviors. Accordingly, it was suggested that the choices provided scripts to people (Abelson, 1976) where the more scripts led to more complex information-processing systems and more flexibility (Schroder, Driver, & Streufert, 1967). Consistently, Martin and Rubin (1995) highlighted the need for flexibility in the process of thinking that leads to actions.

The concept of cognitive flexibility was first introduced by Spiro and Jehng (1990) as “the ability to adaptively re-assemble diverse elements of knowledge to fit the particular needs of a given understanding or problem-solving situation” (p. 169). Since then, many conceptualizations were proposed for cognitive flexibility (Murray et al., 1990). For instance, Martin and his colleagues conceptualized cognitive flexibility as being aware of suitable options and accessible alternatives, being voluntary to be flexible, and feeling competent on adapting the situation (Martin & Anderson, 1998; Martin et al., 1998; Martin & Rubin, 1995) whereas Dennis and Vander Wal (2010) defined cognitive flexibility as the ability to switch cognitive sets for adapting to changing environmental conditions. Ionescu (2012) reviewed and categorized these conceptualizations under four groups. In the first group (e.g., Colzato, Huizinga, & Hommel, 2009; Cragg & Chevalier, 2012; Diamond, 2006; Geurts, Corbett, & Solomon, 2009), cognitive flexibility was defined as “a well-delimited ability of the cognitive system, namely set-shifting.” (Ionescu, 2012, p.192). In the second group (e.g., Bennett & Müller, 2010; Garcia-Garcia, Barcelo, Clemente, & Escera, 2010; Jacques & Zelazo, 2005; Masley, Roetzheim, & Gualtieri,

2009), cognitive flexibility was conceptualized as a higher-order ability (e.g., cognitive control). In the third group (e.g., Deak, 2003; Kockelman, 2012), it was conceptualized as a property of a cognition or mental state. Finally, in the fourth group (e.g., Cretenet & Dru, 2009; Dietrich & Kanso, 2010; Takeuchi et al., 2010), it was conceptualized as a measure for divergent thinking. Building on these perspectives, Ionescu (2012) proposed a unified framework that cognitive flexibility was defined as “a property of cognitive system” where this property depends on “the interaction of several mechanisms that respond to specific environmental demands” (p. 194). Specifically, Ionescu (2012) proposed the interaction of cognitive mechanisms in the interaction with context, cognition, and sensorimotor mechanisms in the emergence of cognitive flexibility.

Although it is possible to increase the number of different conceptualizations, these different conceptualizations have at least three common factors that cognitive flexibility was referred to be the ability to display necessary adaptation to change (e.g., Canas et al., 2003; Dennis & Vander Wal, 2010); the ability to consider a wide range of concepts and categories (e.g., Hirt et al., 2008; Murray et al., 1990); and the ability to be aware of various perspectives or thoughts (e.g., Bishop et al., 2004; Feldman et al., 2007). Moreover, it was stated by Martin and his colleagues (1998) that individuals did not use their cognitive flexibility skills at a single time or in certain specific areas, which refers cognitive flexibility as a general condition. Similarly, Canas et al.’s (2003) explanations suggest cognitive flexibility as a learnable trait.

Cognitive flexibility has been suggested to enable individuals to be aware of choices in the face of new circumstances, to adapt more efficiently, and to minimize conflicts (Martin & Rubin, 1995). Cognitive flexibility has been offered to be one of the key determinants of the condition that if a person is equipped sufficiently for coping with stress, which in turn, influences his/her

general well-being (Koesten et al., 2009). These contentions were supported by Baas, De Dreu and Nijstad's (2008) meta-review of 25 years as they concluded cognitive flexibility as an essential antecedent of creative problem solving. Even though cognitive flexibility features an individual's adaptation capacity (Payne, Bettman, & Johnson, 1993), this adaptation may fail in some given conditions. However, as consistent with Martin et al.'s (1998) and Canas et al.'s (2003) suggestions, people can be concluded as cognitively flexible even if they fail in a certain circumstance.

In their study series, Martin and Anderson (1996, 1998) found individuals with higher cognitive flexibility to be precipitous and responsible, and make sense of their experiences. Additionally, a positive link between cognitive flexibility and improved interpersonal communication was found (Rubin & Martin, 1994). Consistently, individuals with higher cognitive flexibility were suggested to feel safer while communicating with other people in various situations (Martin & Anderson, 1998). Moreover, in Martin and Anderson's studies (1996; 1998), individuals who identified themselves cognitively flexible also reported themselves to be self-competent, careful, and understanding. In an early study of Martin and Rubin (1995), individuals with higher cognitive flexibility levels were found to have higher self-efficacy and self-observation skills than their counterparts with lower cognitive flexibility levels. In more recent studies, cognitive flexibility was found to be positively associated with problem-oriented coping with stress (e.g., Dennis & Vander Wal, 2010), adjustment (e.g., Bonanno, Papa, Lalande, Westphal, & Coifman, 2004; Dreisbach & Goschke, 2004; Martin, Cayanus, McCutcheon, & Maltby, 2003), better decision making (e.g., Dunleavy & Martin, 2006), and life satisfaction after adversity (e.g., Metzl, 2009); whereas it was found to have negative associations with depressive symptoms (e.g., Dennis & Vander Wal, 2010), engaging in verbal aggression (e.g., Martin & Anderson, 1998), eating disorders (e.g., Tchanturia et al., 2011), and the symptoms of post-traumatic stress disorder (e.g., Joseph & Gary, 2011;

Joseph, Moring & Bira, 2015; Palm & Follette, 2010). Therefore, considering the findings of previous studies on cognitive flexibility, it is plausible to conclude that it has positive relationships with positive features and negative relationships with negative features.

2.2.4 Conceptualization of Coping Strategies

Coping is a key determinant of adaptation and health (Lazarus, 1993). The construct of coping has been investigated for a long period and its formal studies began during the 1960's and 1970's followed by the increased interest in the study of stress (Lazarus, 1993). Based on the perspectives whether coping is conceptualized as a dispositional variable or a dynamic process / contextual variable, several theoretical approaches were produced. Folkman and Lazarus (1980) referred to three major theoretical approaches in the study of coping. The first one and the second one were based on the perspective that coping is a style or disposition variable whereas the third one was based on the perspective which suggests that coping constantly changes over time depending on the particular person, stress evoking event, and circumstances.

The first theoretical approach refers coping as an ego style where coping is conceptualized by defensive or ego processes which work for diminishing the emotional tension (e.g., Haan, 1977). Vaillant (1971, 1977) proposed a hierarchy model for ego defenses, ranging from immature defenses (e.g., projection, passive aggression) to intermediate (neurotic) defenses (e.g., repression, intellectualization, and reaction formation) and to mature defenses (e.g., sublimation, altruism, and humor). In the hierarchy models, individuals who engage in mature defenses more are suggested to have better mental health, as compared to the individuals who engage in immature defenses (Parker & Endler, 1996).

The second theoretical approach conceptualized coping as a disposition or trait. This trait/disposition coping approach suggested individuals respond to all stressful situations in a similar way (Conway & Terry, 1992). Carver and colleagues' theoretical approach (1989) is one of the well-known coping theories that has dispositional perspectives on coping. In Carver et al.'s theory (1989), coping was conceptualized in dispositional terms and it was believed that stable/permanent characteristics play a more important role in coping than contextual factors. In doing so, specific coping strategies were identified via asking individuals to report their general tendencies in stressful situations (Carver et al., 1989). These strategies were grouped into three categories (Carver et al., 1989) as problem-focused coping (e.g, active coping, planning, suppression of competing activities, restraint coping, and seeking instrumental social support), adaptive emotion-focused coping (i.e., seeking emotional social support, positive reinterpretation, acceptance, religion, and humor), and maladaptive emotion-focused coping (i.e., denial, behavioral disengagement, mental disengagement, focus on and venting of emotions, and alcohol and drug use).

The third and final theoretical approach, Transactional Model of Stress and Coping, was developed by Lazarus in 1966 and had several revisions until 1990's (Lazarus, 1991; Lazarus & Folkman, 1984; Lazarus & Launier, 1978). In contrast to the dispositional perspectives on coping, this approach built on the perspective that coping is a complex and dynamic process. In other words, in the process perspective for coping, coping changes over time depending on the situational contexts it happens (Lazarus, 1993). In the current study, coping and coping strategies were investigated within the perspective of Transactional Model of Stress and Coping.

To fully understand the process perspective on coping, first it may be of importance to focus on the concept of stress. Stress, more specifically

psychological stress is defined as “a relationship with the environment that the person appraises as significant for his or her wellbeing and in which the demands tax or exceed available coping resources” (Lazarus & Folkman, 1986, p. 63). In short, stress refers to the transaction between people and their environment. However, in this transaction between people and their environment, two processes play critical mediating roles (Lazarus & Folkman, 1984); (a) cognitive appraisal (i.e., the evaluation that determines the reason and extend of a particular stressful transaction, and (b) coping (i.e., the process in which people manage the demands of the particular transaction and the following emotions). Cognitive appraisal refers to the process of grouping an encounter with regard to one’s well-being and consisted of two components (Folkman & Lazarus, 1985). Primary appraisal indicates one’s judgment if an encounter is irrelevant, positive, or stressful where irrelevant encounters have no importance for one’s well-being, positive encounters indicate a good outcome, and stressful encounters are defined by harm-loss (i.e., injury or damage has already happened), threat (i.e., the potential of harm-loss), or challenge (i.e., the potential for mastery or growth) (Folkman & Lazarus, 1985). Secondary appraisal is based on the question of what one can do, thus refers to the evaluation of coping resources and options (Folkman & Lazarus, 1985).

The other critical process in person-environment transaction is coping in Transactional Model of Stress and Coping. Coping is conceptualized as “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (Lazarus & Folkman, 1984, p. 141). By providing this definition, Lazarus and Folkman (1984) suggested addressing the limitation of previous models on stress and coping in four points: (a) this definition offers coping as a process-oriented variable rather than trait-like variables as it has “constantly changing” and “specific demands” emphasis; (b) this definition differentiates coping from automatized adaptive behavior as it limits coping to

move towards the demands that are found to be taxing or exceeding already existing resources. In short, it limits coping to the circumstances of psychological stress which requires effort and mobilization, in contrast to circumstances that do not require any effort and are solved by automatized behaviors; (c) this definition highlights any cognitive or behavioral effort regardless of its success which addresses the problem related to confounding coping with outcome; (d) this definition has the emphasis of “managing” which differentiates coping from coping with mastery. In other words, coping includes different managing strategies ranging from avoiding, minimizing, and tolerating to the attempts for mastering the environment.

In Transaction Model of Stress and Coping, coping is suggested to take two general forms or strategies, namely problem-focused coping and emotion-focused coping (Folkman & Lazarus, 1980; Lazarus & Folkman, 1984). This categorizing comes from the functions of these specific strategies. While problem-focused coping serves for managing or altering the specific person-environment transaction that causes stress, emotion-focused coping serves for regulation of the stressful emotions (Folkman & Lazarus, 1980). By using problem-focused coping strategies, people directly attempt to the problem itself and act on environment or themselves, and solve it via strategies such as learning new skills, identifying alternative ways, developing new standards, planning for action, providing effort to understand roots of the problem etc. (Folkman & Lazarus, 1985). However, in order to minimize and regulate negative emotions which are the result of stressful people-environment transactions, people use emotion-focused coping strategies, such as avoiding, distancing, wishful thinking, self-blame, and self-isolation (Folkman & Lazarus, 1980). It was also stated that some coping strategies, such as seeking social support, serve for both functions and could be listed under both problem-focused coping and emotion-focused coping (Folkman & Lazarus, 1985; Vitaliano et al., 1987). Folkman and Lazarus (1980, 1985) indicated that people cope in complex ways by using both

problem-focused coping strategies and emotion-focused coping strategies in complimentary ways.

Although there is a strong focus on the adaptiveness of problem-focused coping strategies, especially in Western cultures, it is stated that there is not a universal way to distinguish coping ways as adaptive or maladaptive since it depends on the individual, the specific event that evokes stress, the effectiveness period (short or long run), and the type of outcome (Lazarus, 1993). Consistently, it was indicated that under certain circumstances, specifically when one can do nothing useful to change the situation, problem-focused coping may be counterproductive, and even may lead to chronic distress when one constantly fails (Lazarus, 1993). Consistently, in the cases where the stress circumstances are defiant for change, in contrast to the events that are perceived as controllable where problem-focused coping leads to better adjustment, emotion-focused coping are suggested to provide better adjustment (Folkman & Lazarus, 1980; Lazarus & Folkman, 1987). In short, the effectiveness of a coping strategy is suggested to depend on its fit with the appraised situation where perceived control on change presents a very significant factor in identifying the best coping strategy for a specific stressful situation with a specific appraisal.

More recently, Park and Folkman (1997) suggested another form of coping, namely meaning-focused coping. Park and Folkman (1997) indicated meaning-focused coping neither attempts to change environment or oneself as problem-focused coping aims nor regulates the negative emotions as emotion-focused coping aims, rather it was defined as changing cognitive appraisal to be more congruent with goals and beliefs. Meaning-focused coping includes strategies such as changing an appraisal of a stressful transaction into a more benign position, determining an event less important than how it was originally perceived, trying to find opportunities for growth from the stressful event (Park & Folkman, 1997). Additionally, this form of coping is suggested to be adaptive,

regardless of the perceived control of the stressor which plays an important role in selecting either problem-focused coping or emotion-focused coping (Park & Folkman, 1997).

Importantly, both Transactional Model of Stress and Coping, and previous coping models conclude that individuals' psychological, physical, and social well-being levels are effected by the ways individuals engage in while coping with the stress (Antonovsky, 1979; Coelho, Hamburg, & Adams, 1974; Cohen & Lazarus, 1979)

2.3 Research on the Relationships among Dispositional and State Hope, Cognitive Flexibility, Coping Strategies, and Subjective Well-being

Considering the relationships among the study variables of hope (dispositional and state hope), cognitive flexibility, coping strategies and subjective well-being, literature provides a very comprehensive store. However, the literature review during the current study did not result in any study that includes the relationships among all study variables of the current study together in a model. Therefore, the findings of the previous studies on the relationships between groups of the study variables are explained below.

2.3.1 Research on the Relationships among Hope and Subjective Well-being

Following the contention of Snyder (1994, 2002) that hope is associated with greater positive outcomes and lower negative outcomes, numerous studies have tested and proved this contention abroad and in Turkey (see Cheavens & Ritschel, 2014; Çetin Gündüz, 2016 for detailed reviews). Cheavens and Ritschel (2014) reviewed the studies on hope and subjective well-being conducted over two decades abroad since its conceptualization by Hope Theory

and concluded hope as a significant correlate and predictor of subjective well-being, as well as its components of higher positive affect, lower negative affect, and higher life satisfaction (Cheavens & Ritschel, 2014). Considering Turkish studies on the relationships among hope and subjective well-being, Çetin Gündüz (2016) presented a detailed review of hope studies (articles, theses, and dissertations) which were conducted in Turkey. Her review also resulted in the conclusion that hope was a significant correlate and predictor of subjective well-being, as well as its proposed components of positive affect, lower negative affect, and life satisfaction.

To exemplify the correlational studies on hope and subjective well-being, in one of the earliest studies on hope and subjective well-being, Sigmon and Snyder (1990) found dispositional hope to be significantly and positively correlated with positive affect, and significantly and negatively correlated with negative affect in a sample of 128 American college students. Consistently, in the development study of State Hope Scale, Snyder and his colleagues (1996) tested the relationships between state hope and positive and negative affect in order to provide evidence for the convergent validity of the newly developed State Hope Scale. The results of their study presented a significant and positive relationship of state hope with positive affect and a significant and negative relationship of state hope with negative affect in a sample of 166 American college students. Considering another component of subjective well-being, Bailey and Snyder (2007) aimed to examine the relationship between dispositional hope and life satisfaction among 215 American university students. They found dispositional hope to significantly and positively correlate with life satisfaction of university students.

Consistent with studies abroad, several studies in Turkey also found a significant relationship between hope and subjective well-being with its affective and cognitive components. For example, Eryılmaz (2011) investigated the

association of Positive Psychology constructs (including hope) with subjective well-being (which was calculated by the formula of “((life satisfaction + positive affect) – negative affect)”) in 182 adult participants. According to his correlational findings, hope and subjective well-being were found to be significantly and positively associated. Moreover, Sarıçam and colleagues (2015) examined the relationship between hope, emotional intelligence, and life satisfaction in a sample of 478 undergraduate students. They found hope to be significantly and positively correlated with life satisfaction by calculating Pearson product moment correlation coefficient. Likewise, in a recent study, Gültekin and Arıcıoğlu (2016) examined the association between state hope, life satisfaction and anxiety (trait and state anxiety) in a sample of 478 university students in Turkey. According to their correlational results, hope was found to be significantly and positively correlated with life satisfaction and negatively correlated with both trait and state anxiety. Under the theoretical framework of Snyder and his colleagues (1991), hope and positive affect are suggested to link each other in two ways; positive affect comes from goal successes, and repeated goal successes over time tend to produce a consistent, more stable, positive mood disposition. Given the proposed link between positive affect and hope (Snyder et al., 1991), it is reasonable to conclude that both hope and positive affect feed each other, which may be also valid for hope-life satisfaction link, as the previous studies suggested.

However, it may be also important to test whether hope leads to subjective well-being, and its components of positive affect, lack of negative affect, and life satisfaction or subjective well-being lead to greater levels of hope in individuals. In order to answer this question, prediction models were tested for hope and subjective well-being link, where hope was generally considered as a predictor and subjective well-being (and its components) was outcome, based on the conclusion that emotions and cognitive evaluations are derived from one's

perception about his/her success or progress toward goal pursuit activities (Snyder, 2002).

To exemplify, Steffen and Smith (2013) aimed to test the interplay between dispositional hope and positive affect among 84 firefighters. After controlling for gender, age, income, education, experience in fire department, hope was found to predict positive affect significantly. Similarly, Sharma and Mathur (2016) aimed to understand the relationships with state hope and positive affect as their link was suggested to lead to emotional creativity. They conducted their study with 300 undergraduate university students. According to their findings, state hope not only was significantly and positively correlated with positive affect, but also significantly predicted positive affect in the positive direction. Consistently, in their longitudinal study with 782 high school students, Ciarrochi and colleagues (2007) found dispositional hope as a significant predictor of positive affect. Given the prediction of hope on life satisfaction, Bailey et al. (2007) designed two studies to check the predictor roles of hope (hope agency and pathways) and optimism (optimistic items and pessimistic items that are scored reversely) in life satisfaction in 322 college students (in Study 1) and in a community sample of 215 participants (in Study 2). In Study 1, only hope agency and reverse items of optimism were found to significantly predict life satisfaction which was measured by The Quality of Life Inventory (Frisch, 1994). However, Study 2 provided different results in which only hope agency was the significant predictor of life satisfaction which was measured by The Satisfaction with Life Scale (Diener et al., 1985). Taken together, based on the significance level and effect sizes, Bailey et al. (2007) concluded hope agency as a better predictor of life satisfaction in their study. Similarly, O'Sullivan (2011) investigated the prediction of dispositional hope, eustress, and self-efficacy in life satisfaction of 118 college students in the US. After conducting hierarchical multiple regression analysis and calculating unique contributions of the predictors, O'Sullivan found hope to be the strongest predictor of life

satisfaction among the other predictors. Moreover, Marques, and colleagues (2013) conducted a longitudinal study to examine the prediction of dispositional hope, spirituality, and religious practice in life satisfaction of Portuguese high school students. Within their sample of 227 participants, Marques et al. (2013) found hope to significantly predict life satisfaction of the participants at a single time, after 6-month, and 1-year period.

This pattern of the significant prediction of hope in subjective well-being and its components were also supported by studies conducted in Turkey. For instance, Şahin and colleagues (2012) investigated the prediction of meaning in life and dispositional hope in subjective well-being among 285 university students. Multiple linear regression analysis was conducted and their study resulted as both hope and meaning in life significantly predicting subjective well-being of the participants, which indicated that participants who had higher levels of dispositional hope and meaning in life also reported greater levels of subjective well-being. Moreover, the prediction of hope in subjective well-being of university students in Turkey was investigated with a sample of 881 university students from five different universities in Demirli and her colleagues' study (2015). Demirli et al. (2015) used path analysis and while conceptualizing hope construct, they used both dispositional and state hope, whereas they conceptualized subjective well-being with three components of positive affect, negative affect, and flourishing. The results of the path analysis showed that hope predicted subjective well-being significantly and positively, which means that participants with higher hope levels also reported to have greater levels of subjective well-being.

Furthermore, the significant prediction of hope in the components of subjective well-being was supported by the Turkish studies. For instance, considering the affective component of subjective well-being, Uzun Özer and Tezer (2008) designed a study for detecting the possible differences in positive affect and

negative affect, affective components of subjective well-being as a function of hope levels and gender. They conducted a 2 (female – male) X 2 (low hope – high hope) multivariate variance analysis to answer their research questions within a sample of 163 graduate students. Their analysis presented the main effect of gender, and the interaction effect of gender and hope level as non-significant, and resulted in the finding that only the main effect of hope was significant. Following univariate analysis presented a significant difference for only positive affect that participants with high hope levels also reported to have higher positive affect compared to the low hope counterparts. Considering the cognitive component of subjective well-being, Muyan and Demir (2016) conducted a study to test the unique prediction of hope and cognitive flexibility in life satisfaction of 213 undergraduate students. In doing so, they preferred to assign cognitive flexibility into the first step, and dispositional hope into the second step. Their hierarchical regression analysis not only presented cognitive flexibility as a significant predictor of life satisfaction, but also found hope as a significant predictor of life satisfaction after controlling for the cognitive flexibility levels of the participants. Considering the unique variances explained by cognitive flexibility and hope, researchers found hope to explain slightly higher variance (9%) than cognitive flexibility (6%). Taken together, Turkish studies support the contention of the studies abroad that hope is a significant predictor of subjective well-being, and its affective and cognitive components. Additionally, the theses and dissertations conducted in Turkey provided further evidence for the significant prediction of hope in subjective well-being and its affective and cognitive components, as well (e.g., positive affectivity and life satisfaction: Dursun, 2012; life satisfaction: Aydın, 2016).

In addition to the correlational and predicting roles of hope in subjective well-being (positive affect, lack of negative affect, and life satisfaction), the moderating and mediating roles of hope has gained attention in recent studies. However, although there are several studies on the moderating and mediating

role of hope in subjective well-being abroad, the literature on the moderating and mediating role of hope in subjective well-being is quite limited in Turkey.

In moderation studies of hope, it has been generally aimed to investigate whether hope weakens the influence of adverse experiences or strengthens the influence of positive experiences on one's well-being (e.g., Goodman et al., 2017; Muyan et al., 2016; Valle et al., 2006; Visser et al., 2013). For instance, more recently, Goodman et al. (2017) conducted a study to explore whether and how certain personality strengths, namely hope, grit, gratitude, meaning in life, control beliefs, curiosity, and use of strengths, serve as protective and resilience factors for one's subjective well-being after experiencing negative life events. A sample of 797 community adults from 42 countries, who participated in the International Wellbeing Study, completed the study instruments five times during one-year period. In order to test the resilience process appropriately, lagged analysis was chosen in which the measurement of personality strengths were obtained 3 months prior to the measurement of subjective well-being and the participants evaluated negative life events that happened between the measurement of personality strengths and subjective well-being which together provided appropriate temporal sequence (personality strengths, negative life events, subjective well-being). Goodman et al.'s (2017) hierarchical regression modeling with lagged analyses revealed that among all psychological strengths only hope emerged as a protective factor after experiencing negative life events. Goodman et al.'s (2017) findings presented consistent findings with Valle et al.'s study (2006). Valle et al. (2006) investigated the stability of participants' hope reports over one-year period, the prediction of hope in life satisfaction, and the possible buffering role of hope in the relationship among stressful life events and life satisfaction. The findings of Valle et al.'s study (2006) indicated that participants' hope reports were stable over a one-year period; participants' hope levels predicted their life satisfaction; and hope served as a moderator in the relationship among stressful life events and life satisfaction of the participants,

which, taken together, prepared their contention that hope is a key psychological strength. The buffering role of hope was also supported by the study of Muyan et al. (2016). In their study, Muyan and her colleagues explored the role of hope in the prediction of negative affective conditions and hope's buffering role in the link between loneliness and negative affective conditions within a sample of 318 American college students. They found hope to significantly predict the negative affective condition of depressive symptoms, and to serve as a moderator in the link between loneliness and negative affective condition of anxious symptoms, which indicated that the link between loneliness and anxious symptoms was weaker for the participants with higher hope levels, compared to the ones with lower hope levels.

The mediating role of hope was also studied by several researchers abroad (e.g., Cotton Bronk et al., 2009; Halama, 2010; Quan et al., 2016; Rustøen et al., 2010; Yang et al., 2016) and a few studies in Turkey (e.g., Yalçın & Malkoç, 2015). To exemplify, Cotton Bronk et al. (2009) investigated the relationship between purpose in life and life satisfaction with the mediation of hope within three separate age groups of adolescents ($N = 153$), emerging adults ($N = 237$), and adults ($N = 416$) who either lived or enrolled in a university in Midwest America. Their results indicated that both hope agency and hope pathways significantly mediated the link between purpose in life and life satisfaction in all three age groups. Moreover, hope was found to be a significant mediator in the relationship between personality traits (i.e., neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness) and life satisfaction in Halama's study (2010). More specifically, within a sample of 451 high school and university students whose ages ranged between 16 and 35, Halama (2010) found hope to serve as a mediator for the link between personality traits and life satisfaction, except for openness to experience and agreeableness. In other words, it was found that the lower neuroticism, higher extraversion, and higher conscientiousness led to higher levels of hope, which in turn, resulted in higher

life satisfaction. More recently, Quan et al. (2016) examined the mediating role of dispositional hope in the link between self-efficacy and subjective well-being in a very large sample of 2.716 college students in China. Their findings presented that higher levels of self-efficacy led to higher hope agency and hope pathways, which in turn, resulted in greater subjective well-being. Another support for the mediating role of hope was presented by Yang et al. (2016) recently. Yang et al. (2016) examined the associations between self-compassion, state hope, and life satisfaction among 320 Chinese adults. They conducted SEM analysis to understand the direct and indirect effect of self-compassion on life satisfaction with the mediation of state hope. Their findings presented hope as a significant mediator in the link between self-compassion and subjective well-being. The mediating role of hope was also observed in the studies conducted in Turkey. For instance, Yalçın and Malkoç (2015) conducted a study to examine the mediating role of hope (consisted of dispositional and state hope) and forgiveness in the relationship between meaning in life and subjective well-being (positive affect, negative affect, and life satisfaction) within 482 university students in Turkey. The SEM analysis findings revealed that both hope and forgiveness significantly mediated the link between meaning in life and subjective well-being. In other words, it was found that increase in meaning in life significantly predicted increase in hope and forgiveness levels, which predicted higher subjective well-being.

Taken together, the studies conducted abroad and in Turkey highlight not only the importance of hope in associating with and predicting in subjective well-being and its affective and cognitive components, but also its potential, as a psychological strength, to moderate or mediate the link between negative or positive experiences and subjective well-being by weakening the adverse influences of negative experiences or strengthening the adaptive influences of positive experiences on individuals' subjective well-being. However, considering the limited number of studies in Turkey on investigating the possible

more complex roles of hope (e.g., as a mediator or moderator) in subjective well-being, it is reasonable to state that there is a need for studies that could examine the different roles of hope (both dispositional and state hope), not only as a correlate or predictor but also a moderator or mediator of subjective well-being in order to validate the findings of studies abroad in Turkish context.

2.3.2 Research on the Relationships among Cognitive Flexibility and Subjective Well-being

The literature on the relationship between cognitive flexibility and subjective well-being is quite limited, as compared to the number of studies on the relationships between other study variables (hope or coping styles) and subjective well-being. This lack of comprehensive literature on cognitive flexibility's role on subjective well-being may be due to the lack of consensus on the conceptualization of cognitive flexibility. As already mentioned above in the conceptualization of cognitive flexibility, researchers have provided many different conceptualizations for defining cognitive flexibility. Ionescu (2012) could reduce those conceptualizations only to four groups (i.e., an ability to switch cognitive sets, a higher order ability as cognitive control, a property of a cognition, and divergent thinking). However, it may still be really hard to have a consensus based on these four conceptualizations since they still cover very different components and take different perspectives which may limit the accumulation of studies and a coherent literature on cognitive flexibility abroad or in Turkey. Below, the correlate, predictor, moderator, or mediator roles of cognitive flexibility in subjective well-being or its affective and cognitive components are presented.

Considering the link between cognitive flexibility and affective components of subjective well-being, earlier studies mostly had the framework that affective processes, positive and negative affect, were the antecedents of cognitive

flexibility (see Isen, 1990, 2000, 2004 for detailed reviews). However, more recently, researchers take the possible reciprocal relationships between cognitive processes (including cognitive flexibility) and affective processes (i.e., positive and negative affect) into account (e.g., Bar, 2009; Gray, 2004; Salovey et al., 2002). In addition to the studies that displayed the correlation between cognitive flexibility and affective components of subjective well-being (e.g., Dennis & Vander Wal, 2010; Fernandez-Abascal & Martin Diaz, 2013; Zambianchi & Ricci Bitti, 2014), researchers started to test the hypothesis if cognitive flexibility leads to positive or negative affect (e.g., Akbari Chermahini & Hommel, 2012). Below, some of these studies were explained.

To exemplify the correlational relationships between cognitive flexibility and affective components of subjective well-being, with a perspective that cognitive flexibility refers to creative divergent thinking, Fernandez-Abascal and Martin Diaz (2013) examined the relationships between cognitive flexibility and positive affect and negative affect among sixty-five university students from a Spanish university. Their correlational findings presented cognitive flexibility to significantly and positively correlate with positive affect, and significantly and negatively correlate with negative affect. Consistently, Zambianchi and Ricci Bitti (2014) investigated the influence of a number of variables, including cognitive flexibility (manifested as divergent thinking), expression of positive affect, and regulation of negative affect on social well-being in a sample of 232 undergraduate students in Italy. In doing so, they presented the relationships among all study variables. According to their correlational findings, cognitive flexibility was positively associated with expression of positive affect, and regulation of negative affect. Moreover, in order to test the relationships between cognitive flexibility and negative affect as a component of subjective well-being, in their scale development study, Dennis and Vander Wal (2010) investigated the relationship of cognitive flexibility and negative affective condition of depression, as evidence for the concurrent validity of their cognitive flexibility

scale. They collected data from undergraduate students, who were enrolled in a Midwestern university in the US, two times in an interval of seven weeks (Time 1: $N = 196$; Time 2: $N = 152$). They found cognitive flexibility to be significantly and negatively correlated with negative affective condition of depression both in Time 1 and Time 2 among undergraduate students.

Given the hypothesis that cognitive flexibility may lead to more positive and less negative affect, Akbari Chermahini and Hommel (2012) designed an experimental study to understand how cognitive flexibility (referred as divergent thinking) or inflexibility (referred as convergent thinking) could influence individuals' positive and negative affect. They formed four experimental groups in which first group ($N = 22$) worked on a divergent thinking task, second group ($N = 20$) was instructed to get prepared for the first group's task, third group ($N = 22$) worked on a convergent thinking task, and fourth group ($N = 20$) was instructed to get prepared for the third group's task. Their one-way analysis of variance (ANOVA) analyses did not point to any significant difference in pre-experimental changes in participants' affects, thus they conducted their following analyses and compared the groups. They conducted three-way ANOVAs to see the affect changes. Their results showed that performing or preparing for a divergent thinking task resulted in a more positive affect whereas performing or preparing for a convergent thinking task resulted in a more negative affect among the participants who were university students in the Netherlands.

Lastly, considering the cognitive component of subjective well-being, within a perspective that cognitive flexibility is a component of creative thinking, Metzl (2009) investigated the role of creative thinking in the prediction of subjective well-being, manifested as life satisfaction after adversity. She worked with 80 participants to collect quantitative data and with 17 participants to collect qualitative data. Both quantitative and qualitative findings highlighted the

importance of flexibility among the survivors of Hurricane Katrina. More specifically, correlational findings presented significant and positive association of cognitive flexibility and life satisfaction while participants in the qualitative study presented flexibility as a crucial prerequisite for coping with adversity effectively, which in turn, brings life satisfaction.

Consistent with the overall conclusion of studies abroad that cognitive flexibility may be an important variable in shaping one's subjective well-being, several studies were conducted in Turkey. However, given the existing literature based on studies conducted in Turkey, it was seen that cognitive flexibility was most frequently investigated with its relation to negative affect or negative affective conditions (e.g., depression) compared to other components of subjective well-being. Therefore, firstly the different roles of cognitive flexibility (correlating, predicting, moderating, or mediating) on negative affect is displayed, followed by its influence on life satisfaction and subjective well-being.

The negative correlation between cognitive flexibility and negative affect or negative affective condition of depression has been one of the most robust link of cognitive flexibility with the components of subjective well-being in Turkey. For instance, in the Turkish adaptation study of the Cognitive Flexibility Inventory, Gülüm and Dağ (2012) examined the convergent validity of their adaptation with the Negative Affect subscale of the Positive and Negative Affect Schedule (Watson et al., 1988) among 266 undergraduate students in Turkey. According to their correlational findings, cognitive flexibility (both Alternatives and Control subscales) was found to be negatively correlated with negative affect. Similarly, in the following alternative Turkish adaptation study of the Cognitive Flexibility Inventory, Sapmaz and Doğan (2013) checked the validity and reliability of their adaptation with a sample of 551 university students in Turkey. As evidence for the scale's convergent validity, researchers tested the relationships between cognitive flexibility and negative affective condition of

depression. The results presented that there was a significant and negative correlation between cognitive flexibility and negative affective condition of depression. Consistently, in her thesis study, Güler (2015) investigated the relation of cognitive flexibility and negative affective conditions of depression. She collected data from 361 participants from two high schools and one university. According to her findings, cognitive flexibility was found to be negatively correlated with negative affective condition of depression, indicating that participants with higher cognitive flexibility reported lower levels of depression. In a similar manner, Gündüz (2013) examined the associations between cognitive flexibility, emotional intelligence, and negative affective conditions of depression and anxiety in a sample of 414 pre-service teachers in Turkey. The correlational findings provided the preliminary information that cognitive flexibility was negatively correlated with both negative affective conditions. Consistently, further analysis of multiple regression analysis showed that cognitive flexibility significantly and negatively predicted both negative affective conditions.

Considering the link between cognitive flexibility and life satisfaction in Turkey, in their study with 213 university students in Turkey, Muyan and Demir (2016) found cognitive flexibility, as measured by Cognitive Flexibility Inventory (Dennis & Vander Wal, 2010), to significantly and positively predict life satisfaction of the participants, as measured by Satisfaction with Life Scale (Diener et al., 1985). In other words, they found participants with higher cognitive flexibility levels to report higher life satisfaction. Moreover, Satan (2014) investigated the prediction of cognitive flexibility and religious beliefs in university students' subjective well-being. In doing so, she collected data from 198 undergraduate students and analyzed the data with multiple regression analysis. According to the results, both cognitive flexibility and religious beliefs were found to be significant in predicting the subjective well-being of university students in Turkey.

In addition to the correlate and predicting roles of cognitive flexibility, the mediating role of cognitive flexibility was investigated in some studies in Turkey (Dağ & Gülüm, 2013; Küçüker, 2016). For instance, in a recent study, Küçüker (2016) investigated the link between emotion regulation strategies and life satisfaction with the mediating effects of forgiveness, unforgiveness, and cognitive flexibility in a sample of 895 university students in Turkey. Their SEM analysis revealed that cognitive flexibility was a significant mediator in the link between participants' emotion regulation strategies and their life satisfaction levels.

To sum up, both international and national studies present the possible important role of cognitive flexibility in individuals' subjective well-being by predicting higher levels of positive affect and life satisfaction and lower levels of one's negative affect. However, considering the limited number of studies on cognitive flexibility, further research is needed to clarify the possible direct and indirect roles of cognitive flexibility in subjective well-being.

2.3.3 Research on the Relationships among Coping strategies and Subjective Well-being

Following the contention of Folkman and Lazarus's Transactional Model of Stress and Coping (Lazarus, 1991; Lazarus & Folkman, 1984) that coping strategies may result in positive or negative adaptation for short or long terms, several studies investigated the association of coping strategies on individuals' subjective well-being levels abroad and in Turkey.

In one of the earliest studies on coping strategies and affective components of subjective well-being, Folkman and Lazarus (1988) investigated how well different types of coping strategies (i.e., confrontive coping, distancing, self-control, seeking social support, accepting responsibility, avoidance, planful

problem-solving, and positive appraisal) predicted positive affect of confidence and pleasure/happiness, and negative affect of worry/fear and disgust/anger among two separate samples of younger ($N = 150$; $M_{age} = 39.6$ for women; $M_{age} = 41.4$ for men) and older participants ($N = 161$; $M_{age} = 68.9$ for women; $M_{age} = 68.3$ for men). By conducting separate regression analyses for each positive and negative affect with the control of initial affective states, Folkman and Lazarus found planful problem-solving and positive appraisal as significant and positive predictors, and confrontive coping and avoidance as significant and negative predictors of positive affect of confidence and pleasure/happiness in younger sample. Also they found accepting responsibility as a significant and negative predictor of confidence. Moreover, they found planful problem-solving and positive appraisal as significant and negative predictors, and confrontive coping and avoidance as significant and positive predictors of negative affect of disgust/anger in younger sample. Given the older sample, Folkman and Lazarus found seeking social support, planful problem-solving, and avoidance as significant and positive predictors of confidence while seeking social support and planful problem-solving were found as significant and positive predictors, and distancing was found as a significant and negative predictor of pleasure/happiness. Considering the prediction of negative affect of worry/fear and disgust/angry in older adults, accepting responsibility and positive reappraisal were found as significant and positive predictors of worry/fear whereas only planful problem-solving was found as a significant and negative predictor of disgust/angry among older participants. Taken together, their results presented the complexity of the influences of different coping strategies on different affects in different samples. Considering this variety, Folkman and Lazarus suggested not strictly labeling any strategies under problem-focused or emotion-focused coping, or adaptive or maladaptive coping categorizations, and highlighted the dynamic and unique influences of each coping strategies for each individual at a given time and in a given society.

A few years later than Folkman and Lazarus's study (1988), Conway and Terry (1992) designed a study to test the effectiveness of coping strategies if it depended on the appraised controllability of events or not. Before addressing their above main question, within an Australian sample of 101 university students and community adults, they examined the relationships between different coping strategies and negative affective condition of depression. While selecting the coping strategies, they borrowed problem-focused coping and three emotion-focused coping strategies, namely avoidance, self-blame, and wishful thinking. However, considering the reliability concerns of selected emotion-focused strategies and their relatively high correlations among each other, Conway and Terry ran an exploratory factor analysis which resulted in two factors as self-denigration and escapism for three emotion-focused coping strategies. With this new differentiation of coping strategies, they tested the correlations among all study variables, including problem-focused coping, self-denigration, escapism, and negative affective condition of depression. According to their correlational findings, problem-focused coping was significantly and negatively correlated with depression whereas self-denigration and escapism were significantly and positively correlated with depression. Additionally, in their further analyses, they found problem-focused coping as a negative predictor, and self-denigration and escapism as positive predictors of depression. Moreover, they found the appraised controllability of an event as a significant moderator for the links between problem-focused coping and depression, and self-denigration and depression. More specifically, they found the positive influence of problem-focused coping in lowering the negative affective condition of depression stronger when the event was appraised as controllable while finding the negative influence of self-denigration on depression stronger when the event was appraised as controllable, which in short suggested that in the stress situations that were appraised as controllable, problem-focused coping strategies were more useful, as compared to emotion-focused coping strategies in their particular sample.

A recent study was conducted by Nunes et al. (2016) in order to examine the prediction of coping strategies (i.e., problem-focused coping, emotion-focused coping, religious activities, and searching for social support) on subjective well-being of 381 Brazilian adults. They conducted separate regression analyses for each components of subjective well-being, namely, positive affect, lack of negative affect, and life satisfaction. Considering all regression findings, positive affect and life satisfaction were significantly and positively predicted by engaging in problem-focused coping and significantly and negatively predicted by engaging in emotion-focused coping. Moreover, negative affect was significantly and positively predicted by engaging in emotion-focused coping and religious activities.

Moreover, to understand the predicting and moderating roles of coping strategies in subjective well-being, Coyle and Vera (2013) examined the relationship between uncontrollable stress, coping strategies, and subjective well-being of 147 diverse students from a Midwestern city in the US. They examined both correlations among the study variables and the prediction of problem-focused coping, manifested as active coping, in the positive affect, negative affect, and life satisfaction levels of the participants. According to the correlational findings, problem-focused coping was found to be significantly and positively correlated with both positive and negative affect, but not with life satisfaction. Considering the predicting role of problem-focused coping, it was found to significantly and positively predict positive affect. Furthermore, active coping was found as a moderating variable in the link between uncontrollable stress and negative affect.

Furthermore, the predicting and mediating role of coping strategies in individuals' subjective well-being was investigated by Phan (2013) in her dissertation study. Phan (2013) tested a model of personality traits and coping strategies (problem-focused, emotion-focused, disengagement) in the prediction of subjective and social well-being of Asian and European American college-

aged students. With a sample of 210 Asian American and 297 European American participants, Phan conducted SEM analyses separately for two groups. According to the findings, problem-focused coping had a positive significant direct effect on subjective well-being whereas emotion-focused coping and disengagement failed to have a significant effect on subjective well-being in Asian American sample. In European American sample, problem-focused and emotion-focused coping had a positive significant direct effect on subjective well-being whereas disengagement failed to have a significant effect on subjective well-being. In addition to the prediction of problem-focused and emotion-focused coping, these coping strategies were found to have significant indirect effects on the link between personality traits and subjective and social well-being. More specifically, Phan found problem-focused coping as a significant mediator in the link between extraversion and subjective well-being while emotion-focused coping was found as a significant mediator in the relationship between neuroticism and social well-being in the Asian American sample. The findings of the European American sample were consistent with the mediating findings in the Asian American sample with the addition of the significant mediating effect of emotion-focused coping in the link between extraversion and subjective well-being. Thus, in her complex study, Phan found coping styles, except for disengagement, not only as significant predictors of subjective well-being, but also significant mediators of the links between personality traits and subjective or social well-being.

More recently, Chen (2016) investigated the roles of resilience and coping strategies in subjective well-being of 239 Chinese university students. More specifically, the relationship between resilience, coping strategies, and subjective well-being with a specific focus on the mediating role of coping strategies in the resilience-subjective well-being link. According to the correlational findings, problem-focused coping was significantly and positively associated with life satisfaction and positive affect, and negatively associated

with negative effect. Emotion-oriented coping was only positively associated with negative affect whereas avoidance coping was positively associated with life satisfaction and positive affect. By using a multiple mediator model with bootstrapping method, Chen found coping strategies to significantly predict subjective well-being. Specifically, problem-focused and emotion-focused coping were found as significant and positive predictors of positive and negative affect, respectively. Additionally, avoidance was found to significantly and positively predict life satisfaction. Furthermore, Chen found emotion-focused coping to have a significant mediating role in the link between resilience and negative affect and resilience to have a significant moderating role in the link between problem-focused coping and life satisfaction.

Given the research accumulation in Turkey on the relationships between coping strategies and subjective well-being, as well as its affective and cognitive components, some articles, theses, and dissertations provide important information to understand this link in Turkey. To exemplify, considering the link between coping strategies and affective components of subjective well-being in Turkey, Alkan (2004) conducted her dissertation on cognitive appraisals, affect, and coping with a sample of 560 undergraduate students in Turkey. As a result of her correlational analysis, she found problem-focused coping to be significantly and positively correlated with positive affect and significantly and negatively correlated with negative affect. Moreover, she found emotion-focused coping to be significantly and positively correlated with negative affect where she failed to find any significant relationship between emotion-focused coping and positive affect.

Similarly, Topal (2011) focused on coping strategies in his thesis study with the aim of investigating the relationships between coping strategies (problem-focused coping, seeking social support, and avoidance) and affective components of subjective well-being (positive and negative affect) among 685

university students in Turkey. He conducted Pearson product moment correlation coefficient to analyze the collected data. The results showed that problem-focused coping had significant and positive correlation with positive affect and significant and negative correlation with negative affect; seeking social support had significant and negative correlation with negative affect and; avoidance had significant and positive correlations with both positive affect and negative affect. In addition to the expected findings regarding problem-focused and seeking social-support, finding avoidance as a positive correlate of both positive and negative affect was an interesting finding in terms of previous findings in the literature.

In addition to the investigation of coping strategies and affective components of subjective well-being, the association between coping strategies (problem-focused coping, seeking social support, and avoidance) and cognitive component of subjective well-being (life satisfaction) was examined by Deniz (2006) among 492 university students in Turkey. According to the correlational findings that were calculated by Pearson product moment correlation coefficient, both problem-focused coping and seeking social support were found to be significant correlates of life satisfaction whereas avoidance failed to be a significant associate of life satisfaction. More specifically, Deniz (2006) found positive relationships of life satisfaction with both problem-focused coping and seeking social support.

Considering the predicting role of coping strategies in subjective well-being, Yılmaz, Arslan, Sarıcaoğlu, and Yılmaz (2013) examined the roles of coping strategies with stress and decision-making in 472 university students' subjective well-being. They calculated Pearson product moment correlation coefficients for investigating the correlations among the study variables and conducted hierarchical multiple regression analysis to investigate the prediction of coping strategies and decision-making in subjective well-being. Their correlational

findings presented positive associations of both problem-focused coping and seeking social support with subjective well-being and a negative association of avoidance with subjective well-being. Moreover, they found problem-focused coping and avoidance as significant and negative predictors of subjective well-being in that particular sample.

Similarly, Odacı and Çıkrıkçı (2012) conducted a study to examine the relationships between coping strategies, life satisfaction and subjective well-being among 852 university students in Turkey. They used Pearson product moment correlation coefficient first to see the correlations among the study variables of coping strategies (problem-focused coping, seeking social support, and avoidance), life satisfaction, and subjective well-being. Correlational findings presented significant and positive associations of problem-focused coping and seeking social support with life satisfaction of the participants. However, although avoidance failed to have a significant correlation with life satisfaction, it was found to have a significant and positive correlation with subjective well-being of the participants. Considering the prediction of life satisfaction and subjective well-being by coping strategies, two separate multiple linear regression analyses presented only problem-focused coping as the significant predictor of higher life satisfaction whereas problem-focused coping and avoidance were found as the significant predictors of subjective well-being. Contrary with the previous findings, they found problem-focused coping as a negative predictor and avoidance as a positive predictor of subjective well-being where they offered an interpretation for only the positive prediction of avoidance in subjective well-being as succeeding in coping with a stress may lead them to feel better regardless of whether the selected coping strategy is an active one or a passive one like avoidance.

Beyond the correlate and predicting roles of coping strategies, research on the moderating and mediating roles of coping strategies in Turkey was also

reviewed. However, only one research (Yıldız, 2014) was found on the mediating role of coping strategies in the link between subjective well-being and its predictors. Yıldız (2014) investigated the mediating roles of coping strategies and emotion regulation in the link between parent attachment and subjective well-being among 697 participants. He conducted parallel multiple mediation analysis by using bootstrapping method to test the mediating roles of coping strategies, namely problem-solving strategy, assistance seeking, cognitive avoidance and behavioral avoidance, and emotion regulation strategies, namely internal-dysfunctional, internal-functional, external dysfunctional, and external functional strategy in the relationship between one's attachment to his/her parents and one's subjective well-being which was calculated by positive affect, reverse of negative affect, and life satisfaction. According to the results, problem-solving strategy from coping strategies and internal-dysfunctional strategy from emotion regulation strategies were found as significant mediators of the proposed link between parent attachment and subjective well-being. More specifically, problem-solving strategy was found a significant predictor, such that positive attachment (trust, communication, differentiation) to parents predicted higher likelihood of engaging in problem-solving strategy which in turn, resulted in higher subjective well-being.

Taken together, both international and national research findings highlight the importance of coping strategies as a significant factor in influencing one's affective states and cognitive evaluations of their lives. Although their significant contribution in one's well-being is consistently presented, the unique influences of each specific coping strategies (problem-focused, seeking social support, or avoidance) seem to differentiate so much across the studies. Therefore, it is hard to conclude strict judgments about which coping strategy is better than the other. Consistent with the explanations of the founders of Transactional Model of Stress and Coping on the dynamic nature of coping process that depends on particular person-environment interaction (Folkman &

Lazarus, 1988; Lazarus, 1991; Lazarus & Folkman, 1984), it is of importance to give equal chances to all coping strategies in predicting adaptive outcomes, such as subjective well-being by examining both direct and indirect effects on all coping strategies in the prediction of subjective well-being.

2.3.4 Research on the Relationships among Hope and Cognitive Flexibility

In Snyder's Hope Theory (2002), it is clearly stated that hopeful people were more determined on their pathways towards their goals, more effective at producing alternative pathways in case of the blockage of the primary route, and more flexible and faster thinkers for shaping their already existed pathways with the help of their agentic thinking, compared to people with lower levels of hope. When it comes to cognitive flexibility, as stated in earlier, the ability to adapt to change more efficiently, to think various categories and concepts, to shift across ideas with more self-efficacy, and to perceive multiple perspectives were the common factors that are stated by all different conceptualizations of cognitive flexibility. Considering the characteristics of hopeful people and the common factors of cognitive flexibility conceptualizations, it is quite reasonable to propose a link between hope and cognitive flexibility. More specifically, the pathways component of hope, which helps individuals to identify several routes to their goals and shift among them when needed with the additional help of agency component of hope may help individuals to think various categories, shift across different ideas, and follow them with more self-efficacy, in short, may help them become more cognitively flexible individuals. However, the opposite direction may also be appropriate as being cognitively flexible may help individuals to engage in more hopeful thinking.

Despite the theoretically proposed possible link between hope and cognitive flexibility (Snyder, 2002), the literature review only resulted in one study

(Muyan & Demir, 2016) whose primary aim was investigating the prediction of hope and cognitive flexibility in life satisfaction of university students in Turkey, but in doing so, as a preliminary analysis, they conducted Pearson product moment correlation coefficient to see the relationships among hope and cognitive flexibility. According to their correlational findings, hope and cognitive flexibility were found as significantly and positively correlated with each other, supporting the contention of Hope Theory (Snyder, 2002) that hopeful people were flexible thinkers at the same time.

However, given the possibility of a significant relationship that was suggested by Hope Theory (2002) and the shared characteristics of hopeful and cognitive flexible individuals, further research is strongly needed to understand the dynamics of these two dispositional, trait-like variables. Since the studies on the relationship between dispositional hope and cognitive flexibility are quite limited and both represent dispositional or trait-like constructs, in the present study, instead of a prediction model between two, only a positive correlation among dispositional hope and cognitive flexibility was proposed in the structural model.

2.3.5 Research on the Relationships among Hope, Coping Strategies and Subjective Well-being

Although there are many studies on the relationship of hope with coping strategies and subjective well-being separately (see Cheavens & Ritschel, 2014; Çetin Gündüz, 2016; Snyder, Irving, et al., 1991, for detailed reviews), there are limited studies in the literature that focused on the relationships among hope, coping strategies, and subjective well-being at the same time. Moreover, the research on the relationships among hope, coping strategies, and subjective well-being was mostly conducted among participants who were suffering from serious illnesses such as cancer (e.g., Irving et al., 1998; Stanton, Danoff-Burg,

& Huggins, 2002). However, there are also studies that take hope and coping strategies into account in predicting components of subjective well-being among healthy university students or adults.

For instance, in one of the earlier studies that examined the relationship between different coping strategies, hope, and subjective well-being, Chang (1998) investigated the predictors of academic and interpersonal life satisfaction by the variables of hope, and coping strategies among 211 university students from a northeastern university in the USA. He designed two hierarchical multiple regression analyses for predicting academic life satisfaction and interpersonal life satisfaction separately where age and sex were controlled in the first step; coping strategies (problem solving, cognitive restructuring, expressing emotions, social support, problem avoidance, wishful thinking, social withdrawal, and self-criticism) were tested in the second step; and hope (hope agency and hope pathways) was tested in the third step. According to the results, in predicting academic life satisfaction, the first step that consisted of age and sex was found to be non-significant. After controlling for the first step, the second step that consisted of coping strategies was found to be significant where only social withdrawal was found as a significant and negative predictor while after controlling for both first and second step, the third step that consisted of hope agency and hope pathways was found to be significant in which only hope agency was found as a significant and positive predictor of academic life satisfaction. In predicting interpersonal life satisfaction, the first step that consisted of age and sex was found to be non-significant, as well. After controlling for the first step, the second step that consisted of coping strategies was found to be significant where wishful thinking and social withdrawal were found as significant and negative predictors while after controlling for both first and second step, the third step that consisted of hope agency and hope pathways was found to be significant in which only hope agency was found as a significant and positive predictor of interpersonal life satisfaction. To sum up where

demographic variables of age and sex were non-significant, social withdrawal coping strategy and hope agency were found as consistent predictors of life satisfaction. In other words, engaging in more social withdrawal and wishful thinking were associated with lower levels of academic life satisfaction and interpersonal life satisfaction, respectively while having higher hope agency was associated with higher levels of both academic life satisfaction and interpersonal life satisfaction.

Following the previous study, in a further study, Chang and DeSimone (2001) designed a study to test the relationships hope, appraisals, coping strategies, and negative affective condition of dysphoria. Based on Snyder's Hope Theory (1994), they hypothesized hope to have both direct and indirect effects on dysphoria via appraisals (primary and secondary appraisals) and coping strategies (engaged coping and disengaged coping). To test their hypotheses, they collected data from 356 university students from a midwestern university in the USA and conducted path analysis for their data. Based on the findings hope, secondary appraisal, engaged and disengaged coping were found to have significant direct effects on negative affective condition of dysphoria. Moreover, hope was found to significantly and positively predict secondary appraisal and engaged coping, and negatively predict disengaged coping where both appraisals significantly predicted coping strategies, which in turn, significantly predicted negative affective condition of dysphoria.

Recently, a very comprehensive study on dispositional and state hope, stress, coping strategies and affective components of subjective well-being was conducted by Steffen and Smith (2013). They examined the associations between dispositional and state hope (between and within-person hope), coping, stress, and positive and negative affect in 84 fire service members. Participants completed a diary for a 21-day period. By conducting multilevel modeling, Steffen and Smith found between-person hope to significantly predict higher

positive affect. Three way interactions between stress, coping, and within hope were observed in predicting daily positive affect. More specifically, it was found that if one was under high stress and low in hope, engaging in emotion-expression coping predicted higher levels of next day positive affect while if one was under low stress and high in hope, engaging in emotion-expression coping predicted higher levels of subsequent positive affect. Moreover, if one was under high stress and high in hope, engaging in more problem-focused coping predicted higher levels of positive affect whereas under high stress engaging in more problem-focused coping predicted lower positive affect if one was low in hope. Considering the prediction of negative affect, between-person hope failed to be a significant predictor. Moreover, within-person hope, stress, and only emotion-expression coping were found to be interacted in the prediction of negative affect. More specifically, when one was under high stress, engaging in more emotion-expression coping predicted lower next day negative affect, regardless of the degree of within-person hope whereas when one was under low stress, engaging in more emotion-expression coping predicted higher negative affect if one was low in hope. However, in low stress, more emotion-expression coping was predicted less negative affect when one was high in hope. Moreover, hope was found to be significantly interacted with problem-focused in predicting negative affect, such that when one was low in hope, less usage of problem-focused coping predicted higher negative affect among fire service members who participated the study. In short, people with higher hope levels reported higher positive affect and regardless of their dispositional hope, under high stress within people with higher state hope levels, problem-focused coping predicted higher positive affect whereas within people with lower state hope levels, emotion-focused coping predicted higher positive affect. Regarding negative affect, the combination of high hope and more problem-focused coping predicted lower negative affect.

In a more recent study, Gungor (2016) had the aim of investigating the associations between negative life events and psychological distress and life satisfaction with an additional focus on understanding coping mechanisms after experiencing negative life events for reaching higher life satisfaction levels and lower psychological distress levels. Within the framework of Positive Psychology, Gungor (2016) selected optimism, hope, and gratitude as the positive coping variables that could possibly moderate the link between negative life events and psychological distress and life satisfaction. 738 university students from a southeastern university in the USA were reached as participants in this study and SEM was conducted. According to the results, negative life events was found to significantly predict psychological distress and life satisfaction. Following this, Gungor calculated the interaction terms for each moderator variable, namely optimism, hope and gratitude and tested their prediction in psychological distress and life satisfaction in three separate models. According to moderating results, all proposed moderators of optimism, hope, and gratitude were found to significantly moderate the link between negative life events and psychological distress, but not life satisfaction of the participants.

Regarding the research on the relationships among hope, coping strategies, and subjective well-being conducted in Turkey, only one study was accessed, which was a dissertation study conducted by Dursun (2012). With the aim of understanding the prediction of meaning in life, hope, optimism, and coping strategies in subjective well-being, Dursun (2012) collected data from 984 university students and conducted two separate hierarchical multiple regression analyses for the prediction of study variable in positive affectivity and life satisfaction. In predicting positive affectivity, meaning in life, optimism, and hope (pathways and agency) were entered into the first step, and the analysis showed that optimism, hope pathways, and hope agency were significant and positive predictors of positive affectivity. After controlling for the variables in the first step, coping strategies of cognitive and affective coping and

instrumental and emotional support were added into the second step and the analysis presented that after controlling for meaning in life, optimism, hope pathways and hope agency, instrumental and emotional support was found as a significant and negative predictor of positive affectivity. Considering the prediction of life satisfaction, same with the previous regression, meaning in life, optimism, and hope (pathways and agency) were entered into the first step, and the analysis showed that meaning in life, and hope agency were significant predictors of life satisfaction. After controlling for the variables in the first step, coping strategies of cognitive and affective coping and instrumental and emotional support were added into the second step and the analysis presented that after controlling for meaning in life, optimism, hope pathways and hope agency, instrumental and emotional support was found as a significant and positive predictor of life satisfaction. Taken together, optimism, hope agency, and instrumental and emotional support were found to be consistent predictors of subjective well-being. However, considering the direction of their predictions, optimism and hope agency positively predicted both positive affectivity and life satisfaction whereas instrumental and emotional support negatively predicted positive affectivity and positively predicted life satisfaction.

Given the accessible research on hope, coping strategies, and subjective well-being, it can be said that most of the existed studies were based on prediction models where mostly only the direct effects were checked. These prediction studies mostly confirmed the significant and positive prediction of hope in subjective well-being where the prediction of coping strategies in subjective well-being was more complex depending on various factors. Considering the limits of the previous studies on not highlighting the complex interplay between hope, coping strategies, and subjective well-being, there is a need for further research that could examine relationships in more complex ways by checking both direct and indirect effects of hope and coping strategies in subjective well-being.

2.3.6 Research on the Relationships among Cognitive Flexibility, Coping Strategies, and Subjective Well-being

As noted in the earlier section of cognitive flexibility studies on subjective well-being, because of the lack of consensus on the conceptualization of cognitive flexibility, there are limited studies in the literature on investigating either direct and indirect effects of cognitive flexibility in subjective well-being, or its affective or cognitive components. Although there are some studies that investigated the association between cognitive flexibility and coping strategies (e.g., Ahn, Kim, & Park, 2009; Baas et al., 2008; Bedel & Ulubey, 2015; Dennis & Vander Wal, 2010), and subjective well-being (e.g., Akbari Chermahini & Hommel, 2012; Gülüm & Dağ, 2012), the literature review was resulted in only one study that examined the relationships among cognitive flexibility, coping strategies, and subjective well-being at the same time.

Morris, Evans, Rao, and Garber (2015) had the aim of identifying early risk factors of the negative affective condition of depression for possible prevention efforts. By this aim, they designed a study based on the examination executive functioning, coping, and negative affective condition of depression in a sample of 68 young adults that either had negative affect of depression ($N = 32$) or never experienced negative affect of depression ($N = 36$). More specifically, beyond testing the prediction of executive functioning, coping, and depression, they also tested the influence of the interaction of executive functioning and coping in the prediction of negative affective condition of depression. In their study, executive functioning was categorized with inhibition and cognitive flexibility while in the categorization of coping strategies, the categorization of two engagement strategies (primary control and secondary control) and one disengagement strategy was adopted. In primary control engagement coping strategy, people attempt to change the stressor or their emotional responses to the stressor (e.g., problem-focused coping; problem solving, emotional expression, emotional

modulation) whereas the secondary control engagement coping strategy referred to the attempts to adapt to a stressor by the regulation of one's cognitions or attention (e.g., emotion-focused coping; acceptance, cognitive restructuring, distraction, and positive thinking). Lastly, disengagement coping strategy referred to the withdrawal from the stressor or the emotional response (e.g., denial, wishful thinking, and avoidance). Multilevel modeling analyses were used in the study and the results showed that executive functioning and coping significantly interacted in predicting depressive symptoms. Specifically, among participants who reported less primary control or more disengagement coping, higher inhibition predicted less increase in negative affective condition of depression while among participants who reported less secondary control coping, higher cognitive flexibility predicted less increase in negative affective condition of depression. In sum, by providing moderating findings, this recent study highlighted the combined effect of cognitive flexibility and coping strategies in predicting the negative affect component of subjective well-being. However, further research is strongly needed to observe the functions of the interplay between cognitive flexibility and coping strategies in the prediction of subjective well-being.

2.4 Summary of the Literature Review

In the current chapter of literature review, first the theoretical framework of the current study, Positive Psychology, was presented. Then, the conceptualizations of the study variables were provided, starting with subjective well-being and followed by dispositional and state hope, cognitive flexibility, and coping strategies, respectively. More specifically, in the conceptualization of subjective well-being, historical roots of the understanding of subjective well-being, different theories to explain subjective well-being (telic theories, bottom-up vs. top-down theories, cognitive theory of AIM, evolutionary theories, and relative standards/judgment theories), trends in the research of subjective well-being

(starting with the exploration of external factors and switching focus to internal factors) were explained. Following with the conceptualization of hope, different definitions and three main theoretical approaches (Stotland's theory of hope, Averill et al.'s theory of hope, and Snyder's Hope Theory) were mentioned by providing more detailed explanations for Snyder's Hope Theory since the concept of hope was investigated within that framework in the current study. Going on with the conceptualization of cognitive flexibility, many different perspectives on cognitive flexibility were summarized by Ionescu's categorization and the common factors of these different conceptualizations were identified. Lastly, finalizing with the conceptualization of coping strategies, three main approaches (ego style: Vaillant, 1971, 1977; coping as a disposition/trait: Carver et al, 1989; Transactional Model of Stress and Coping: Lazarus, 1966, 1991; Lazarus & Folkman, 1984) were explained with an extra attention to Lazarus and Folkman's model since coping strategies were understood through the lens of Lazarus and Folkman's model in the current study.

After completing the conceptualizations of the study variables, international and national research regarding the relationship between dispositional and state hope, cognitive flexibility, coping strategies, and subjective well-being were presented. Since there is not any study that investigated the relationships among all study variables together neither in international nor in national literature, previous research findings were provided under sub-groups of some of the study variables. Based on the literature review, hope, both dispositional and state hope, was found as a significant and positive predictor of subjective well-being where hopeful people constantly reported higher subjective well-being. In addition to its prediction, hope was presented as a significant moderator and mediator for link between subjective well-being and other key determinants of subjective well-being. Although the literature on cognitive flexibility is quite limited when compared to hope research, existed studies found cognitive flexibility as a

significant predictor of subjective well-being. Considering the coping strategies, despite the fact that earlier studies usually proposed problem-focused coping strategies as significant and positive predictors and emotion-focused coping and avoidance coping strategies as negative predictors of subjective well-being, many studies found contradictory findings than expected by highlighting the importance of unique person-environment interaction in determining the efficacy of a specific coping strategy. Most coping research suggested the importance of cognitive appraisals in the selection of appropriate coping strategy as most people engaged in problem-focused coping when they perceived the stressful situation as controllable whereas they preferred emotion-focused coping when they perceived the stressful situation as uncontrollable. Beyond the influence of cognitive appraisals, many other factors were concluded to be able to influence the selection of coping strategy and determine the effectiveness of the selected coping strategies. Consistently, Folkman and Lazarus (1988) suggested not labeling any coping strategy as maladaptive or adaptive before observing them in the specific person-environment interaction. Beyond the individual influences of study variables on subjective well-being, the research on hope-coping strategies-subjective well-being and cognitive flexibility-coping strategies-subjective well-being were reviewed as they are the proposed pathways towards subjective well-being in the current study. The existing studies were mostly based on the prediction of hope or cognitive flexibility and coping strategies in subjective well-being which generally suggested the positive prediction of hope or cognitive flexibility, and problem-focused coping and the negative prediction of avoidance in subjective well-being. Additionally, although it is very limited, there were also some studies that provided evidence for the combined influence of the interaction of hope and coping strategies or cognitive flexibility and coping strategies in predicting subjective well-being.

Taken together, literature review provided evidence for the significant link of dispositional and state hope, cognitive flexibility, and coping strategies with

subjective well-being levels of the individuals. However, considering that most studies only focused on direct prediction of study variables which permit the chance of investigating the complex interplay among the study variables in subjective well-being, it is reasonable to identify the need for more complex models where both direct and indirect effects of study variables of hope, cognitive flexibility, and coping strategies on subjective well-being could be examined. Moreover, as previous research provided evidence for the importance of both dispositional and situational/contextual factors on the level of subjective well-being, it may be especially important to test both direct and indirect effects of dispositional/trait like (dispositional hope and cognitive flexibility) and situation/contextual factors (state hope and coping strategies) in the prediction of subjective well-being for a more holistic picture.

CHAPTER III

METHOD

In this chapter, the methodological procedures of the current study are introduced. Firstly, the design of the study is presented briefly along with the hypothesized model of the study. Then, sampling procedure and the characteristics of participants of both pilot and main studies are introduced. Later, information regarding data collection instruments and the pilot study, which was conducted to investigate the validity and reliability of data collection instruments, are explained in a detailed way. Afterwards, data collection procedure, descriptions of variables, and data analysis techniques are presented. Lastly, the limitations of the current study are discussed.

3.1 Overall Design of the Study

The current study aims to test a model which consisted of dispositional hope, cognitive flexibility, state hope, and coping with stress strategies (avoidance, problem-focused coping, & seeking social support) on subjective well-being within a sample of Turkish university students. Since the aim of the study was investigating all of the relationships among study variables, the correlational study design, which is defined as “to explore the relationships between two or more variables and search for causes and effects” (Fraenkel, Wallen, & Hyun, 2012, p.12), was used as the appropriate design for the current study. With this aim, 1222 university students participated in the main study. Dispositional Hope Scale, Cognitive Flexibility Inventory, State Hope Scale, Coping with Stress Scale, and Subjective Well-being Scales (Positive and Negative Affect Schedule & Satisfaction with Life Scale) were administered in addition to a demographic

information form to collect data. The main analyses of the current study consisted of four phases. Firstly, in descriptive analyses step, bivariate correlations among the study variables were calculated. Then, the possible influence of participants' gender for the subjective well-being variables (positive affect, negative affect, and life satisfaction) were checked. Later, the measurement model was tested. Finally, following the test of measurement model, the structural model was tested for examining all of the relationships among study variables. The hypothesized relationships among study variables were tested via SEM.

3.2 Sampling Procedure and Participants

In this study, two data sets were collected, one for the pilot study and the other for the main study. The first data set, which consisted of 389 university students (235 females and 154 males), was used for the pilot study to examine the validity and reliability of the data collection instruments. The second data set, which consisted of 1222 university students (601 females and 621 males), was used for the main study to test the measurement and structural models. Sampling procedures and the characteristics of both two data sets are presented below.

3.2.1 Sampling Procedure and Participants of the Pilot Study

Target population of the pilot study was university students who are native in Turkish and enrolled to a public university in an undergraduate program in Ankara. Prior to data collection, the approval from Middle East Technical University (METU) Human Subjects Ethics Committee (Appendix A) was gathered. Following getting the approval, through convenient sampling procedure, the data were obtained from volunteer university students who enrolled in a large public university in Ankara.

In the data collection process of the pilot study, a total of 415 (253 females and 162 males) university students, whose ages ranged between 18 and 28 ($M = 21.29$, $SD = 1.61$), were reached as possible participants. However, given the missing values and outlier concerns which were explained in detail in further sections, some cases were removed from the data set and the sample size decreased to 389 for the pilot study.

The participants of the pilot study were 389 (235 females and 154 males) university students whose ages ranged between 18 and 28 ($M = 21.29$, $SD = 1.63$). Regarding participants' faculty, 219 (56.3%) of them were students from Faculty of Education, 114 (29.3%) of them were students from Faculty of Engineering, 30 (7.7%) of them were students from Faculty of Science and Literature, 24 (6.2%) of them were students from Faculty of Economics and Administrative Sciences, and 2 (0.5%) of them were students from Faculty of Architecture. Considering participants' class grade, most of the students were juniors ($n = 132$), followed by freshmen ($n = 121$), seniors ($n = 85$), and sophomores ($n = 51$). Their self-reported Cumulative Grade Point Average (CGPA) scores ranged between 0.90 and 4.00 with a mean score of 2.95 ($SD = .55$).

3.2.2 Sampling Procedure and Participants of the Main Study

Target population of the main study was university students who are native in Turkish and enrolled to a public university in an undergraduate program in Ankara. After getting the approval from METU Human Subjects Ethics Committee (Appendix A), data were collected from volunteer university students who enrolled in a large, public university in Ankara.

In the data collection process, a total of 1280 (625 females and 655 males) university students whose ages ranged between 17 and 37 ($M = 20.83$, $SD = 1.77$)

were reached as possible participants for the main study. However, considering the missing values and outliers concern which were explained in detail in further sections, sample size decreased to 1222 for the main study.

The participants of the main study were 1222 (601 females and 621 males) university students whose ages ranged between 17 and 32 ($M = 20.83$, $SD = 1.72$). As reported in Table 1, regarding their faculty, 561 (45.9%) of them were students from Faculty of Engineering, 240 (19.6%) of them were students from Faculty of Science and Literature, 199 (16.3%) of them were students from Faculty of Education, 162 (13.3%) of them were students from Faculty of Economics and Administrative Sciences, and 60 (4.9%) of them were students from Faculty of Architecture. Considering participants' class grade, most of them were freshmen ($n = 731$), followed by sophomores ($n = 296$), juniors ($n = 100$), and seniors ($n = 93$), and 2 of them did not indicate their class grade. Their self-reported CGPA scores ranged between 0.48 and 4.00 with a mean score of 2.69 ($SD = .66$). Demographic characteristics of the participants are presented in Table 1.

Table 1

Demographic Characteristics of the Participants of the Main Study (N = 1222)

	<i>F</i>	%
Gender		
Female	601	49.2
Male	621	50.8
Faculty		
Engineering	561	45.9
Science & Literature	240	19.6
Education	199	16.3
Economics & Administrative Sciences	162	13.3
Architecture	60	4.9
Class Grade Level		
Freshman	731	59.8
Sophomore	296	24.2
Junior	100	8.2
Senior	93	7.6
Not indicated	2	0.2

3.3 Data Collection Instruments

With the purpose of collecting data, Dispositional Hope Scale (see Appendix B), Cognitive Flexibility Inventory (see Appendix C), State Hope Scale (see Appendix D), Coping with Stress Scale (see Appendix E), and Subjective Well-being Scales (see Appendix F & G for Positive and Negative Affect Schedule, and Satisfaction with Life Scale, respectively) were administered in addition to a demographic information form (see Appendix H).

3.3.1 Pilot Study

Prior to the main study, a pilot study was conducted to investigate the validity and reliability of the instruments which were used in the current study, namely Dispositional Hope Scale (DHS), Cognitive Flexibility Inventory (CFI), State Hope Scale (SHS), Coping with Stress Scale (CSS), and Subjective Well-being Scales (SWBS; Positive and Negative Affect Schedule-PANAS & Satisfaction with Life Scale-SWLS). Information regarding assumption checks and data analyses conducted for the instruments are presented below.

Primarily, before conducting the confirmatory factor analyses (CFA), necessary assumptions of CFA for the pilot data were checked. These assumptions are sample size and missing data, normality, outliers, linearity, and multicollinearity (Kline, 2011). Considering the assumption of sample size and missing values, data were screened for detecting the incorrect and missing entries. This screening resulted in with no incorrect entries/values but with some cases with missing values in some instruments. Given these missing values, the Little's MCAR test (Little & Rubin, 1987) was conducted to check whether missing values were at random or not for each instrument. The Little's MCAR tests provided non-significant Chi-square values indicating that missing values were MAR (missing at random) for all instruments but PANAS. In case of the existence of missing values NMAR (not missing at random), researchers suggest to examine the pattern and the reason of missingness in data. More specifically, Allison (2002) recommends to compare the cases with missing values and the cases without missing values. Consistent with this recommendation, a series of comparisons was conducted and these comparisons showed that cases with missing values and cases without missing values were not significantly different from each other in terms the study variables of the pilot study. Additionally, Allison (2002) suggests listwise deletion, as a robust technique, in case of the violation of missing at random assumption. On the other hand, Tabachnick and Fidell (2007)

indicated that any technique would end up with similar results if the missing data rate is less than 5% for each case. In the current study, the rate of missing values was lower than 5% which allowed researcher to select any technique (e.g., listwise deletion, pairwise deletion, dummy variable adjustment, imputation: Allison, 2002; Little & Rubin, 2002) to handle missing data. Therefore, considering the adequacy of sample size, Allison's (2002) suggestion, and the non-significant differences between cases with missing values and cases without missing values, listwise deletion was conducted as the most appropriate technique for handling with missing data in the pilot study. After listwise deletion, sample size decreased to 399 (241 females and 158 males) which was still adequate in terms of Kline's (2011) suggestion of the adequate sample size of 200 to conduct CFA. Considering their demographic characteristics, the distributions of age, faculty, and grade of the participants were quite similar with the data before listwise deletion. More specifically, their ages ranged between 18 and 28 ($M = 21.30$, $SD = 1.62$). Among participants, 225 (56.4%) of them were students from Faculty of Education, 118 (29.6%) of them were students from Faculty of Engineering, 30 (7.5%) of them were students from Faculty of Science and Literature, 24 (6%) of them were students from Faculty of Economics and Administrative Sciences, and 2 (0.5%) of them were students from Faculty of Architecture. Considering their class grade, most of the students were juniors ($n = 137$), followed by freshmen ($n = 123$), seniors ($n = 86$), and sophomores ($n = 53$). Their CGPA scores ranged between 0.08 and 4.00 with a mean score of 2.94 ($SD = .58$).

Considering the assumption of normality, univariate normality was tested through skewness-kurtosis values, Kolmogorov-Smirnov and Shapiro-Wilk tests values, histograms, and Q-Q plots. Kline (2011) indicates that skewness values are suggested to be lower than 3.00 and kurtosis values to be lower than 10.00 for satisfying normality assumption while Finney and DiStefano (2006) suggest skewness to be lower than 2.00 and kurtosis to be lower than 7.00 for at least

moderately non-normal data which still allow to use Maximum Likelihood estimation. Regarding the skewness-kurtosis values in the present study, all skewness values were ranged between .04 and 1.77, and all kurtosis values were ranged between .01 and 3.05, which provides evidence for the univariate normality of the study variables. However, considering the Kolmogorov-Smirnov and Shapiro-Wilk tests, all study variables had significant results. Although it is expected to have non-significant values on these tests, these normality tests are very sensitive in catching any minor deviation from normality as Field (2009) indicates that in large samples, these normality tests tend to be significant for any very slight variations from normality and they should be interpreted with the consultation of the findings of skewness-kurtosis values, histograms, and Q-Q plots. Regarding the visual inspection of histograms and Q-Q plots, some of the variables presented non-normal patterns. Beyond univariate normality, multivariate normality was checked through Mardia's coefficient test (Tabachnick & Fidell, 2007). The results of Mardia's test for all study variables were significant which showed that the assumption of multivariate normality was violated for study variables. In accordance with Byrne's claim (2010) that researchers frequently fail to meet the assumption of multivariate normality and West, Finch, and Curran's note (1995) which highlighted the increasing effort of researchers to establish the robustness of the model to reduce the influence of the violation of normality assumption, in the current study bootstrapping procedure was performed as a remedy for reducing the influence of non-normal data. Bootstrapping is "a computer-based method for resampling" (Kline, 2011, p. 42) which provides data for exploration of fit indices by producing random "multiple samples of the sample size as the parent sample" (Byrne, 2010, pp. 330-331).

As the third assumption, both univariate and multivariate outliers were investigated. With the aim of identifying univariate outliers, box-plots were checked and z-scores were calculated for all variables. Box-plots presented some

outliers. Besides, there were few cases that were not in the interval of -3.29 and +3.29 which could be accepted as outliers (Tabachnick & Fidell, 2007). Afterwards, Mahalanobis distances were calculated to detect multivariate outliers (Kline, 2011; Stevens, 2002; Tabachnick & Fidell, 2007). For Mahalanobis distances, a critical Chi-square value was calculated with df (number of predictors) at .001 significance level and the cases exceeding this critical value were labelled as multivariate outliers. Some cases were labelled as multivariate outliers because of their quite high Mahalanobis distance values than the critical value. Following the detection of outliers, two data sets were created as one with the outliers and one without the outliers. Analyses were conducted twice, separately, in these two data sets to check for any variation among the findings. Since the results of these separate analyses were significantly different, researcher decided to remove the outlier cases in the data set, which resulted in a final sample size of 389 for the pilot study.

As the fourth assumption, linearity of the data was checked. Scatterplots and partial regression plots were investigated to check the linearity assumption. Visual inspection of the plots presented that the linearity assumption was met for the data of the pilot study.

As the fifth and the last assumption, multicollinearity of the variables was checked through bivariate correlation coefficients, tolerance, and variance inflation factor (VIF) values. The bivariate correlation coefficients were suggested to be lower than .90, tolerance values were expected to be higher than .10, and VIF values were expected to be lower than 10 (Kline, 2011) in order to meet this assumption. In the current data set, all the bivariate correlations, tolerance and VIF values satisfied the suggested criteria and showed that the multicollinearity assumption was met.

After checking assumptions, a series of confirmatory factor analyses (CFA) was conducted to investigate the validity of each instrument used in the study via AMOS (Analysis of Moment Structures) Version 18 (Arbuckle, 2009). Before conducting CFA, item parceling technique was used for some of the study variables. Bandalos (2008) defines item parceling technique as “summing or averaging item scores from two or more items from the same scale and using these parcel scores in place of the item scores in an SEM analysis” (p.212). Item parceling technique has been widely practiced by SEM researchers given its advantages on providing increased reliability of item-parcel responses, less violation of normality assumptions, fewer parameters to be estimated, more stable parameter estimates, better model fit, higher fit indices, and simpler model interpretation with clearer and less crowded data compared to using the original items (Bandalos, 2002; Bandalos & Finney, 2001; Hau & Marsh, 2004; Kline, 2011; Little, Cunningham, Shahar, & Widaman, 2002; MacCallum, Widaman, Zhang, & Hong, 1999; Nasser & Takahashi, 2003). Consistent with Kline’s (2011) suggestion on using item parceling for instruments with more than 5 items while conducting CFA, and the advantages of using item parceling technique over using original items listed above, item parceling technique was utilized based on the mean values of the items of the study variables of cognitive flexibility, coping strategies (i.e., avoidance, problem-focused coping, and seeking social support), positive affect and negative affect in their CFA processes.

In order to evaluate the model fit in CFA, the approximate fit indexes were addressed. Kline (2011) lists fit indexes under three main groups; absolute, incremental (comparative), and parsimony-adjusted. Hu and Bentler (1999) suggest reporting SRMR with a fit index from incremental (comparative) fit indexes group. However, beside their suggestions, to represent all fit indexes groups, one from each group was also consulted and reported in the current study. Therefore, Chi-square value, χ^2/df , and Standardized Root Mean Square

Residual (SRMR) from absolute fit indexes group, The Bentler Comparative fit index (CFI) and Tucker-Lewis index (TLI) from incremental (comparative) fit indexes group, and Root Mean Square of Error Approximation (RMSEA) from parsimony-adjusted indexes group were consulted and reported in the present study. The cut points of these selected fit indexes are summarized below.

Chi-square test is the basic model test which identifies the perfect fit at the value of zero with a non-significant value (Kline, 2011). However, chi-square is very sensitive to sample size, correlation among variables, unique variance, and multivariate non-normality. Therefore, Chi-square tends to be significant in large data sets and correlated variables. Given its limitations, it is suggested to evaluate the model fit with the normed Chi-square (ratio of χ^2 by its expected value that is degree of freedom: χ^2/df) instead of evaluating only Chi-square. Wheaton, Muthen, Alwin, and Summers (1977) suggest χ^2/df to be less than 5 whereas Kline (2011) offers it to be less than 3. Standardized Root Mean Square Residual (SRMR) is “a measure of the mean absolute correlation residual” and refers to “the overall difference between observed and predicted correlations” (Kline, 2011, p. 209). SRMR values range from 0 to 1 where the smaller ones present better fit. Hu and Bentler (1999) suggest the values less than .08 for an acceptable fit whereas Kline (2011) suggests values less than .10 as acceptable. The Bentler Comparative Fit Index (CFI) measures the improvement in the fit by comparing the proposed model and a baseline model (Kline, 2011). The CFI index ranges between 0 and 1 where higher scores indicate better fit. As a threshold, Hu and Bentler (1999) suggest $CFI \geq .95$ for a good fit while Schumacker and Lomax (2010) suggests $CFI \geq .90$ for an acceptable fit. Tucker-Lewis Index (TLI), also known as Non-Normed Fit Index (NNFI), is another incremental (comparative) fit index whose values range between 0 and 1 where the higher scores indicate improved models and better fit. As consistent with CFI cut-off suggestions, Hu and Bentler (1999) suggest that values higher than .95 indicate good fit while Schumacker and Lomax (2010) suggest $TLI \geq .90$ for an

acceptable fit. Root Mean Square of Error Approximation (RMSEA) is a badness-of-fit statistics where a value of zero indicates the perfect fit. A RMSEA value less than .06 presents a good fit (Hu & Bentler, 1999). Browne and Cudeck (1993) suggest another alternative cut-off as $RMSEA < .05$ indicating good fit, and $RMSEA < .08$ indicating reasonable fit. Moreover, MacCallum, Browne, and Sugawara (1996) suggest RMSEA values between .08 and .10 as a mediocre fit and values higher than .10 as a poor fit. Additionally, MacCallum et al. (1996) highlight the importance of reporting RMSEA values with the confidence intervals (CI). Kline (2011) suggests $CI \leq .05$ as the cut-off point of lower bound and $CI \leq .10$ as the cut-off point of upper bound. Beyond CI, AMOS also produce the closeness of fit (pClose) value which is suggested to be non-significant ($pClose > .05$; Jöreskog & Sörbom, 1996).

3.3.1.1 Dispositional Hope Scale (DHS)

The Dispositional Hope Scale (DHS) was developed by Snyder et al. (1991) to assess individuals' dispositional hope levels. The DHS is a 12-item measure of hope with four items (items 2, 9, 10, and 12) that measure Dispositional Hope Agency subscale (e.g., "I energetically pursue my goals"), four items (items 1, 4, 7, and 8) that measure Dispositional Hope Pathways subscale (e.g., "I can think of many ways to get out of a jam"), and four filler items (items 3, 5, 6, and 11; e.g. "I usually find myself worrying about something"). Respondents are asked to indicate how accurately each item best described them using a 4-point type scale, ranging from 1 (totally disagree) to 4 (totally agree) where higher scores indicate higher levels of dispositional hope. Snyder et al.'s (1991) factor analysis study yielded a two-factor structure that explained 52% to 54% of the total variance across six university students' samples. The internal consistency was calculated by the Cronbach alpha coefficients by Snyder and his colleagues (1991). The Cronbach alpha coefficients was found to range from .74 to .84 for

the overall scale, from .71 to .76 for the Dispositional Hope Agency subscale, and from .63 to .80 for the Dispositional Hope Pathways subscale.

Turkish adaptation of DHS was conducted by Akman and Korkut (1993). In contrast to the original two-factor structure, Akman and Korkut (1993) found a single factor structure that explained the 26.23%, 17.43%, and 16.47% of the total variance in three factor analytic studies they conducted separately with Turkish university students. Consistently, Denizli (2004) found a single factor structure for the Turkish DHS and named the factor as pathways thinking, with an eigenvalue of 2.47 that explained 31% of the total variance. However, a separate factor analysis of the Turkish DHS, which was conducted by Kemer (2006) provided a two-factor structure consistent with the original form. Results of this factor analysis presented two factors with an eigenvalue of 3.45 for factor one, and an eigenvalue of 1.49 for factor two. This two-factor solution was found to explain approximately 50% of the total variance. Regarding the internal consistency of DHS, Cronbach alpha coefficient for the overall scale was found .65 while test-retest correlation in a four week interval was found .66 in Akman and Korkut's (1993) study with one-factor structure of DHS. In Kemer's (2006) study with the two-factor structure of DHS, Cronbach alpha coefficients were calculated as .51 for the overall scale, .72 for Dispositional Hope Pathways subscale, and .66 for Dispositional Hope Agency subscale.

3.3.1.1.1 Confirmatory Factor Analysis of DHS for the Present Study

Consistent with the original two-factor structure, a two factor model (Dispositional Hope Agency & Pathways) was tested for DHS through CFA. However, instead of a second order CFA, as an equivalent model (Kline, 2011), the original two-factor structure was tested under a one-factor model where the covariances of all items of one factor (item 2, 9, 10, and 12) were freely estimated. Results presented a very good fit of the two factor model for the data

($\chi^2(14) = 11.42, p > .05, \chi^2/df\text{-ratio} = .82, CFI = 1.00, TLI = 1.00, RMSEA = .00$ [90% $CI = .00, .04$], $p_{Close} > .05$, and $SRMR = .02$). All standardized regression weights were found to be above .40 and significant.

3.3.1.1.2 Reliability of DHS for the Present Study

Cronbach's alpha coefficient was computed to examine the internal consistency coefficient of DHS. Cronbach's alpha coefficient was found to be .81 for overall scale, .67 for Dispositional Hope Agency subscale, and .76 for Dispositional Hope Pathways subscale.

3.3.1.2 Cognitive Flexibility Inventory (CFI)

Cognitive Flexibility Inventory (CFI) was developed by Dennis and Vander Wal (2010) in order to assess the levels and the types of cognitive flexibility of individuals when they encounter stressful life events. The CFI is a 20-item measure of cognitive flexibility with thirteen items that measure Alternatives subscale (e.g., "I consider multiple options before making a decision.") and seven items that measure Control subscale (e.g., "When I encounter difficult situations, I feel like I am losing control."). Respondents are asked to indicate how accurately each item best described them using a 7-point Likert type scale, ranging from 1 (strongly disagree) to 7 (strongly agree) where higher scores indicate higher levels of cognitive flexibility. Dennis and Vander Wal's (2010) factor analysis study yielded a two-factor structure that explained 39% of the total variance. The internal consistency was calculated by the Cronbach alpha coefficients by Dennis and Vander Wal's (2010). The Cronbach alpha coefficients was found to be .91 for the overall scale, .91 for Alternatives subscale, and .84 for Control subscale. Additionally, test-retest correlation in a seven-week interval was found to be .81 for the overall scale, .75 for Alternatives subscale, and .77 for Control subscale.

Turkish adaptation of CFI was conducted by Gülüm and Dağ (2012), and Sapmaz and Doğan (2013) separately. In Turkish adaptations of CFI, a 5-point Likert type scaling was used instead of a 7-point Likert type scaling. Consistent with the original two-factor structure, results of both studies yielded a two-factor structure that explained the 49.84% (Gülüm & Dağ, 2012) and 49.67% (Sapmaz & Doğan, 2013) of the total variance. Additionally, Sapmaz and Doğan (2013) found a good fit of the two-factor structure for the data ($\chi^2(167) = 406.98$, $\chi^2/df\text{-ratio} = 2.44$, $CFI = .98$, $AGFI = .90$, $GFI = .92$, $NFI = .96$, $RFI = .95$, $IFI = .98$, and $RMSEA = .05$) in their CFA analysis for the scale. In Gülüm and Dağ's (2012) study, the Cronbach alpha coefficient was found to be .90 for the overall scale, .89 for Alternatives subscale, and .85 for Control subscale. Later, in Sapmaz and Doğan's (2013) study, the Cronbach alpha coefficient was found to be .90 for the overall scale, .90 for Alternatives subscale, and .84 for Control subscale. Moreover, test-retest correlation in a two-week interval was found to be .39 and .75 for the overall scale, .35 and .78 for Alternatives subscale, and .50 and .73 for Control subscale (Gülüm & Dağ, 2012; Sapmaz & Doğan, 2013, respectively).

3.3.1.2.1 Confirmatory Factor Analysis of CFI for the Present Study

Consistent with the original two-factor structure, a two factor model (Alternatives & Control) was tested for CFI through CFA. Before running CFA, item parceling technique was utilized in accordance with the suggestions listed above (Bandalos & Finney; 2001; Kline, 2011; Little et al., 2002; Marsh, Hau, Balla, & Grayson, 1998). A total of 4 parcels (2 parcels for Alternatives and 2 parcels for Control) were created for 20 items of the scale. However, instead of a second order CFA, as an equivalent model (Kline, 2011), the original two-factor structure was tested under a one-factor model where the covariances of all parcels of one factor (i.e., Cont1 & Cont2) were freely estimated. Results presented a good fit for the data ($\chi^2(1) = 2.84$, $p > .05$, $\chi^2/df\text{-ratio} = 2.84$, $CFI =$

1.00, $TLI = .99$, $RMSEA = .07$ [90% $CI = .00, .17$], $pClose > .05$, and $SRMR = .01$). All standardized regression weights were found to be above .40 and significant.

3.3.1.2.2 Reliability of CFI for the Present Study

Cronbach's alpha coefficient was computed to examine the internal consistency coefficient of CFI. Cronbach's alpha coefficient was found to be .91 for the overall scale, .91 for Alternatives subscale, and .86 for Control subscale.

3.3.1.3 State Hope Scale (SHS)

The State Hope Scale (SHS) was developed by Snyder et al. (1996) in order to assess the hope levels of individuals toward specific, present, goal-oriented situations. The SHS is a six-item measure of hope with three items (items 2, 4, and 6) that measure State Hope Agency subscale (e.g., "At the present time, I am energetically pursuing my goals.") and three items (items 1, 3, and 5) that measure State Hope Pathways subscale (e.g., "I can think of many ways to reach my current goals."). Respondents are asked to indicate how accurately each item best described them using a 4-point type scale, ranging from 1 (totally disagree) to 4 (totally agree) where higher scores indicate higher levels of state hope in each subscale. Snyder et al.'s (1996) factor analysis study yielded a two-factor structure that explained 71.4% of the total variance. The internal consistency was calculated by the Cronbach alpha coefficients by Snyder and his colleagues (1996). The Cronbach alpha coefficients were found to be .88 for the overall scale, .86 for State Hope Agency subscale, and .59 for State Hope Pathways subscale.

Turkish adaptation of SHS was conducted by Denizli (2004). Consistent with the original two-factor structure, results yielded a two-factor structure that

explained the 57% of the total variance. The Cronbach alpha coefficient was found to be .48 for the overall scale, .66 for State Hope Agency subscale, and .58 for State Hope Pathways subscale (Denizli, 2004).

3.3.1.3.1 Confirmatory Factor Analysis of SHS for the Present Study

Consistent with the original two-factor structure, a two factor model (State Hope Agency & Pathways) was tested for SHS through CFA. However, instead of a second order CFA, as an equivalent model (Kline, 2011), the original two-factor structure was tested under a one-factor model where the covariances of all items of one factor (i.e., items 2, 4, and 6) were freely estimated. Results presented a good fit of two factor model for the data ($\chi^2(6) = 14.30$, $p < .05$, $\chi^2/df\text{-ratio} = 2.38$, $CFI = .99$, $TLI = .98$, $RMSEA = .06$ [90% $CI = .02, .10$], $p_{Close} > .05$, and $SRMR = .03$). All standardized regression weights were found to be above .40 and significant.

3.3.1.3.2 Reliability of SHS for the Present Study

Cronbach's alpha coefficient was computed to examine the internal consistency coefficient of SHS. Cronbach's alpha coefficient was found to be .85 for overall scale, .80 for State Hope Agency subscale, and .77 for State Hope Pathways subscale.

3.3.1.4 Coping with Stress Scale (CSS)

Coping with Stress Scale (CSS) was developed by Türküm (2002) in order to assess the levels and the types of coping behaviors when individuals confront with stressful events. The CSS is a 23-item measure of types of coping with stress with eight items that measure Avoidance subscale (e.g., "I try to get my focus off the problem"), eight items that measure Problem-focused Coping

subscale (e.g., “I think of all possible solutions.”), and seven items that measure Seeking Social Support subscale (e.g., “I look for someone to share my distress.”). Respondents are asked to indicate how accurately each item best described them using a 5-point Likert type scale, ranging from 1 (not appropriate at all) to 5 (absolutely appropriate) where higher scores on the subscales indicate higher levels of engaging in avoidance, problem-focused coping, or seeking social support. Türküm’s (2002) factor analysis study yielded a three-factor structure that explained 41.7% of the total variance. The internal consistency was calculated by the Cronbach alpha coefficients by Türküm (2002). The Cronbach alpha coefficients were found to be .65 for Avoidance subscale, .80 for Problem-focused Coping subscale, and .85 for Seeking Social Support subscale. Additionally, test-retest correlation in ten-week interval was found to be .85 for the overall scale, .61 for Avoidance subscale, .71 for Problem-focused Coping subscale, and .68 for Seeking Social Support subscale.

3.3.1.4.1 Confirmatory Factor Analysis of CSS for the Present Study

Consistent with the original three-factor structure, a three factor model (Avoidance, Problem-focused Coping, & Seeking Social Support) was tested for CSS through CFA. Before running CFA, item parceling technique was utilized in accordance with the suggestions listed above (Bandalos & Finney; 2001; Kline, 2011; Little et al., 2002; Marsh et al., 1998). A total of 11 parcels (4 parcels for Avoidance, 4 parcels for Problem-focused Coping, and 3 parcels for Seeking Social Support) were created for 23 items of the scale. Results presented a mediocre fit of this three factor model for the data ($\chi^2(41) = 124.44$, $p = .00$, $\chi^2/df\text{-ratio} = 3.03$, $CFI = .93$, $TLI = .91$, $RMSEA = .07$ [90% $CI = .06, .09$], $pClose = .01$, and $SRMR = .06$). All standardized regression weights, but one, were found to be above .40 and significant. After examining the modification indexes, the error covariance of parcel 1 and parcel 3 of Avoidance subscale (i.e., Avo1 & Avo3) was freely estimated and the results provided a better fit of three

factor model for the data ($\chi^2(40) = 95.09, p = .00, \chi^2/df\text{-ratio} = 2.38, CFI = .95, TLI = .94, RMSEA = .06$ [90% $CI = .04, .07$], $p_{Close} > .05$, and $SRMR = .06$). All standardized regression weights were significant.

3.3.1.4.2 Reliability of CSS for the Present Study

Cronbach's alpha coefficient was computed to examine the internal consistency coefficient of CSS. Cronbach's alpha coefficient was found to be .61 for Avoidance subscale, .76 for Problem-focused Coping subscale, and .84 for Seeking Social Support subscale.

3.3.1.5 Subjective Well-being Scales (SWBS)

In order to assess participants' subjective well-being levels, two scales were used, namely, Positive and Negative Affect Schedule (PANAS) and Satisfaction with Life Scale (SWLS). Because of using two scales for measuring this construct with three components (positive affect, negative affect, & life satisfaction), subjective well-being was treated as a second order construct/factor where second order factor refers to the construct that does not have its own indicators, thus measured indirectly through the indicators of its first-order factors (Kline, 2011). In this study, subjective well-being was the second order construct/factor while positive affect, negative affect, and life satisfaction were its first order factors.

First the validity and reliability of the components of SWBS, namely PANAS and SWLS, are presented and then the validity and reliability of SWBS where subjective well-being is a second order construct is presented below.

3.3.1.5.1 Positive and Negative Affect Schedule (PANAS)

The Positive and Negative Affect Schedule (PANAS) was developed by Watson and colleagues (1988) in order to assess individuals' positive and negative mood states during a specified time frame. The PANAS is a 20-item measure with 10 of them measuring Positive Affect subscale (e.g., enthusiastic, active, alert) and 10 of them measuring Negative Affect subscale (e.g., distressed, hostile, nervous). Respondents are asked to indicate to what extent they had experienced each mood state during a specified time using a 5-point Likert type scale, ranging from 1 (very slightly or not at all) to 5 (very much). Higher scores on the subscales indicate higher levels of positive or negative affectivity. Watson et al.'s (1988) factor analysis study yielded a two-factor structure that explained 68.7% of the total variance for the "general" time frame, and 62.8% of the variance for the "moment" time frame. The internal consistency was calculated by the Cronbach alpha coefficients by Watson et al. (1988). The Cronbach alpha coefficients were found to range from .86 to .90 for Positive Affect subscale and .84 to .87 for Negative Affect subscale across six different time instructions (i.e., moment, today, past few days, past few weeks, year, and general). Additionally, test-retest correlation in an eight week interval was found to range from .47 to .68 for Positive Affect subscale and .39 to .71 for Negative Affect subscale across six different time instructions that are listed in previous sentence.

Turkish adaptation of PANAS was conducted by Gençöz (2000). Consistent with the original two-factor structure, results yielded a two-factor structure that explained 44% of the total variance. The Cronbach alpha coefficients were found to be .83 for Positive Affect subscale and .86 for Negative Affect subscale (Gençöz, 2000). Additionally, test-retest correlations in a three week interval were found to be .54 for Positive Affect subscale and .40 for Negative Affect subscale.

3.3.1.5.1.1 Confirmatory Factor Analysis of PANAS for the Present Study

Consisted with the original two-factor structure, a two-factor model (Positive Affect & Negative Affect) was tested for PANAS through CFA. Before running CFA, item parceling technique was utilized in accordance with the suggestions listed above (Bandalos & Finney; 2001; Kline, 2011; Little et al., 2002; Marsh et al., 1998). A total of 10 parcels (5 parcels for Positive Affect, and 5 parcels for Negative Affect) were created for 20 items of the scale. Results presented a poor fit for the data ($\chi^2(34) = 157.813$, $p = .00$, $\chi^2/df\text{-ratio} = 4.64$, $CFI = .92$, $TLI = .89$, $RMSEA = .10$ [90% $CI = .08, .11$], $pClose = .00$, and $SRMR = .07$). All standardized regression weights were found to be above .40 and significant. After examining the modification indexes, the error covariance of parcel 1 and parcel 3 in Positive Affect subscale, and parcel 6 and parcel 10, and parcel 8 and parcel 10 in Negative Affect subscale were freely estimated and the results provided an acceptable fit for the data ($\chi^2(31) = 92.33$, $p = .00$, $\chi^2/df\text{-ratio} = 2.98$, $CFI = .96$, $TLI = .94$, $RMSEA = .07$ [90% $CI = .05, .09$], $pClose < .05$, and $SRMR = .06$). All standardized regression weights were found to be above .40 and significant.

3.3.1.5.1.2 Reliability of PANAS for the Present Study

Cronbach's alpha coefficient was computed to examine the internal consistency coefficient of PANAS. Cronbach's alpha coefficient was found to be .86 for Positive Affect subscale and .85 for Negative Affect subscale.

3.3.1.5.2 Satisfaction with Life Scale (SWLS)

The Satisfaction with Life Scale (SWLS) was developed by Diener et al. (1985) in order to assess individuals' global life satisfaction as a cognitive-judgmental

process. The SWLS is a 5-item measure of life satisfaction (e.g., “In most ways, my life is close to my ideal.”). Respondents are asked to indicate how accurately each item best described them using a 7-point Likert type scale, ranging from 1 (totally disagree) to 7 (totally agree) where higher scores indicate higher levels of life satisfaction. Diener et al.’s (1985) factor analysis study yielded a single factor structure that explained 66% of the total variance. The internal consistency was calculated by the Cronbach alpha coefficients by Diener et al. (1985). The Cronbach alpha coefficient was found to be .87 for the scale. Additionally, test-retest correlation in an eight week interval was found to be .82 for the scale.

Turkish adaptation of SWLS was conducted by Köker (1991). Köker (1991) tested the validity of the adapted scale by its face validity. Additionally, Köker (1991) found item-test correlation to range between .71 and .80 and a test-retest correlation of .85 in three-week interval. Moreover, consistent with the original single factor structure, Yetim (1991) reported a single factor structure for the Turkish adaptation of SWLS.

3.3.1.5.2.1 Confirmatory Factor Analysis of SWLS for the Present Study

Consistent with the original single factor structure, a single factor model was tested for SWLS through CFA. Results presented a mediocre fit of single factor model for the data ($\chi^2(5) = 19.70, p = .001, \chi^2/df\text{-ratio} = 3.94, CFI = .98, TLI = .96, RMSEA = .08$ [90% $CI = .05, .13$], $pClose = .05$, and $SRMR = .03$). All standardized regression weights were found to be above .40 and significant. After examining the modification indexes, the error covariance of item 2 and item 3 was freely estimated and the results provided a better fit for the data ($\chi^2(4) = 11.56, p < .05, \chi^2/df\text{-ratio} = 2.89, CFI = .99, TLI = .98, RMSEA = .07$ [90% $CI = .03, .12$], $pClose > .05$, and $SRMR = .02$). All standardized regression weights were found to be above .40 and significant.

3.3.1.5.2.2 Reliability of SWLS for the Present Study

Cronbach's alpha coefficient was computed to examine the internal consistency coefficient of SWLS. Cronbach's alpha coefficient was found to be .85 for the scale.

3.3.1.5.3 Confirmatory Factor Analysis of SWBS for the Present Study

Aforementioned, subjective well-being was accepted as a second order construct in the present study since it does not have its own indicators and can be measured by the indicators of its first order constructs of positive affect, negative affect, and life satisfaction. Therefore, a second order CFA, which consisted of all parcels of Positive Affect and Negative Affect subscales in PANAS and all items of SWLS, was tested for SWBS through CFA. The results provided a good fit for the data ($\chi^2(83) = 174.92$, $p = .00$, $\chi^2/df\text{-ratio} = 2.11$, $CFI = .96$, $TLI = .95$, $RMSEA = .05$ [90% $CI = .04, .06$], $p_{Close} > .05$, and $SRMR = .05$). All standardized regression weights were found to be above .40 and significant.

3.3.1.5.4 Reliability of SWBS for the Present Study

Cronbach's alpha coefficient was computed to examine the internal consistency coefficient of SWBS. Cronbach's alpha coefficient was found to be .88 for the scale that consisted of positive affect, negative affect, and life satisfaction.

3.3.1.6 Demographic Information Form

Demographic Information Form was developed by the researcher in order to gather the information related to participants' gender, age, faculty, class level, and self-reported CGPA scores to describe the characteristics of the sample. Demographic Information Form also provided a brief explanation of the study,

instructions, some information regarding the participants' confidentiality, and contact information of the researcher.

Given the findings of CFA's and Cronbach's alpha coefficients which were explained throughout this section of "Data Collection Instruments", all instruments were found to be valid and reliable, and also used in the main study for collecting data from the participants.

3.4 Data Collection Procedure

Prior to data collection, necessary permission was gathered from the METU Human Subjects Ethics Committee. Then, the researcher visited instructors from five faculties of the university and introduced herself and the study. The instructors were informed about the study's aim, method and procedure, and asked to give permission for the administration of the instruments. Data of the pilot study and the main study were collected from the students during the spring and summer semesters of the 2015-2016 academic year.

The researcher administered the surveys by herself in regular class hours by getting the permission of the courses' instructors and scheduling the administration. The researcher used a standardized procedure to all groups while informing participants about herself and the study. The researcher introduced herself first, and then explained the aim of the study, and asked for the volunteer ones to distribute the surveys. Under the advising of the researcher, the participants completed the survey in about 15-20 minutes. Each individual was informed as their contribution would be anonymous and confidential, their participation should be voluntary and they had the right to leave the survey at any time they wanted. Finally, after completing the surveys, each student group was thanked for their valuable participation. Moreover, after the completion of data collection process, the researcher answered all of the e-mails which were

received from the participants who had questions about their answers and the findings of the study.

3.5 Description of Variables

Dispositional Hope: The total score of the Turkish version of Dispositional Hope Scale.

State Hope: The total score of the Turkish version of State Hope Scale.

Cognitive Flexibility: The total score of Turkish version of Cognitive Flexibility Inventory.

Avoidance: The total score of Avoidance subscale of the Turkish version of Coping with Stress Scale.

Problem-focused Coping: The total score of Problem-focused Coping subscale of Turkish version of Coping with Stress Scale.

Seeking Social Support: The total score of Seeking Social Support subscale of Turkish version of Coping with Stress Scale.

Positive Affect: The total score of Positive Affect subscale of Turkish version of Positive and Negative Affect Schedule.

Negative Affect: The total score of Negative Affect subscale of Turkish version of Positive and Negative Affect Schedule.

Life Satisfaction: The total score of the Turkish version of Satisfaction with Life Scale.

Subjective Well-being: The total score of the Positive Affect and Negative Affect subscales of Turkish versions of Positive and Negative Affect Schedule, and Satisfaction with Life Scale.

3.6 Data Analysis

The purpose of the present study was to test a model that examines the relationships among dispositional hope, cognitive flexibility, state hope, coping strategies, and subjective well-being (positive affect, negative affect, & life satisfaction). These relationships were examined by SEM analysis. Prior to conducting SEM, data were screened for any possible incorrect entries. Moreover, missing value analysis (MVA) was used to identify the randomness of the missing data. Following MVA, the assumptions of SEM (sample size and missing data, normality, outliers, multicollinearity, linearity, and homoscedasticity) were checked. All assumptions were checked by SPSS Version 23 (IBM Corp., 2015) whereas MVA was conducted by PASW Version 18 (SPSS Inc., 2009). Confirmatory factor analyses for instruments of pilot study, confirmatory factor analysis for the measurement model and the analysis of the structural model were conducted via AMOS Version 18 (Arbuckle, 2009).

3.7 Limitations of the Study

As well as its strengths, the current study has some limitations which are needed to be taken into consideration while evaluating the findings. Firstly, as an important limitation of the current study, convenient sampling procedure was used rather than a random sampling procedure. Although convenient sampling is a practical solution to gather data from big samples, it is a threat to external validity that limits the generalizability of the findings (Fraenkel et al., 2012). Since the findings of the current study may differ across different samples, the

current findings can be generalized for only similar samples of undergraduate university students.

Another limitation was the use of self-report measures while collecting data. Despite the common usage of these measures for gathering data from participants, the validity of self-report measures is limited since the answers of the participants is limited to their perceived levels of the study constructs and they may give socially desirable answers, especially in sensitive research topics such as emotional and social constructs. Therefore, it was suggested to validate the self-report measures with the additional use of non-self-report measures such as interviewer rating, peer ratings, and facial codings (Diener, 1984). However, the need of reaching a big enough sample size for the following comprehensive analyses made it impossible to use those suggested non-self-report measures which require one-by-one detailed attention/tracking for each participant. Thus, self-report measures were concluded as the appropriate measures for the current study in terms of feasibility. Consistently, Diener and his colleagues (1997) suggested self-report measures as appropriate since only the participants can experience their own pains or pleasures and evaluate if their lives are worthwhile based on their own internal experience.

Another shortcoming was related to the design of the study. The current study was based on a cross-sectional design where data were collected at one time point. This design cannot provide information regarding the sequence of the events. Therefore, definitive conclusions regarding the cause-and-effect pattern cannot be made based on the present findings. Accordingly, experimental and longitudinal designs may be the right choice in order to examine the causality among study variables and to understand how these study variables interact across time. For instance, Diener et al. (1997) recommended the use of “experience sampling method”, which is based on the collection of mood reports at random times over a period of weeks, as a beneficial measurement way while

studying subjective well-being of the individuals. Thus, further studies who aim to provide a cause-and-effect pattern based on their findings, which was not the aim of the current study, may incorporate experience sampling method into their measurement strategies as well.

Another shortcoming was the use of these selected variables in understanding the subjective well-being of the university students. In the present study, a model which consisted of dispositional hope, cognitive flexibility, state hope, and coping strategies towards subjective well-being was investigated. However, there may be other factors (e.g., demographic variable of income: Diener et al., 1993; personality traits: Watson & Clark, 1984; subjective vitality: Ryan & Frederick, 1997; optimism: Diener, 1984) that may influence the subjective well-being of the university students which were not covered in the present study.

CHAPTER IV

RESULTS

In the current study, two data sets were gathered for the pilot and main study as noted earlier. The results of the pilot study are presented in previous section. Now, the results of the analyses of the main study (preliminary analyses, descriptive analyses, test of measurement model, and test of structural model) are presented in this chapter. Firstly, the results of preliminary analyses which consisted of checking sample size and missing data, conducting missing value analysis, detecting influential outliers, checking for the assumptions of SEM (i.e., independent observation, normality, linearity, homoscedasticity, and multicollinearity), and checking reliabilities of the data collection instruments are reported. Then, the results of descriptive analyses are presented to show the correlations among the study variables and the possible influence of participants' characteristics for the study variables. Afterwards, the results of the measurement model is reported to provide further evidence for the validity of the data collection instruments used in the study. Lastly, the results of the structural model are presented.

4.1 Preliminary Analyses

Before conducting the main analyses, firstly the data were screened for the appropriateness of the data for the main analyses. Sample size adequacy, missing value analysis, outlier checks, and assumptions check were conducted in this step. Additionally, reliabilities of the data collection instruments are presented under this section. Missing value analyses were conducted by PASW Version 18 (SPSS Inc., 2009) while outliers, SEM assumptions (independent observation,

normality, linearity, homoscedasticity, and multicollinearity), and reliabilities of the data collection instruments were checked by SPSS Version 23 (IBM Corp., 2015).

4.1.1 Sample Size and Missing Data

Given the assumption of sample size and missing data, firstly the data were screened for detecting any incorrect or/and missing entries. In data implementation process, the researcher informed the participants about the possible effects of completing the instruments incorrectly or leaving missing values. Having them know about the importance of missing data, participants were careful and asked questions if they had any problem in understanding any item rather than not completing the items easily. Additionally, there were not any incorrect entries/values in the data set but still there were 34 cases with missing values in some of the data collection instruments. Therefore, the Little's MCAR test (Little & Rubin, 1987) was conducted to examine the pattern of the missingness in the data. More specifically, the data were checked whether these missing values were at random or not for the data collection instruments. The Little's MCAR tests provided non-significant Chi-square values indicating that missing values were MAR (missing at random) for all instruments. Tabachnich and Fidell (2007) suggest that any technique would result in a similar finding if the missing data rate is less than 5% for each case. Since the missing data rate was less than 5% and the sample size was a sufficient one ($n = 1280$), the researcher decided to conduct listwise deletion as a robust technique to handle with missing data in the main study. After listwise deletion, sample size decreased to 1246 which is still above Kline's (2011) suggestion of having at least 200 participants to conduct SEM.

4.1.2 Influential Outliers

In order to detect influential outliers, both univariate and multivariate outliers were examined. For detecting univariate outliers, box plots were checked and z-scores were calculated. Box-plots presented some outliers. Moreover, there were some cases that were not in the interval of -3.29 and +3.29 which could be accepted as univariate outliers (Tabachnick & Fidell, 2007). In addition to univariate outlier check, multivariate outliers were checked through Mahalanobis distance values. A critical Chi-square value was calculated with df (number of predictors) at .001 significance level and 24 cases exceeding this critical value were labelled as multivariate outliers. Considering their high Mahalanobis distance values from critical value and the manageable number of them, the researcher decided to remove these cases from the data set. With this elimination, the final data set of the main study was reduced to 1222 participants.

4.1.3 Assumptions of SEM

After conducting the preliminary analyses of checking sample size and missing values, and influential outliers, the assumptions of SEM, namely independent observation, normality, linearity, homoscedasticity, and multicollinearity, were examined. The results of these assumptions checks are reported below.

4.1.3.1 Independent Observation

Independent observation was secured with the presence of the researcher in all data implementation sessions. More specifically, the researcher was in the classroom in every session and controlled for any non-independent observation. While distributing the instruments, the researcher informed participants about the necessity and importance of independent observation and let the participants know that they could ask any question to the researcher rather than discussing

them with their friends and affecting each other. Consequently, the researcher reminded the independent observation necessity when it was necessary and answered all the questions the participants had during the completion of the data collection instruments. Moreover, the researcher informed/reminded the participants about their right to exit from participation at any time in order not to have non-voluntary participants to duplicate others' answers just to complete the instruments. Thus, the researcher observed the students' responses to the questions independently of one another in the data collection process.

4.1.3.2 Normality

For examining normality assumption, both univariate and multivariate normality were checked. For univariate normality, Kolmogorov-Smirnov and Shapiro-Wilk tests values, skewness - kurtosis values, histograms, and Q-Q plots were checked. Regarding the findings of Kolmogorov-Smirnov and Shapiro-Wilk tests, all study variables had significant results. Although it is suggested to have non-significant values on these normality tests, these tests are very sensitive in catching any minor deviation from normality. Consistently, Field (2009) indicates that in large samples, these normality tests tend to be significant for any very slight variation from normality and they should be interpreted with the consultation of the findings of skewness - kurtosis values, histograms, and Q-Q plots. According to Kline (2011), skewness values are suggested to be lower than 3.00 and kurtosis values to be lower than 10.00 for satisfying normality assumption while Finney and DiStefano (2006) suggest skewness to be lower than 2.00 and kurtosis to be lower than 7.00 for at least moderately non-normal data which still allow to use Maximum Likelihood (ML) estimation. As reported in Table 2, all skewness and kurtosis values were in the suggested intervals. Therefore, ML estimation was used in the study. Regarding the visual inspection of histograms and Q-Q plots, some of the variables presented non-normal patterns.

Table 2

Means, Standard Deviations, Skewness, and Kurtosis Values for Items and Parcels

	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>SE</i>	<i>Kurtosis</i>	<i>SE</i>
DHS_2	3.04	.71	-.35	.07	-.10	.14
DHS_9	3.18	.81	-.77	.07	.05	.14
DHS_10	2.80	.71	-.49	.07	.37	.14
DHS_12	2.98	.64	-.40	.07	.70	.14
DHS_1	3.38	.65	-.77	.07	.53	.14
DHS_4	3.43	.70	-1.04	.07	.62	.14
DHS_7	3.38	.64	-.67	.07	-.02	.14
DHS_8	3.10	.71	-.47	.07	.06	.14
Alt1	27.95	4.02	-.22	.07	-.36	.14
Alt2	23.67	3.95	-.30	.07	-.33	.14
Cont1	13.74	3.53	-.36	.07	-.30	.14
Cont2	10.38	2.42	-.27	.07	-.27	.14
SHS_2	3.06	.86	-.59	.07	-.28	.14
SHS_4	2.55	.84	-.17	.07	-.56	.14
SHS_6	2.78	.85	-.43	.07	-.35	.14
SHS_1	3.40	.67	-.92	.07	.71	.14
SHS_3	3.17	.77	-.65	.07	-.05	.14
SHS_5	3.21	.74	-.68	.07	.14	.14
Avo1	5.94	1.75	.03	.07	-.12	.14
Avo2	6.39	1.83	-.27	.07	-.19	.14
Avo3	6.03	2.33	-.10	.07	-.94	.14
Avo4	5.93	2.07	-.19	.07	-.66	.14
Pro1	7.33	1.58	-.34	.07	.03	.14
Pro2	7.48	1.61	-.44	.07	.10	.14
Pro3	7.92	1.39	-.59	.07	.54	.14
Pro4	7.92	1.39	-.60	.07	.42	.14

Table 2 (continued)

Means, Standard Deviations, Skewness, and Kurtosis Values for Items and Parcels

	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>SE</i>	<i>Kurtosis</i>	<i>SE</i>
Soc1	10.59	2.48	-.45	.07	.07	.14
Soc2	6.83	1.93	-.27	.07	-.54	.14
Soc3	7.34	2.00	-.59	.07	-.34	.14
PA1	6.29	1.79	-.15	.07	-.41	.14
PA2	6.29	1.94	-.05	.07	-.51	.14
PA3	6.41	1.75	-.22	.07	-.29	.14
PA4	6.48	1.76	-.15	.07	-.38	.14
PA5	6.55	1.92	-.27	.07	-.40	.14
NA1	6.00	2.09	.06	.07	-.79	.14
NA2	4.31	1.78	.77	.07	.36	.14
NA3	3.56	2.00	1.39	.07	1.23	.14
NA4	3.56	1.71	1.16	.07	.94	.14
NA5	5.63	2.44	.17	.07	-1.02	.14
SWL_1	4.37	1.60	-.51	.07	-.60	.14
SWL_2	4.29	1.60	-.33	.07	-.75	.14
SWL_3	4.99	1.50	-.77	.07	-.05	.14
SWL_4	4.65	1.55	-.59	.07	-.40	.14
SWL_5	3.48	1.89	.19	.07	-1.13	.14

In addition to univariate normality, multivariate normality was checked through Mardia's coefficient test (Tabachnick & Fidell, 2007). Mardia's test for all study variables resulted in significant findings which showed that the assumption of multivariate normality was violated for study variables. Considering the frequent failure of researchers in achieving multivariate normality (Byrne, 2010) and the frequent attempt of establishing more robust models for reducing the effects of

the violation of multivariate normality (West et al., 1995), bootstrapping procedure was used in the main study as a remedy to decrease the influence of non-normal data.

4.1.3.3 Linearity and Homoscedasticity

Linearity is the assumption of having linear relationships among the study variables which is required by all analyses based on correlational associations while homoscedasticity refers to having “dependent variable to exhibit equal levels of variance across the range of predictor variables” (Hair, Black, Babin, & Anderson, 2014, p.72). In order to test linearity and homoscedasticity assumptions, histogram, normal P-P plot of residuals, and scatterplot of dependent variable and partial regression plots of dependent and each independent variables were checked (see Appendix I). Visual inspections of the plots did not show any specific pattern and provided approximately elliptical shapes.

4.1.3.4 Multicollinearity

The assumption of multicollinearity of the variables was checked through bivariate correlation coefficients, tolerance, and variance inflation factor (VIF) values. The bivariate correlation coefficients are suggested to be lower than .90, tolerance values to be higher than .20, and VIF values to be lower than 10 in order to meet this assumption (Kline, 2011; Tabachnick & Fidell, 2007). In the current data set, the bivariate correlations ranged between .03 and .67, tolerance values ranged between .26 and .76, and VIF values ranged between 1.32 and 3.89. Thus, all the bivariate correlations, tolerance and VIF values satisfied the suggested criteria and showed that the multicollinearity assumption was met.

4.1.4 Reliability of the Data Collection Instruments

The reliabilities of the data collection instruments for the main data were checked before the model testing. Cronbach's alpha coefficients were computed for each instrument to examine the internal consistency coefficients of the instruments. Cronbach's alpha coefficients was $\alpha = .78$ for Dispositional Hope Scale ($\alpha = .66$ for Dispositional Hope Agency subscale and $\alpha = .74$ for Dispositional Hope Pathways subscale) whereas it was $\alpha = .84$ for State Hope Scale ($\alpha = .82$ State Hope Agency subscale and $\alpha = .76$ for State Hope Pathways subscale). Cronbach's alpha coefficients were calculated as $\alpha = .90$ for Cognitive Flexibility Inventory ($\alpha = .90$ for Alternatives subscale and $\alpha = .86$ for Control subscale). Cronbach's alpha coefficients were $\alpha = .68$ for Avoidance, $\alpha = .77$ for Problem-focused Coping, and $\alpha = .85$ for Seeking Social Support subscales in Coping with Stress Scale. Lastly, for the scales that were used to measure subjective well-being, Cronbach's alpha were calculated as $\alpha = .88$ for Positive Affect and $\alpha = .84$ for Negative Affect in Positive and Negative Affect Schedule, and $\alpha = .84$ for Satisfaction with Life Scale.

4.2 Descriptive Analyses

In this section, firstly, bivariate correlations among study variables are presented in order to display the relationships among the variables. To reach bivariate correlations among the study variables, Pearson product moment correlation coefficients were computed. Then, group differences in terms of participants' characteristics such as gender on the study variables were checked through independent sample t-tests. All analyses of this section (bivariate correlations and group comparisons) were conducted by SPSS Version 23 (IBM Corp., 2015).

4.2.1 Bivariate Correlations

Bivariate correlations among all of the study variables were examined in order to display the magnitude and direction of the relationships among the study variables. The magnitude of the correlational relationships were evaluated by the cut-off points that are suggested by Field (2009). According to Field (2009), a correlation coefficient of $\pm .10$ is an indicative of a small correlation while $\pm .30$ is an indicative of a medium correlation, and $\pm .50$ is an indicative of a large correlation. Bivariate correlations are presented in Table 3. The correlations among study variables were explained below, starting with the presentation of the correlations of subjective well-being variables with other study variables and going on with the correlations among predictor variables.

As seen in the Table 3, positive affect was found to have positive and large correlations with dispositional hope ($r = .54, p \leq .001$) and state hope ($r = .60, p \leq .001$) while it had positive and medium correlations with cognitive flexibility ($r = .44, p \leq .001$), and problem-focused coping ($r = .42, p \leq .001$), and positive and small correlations with avoidance ($r = .14, p \leq .001$) and seeking social support ($r = .14, p \leq .001$). That is, those who reported higher levels of positive affect also reported higher levels of dispositional and state hope, cognitive flexibility, avoidance, problem-focused coping, and seeking social support. Considering negative affect, it was found to have negative and medium correlations with cognitive flexibility ($r = -.34, p \leq .001$), state hope ($r = -.33, p \leq .001$), and positive affect ($r = -.30, p \leq .001$) while it had negative and small correlations with dispositional hope ($r = -.28, p \leq .001$), problem-focused coping ($r = -.11, p \leq .001$), seeking social support ($r = -.13, p \leq .001$), and life satisfaction ($r = -.29, p \leq .001$). That is, those who reported higher levels of negative affect also reported lower levels of dispositional and state hope, cognitive flexibility, problem-focused coping, seeking social support, positive affect, and life satisfaction. However, negative affect was not found to be

significantly correlated with avoidance ($r = .03, p > .05$). When it comes to life satisfaction, it was found to have positive and large correlation with state hope ($r = .54, p \leq .001$), while it had positive and medium correlations with dispositional hope ($r = .45, p \leq .001$) and positive affect ($r = .43, p \leq .001$), and positive and small correlations with cognitive flexibility ($r = .26, p \leq .001$), avoidance ($r = .16, p \leq .001$), problem-focused coping ($r = .25, p \leq .001$), and seeking social support ($r = .18, p \leq .001$). That is, those who reported higher levels of life satisfaction also reported higher levels of dispositional and state hope, cognitive flexibility, avoidance, problem-focused coping, seeking social support, and positive affect.

Considering the relationships among predictor variables (dispositional hope, cognitive flexibility, state hope, avoidance, problem-focused coping, and seeking social support), all of the correlations were found to be significantly and positively associated with each other, except for a negative correlation and a non-significant correlation. More specifically, cognitive flexibility was found to have a negative and small correlation with avoidance ($r = -.09, p \leq .001$) which indicated that those who reported higher levels of cognitive flexibility reported lower levels of engaging in avoidance behavior when they encountered with a stressful situation. Moreover, seeking social support was found to have non-significant correlations with avoidance ($r = .03, p > .05$). Among all the correlations between variables, the highest magnitude belonged to the correlation between dispositional hope and state hope ($r = .67, p \leq .001$).

Given the bivariate correlations, almost all of the relationships were in the expected direction. However, it was surprising that avoidance was found to be positively correlated with other positive study variables of dispositional hope, state hope, problem-focused coping, positive affect, and life satisfaction, contrary to the expectation.

Table 3

Bivariate Correlations among the Study Variables

	Dispositional Hope	Cognitive Flexibility	State Hope	Avoidance	Problem-focused Coping	Seeking Social Support	Positive Affect	Negative Affect	Life Satisfaction
1. Dispositional Hope	-								
2. Cognitive Flexibility	.64**	-							
3. State Hope	.67**	.52**	-						
4. Avoidance	.09*	-.09**	.17**	-					
5. Problem-focused Coping	.55**	.55**	.53**	.24**	-				
6. Seeking Social Support	.11**	.10**	.19**	.03	.20**	-			
7. Positive Affect	.54**	.44**	.60**	.14**	.42**	.14**	-		
8. Negative Affect	-.28**	-.34**	-.33**	.03	-.11**	-.13**	-.30**	-	
9. Life Satisfaction	.45**	.26**	.54**	.16**	.25**	.18**	.43**	-.29**	-
<i>M</i>	25.29	75.74	18.16	24.29	30.65	24.75	32.02	23.08	21.79
<i>SD</i>	3.51	11.14	3.54	5.52	4.58	5.77	7.54	7.43	6.37

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

4.2.2 Gender Differences for Subjective Well-being Variables

Before main analyses, it was aimed to detect the possible influences of participants' gender on the subjective well-being variables of positive affect, negative affect, and life satisfaction. Gender differences in terms of study variables of positive affect, negative affect, and life satisfaction were examined through independent samples t-tests. To prevent the risk of increasing the Type 1 error because of multiple comparisons, Bonferroni correction method was applied by dividing the alpha level by the number of comparisons (Field, 2009). After this calculation, the new alpha value was set to .017 and this new value was used in evaluating the significance of the findings. According to results, significant gender differences were found only on positive affect [$t(1219) = -3.63, p < .017$]. More specifically, results indicated that males ($M = 32.73, SD = 7.37$) had significantly higher positive affect than females ($M = 31.28, SD = 7.66$). However, gender differences on negative affect [$t(1219) = 2.42, p > .017$] and life satisfaction [$t(1219) = 1.51, p > .017$] were non-significant. Considering that the significant gender differences were not observed for all subjective well-being variables and the observed gender differences in positive affect was too small to make conclusions, it was decided to not to include gender differences in the further analyses.

4.3 Results of Model Testing

In this section, the results of the measurement model and the hypothesized structural model are presented. Firstly, a measurement model was prepared to examine the relationships among the latent variables of the study and the items/parcels of these latent variables. Afterwards, the hypothesized structural model was tested. Results of both the measurement model and the hypothesized structural model are presented below, respectively.

4.3.1 Measurement Model

The measurement model was specified to explore the relationships among the latent variables of the study (i.e., dispositional hope, cognitive flexibility, state hope, avoidance, problem-focused coping, seeking social support, and subjective wellbeing variables of positive affect, negative affect, and life satisfaction) and their items/parcels (Figure 3). This measurement model was tested via a seven-factor model through CFA. The results presented an acceptable fit of seven-factor model for the data ($\chi^2(863) = 3301.87$, $p = .00$, $\chi^2/df\text{-ratio} = 3.83$, $CFI = .90$, $TLI = .89$, $RMSEA = .05$ [90% $CI = .05, .05$], $pClose > .05$, and $SRMR = .07$). All standardized estimates were significant and above .40, except for two which were still above the threshold value .32 that is suggested by Tabachnick and Fidel (2013). Standardized regression weights for model parameters are presented in Figure 3. Standardized regression weights of the measurement model are shown in Table 4. Then, latent correlations in measurement model are displayed in Table 5.

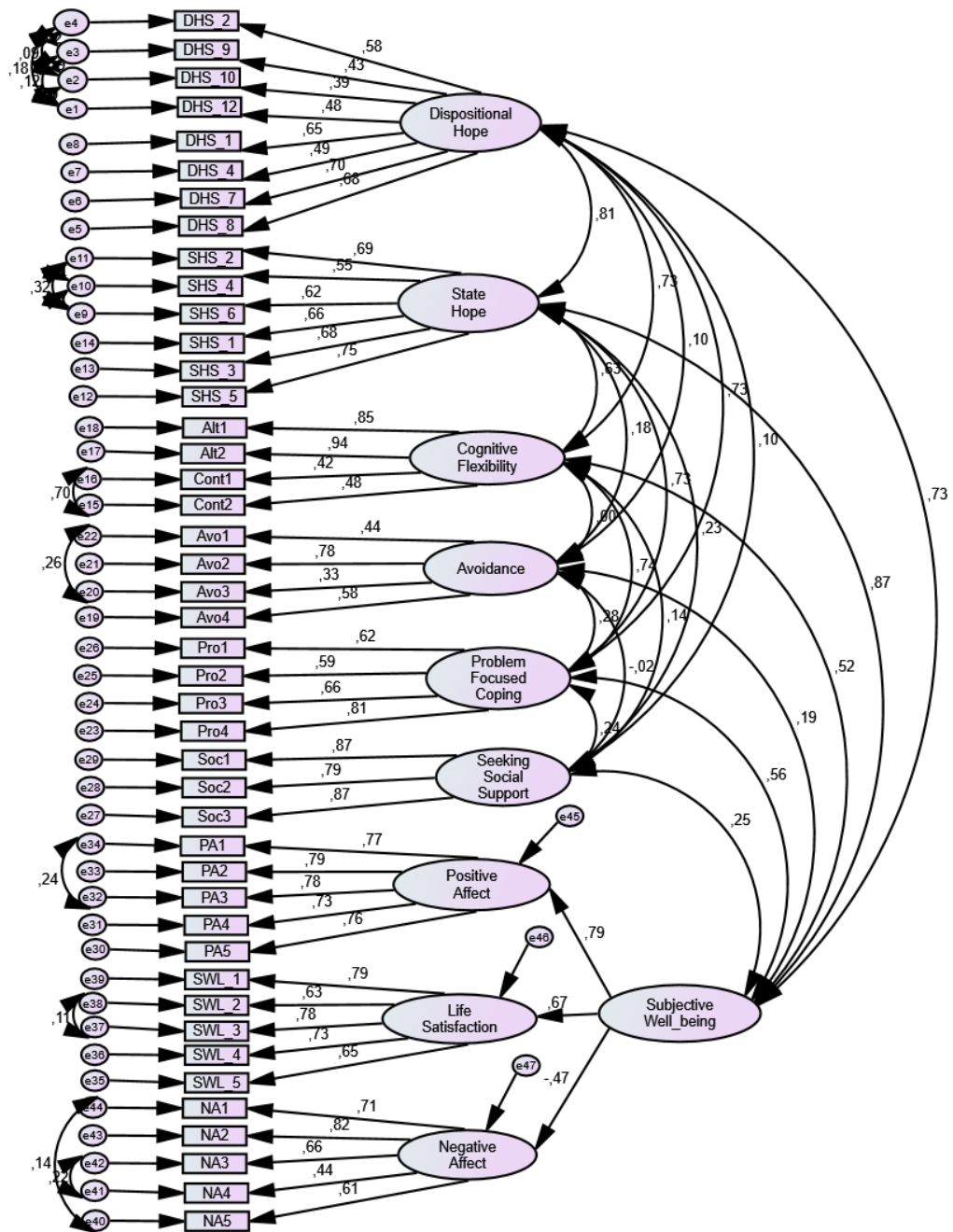


Figure 3. Standardized estimates of the measurement model.

Table 4

Standardized Regression Weights of the Measurement Model

			Estimate
Life_Satisfaction	<---	Subjective_Well_being	.67*
Positive_Affect	<---	Subjective_Well_being	.79*
Negative_Affect	<---	Subjective_Well_being	-.47*
DHS_2	<---	Dispositional_Hope	.58*
DHS_9	<---	Dispositional_Hope	.43*
DHS_10	<---	Dispositional_Hope	.39*
DHS_12	<---	Dispositional_Hope	.48*
DHS_1	<---	Dispositional_Hope	.65*
DHS_4	<---	Dispositional_Hope	.49*
DHS_7	<---	Dispositional_Hope	.70*
DHS_8	<---	Dispositional_Hope	.68*
Alt1	<---	Cognitive_Flexibility	.85*
Alt2	<---	Cognitive_Flexibility	.94*
Cont1	<---	Cognitive_Flexibility	.42*
Cont2	<---	Cognitive_Flexibility	.48*
SHS_2	<---	State_Hope	.69*
SHS_4	<---	State_Hope	.55*
SHS_6	<---	State_Hope	.62*
SHS_1	<---	State_Hope	.66*
SHS_3	<---	State_Hope	.68*
SHS_5	<---	State_Hope	.75*
Avo1	<---	Avoidance	.44*
Avo2	<---	Avoidance	.78*
Avo3	<---	Avoidance	.33*
Avo4	<---	Avoidance	.58*

Table 4 (continued)

Standardized Regression Weights of the Measurement Model

		Estimate
Pro1	<--- Problem_Focused_Coping	.62*
Pro2	<--- Problem_Focused_Coping	.59*
Pro3	<--- Problem_Focused_Coping	.66*
Pro4	<--- Problem_Focused_Coping	.81*
Soc1	<--- Seeking_Social_Support	.87*
Soc2	<--- Seeking_Social_Support	.79*
Soc3	<--- Seeking_Social_Support	.87*
PA1	<--- Positive_Affect	.77*
PA2	<--- Positive_Affect	.79*
PA3	<--- Positive_Affect	.78*
PA4	<--- Positive_Affect	.73*
PA5	<--- Positive_Affect	.76*
NA1	<--- Negative_Affect	.71*
NA2	<--- Negative_Affect	.82*
NA3	<--- Negative_Affect	.66*
NA4	<--- Negative_Affect	.44*
NA5	<--- Negative_Affect	.61*
SWL_1	<--- Life_Satisfaction	.79*
SWL_2	<--- Life_Satisfaction	.63*
SWL_3	<--- Life_Satisfaction	.78*
SWL_4	<--- Life_Satisfaction	.73*
SWL_5	<--- Life_Satisfaction	.65*

* $p < .001$

Table 5

Latent Correlations in the Measurement Model

	Dispositional Hope	Cognitive Flexibility	State Hope	Avoidance	Problem-focused Coping	Seeking Social Support	Subjective Well-being
1. Dispositional Hope	-						
2. Cognitive Flexibility	.73**	-					
3. State Hope	.81**	.63**	-				
4. Avoidance	.10*	-.00	.18**	-			
5. Problem-focused Coping	.73**	.74**	.73**	.28**	-		
6. Seeking Social Support	.10*	.14**	.23**	-.02	.24**	-	
7. Subjective Well-being	.73**	.52**	.86**	.19**	.56**	.25**	-

* $p \leq .01$, ** $p \leq .001$

4.3.2 The Hypothesized Structural Model

The hypothesized structural model was tested with the aim of investigating the relationships between dispositional hope, cognitive flexibility, state hope, and coping strategies (avoidance, problem-focused coping, and seeking social support), and the influence of these relationships on the subjective well-being (positive affect, negative affect, and life satisfaction) of university students in the present sample.

In order to evaluate the fit indexes of the hypothesized structural model, Chi-square value, χ^2/df value, Standardized Root Mean Square Residual (SRMR), The Bentler Comparative fit index (CFI), Tucker-Lewis index (TLI), and Root Mean Square of Error Approximation (RMSEA) fit indexes were selected to be consulted and reported, as consistent with CFAs and measurement model. The cut-off points of these selected fit indexes were provided in Method section.

4.3.2.1 Results of the Hypothesized Structural Model

The hypothesized structural model was tested through bootstrapping procedure with 2000 bootstrapped samples and 95% confidence interval in order to both detect indirect effects of mediational variables and cope with the potential adverse effects of non-normality in the current dataset.

Considering the suggested criteria for the cut-off points of selected fit indexes, results presented an acceptable fit of the hypothesized model for the data ($\chi^2(866) = 3374.42$, $p = .00$, $\chi^2/df\text{-ratio} = 3.90$, $CFI = .90$, $TLI = .89$, $RMSEA = .05$ [90% $CI = .05, .05$], $p_{Close} > .05$, and $SRMR = .07$). Moreover, it was observed that the indicators (items and parcels of variables) in the model significantly explained their latent variables, with the factor loadings ranging between .33 and .94.

4.3.2.2 Direct Effects for the Hypothesized Structural Model

Estimates for direct effects in the hypothesized structural model were displayed in Figure 4 where lines are presenting significant paths and dash lines are presenting non-significant paths. The direct effects of dispositional or trait-like variables (dispositional hope and cognitive flexibility) on the endogenous variable of subjective well-being in the hypothesized structural model are presented first, then the direct effects of situational and contextual variables (state hope and coping strategies) on the endogenous variable of subjective well-being are presented. Consequently, the direct effects of variables on subjective well-being are summarized. Finally, the direct effects of predictor variables on each other are presented below. All direct, total indirect, and total effects with their significance levels are presented in Table 6.

Considering the direct effects of dispositional or trait-like variables on subjective well-being in the hypothesized structural model, dispositional hope failed to have a significant direct effect on subjective well-being ($\beta = .20, p > .05$). Similarly, cognitive flexibility was found to have a non-significant direct effect on subjective well-being ($\beta = -.00, p > .05$). Both of these findings are in contrast with the expectations that these dispositional factors would have significant direct effects on subjective well-being as they were validated as strong predictors of subjective well-being in the previous studies.

Considering the direct effects of situational or contextual variables on subjective well-being in the hypothesized model, state hope had a positive and significant direct effect on subjective well-being ($\beta = .89, p \leq .001$). That is participants who had higher levels of state hope, also reported to have higher levels of subjective well-being. Given the direct effects of coping strategies, problem-focused coping ($\beta = -.28, p \leq .001$) and seeking social support ($\beta = .08, p < .05$) had significant direct effects on subjective well-being. In other words, participants

who engaged in less problem-focused coping and participants who engaged in more seeking social support indicated that they had greater levels of subjective well-being. However, in the present sample, avoidance did not have a significant direct effect on subjective well-being ($\beta = .04, p > .05$).

To sum up the direct effects of the predictor variables on the endogenous variable of subjective well-being, it was found that state hope, problem-focused coping, and seeking social support had significant direct effects on subjective well-being. That is, when the individuals' state hope level increased, their subjective well-being level increased, as well. Moreover, seeking social support had positive and significant direct effect on subjective well-being which shows that when individuals engaged in more seeking social support when they encountered with a stressful situation, their subjective well-being levels were influenced positively. However, unexpectedly, engaging in problem-focused coping had negative and significant direct effect on subjective well-being. That is when individuals used more problem-focused coping in stressful situations their subjective well-being levels decreased in this particular sample. In contrast with the expectations, dispositional hope, cognitive flexibility and avoidance were found to have non-significant direct effects on subjective well-being of the participants in the present study.

Given the direct effects of predictor variables (dispositional hope, cognitive flexibility, state hope, and coping strategies) on each other, some of the direct effects were found to be significant whereas some of them failed to be significant. In the proposed structural model, dispositional or trait like variables of dispositional hope and cognitive flexibility were suggested to be correlated with each other and to predict situational variable of state hope. Moreover, in the model, both dispositional/trait like and situational variables were proposed to predict contextual variables of coping strategies. Therefore, while presenting the direct effects of predictor variables, firstly the correlation among the

dispositional/trait like variables (dispositional hope and cognitive flexibility) is presented, followed by their direct effects on situational variable of state hope. Then, the direct effects of both dispositional/trait like variables (dispositional hope and cognitive flexibility) and situation variable of state hope on the contextual variables of coping strategies are presented.

As suggested in the structural model, dispositional or trait like variables in the present study, namely dispositional hope and cognitive flexibility were found to significantly correlate with each other in a positive direction ($r = .73, p < .05$). Considering their direct effects of the situational variable of state hope, dispositional hope had a positive and significant direct effect on state hope ($\beta = .76, p \leq .001$) whereas cognitive flexibility failed to have significant direct effects on state hope ($\beta = .08, p > .05$). This finding revealed that when participants had higher dispositional hope levels, they had greater levels of state hope levels, as well.

Considering the direct effects of both dispositional/trait-like and situational variables (dispositional hope, cognitive flexibility, and state hope) on contextual variables of coping strategies (avoidance, problem-focused coping, seeking social support) in the hypothesized structural model, in the prediction of avoidance, dispositional hope failed to have a significant direct effect ($\beta = -.04, p > .05$) while cognitive flexibility had a negative and significant direct effect ($\beta = -.19, p \leq .01$) and state hope had a positive and significant direct effect ($\beta = .37, p \leq .001$) on avoidance. That is participants who reported themselves to have lower levels of cognitive flexibility and higher levels of state hope, also reported to have more engagement in avoidance while coping with stressful events. In the prediction of problem-focused coping, dispositional hope failed to have a significant direct effect ($\beta = .06, p > .05$) while cognitive flexibility ($\beta = .41, p \leq .001$) and state hope ($\beta = .40, p \leq .001$) had positive and significant direct effects. In other words, participants with higher levels of cognitive flexibility and state

hope had more engagement in problem-focused coping in their coping processes with the stressful situations. Lastly, in the prediction of seeking social support, dispositional hope had a negative and significant direct effect ($\beta = -.34, p \leq .001$) whereas cognitive flexibility ($\beta = .13, p < .05$) and state hope ($\beta = .44, p \leq .001$) had positive and significant direct effects on seeking social support. That is participants who reported to have lower levels of dispositional hope and higher levels of cognitive flexibility and state hope, had higher levels of engagement in seeking social support in the face of stressful events.

To sum up the direct effects of predictor variables among each other, it was expected to find: (a) participants with higher levels of dispositional hope to have higher levels of state hope; (b) participants with higher levels of cognitive flexibility to engage more in problem-focused coping and seeking social support and less in avoidance while coping with stress; and (c) participants with higher levels of state hope to engage more in problem-focused coping and seeking social support in stressful situations. However, it was in contrast with the expectations to find: (a) participants with higher levels of dispositional hope to engage less in seeking social support and to find their dispositional hope levels not to have a direct association with their avoidance and problem-focused coping engagements in stressful events; (b) participants' cognitive flexibility levels not to have a direct association with their state hope levels; and (c) participants with higher state hope levels to engage more in avoidance while coping with stress.

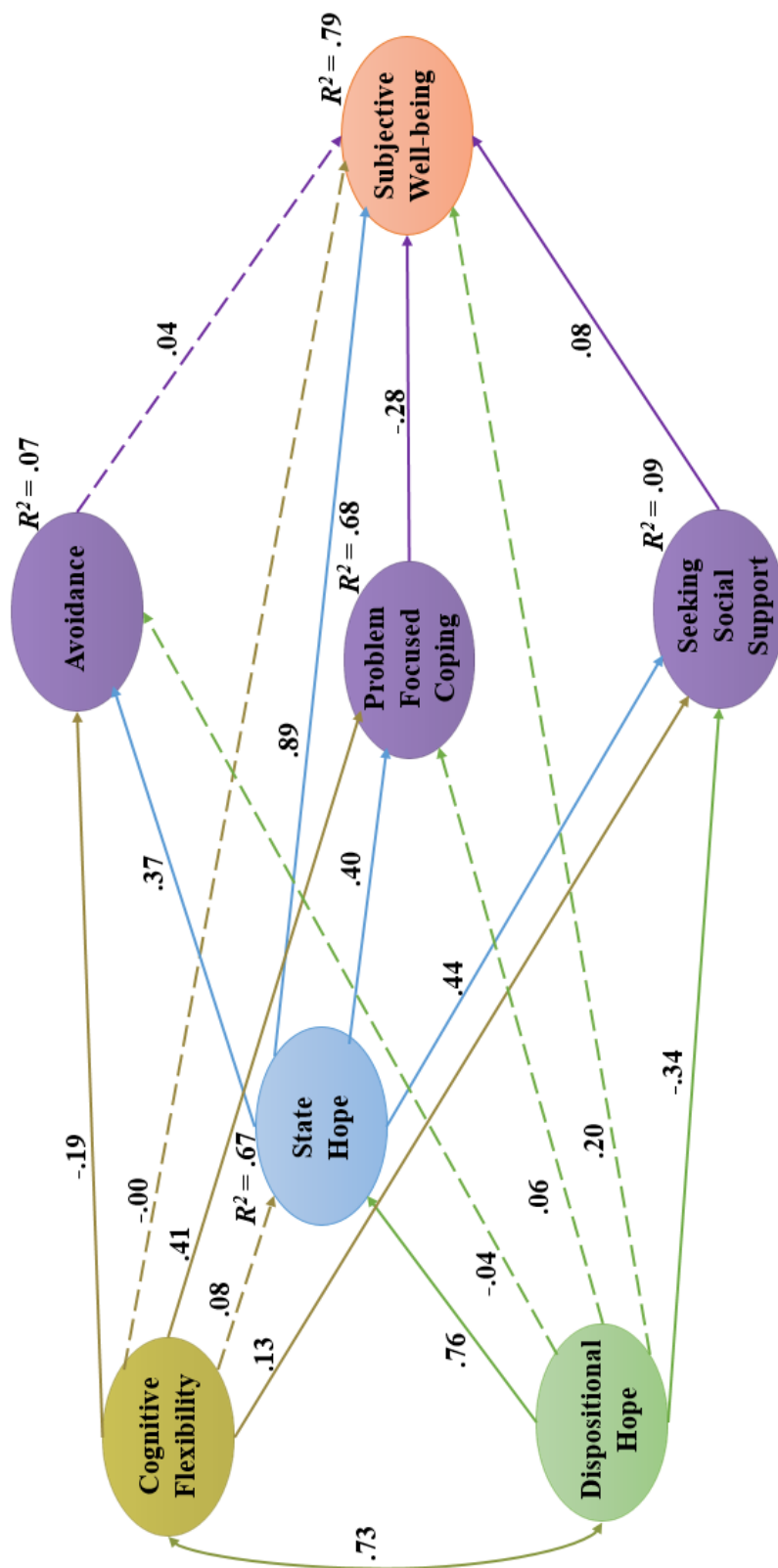


Figure 4. Hypothesized structural model with significant and non-significant direct effects.

Table 6

Standardized Direct, Total Indirect, and Total Effects for the Hypothesized Structural Model

		Dispositional		Cognitive		State		Seeking Social		Problem-focused		Avoidance
		Hope	Flexibility	Hope	Support	Hope	Support	Coping				
State Hope	Direct	.76***	.08	-	-	-	-	-	-	-	-	
	Total Indirect	-	-	-	-	-	-	-	-	-	-	
	Total	.76***	.08	-	-	-	-	-	-	-	-	
Seeking Social	Direct	-.34***	.13*	.44***	-	-	-	-	-	-	-	
	Total Indirect	.33***	.03	-	-	-	-	-	-	-	-	
	Total	-.01	.16**	.44***	-	-	-	-	-	-	-	
Problem-focused Coping	Direct	.06	.41***	.40***	-	-	-	-	-	-	-	
	Total Indirect	.34***	.03	-	-	-	-	-	-	-	-	
	Total	.40***	.44***	.40***	-	-	-	-	-	-	-	
Avoidance	Direct	-.04	-.19**	.37***	-	-	-	-	-	-	-	
	Total Indirect	.27***	.03	-	-	-	-	-	-	-	-	
	Total	.23**	-.16*	.37***	-	-	-	-	-	-	-	
Subjective Well-being	Direct	.20	-.00	.89***	.08*	-.28***	.04					
	Total Indirect	.57***	-.05	-.08	-	-	-	-	-	-	-	
	Total	.77***	-.05	.81***	.08*	-.28***	.04					

* $p < .05$, ** $p \leq .01$, *** $p \leq .001$

4.3.2.3 Indirect Effects for the Hypothesized Structural Model

Estimates for total indirect effects for the hypothesized structural model are presented in Table 6. Apart from the direct effects, two of the indirect effects were found to be significant whereas three of them were found to be non-significant in the model. Specifically, dispositional hope had significant indirect effects on coping strategies (i.e., avoidance, problem-focused coping, and seeking social support) and subjective well-being. However, the indirect effect of cognitive flexibility on coping strategies and subjective well-being and the indirect effect of state hope on subjective well-being were found to be non-significant in the present model. Each of these indirect effects are explained below, starting with the significant indirect effects of dispositional hope on coping strategies and subjective well-being and followed by non-significant indirect effects of cognitive flexibility and state hope in the model.

Given the effect of dispositional hope on coping strategies (avoidance, problem-focused coping, seeking social support), although dispositional hope did not have a significant direct effect on avoidance, it had significant indirect effect on avoidance. The indirect effect of dispositional hope on avoidance was positive and close to medium in magnitude (.27, $p \leq .001$) through state hope. The participants who had higher levels of dispositional hope, also reported to have higher levels of state hope that increased their likelihood of engaging in avoidance as a coping way in a stressful situation.

Similar with the dispositional hope-avoidance link, dispositional hope did not have a significant direct effect on problem-focused coping. However, it had a significant indirect effect on problem-focused coping. The indirect effect of dispositional hope on problem-focused coping was positive and medium (.34, $p \leq .001$) through state hope. That is, the participants who had higher levels of dispositional hope, also reported to have higher levels of state hope that

increased their likelihood of engaging in problem-focused coping while coping with stress.

Considering the dispositional hope-seeking social support link, dispositional hope had both direct and indirect effects on seeking social support. Although it has a negative direct effect on seeking social support, dispositional hope had a positive and medium indirect effect (.33, $p \leq .001$) on seeking social support through state hope. When the participants had higher levels of dispositional hope, they reported to have higher levels of state hope, and those who reported to have higher levels of state hope also reported to engage in seeking social support more in the context of stress.

Based on the above findings, it was seen that the associations between dispositional hope and coping strategies (i.e., avoidance, problem-focused coping, and seeking social support) were mediated by state hope such that dispositional hope was positively related to state hope, which in turn, was positively related to engaging in listed coping strategies.

When it comes to the dispositional hope-subjective well-being link, dispositional hope did not have a direct effect on subjective well-being, but it had significant indirect effect on subjective well-being. The total indirect effect of dispositional hope on subjective well-being was positive and large (.57, $p \leq .001$) through four possible pathways; (a) through state hope, (b) through seeking social support, (c) through state hope and problem-focused coping, and (d) through state hope and seeking social support. That is, participants who had higher levels of dispositional hope, also reported to have higher state hope, engage in more problem-focused coping or more seeking social support in the face of stress that increased their subjective well-being. Alternatively, participants who had higher levels of dispositional hope, also reported to engage in seeking social support more that increased their subjective well-being.

Regarding the non-significant indirect effects in the model, considering the link between cognitive flexibility and coping strategies, it was found to have significant direct effects on all coping strategies. However, its indirect effects on coping strategies could not be found significant for either avoidance (.03, $p > .05$) or problem-focused coping (.03, $p > .05$) or seeking social support (.03, $p > .05$). Moreover, as consistent with its non-significant direct effect on subjective well-being, cognitive flexibility was found to have a non-significant indirect effect on subjective well-being (-.05, $p > .05$). Given the link between state hope and subjective well-being, although state hope was found to have a positive and significant direct effect on subjective well-being, its indirect effect on subjective well-being was found to be non-significant in the present model (-.08, $p > .05$).

4.3.2.4 Squared Multiple Correlations for the Hypothesized Structural Model

Squared multiple correlations (R^2) for the latent variables of the hypothesized structural model are presented in Table 7. As seen in the table, 67% of the total variance in state hope was explained by dispositional hope and cognitive flexibility. Considering the coping strategies in the present study, 7% of the total variance in avoidance, 68% of the total variance in problem-focused coping, and 9% of the total variance in seeking social support was explained by dispositional hope, cognitive flexibility and state hope. Considering the endogenous variable of subjective well-being, 79% of the total variance in subjective well-being was explained by the overall model.

Table 7

Squared Multiple Correlations for the Hypothesized Structural Model

	State Hope	Avoidance	Problem-focused Coping	Seeking Social Support	Subjective Well-being
R^2	.67	.07	.68	.09	.79

4.4 Summary of the Results

The purpose of the study was to investigate the relationships between dispositional hope, cognitive flexibility, state hope, and coping strategies (avoidance, problem-focused coping, & seeking social support), and the impact of the interplay of these relationships on the subjective wellbeing (positive affect, negative affect, & life satisfaction) within a Turkish university students' sample. The model that consisted of the direct and indirect relationships among the study variables was tested via SEM analysis. Before model testing, descriptive analyses were conducted. First, the bivariate correlations among study variables were checked. Almost all of the correlational relationships resulted in the expected way, except for the positive correlation of avoidance with other positive study variables. Then, gender differences on subjective well-being variables (positive affect, negative affect, and life satisfaction) were tested via independent-sample t-tests. However, since gender differences were significant for only positive affect which was too small to make conclusions, it was decided not to include gender in following analyses. Following the descriptive analyses, measurement model was tested and presented an acceptable fit for the data. Finally, the hypothesized SEM was tested and presented an acceptable fit for the data along with explaining 79% of the total variance in subjective well-being.

Except for some of the relationships, most of the relationships resulted in the expected way. The results of the hypothesized model indicated that:

1. Considering their direct effects, state hope, seeking social support, and problem-focused coping were found as significant predictors of subjective well-being. Consistent with expectations, state hope and seeking social support were found to predict subjective well-being positively such that higher state hope levels and the more usage of seeking social support as a coping way predicted higher subjective

well-being among the participants. However, on the contrary with expectations, problem-focused coping was found to negatively predict subjective well-being where the participants who engaged in more problem-focused coping had lower levels of subjective well-being. Moreover, dispositional hope, cognitive flexibility, and avoidance failed to significantly predict subjective well-being although it was predicted that higher levels of dispositional hope and cognitive flexibility, and less engagement in avoidance would predict higher subjective well-being of the participants.

2. In the present structural model, dispositional/trait like variables of dispositional hope and cognitive flexibility were proposed to significantly correlate with each other and to predict situational variable of state hope. As consistent with expectations, dispositional hope and cognitive flexibility were found to be significantly correlated with each other. Given their prediction in state hope, dispositional hope was found to significantly and positively predict state hope whereas cognitive flexibility failed to be a significant predictor of state hope. That is, participants who had higher levels of dispositional hope had higher levels of state hope, as expected.
3. In the model, contextual variables of coping strategies (avoidance, problem-focused coping, and seeking social support) were suggested to be predicted by both dispositional/trait like and situational variables (dispositional hope, cognitive flexibility, and state hope). Given the prediction of avoidance, while dispositional hope failed to be a significant predictor, cognitive flexibility was found as a significant and negative predictor, and state hope was found as a significant and positive predictor of coping strategy of avoidance. That is, participants who reported themselves to have lower levels of cognitive flexibility and higher levels of state hope, also reported to have more engagement in avoidance while coping with stressful events.

4. In the prediction of coping strategy of problem-focused coping, dispositional hope failed to be a significant predictor whereas cognitive flexibility and state hope were found as significant and positive predictors of problem-focused coping. In other words, participants with higher levels of cognitive flexibility and state hope had more engagement in problem-focused coping in their coping processes with stressful situations.
5. In the prediction of coping strategy of seeking social support, dispositional hope was found as a significant and negative predictor while cognitive flexibility and state hope were found as significant and positive predictors of seeking social support. That is, participants who reported to have lower levels of dispositional hope and higher levels of cognitive flexibility and state hope, had higher levels of engagement in seeking social support in the face of stressful events.
6. In addition to direct effects or predictions of the variables, some indirect effects were found to be significant. In specific, dispositional hope had significant indirect effects on all coping strategies through state hope. That is, the participants who had higher levels of dispositional hope had higher levels of state hope, which in turn, increased their likelihood of engaging in avoidance, problem-focused coping, and seeking social support. Thus, it can be concluded that state hope had a mediator role on the link between dispositional hope and coping strategies.
7. Another significant indirect effect belonged to dispositional hope for subjective well-being. Dispositional hope had a significant and positive indirect effect on subjective well-being through four possible pathways; state hope, seeking social support, state hope and problem-focused coping, and state hope and seeking social support. First, the participants who had higher levels of dispositional hope also had higher levels of state hope, which in turn, might have increased their

subjective well-being. Second, the participants who had higher levels of dispositional hope also engaged in seeking social support more in the face of stress that might have increased their subjective well-being. Third, the participants who had higher levels of dispositional hope also had higher levels of state hope and more engagement in problem-focused coping, which in turn, might have increased their subjective well-being. Fourth and final, the participants who had higher levels of dispositional hope also had higher levels of state hope and more engagement in seeking social support, which in turn, might have increased their subjective well-being.

8. There were also some non-significant indirect effects in the present model. Specifically, cognitive flexibility had non-significant indirect effects on all coping strategies of avoidance, problem-focused coping, and seeking social support as opposed to its significant direct effects on all coping strategies. Moreover, similar with its non-significant direct effect, cognitive flexibility was found to have a non-significant indirect effect on subjective well-being.
9. Another non-significant indirect effect belonged to state hope. Despite its significant direct effect on subjective well-being, state hope failed to have a significant indirect effect on subjective well-being.

In order to facilitate the visualization of the model, the structural model that consists of only the significant paths with their standardized estimates was presented below (Figure 5). The results provided in this section were discussed in the following chapter with the help of the related literature.

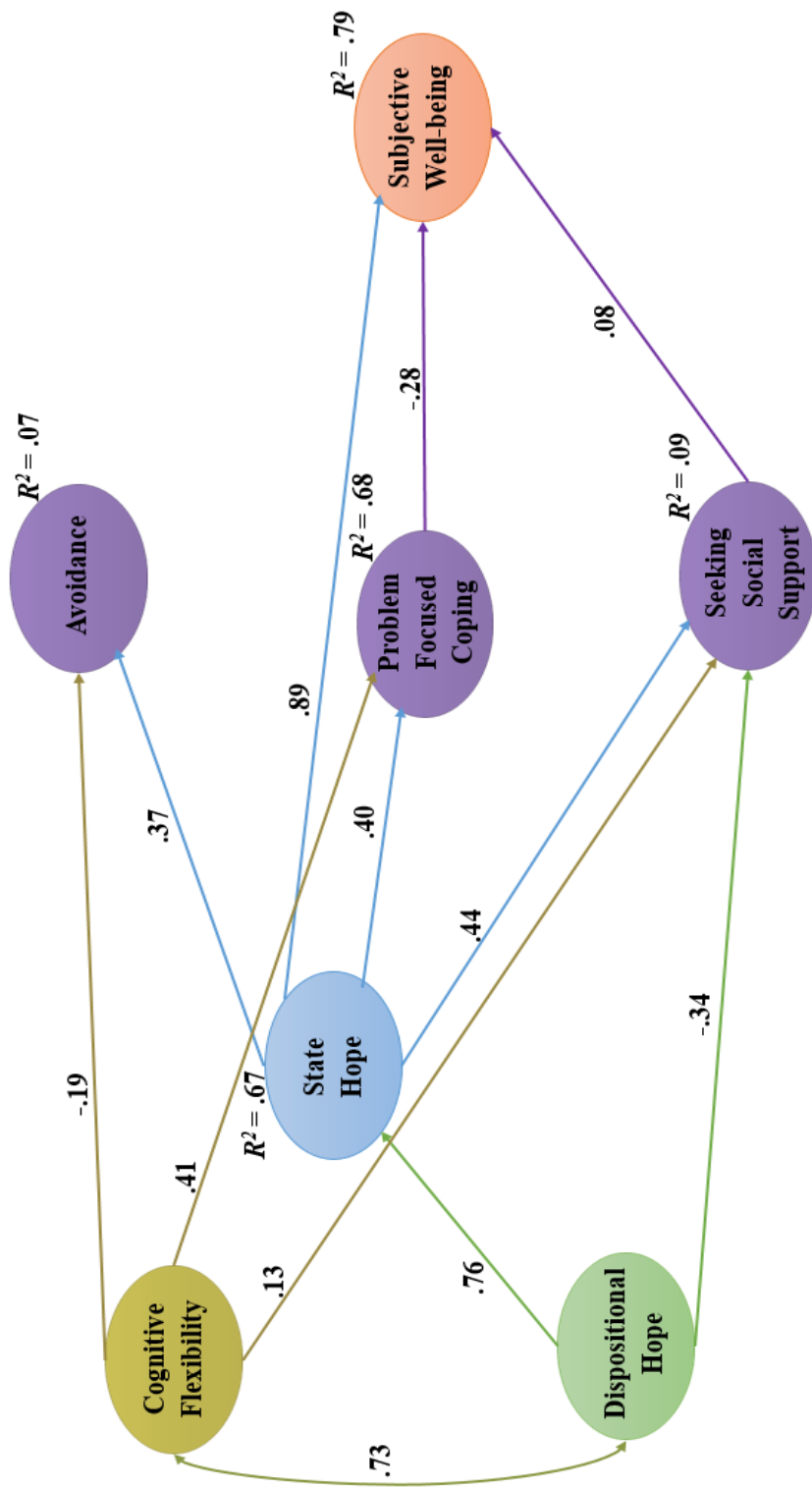


Figure 5. Standardized estimates for structural model only with significant direct effects.

CHAPTER V

DISCUSSION

In this final chapter, findings of the present study were discussed under three sections. In the first section of discussion of the findings, the findings of the study were summarized and discussed with the help of the literature. Consequently, implications of the findings were presented in the second section. Then, finally, recommendations for further studies were provided.

5.1 Discussion of the Findings

The aim of the present study was to test a model that consisted of dispositional hope, cognitive flexibility, state hope, and coping strategies in the prediction of subjective well-being among university students in Turkey. In order to test the prediction of the proposed model in subjective well-being of university students, SEM analysis was conducted. However, before conducting SEM analysis, a pilot study was carried out for the instruments of the study; descriptive analyses were run in order to have preliminary findings about the relationships among study variables and the influence of gender on the study variables; and measurement model was tested in order to examine the relationships among the latent variables and their indicators in the current study. In the following paragraphs, these steps were summarized.

The pilot study was conducted among 389 students who enrolled in a public university in Ankara, Turkey. Separate CFA analyses were run in order to test the validity of each instrument used in the current study and Cronbach alpha coefficients were calculated to examine the reliability of these instruments.

Regarding the findings of CFA analyses and Cronbach alpha coefficients, all instruments were concluded to be valid and reliable, and were used in the main study where the proposed model was tested.

In the main study, 1222 university students were reached as participants. Within this sample, descriptive analyses were conducted. First, the relationships among the study variables of dispositional hope, cognitive flexibility, state hope, coping strategies, and the components of subjective well-being (i.e., positive affect, negative affect, and life satisfaction) were tested by bivariate correlations. According to the findings of bivariate correlations, almost all relationships were in the expected line. More specifically, dispositional hope, cognitive flexibility, state hope, problem-focused coping, and seeking social support were positively correlated with positive affect and life satisfaction, and negatively associated with negative affect. However, contrary to the expectation, avoidance was found to be positively associated with positive affect and life satisfaction, and to be a non-significant correlate of negative affect. Consequently, the possible influence of participants' gender on the subjective well-being variables (positive affect, negative affect, and life satisfaction) were aimed to be detected. Results of independent sample t-tests provided significant gender differences for only positive affect. However, given that gender differences were significant for only one component of subjective well-being and the observed gender differences were too small to make conclusions, gender differences were not included in the further analyses.

As the final step before the testing of structural model, measurement model was tested via a seven-factor model through CFA in order to investigate the relationships of latent variables of the study variables and their items or parcels. Testing of measurement model presented an acceptable fit for the seven-factor model for the data by presenting all standardized regression weights significant and above the suggested criteria. Moreover, latent correlations in the

measurement model displayed significant and positive correlations among all study variables, except for the non-significant correlations of avoidance with cognitive flexibility and seeking social support.

Consequent with measurement model testing, hypothesized structural model was tested with SEM analysis in order to answer the main question of the current study that “To what extent a model that consisted of dispositional hope, cognitive flexibility, state hope, and coping strategies explains subjective well-being?” Findings of SEM analysis presented an acceptable fit for the data based on the suggested criteria of the selected fit indexes. More specifically, it was observed that the indicators (items or parcels) were successful in explaining their latent variables and most of the proposed links between study variables were confirmed. Moreover, 79% of the total variance in subjective well-being was found to be explained by the overall model in the current study. The analysis presented several significant direct and indirect effects of the variables. Therefore, for a clearer discussion, findings of the present study were discussed under two sub-sections; discussion of the direct effects and discussion of the indirect effects below.

5.1.1 Discussion of the Direct Effects

Discussion of the direct effects of the study variables were presented below. Firstly, the discussion of direct effects of the predictor variables (i.e., dispositional hope, cognitive flexibility, state hope, and coping strategies) on the endogenous variable of subjective well-being were presented. Then, the direct effects of predictor variables among each other were presented.

Based on the findings, dispositional or trait-like variables of the study, namely dispositional hope and cognitive flexibility failed to have significant direct effects on subjective well-being, contrary to the expectation. This finding

contradicts with the previous findings that dispositional hope and cognitive flexibility were significant predictors of subjective well-being or its components of positive and negative affect and life satisfaction (dispositional hope: e.g., Bailey et al., 2007; Ciarrochi et al., 2007; Demirli et al., 2015; Marques et al., 2013; O’Sullivan, 2011; Steffen & Smith, 2013; Şahin et al., 2012; Uzun Özer & Tezer, 2008; cognitive flexibility: e.g., Akbari Chermahini & Hommel, 2012; Dağ & Gülüm, 2013; Küçüker, 2016; Metzl, 2009; Muyan & Demir, 2016). Although literature strongly stated that hopeful people who are capable of producing plausible routes and have necessary mental energy to initiate and sustain these routes also have higher subjective well-being, the present findings showed that having dispositional hope was not sufficient for predicting higher subjective well-being levels in this sample of Turkish university students. Similarly, having the cognitive ability to find alternative ways, to shift among them when necessary, and to feel competent in this process, in short having higher cognitive flexibility, was not sufficient to move people to higher subjective well-being levels. The inconsistency of the present findings and the previous findings in the literature may be due to the fact that most studies in literature were only based on simple prediction models where the possible underlying mechanisms which may move dispositional or trait like variables to subjective well-being were ignored. By ignoring these possible mechanisms between dispositional factors and subjective well-being, it may be possible to find these dispositional factors as strong predictors of subjective well-being. However, adding possible situational or contextual factors and investigating the mediating effects of these factors may result in the non-significant predictions of these dispositional or trait-like variables in subjective well-being of university students, as it happened in the current study. Taken together, these findings of the current study presented dispositional hope and cognitive flexible as non-significant in the prediction of subjective well-being, which may need additional processes to move people to higher subjective well-being levels, based on their direct effects.

Given the situational and contextual variables in the hypothesized structural model, state hope and coping strategies of problem-focused coping and seeking social support were found to have significant direct effects, whereas coping strategy of avoidance failed to have a significant direct effect on subjective well-being in the present study. Considering state hope, it was found to have a positive and significant direct effect on subjective well-being among the participants in the current study. That is, participants who had higher levels of state hope indicated that they had higher levels of subjective well-being. This finding is congruent with the previous findings that people's levels of state hope positively predicted their levels of subjective well-being (e.g., Demirli et al., 2015; Denizli, 2004; Sharma & Mathur, 2016; Valle et al., 2006; Yalçın & Malkoç, 2015; Yang et al., 2016). People who have higher levels of hope at a given time towards a specific desired goal may be more decisive to find primary and alternative ways towards their present goals and may have stronger motivation to use those ways since their goals are specific and present. Having this cognitive process where agency thinking and pathways thinking are working additively and interactively together towards a specific goal in the present time may directly help people to have higher levels of positive affect and life satisfaction and lower levels of negative affect or activate the necessary mechanisms that help people to reach higher levels of subjective well-being, as Hope Theory (Snyder, 2002) suggested positive and negative emotions and evaluations to be derived from people's perceptions regarding their progress or success towards their goals.

Regarding coping strategies, contextual factors in the hypothesized structural model, while problem-focused coping and seeking social support were found to have significant direct effects on subjective well-being, avoidance failed to have a significant direct effect on subjective well-being in the present study. More specifically, problem-focused coping had a negative and significant direct effect on subjective well-being, such that participants who reported themselves to

engage in less problem-focused coping, reported to have higher levels of subjective well-being. This finding contradicts with the findings of some previous studies which suggested problem-focused coping as a positive associate or predictor of subjective well-being or its components (e.g., Alkan, 2004; Chen, 2016; Conway & Terry, 1992; Coyle & Vera, 2013; Deniz, 2006; Folkman & Lazarus, 1988; Nunes et al., 2016; Phan, 2013; Topal, 2011; Yıldız, 2014). When encountering a stressful situation, it is expected and well-supported, especially in Western cultures, that taking direct steps to change the environment or self that causes stressful person-environment transaction can be quite adaptive and bring higher levels of positive affect and life satisfaction and lower levels of negative affect. However, as Lazarus (1993) stated that there is not a universal criterion to distinguish specific coping strategies as adaptive or maladaptive since the adaptiveness of a specific coping strategy depends on the particular person, the specific stressful event, the effectiveness period of the stressor, and the type of the outcome. Moreover, Folkman and Lazarus suggested that the selection and effectiveness of a specific coping strategy depends on its fit with the appraised situation where perceived control plays a crucial role (Folkman & Lazarus, 1980; Lazarus & Folkman, 1987). Similarly, Carver and Connor-Smith (2010) stated that the nature, context, and perceived controllability of the particular stressor moderate the link between coping strategies and affective components of subjective well-being. Consistently, Lazarus (1993) indicated that under the conditions when people can do nothing to change the situation, problem-focused coping may be maladaptive, and even cause higher distress when people constantly fail. Similarly, some researchers found problem-focused coping to be associated with greater anxiety in uncontrollable situations (Cheng et al., 1999; Miller et al., 1996). Additionally, some research conducted in Turkey with university students yielded similar results with the present study that problem-focused coping was negatively associated with subjective well-being or its components (e.g., Odacı & Çıkrıkçı, 2012; Yılmaz et al., 2013). The present finding that problem-focused coping had a negative direct effect on

subjective well-being may be explained by the perceived controllability of the stressful events that the participants were experiencing. Since the researcher or the instrument instructions did not channel participants into thinking of a specific event while answering all coping strategies, participants may have chosen their stressful events from a wide-range of possible stressors they were experiencing. Considering the data collection time, it was during a time when the country and the city of the participants were experiencing a highly life-threatening stressful period with several terror attacks, in one of which two university students from the participants' university were killed. For a long period, these university students, our participants, had highly stressful experiences where none of the participants could do anything to change the situation and their any direct attempt to change the stressful person-environment transaction would have possibly failed. Therefore, one explanation for the negative direct effect of problem-focused coping on subjective well-being in the current study may be in line with Lazarus' (1993) contention that problem-focused coping may not be adaptive or may be counterproductive in these uncontrollable situations as any direct attempt possibly fails to solve the situation, where constant failures lead to increased distress.

Considering the coping strategy of seeking social support, it was found to have a positive and significant direct effect on subjective well-being, such that participants who reported to engage in more seeking social support in stressful situations, also reported to have higher levels of subjective well-being. This present finding is in parallel with the previous findings in literature (e.g., Deniz, 2006; Folkman & Lazarus, 1988; Topal, 2011; Yilmaz et al., 2013). Considering the psychosocial developmental stage of the participants regarding Erikson's psychosocial theory of development, social relationships and social support play a vital role in shaping their whole life (Erickson, 1968). As being university students, our participants have been experiencing a stressful transition period from adolescence to adulthood developmentally (Arnett, 2000, 2007) in addition

to their stressful experiences because of situational or country-specific stressors, such as terror attacks. Given that seeking social support serves for both problem-focused coping and emotion-focused coping (Folkman & Lazarus, 1985; Vitaliano et al., 1987), it may prepare participants to cope better with both developmental and uncontrollable stressors since problem-focused coping is suggested to a better predictor of subjective well-being in controllable situations, and emotion-focused coping is suggested to be a better predictor of subjective well-being in uncontrollable situations (Folkman & Lazarus, 1980; Lazarus & Folkman, 1987). Thus, seeking social support might have been more beneficial for the participants to boost their subjective well-being as it could help participants to be equipped for both controllable and uncontrollable stressful experiences by being able to get both instrumental and emotional support by engaging in this type of coping strategy. Taken together, it is quite reasonable to find seeking social support to have a positive and significant direct effect on subjective well-being of university students in the present study.

Given the coping strategy of avoidance, it failed to have a significant direct effect on subjective well-being, as opposed to the expectation that it would have a negative direct effect on subjective well-being of the participants. In literature, there are contradictory findings that some studies found avoidance as associated with lower subjective well-being (e.g., Conway & Terry, 1992; Folkman & Lazarus, 1988; Nunes et al., 2016; Yılmaz et al., 2013), whereas some found it to be associated with greater subjective well-being (e.g., Chen, 2016; Odacı & Çıkrıkçı, 2012; Topal, 2011) as it allows people to minimize their initial distress (Suls & Fletcher, 1985). However, in the present study, neither positive nor negative influence of avoidance on subjective well-being could be detected, similar to some studies which resulted in the non-significant association of avoidance with subjective well-being (e.g., Deniz, 2006; Phan, 2013). The non-significant direct effect of avoidance in the present study may be related to the possibility that participants might have thought about different stressful events,

instead of focusing on a specific one, while answering the items. This inconsistency in participants' answers regarding avoidance coping strategy may have resulted in the failure to build a direct effect finding on subjective well-being in the present study. Another possible explanation could be that avoidance as a coping strategy may function differently for each component of subjective well-being, as it did in Odacı and Çıkrıkçı's (2012) study. In their study, avoidance failed to be a significant predictor of cognitive component of subjective well-being, namely, life satisfaction, whereas it was found to be a significant and positive predictor of subjective well-being. Thus, having subjective well-being as a whole which consisted of its affective components and cognitive component in the current study, instead of investigating its components separately, may have prevented this research to reach significant direct effects of avoidance on subjective well-being.

To sum up the direct effects of proposed variables on subjective well-being, state hope, problem-focused coping, and seeking social support had significant direct effects on subjective well-being. That is, participants who reported to have higher state hope, engage in less problem-focused coping and more seeking social support, also reported to have higher levels of subjective well-being in the current university students' sample in Turkey. Possible explanations for significant and non-significant direct effects of the study variables on subjective well-being were presented above.

When it comes to the associations among predictor variables, firstly the correlation among dispositional or trait-like variables was tested. More specifically, dispositional hope and cognitive flexibility were proposed to significantly correlate with each other in the structural model. This expectation was met as the findings showed that there was a significant and positive association among them. This finding is consistent with the contention of Hope Theory (Snyder, 2002) that hopeful people were also cognitively flexible

thinkers and Muyan and Demir's (2016) finding that they are positively correlated with each other. The positive correlation between dispositional hope and cognitive flexibility may be due to the shared characteristics of hopeful and cognitively flexible people that they have the ability to think, produce, and apply several alternatives in their routes to their desired goals.

Given the direct effects of predictor variables, the direct effects of dispositional hope and cognitive flexibility were tested on state hope, and the direct effects of dispositional hope, cognitive flexibility, and state hope were tested on coping strategies of avoidance, problem-focused coping, and seeking social support. Considering the direct effects of dispositional hope and cognitive flexibility on state hope, dispositional hope had a positive and significant direct effect where the direct effect of cognitive flexibility was non-significant. It was consistent with expectations that having higher levels of dispositional hope would be associated with higher levels of state hope, as Hope Theory suggested (Snyder, 1994, 2002; Snyder et al., 1996). This finding may be explained as people with higher dispositional hope levels may easily adapt their cognitive ability to produce pathways towards their desired goals along with their motivation in specific and present goal-oriented situations. Given the direct effect of cognitive flexibility in state hope, cognitive flexibility was found to be non-significant, although it was expected to be a significant factor in building one's state hope. One possible explanation could be that cognitive flexibility was placed with dispositional hope in the prediction of state hope. As dispositional hope was found to be a very strong predictor of state hope, it may have suppressed the possible influence of cognitive flexibility on state hope. Considering the conceptualizations of cognitive flexibility and hope, the pathways focus of both constructs was believed to produce a relationship among them. Although, a significant correlation was found among them, the expected prediction between cognitive flexibility and state hope failed. Considering that the existing literature

is quite limited on the relationship between cognitive flexibility and hope, more research is needed for a more detailed discussion.

With regard to the direct effects of dispositional hope, cognitive flexibility, and state hope on coping strategies, in the prediction of avoidance, dispositional hope failed to have a significant direct effect while cognitive flexibility had a negative and significant direct effect and state hope had a positive direct effect. It was interesting that dispositional hope failed where state hope was successful to have a significant direct effect. This interesting finding may be explained as, rather than a general cognitive ability, a present hopeful cognitive state was a better predictor of engaging in avoidance in the face of stressful situations. However, considering the direction of the direct effect of the state hope, it was seen that participants who reported to have higher state hope, also reported to engage in more avoidance while coping with stress. Although it was unexpected and contradictory with the Snyder's (2002) conclusion that hopeful people engage in less avoidant coping in stressful situations, hopeful people might have chosen avoidance as an adaptive pathway in order to relieve their initial stress levels as Suls and Fletcher (1985) suggested. Additionally, as expected, cognitive flexibility had a negative direct effect on avoidance. This finding may be related to the idea that having cognitive flexibility, in other words producing alternative ways, shifting among them, and feeling competence in chosen ways, might have equipped participants with more adaptive coping strategies than avoidance, which in turn, may have resulted in less usage of avoidance while coping with stress.

In the prediction of problem-focused coping, dispositional hope failed to have a significant direct effect while cognitive flexibility and state hope had significant direct effects on problem-focused coping. Although literature presented significant association among dispositional hope and problem-focused coping (e.g. Chang & DeSimone, 2001; Snyder et al., 1991), in the present study the

direct effect of dispositional hope was non-significant. Thus, this finding may refer to the possible underlying mechanisms that dispositional hope may activate in the process, which in turn, resulted in more engagement in problem-focused coping. Considering cognitive flexibility and state hope, their positive and significant direct effects on problem-focused coping were in parallel with the previous findings (cognitive flexibility: e.g., Ahn et al., 2009; Bedel & Ulubey, 2015; Dennis & Vander Wal, 2010; state hope: e.g., Rajaei, Khoyneshad, Javanmard, & Abdollahpour, 2016; Steffen & Smith, 2013). Since problem-focused coping includes active planning, understanding antecedents and consequences, preparing and using multiple ways to cope with stress, the characteristics of hopeful and cognitively flexibility people may help them to engage in more problem-focused coping as they have the ability to produce plausible ways, identify different pathways, have motivation and control over their pathways towards their desired goals.

In the prediction of seeking social support, dispositional hope had a negative and significant direct effect whereas cognitive flexibility and state hope had positive direct effects on seeking social support. It is surprising to find dispositional hope to have a negative direct effect on seeking social support, especially while finding state hope to have a positive direct effect. This finding may be understood as high dispositional hope alone may influence people to not to seek social support while coping with stress although in high state hope, people engage in more seeking social support. Seeking social support provides instrumental and emotional support from one's social network. People with higher dispositional hope levels may prefer other ways to cope with stress, although people with higher state hope levels may find this instrumental and emotional support beneficial in their specific present goals, and engage in more seeking social support in the face stress towards their goals. Towards their present goals, people may appreciate the influence of social support more. Regarding the positive direct effect of cognitive flexibility, as seeking social

support also requires some steps, such as being open to getting help, finding right social support sources, and asking for help, people need the ability to identify, engage in, and evaluate their options in the face of stress. This need of people may be met by the ability of cognitive flexibility as higher cognitive flexibility may lead to more engagement in seeking social support.

5.1.2 Discussion of the Indirect Effects

In addition to the direct effects of the study variables, the present study presented two significant indirect effects and three non-significant indirect effects. More specifically, significant indirect effects of dispositional hope on coping strategies (i.e., avoidance, problem-focused coping, and seeking social support) and subjective well-being were observed. Moreover, the indirect effects of cognitive flexibility on coping strategies (i.e., avoidance, problem-focused coping, and seeking social support) and subjective well-being and the indirect effect of state hope on subjective well-being were found to be non-significant in the current study. In below paragraphs, discussions of the significant indirect effects of dispositional hope on coping strategies and subjective well-being were presented first. Then, discussion of the non-significant indirect effects of cognitive flexibility and state hope were presented.

Although dispositional hope either had non-significant direct effects (avoidance and problem-focused coping) or a negative direct effect (seeking social support) on coping strategies, it had positive and significant indirect effects on all coping strategies through state hope. In other words, the participants with higher dispositional hope, reported to have higher state hope that increased their likelihood of engaging in avoidance, problem-focused coping, and seeking social support while coping with stress. These present findings displayed the mediating role of state hope in the link between dispositional hope and coping strategies. That is, dispositional hope was positively associated with state hope,

which in turn, was positively associated with engaging in coping strategies of avoidance, problem-focused coping, and seeking social support. According to these results, it was seen that state hope serves as a bridge in the dispositional hope-coping strategies link. In other words, it was observed that state hope was fed by dispositional hope and it was the mechanism that moved people towards coping, regardless of its ways. This finding is consistent with the feed-forward process of hopeful thinking in Hope Theory (Snyder, 2002). As Snyder (2002) indicated, dispositional hope leads to state hope, which in turn, moves people to engage in goal behaviors. Therefore, regardless of the direct effect of dispositional hope, having the ability to produce plausible pathways towards specific present goals with the necessary mental energy to initiate and sustain these pathways may prepare individuals to take a step for coping with stress whether in shape of avoidance, problem-focused coping, or seeking social support.

Another indirect effect of dispositional hope was found on subjective well-being through four possible ways; through state hope, through seeking social support, through state hope and problem-focused coping or through state hope and seeking social support. Although dispositional hope failed to have a significant direct effect, it was observed that with the help of situational and contextual factors dispositional hope leads to higher levels of subjective well-being in the present sample of university students in Turkey. Considering the possible ways separately, people who had higher levels of dispositional hope, may use their dispositional cognitive ability to improve their state hope levels, which in turn resulted in increased subjective well-being. The mediating role of state hope was also confirmed in previous studies in the link between significant predictors of subjective well-being and the components of subjective well-being (e.g., meaning in life-subjective well-being link: Yalçın & Malkoç, 2015; self-compassion-subjective well-being link: Yang et al., 2016). Considering another possible way of seeking social support, participants' dispositional hope levels

may be linked to their subjective well-being levels via seeking social support, as they may be getting more instrumental and emotional support while coping with stress which may help them to cope easier with stressful situations, which in turn, increases their positive affect and life satisfaction levels, and decreases their negative affect level. Considering the other two possible ways of state hope and problem-focused coping and state hope and seeking social support in the link between dispositional hope and subjective well-being, these findings are consistent with the suggested pathway from dispositional hope to positive/negative emotions in Hope Theory (Snyder, 2002). As displayed in Figure 2, the feed-forward progression of hopeful thinking starts with learning history phase which is represented by dispositional hope, continues with the evaluation of the outcome in the pre-event phase which leads to the event sequence phase where state hope suggested to move individuals into the goal behavior which in turn produces positive and negative emotions. Aforementioned, the current study practiced the same sequence of the variables in the prediction of subjective well-being as learning history phase is represented by the dispositional or trait-like variables of dispositional hope and cognitive flexibility and event sequence phase is represented by situational or contextual variables of state hope and coping strategies as state hope is believed to lead to coping behaviors which produce subjective well-being. Based on the indirect effect of dispositional hope on subjective well-being through state hope and problem-focused coping or seeking social support, it can be concluded that the present findings confirmed the feed-forward progression of hopeful thinking which was theoretically stated by Hope Theory (Snyder, 2002). Considering the possible explanations regarding this pathway from dispositional hope to subjective well-being, having a history with the ability to produce plausible ways towards a desired goal together with the necessary mental energy to follow them may produce a positive emotional set which helps people carry their dispositional ability into the specific present goals in the form of higher state hope levels. With higher state hope levels, people may plan and think about

several routes in their journeys towards their present goals and may have increased motivation and courage to start and continue their journey by taking their routes, even in the case of blockages. With this present ability and dedication, people may engage in more adaptive coping ways, such as problem-focused coping and seeking social support, while dealing with their controllable and uncontrollable stressful experiences. Consequently, with the combination of state hope and problem-focused coping or the combination of state hope and seeking social support, people may have higher chances to attain their desired goals which builds their affective states and cognitive evaluations regarding their lives.

When it comes to the non-significant indirect effects in the model, cognitive flexibility was found to have non-significant indirect effects on all of the coping strategies. More specifically, it was found that cognitive flexibility was linked to coping strategies only with its direct effects as explained in above section. In the present model, state hope was proposed to be the bridge from cognitive flexibility to coping strategies. However, it was observed that this trait-like variable, cognitive flexibility, did not need any situational factors in the prediction of coping strategies. This finding may be explained as being cognitively flexible could be sufficient to move people to take steps in coping with stress. Moreover, the shared characteristics of being cognitively flexible and hopeful people on identifying, planning, and applying several alternatives towards desired goals may prevent this study from identifying a significant indirect effect of cognitive flexibility through state hope. Additionally, the indirect effect of cognitive flexibility on subjective well-being was found as non-significant in the current study. Considering that neither direct nor indirect effect of cognitive flexibility was significant in the current study, it contradicts with the previous studies (e.g., Akbari Chermahini & Hommel, 2012; Dennis & Vander Wal, 2010; Fernandez-Abascal & Martin Diaz, 2013; Gülüm & Dağ, 2012; Muyan & Demir, 2016; Sapmaz & Doğan, 2013; Zambianchi & Ricci

Bitti, 2014). This inconsistent finding may be related to two points as; this inconsistent finding may be specific for this sample due to the characteristics of participants or any possible measurement issue; or this inconsistent finding may be related to the power of other strong predictors in the prediction of subjective well-being, which may have limited the prediction of cognitive flexibility on subjective well-being.

Finally, last non-significant indirect effect belonged to state hope on subjective well-being that the possible mediation of coping strategies in the link between state hope and subjective well-being was disapproved in the present study. Considering the magnitude of the prediction of state hope in subjective well-being, it was observed that state hope, on its own, was the strongest predictor of subjective well-being based on its regression weights that did not need additional contextual variables to carry people to higher subjective well-being levels. This strong prediction of state hope was supported by many studies in the literature as discussed in the above sections (see Cheavens & Ritschel, 2014 for a review).

Taken all findings together, the present study served for the need of investigating different levels (dispositional, trait-like, situational, and contextual) of factors together in the prediction of subjective well-being. Although dispositional variables (e.g., personality and personality-related variables) were found to be strong predictors of subjective well-being (Diener & Lucas, 1999; Diener et al., 1999), Diener and his colleagues (2003) stated that it has been unclear if these dispositional variables are unique and sufficient predictors of subjective well-being or they need any additional situational or contextual variables to move these dispositional variables to higher subjective well-being levels. The present study showed that dispositional or trait-like factors were not sufficient in the prediction of subjective well-being, rather they worked as variables which started the pathways towards subjective well-being. Thus the present study contributed to the theory and research of Positive Psychology in Turkey as it

provided information for the recent need of subjective well-being research regarding how and why and by which processes individuals attain happier and more satisfying lives. Furthermore, the present study contributed to the Hope Theory research in Turkey as it tested the complex interplay among the study variables in the light of the progression or sequence of the variables which was suggested by Hope Theory. More specifically, the pathway from dispositional variables (dispositional hope and cognitive flexibility) to state variables (state hope), then to contextual variables (coping strategies) and to subjective well-being was validated by the current findings.

5.2 Implications of the Findings

Given its framework and findings, the present study may offer several implications for research, practice, and counselor education. Considering possible implications of the current findings to research, the present study contributed to the subjective well-being research as it covered different levels of variables (dispositional, trait-like, situational, and contextual) in the prediction of subjective well-being. Looking through the trends in subjective well-being research, studies used to focus on external, situational, and bottom-up factor in the prediction of subjective well-being and then they shifted their focus into internal, dispositional, personality-related, and top-down factors. Now, as its need is stated by Diener et al. (2003), research tends to have dual focus in which both situational and dispositional factors are investigated. The present research was conducted in this manner and provided evidence that both dispositional and situational factors serve different functions for one's subjective well-being. Building on this new landscape of research, subjective well-being researchers may benefit from constructing their research based on this dual investigation to arrive at a more holistic picture of subjective well-being.

Considering the findings of the present study, some important implications may be offered for practice. In the present model towards subjective well-being, state hope and coping strategies, except for avoidance were found to have direct effects on subjective well-being while dispositional hope had significant indirect effects on coping strategies and subjective well-being.

Given its direct and indirect effects in state or dispositional form, hope variable was found to be an important positive predictor of subjective well-being in this sample of university students. Therefore, in order to improve subjective well-being levels of university students, university counseling centers may benefit from hope enhancing programs in their individual or group counseling practices. Practitioners may develop hope-based interventions based on the unique characteristics and needs of their university's students or they may adapt existing hope-based interventions programs and implement them in their campuses. For instance, Feldman and Dreher (2012) developed a one-session hope visualization exercise where clients were asked to vividly imagine being able to take steps towards attaining their self-identified important goals. They tested the effectiveness of this 90-minute hope visualization exercise in improving one's hope among university students and found this exercise effective, even it was a one-session exercise. Another hope-based intervention, that could be useful in university students' samples, was developed by Cheavens, Feldman, Gum, Michael, and Snyder (2006). More specifically, Cheavens and her colleagues (2006) designed and tested the efficacy of an eight-week hope-based group program on increasing hope and some other qualities which could prepare participants against future stressors along with decreasing the current negative affective conditions. Their hope-based group program resulted in increased hope, self-esteem and perceived meaning of life along with decreased negative affective conditions. In sum, while taking steps towards having happier and more satisfied students around the campus, practitioners in university counseling centers may benefit from these programs or interventions.

Coping strategies, except for avoidance, also emerged to be significant predictors of subjective well-being among university students in the present study. Among coping strategies, seeking social support was found to be a significant positive predictor of subjective well-being. Given potential role of social support on subjective well-being, university counseling services may consult student affairs in designing and implementing effective social gathering activities (e.g., orientation activities and student clubs) that may help students to build a social bond around them, which can be used as a support mechanism in the face of stressful experiences. Moreover, considering the negative direct effect of problem-focused coping on subjective well-being and its positive potential role in the path from dispositional hope to state hope towards subjective well-being, it was observed that problem-focused coping may function in different ways with the addition of other variables and for the different stressors. Since these students are in a transition period with academic and social tasks, they are facing stressful events developmentally, and in some cases these stressful experiences are doubled with some uncontrollable stressors such as the experience of terror attacks in this sample. To help them cope with the existing stressors, practitioners may offer individual or group counseling programs on coping strategies in order to assist students while they are struggling with their stressors, just as the counseling centers of the current university did. In doing so, university counseling centers may help students benefit from emotion-focused coping strategies, as literature suggested them to be more effective in uncontrollable stressful experiences. Moreover, practitioners may offer preventive and developmental practices or programs for students in which they may identify students' already existing coping strategies, improve their coping strategies, and teach new adaptive coping ways. By these preventive and developmental services, university students may get more equipped for future stressors.

Regarding possible implications of the current study on counseling education, the present study had the theoretical framework of Positive Psychology and investigated a number of positive qualities on university students' subjective well-being. The findings of the study supported the growing evidence that Positive Psychology may offer insights as much as other mainstream theories in understanding individuals' emotions, cognitions, and behaviors. However, most of the existing counseling education programs in universities in Turkey are lack of Positive Psychology courses or education. More specifically, there is not any graduate program specific for Positive Psychology in Turkey and Positive Psychology education in universities is limited to elective undergraduate and graduate courses which are mostly instructed by personal initiations of few professors who are members of Positive Psychology associations (e.g., World Association of Positive Psychotherapy) and/or have done research on positive psychology concepts in some universities in Turkey. Given the validated importance of Positive Psychology for helping individuals to move towards happier and more satisfied lives and the domination of mainstream psychology theories in universities which mostly focused on the negative sides of people that are needed to be fixed or changed, universities may reconsider their counselor education programs and may think about the possible ways how to integrate Positive Psychology and specific strength-focused approaches (e.g., Hope Theory) into their programs.

In addition to the counselor education programs, as Psychological Counseling and Guidance programs offer courses to the prospective teachers in education faculties, universities may also want to improve their courses' scope as they will cover also information about Positive Psychology and its implementations in classroom and school settings. Considering that many of the teachers accept counseling units in their schools as a place for problematic students, during their formation education courses, providing prospective teachers with an education that not only stresses the remedial services of counseling units, but also

developmental and preventive services of them may provide a more holistic picture of counseling services in schools and help them eradicate their prejudices, which in turn, may help better referral of students to counseling units.

5.3 Recommendations for Further Research

Together with its important contributions to counseling field, this study has also some limitations which are needed to be taken into account in further studies. The current study aimed to answer the question of to what extend subjective well-being was explained by a model that is consisted of dispositional hope, cognitive flexibility, state hope, and coping strategies. Specifically, the relationships between the study variables of dispositional hope, cognitive flexibility, state hope, and coping strategies and the influence of the interplay of these study variables were investigated in the present study. In doing so, correlational design was chosen. Although correlational design allows researchers to see relationships among the study variables, it lacks the power to display a cause-and-effect link among the variables. Therefore, in order to reveal the causal effects of the selected variables on subjective well-being, further studies may be conducted based on experimental research design.

Additionally, as the data of the current study were collected at a single point of time, based on cross-sectional design, the current study is limited to see the interaction of the study variables over time. Thus, studies with longitudinal designs may be preferred in order to understand the interaction of the study variables over time.

The university students from a large and competitive public university in Ankara, Turkey constituted the sample of the present study. Given that convenient sampling procedure was used in the present study, the findings of the present study is limited to the current sample and other similar samples of

university students. Therefore, the findings of the current study may be tested among different samples by further studies to understand if these findings belonged to this specific sample and time or they can be replicated by other samples. On the other hand, in order to attain generalizable findings, further studies may implement random sampling procedures while they reach their participants and collect their data.

Another recommendation for further research could be related to data collection instruments. In the present study, only self-report measures were used as subjective experiences were under investigation. However, considering the specific disadvantages of self-report measures (e.g., giving socially desirable answers, misunderstanding of the items), further research may also incorporate non-self-report measures, such as facial coding, and peer or researcher ratings, into their data collection packages.

In the present study, the proposed model consisted of dispositional and state hope, cognitive flexibility, and coping strategies and explained 79% of the total variance in subjective well-being. Although this amount of explained variance is very big in magnitude, the remaining percentage indicates that there may be other important predictors of subjective well-being that could not be covered in the present study. Therefore, further studies may investigate other possible variables (e.g., personality traits, optimism, and subjective vitality) in the prediction of subjective well-being.

Subjective well-being, the endogenous variable of the study, is based on subjective affective and cognitive evaluations of people regarding their lives which was found to be influenced by several demographic characteristics (see Diener et al., 1999 for a review). As the demographic characteristics of the participants in the current study could not produce equal groups, group differences regarding these demographic characteristics could not be tested in

the present studies. Thus, further studies may try to reach equal sample sizes for demographic variables so that they can compare groups' subjective well-being levels based on their characteristics.

As the final recommendation, although studies with Positive Psychology framework and positive constructs have increased a lot during the recent years, the literature is still more powerful on fixing-the-problem focus. Therefore, further studies may choose not only to focus on the darker side of people but also on the brighter side of people by integrating the building-the-strengths focus into their studies. Moreover, in addition to the umbrella term of positive psychology, the contentions of specific positive affective, cognitive, or behavioral theories may be tested in further studies, as the feed-forward process of hopeful thinking in Hope Theory (Snyder, 2002) was tested in the current study.

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APPENDICES

A. Approval Letter from Middle East Technical University Human Subjects Ethics Committee

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER



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15 ŞUBAT 2016

Gönderilen: Prof.Dr. Ayhan DEMİR

Eğitim Bilimleri

Gönderen: Prof. Dr. Canan SÜMER

İnsan Araştırmaları Komisyonu Başkanı

İlgi: Etik Onayı

Sayın Prof. Dr. Ayhan DEMİR'in danışmanlığını yaptığı doktora öğrencisi Mine MUYAN'ın "Umutun İlişkili Olduğu Duygusal-Bilişsel-Davranışsal Değişkenler Aracılığıyla Geliştirilen Kapsamlı Umut Modelinin Test Edilmesi" başlıklı araştırması İnsan Araştırmaları Komisyonu tarafından uygun görülerek gerekli onay **2016-EGT-018** protokol numarası **07.03.2016-19.08.2016** tarihleri arasında geçerli olmak üzere verilmiştir.

Prof. Dr. Canan SÜMER

Uygulamalı Etik Araştırma Merkezi
İnsan Araştırmaları Komisyonu Başkanı

B. Sample Items from Dispositional Hope Scale (DHS)

1. Sıkıntılı bir durumdan kurtulmak için pek çok yol düşünebilirim.
2. Enerjik bir biçimde amaçlarıma ulaşmaya çalışırım.
3. Herhangi bir problemin birçok çözüm yolu vardır.
4. Kendim için koyduğum hedeflere ulaşırım.

C. Sample Items from Cognitive Flexibility Inventory (CFI)

1. Bir konuda karar vermeden önce birçok seçeneęi göz önünde bulundururum.
2. Zor durumlara deęişik açılardan bakmak önemlidir.
3. Bir zorlukla karşılaştığımda nasıl davranacağım ile ilgili olarak pek çok seçeneęi göz önünde bulundururum.
4. Zor durumlarla karşılaştığım zaman, kontrolümü kaybediyor gibi hissederim.
5. Yaşamda karşılaştığım güçlüklerle baş etmede yetenekliyim.
6. Zor durumlarla karşılaştığımda o kadar stresli olurum ki, sorunu nasıl çözeceğimi düşünemem.

D. Sample Items from State Hope Scale (SHS)

1. Şu anki hedeflerime ulaşmak için pek çok yol düşünebilirim.
2. Şu anda, hevesle hedeflerime ulaşmaya çalışıyorum.
3. Şu anda karşılaştığım sorunlardan kurtulmanın pek çok yolu var.
4. Şu anda kendimi oldukça başarılı görüyorum.

E. Sample Items from Coping with Stress Scale (CSS)

1. Dikkatimi sorundan uzaklaştırmaya çaba gösteririm.
2. Bütün olası çözümleri aklımdan geçiririm.
3. Sıkıntılarımı paylaşacak birini ararım.
4. Beni rahatsız eden konuyu aklıma hiç getirmemeye çalışırım.
5. Yapabileceklerimi en kolaydan zora doğru sıralayarak, sıkıntılarımı çözmeye çalışırım.
6. Fikirlerine güvendiğim kişilere danışırım.

F. Sample Items from Positive and Negative Affect Schedule (PANAS)

- | | |
|--------------|---------------|
| 1. İlgili | 2. Mutsuz |
| 3. Heyecanlı | 4. Korkmuş |
| 5. Aktif | 6. Utanmış |
| 7. Güçlü | 8. Asabi |
| 9. Dikkatli | 10. Sıkıntılı |

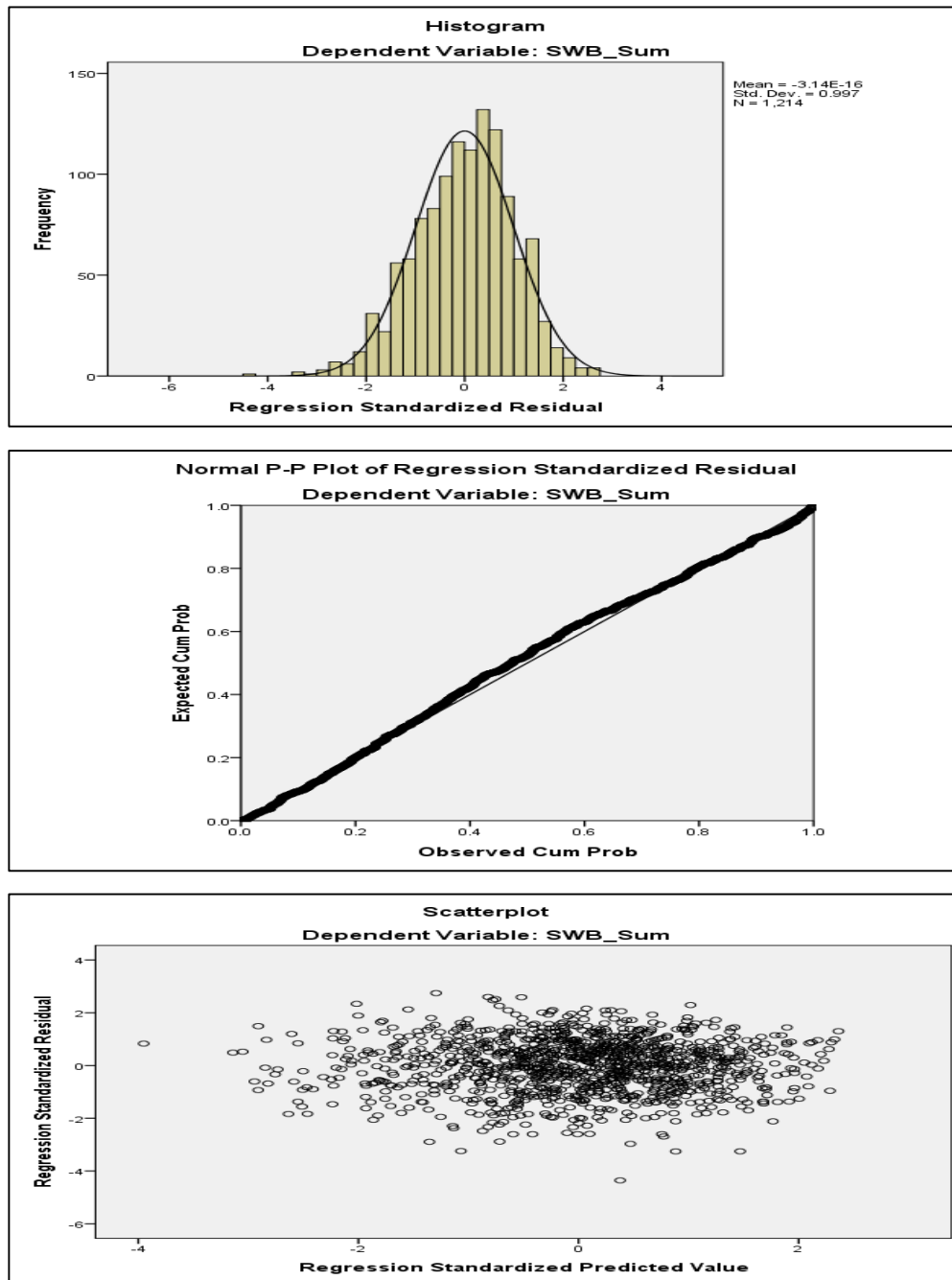
G. Sample Items from Satisfaction with Life Scale (SWLS)

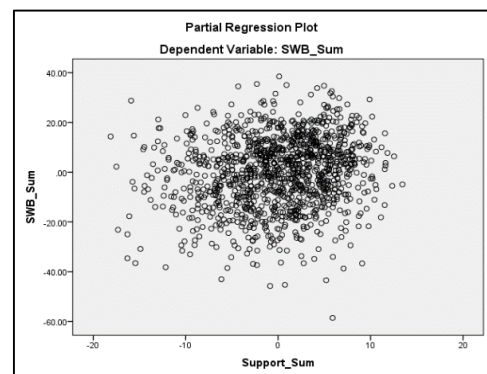
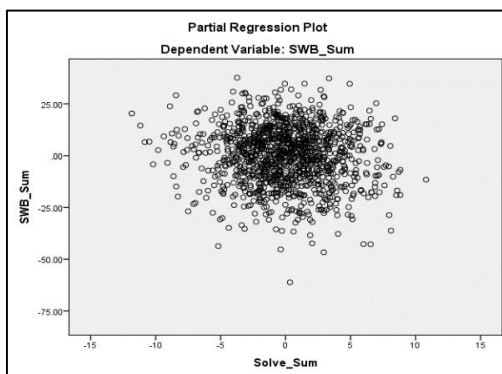
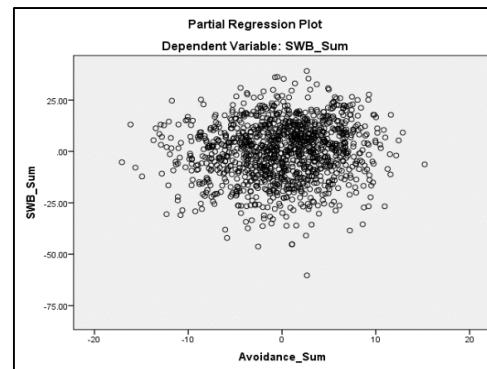
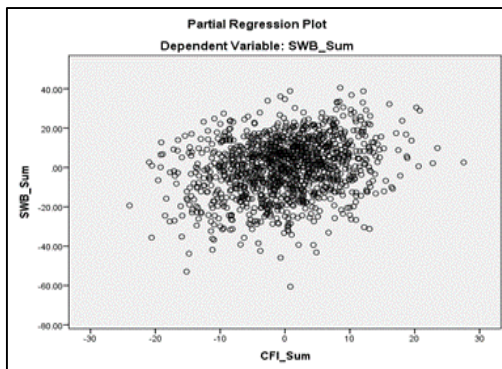
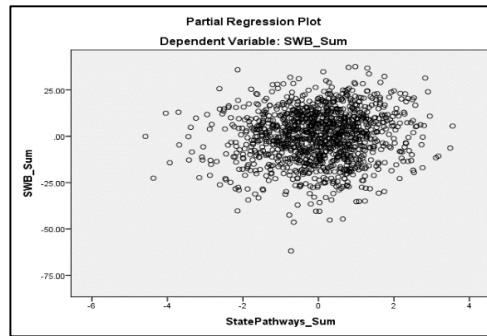
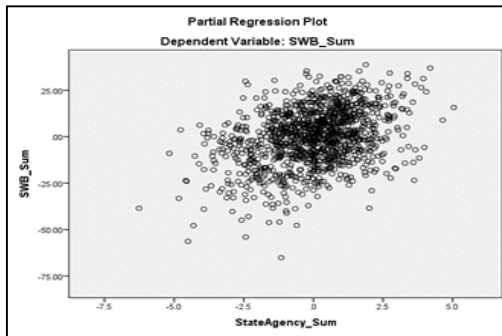
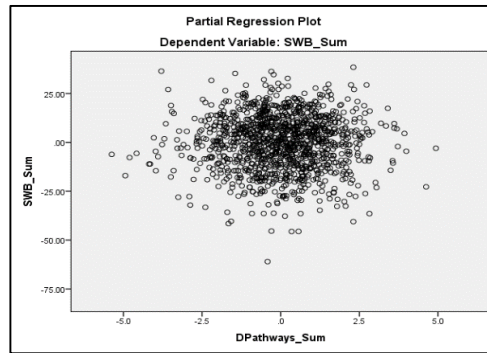
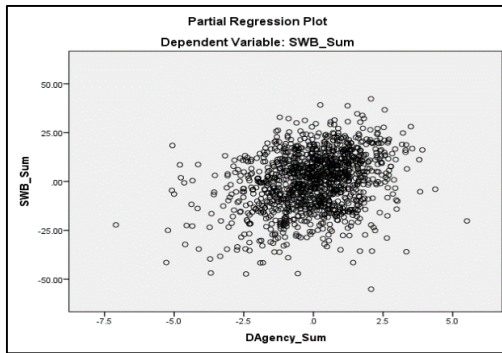
1. Hayatım birçok yönden idealimdekine yakın.
2. Hayatımdan memnunum.
3. Hayattan şimdiye kadar istediğim önemli şeyleri elde ettim.

H. Demographic Information Form

1. Cinsiyetiniz: () Kadın () Erkek
2. Yaşınız:
3. Fakülteniz:
4. Sınıfınız:
5. Genel Akademik Ortalamanız:

I. Histogram, Normal P-P Plot of Residual, Scatterplot and Partial Regression Plots





1. GİRİŞ

İnsanlığın başlangıcından bu yana, insanlar mutluluğun ve iyi bir hayatın arayışı içinde olmuşlardır. Mutluluğun ne olduğuna ya da iyi bir hayata nasıl ulaşılabileceğine dair ilk açıklamalar ilkçağ filozofları tarafından yapılmıştır. Felsefede mutluluk üzerine üç grup model (hedonizm, eudaimonia ve istek kuramları) önerilmiş olsa da hedonizmin ve eudaimonia'nın mutluluk üzerine sunduğu açıklamalar daha çok ilgi çekmiş ve bu iki akımı en belirgin mutluluk modelleri haline getirmiştir. Hedonist felsefeciler, iyi oluş kavramını daha sık ve uzun süreli olumlu duygulanım, daha az olumsuz duygulanım ve doyum sağlayan yaşam alanları olarak tanımlamışlardır (Kahneman ve ark., 1999; Vittersø, 2003; Waterman, 1993). Eudaimonia bakış açısını benimsemiş felsefeciler ise bireylerin kendi potansiyellerini geliştirmelerinin, duygu ve düşüncelerinin farkında olup ifade edebilmelerinin ve gerçek kimlikleriyle uygun davranmalarının önemini vurgulayıp (Ryan ve Deci, 2001; Ryff ve Singer, 1998) iyi oluş kavramını, sınanmak, ustalaşma arayışı ve çaba harcama kavramları ile ilişkilendirmişlerdir (Waterman, 1993).

İyi oluşu kendilerine özgü kavramsallaştırmalarına dayanarak hedonist bakış açısı “öznel iyi oluş” kavramının felsefi temellerini oluşturmuşken, eudaimonia bakış açısı “psikolojik iyi oluş” kavramının temellerini oluşturmuştur. İyi oluş kavramının bu felsefi temellerine dayanarak öznel iyi oluş kavramı (örn., amaç kuramları, aşağıdan yukarı/yukarıdan aşağı kuramları, bilişsel kuramlar, yargı kuramları, evrimsel kuramlar) ve psikolojik iyi oluş kavramı (örn., Öz-Belirlenimcilik Kuramı: Deci ve Ryan, 2000; Psikolojik İyi Oluş Kuramı: Ryff ve Singer, 1998) için birçok katkı sunulmuş ve kuram önerilmiştir. Bu çalışmada

iyi oluş üzerine hedonist bakış açısına, bir başka deyişle öznel iyi oluş kavramı üzerine odaklanılmıştır.

Felsefi temellerinden yola çıkılarak öznel iyi oluş kavramı, bireylerin kendi hayatları hakkındaki duygusal ve bilişsel değerlendirmeleri olarak tanımlanmıştır (Diener, 2000). Bu tanımlama, Deci ve Ryan (2008) tarafından “yüksek seviyede olumlu duygu, düşük seviyede olumsuz duygu ve yüksek derecede hayattan memnuniyet deneyimi” olarak detaylandırılmıştır (s. 1). Tanımlamaların da gösterdiği gibi öznel iyi oluş, birbiriyle ilişkili olan olumlu duygulanım, olumsuz duygulanım ve yaşam doyumu boyutlarının/bileşenlerinin değerlendirilmesinden oluşmaktadır (Diener ve ark., 1997).

Öznel iyi oluş araştırmaları dışsal ve durumluk faktörlerin (örn., demografik değişkenler, durumluk ve bağlamsal değişkenler) araştırılmasından içsel ve daha kalıcı faktörlerin (örn., kişilik, kişilik benzeri özellikler, sürekli değişkenler, bilişsel) araştırılmasına evrilmiştir (Diener, Oishi ve ark., 2003). Bu içsel, sürekli ve daha kalıcı değişkenler (örn., kişilik, umut, iyimserlik, özgüven) öznel iyi oluşu açıklamada anlamlı değişkenler olarak bulunmuş olsalar da (Diener, 1984; Diener ve Diener, 1995; Lucas ve ark, 1996), bu değişkenlerin öznel iyi oluşu açıklamada yeterli olup olmadığı, doğrudan bir ilişkisi olup olmadığı ya da ek olarak durumsal/baglamsal değişkenlere ihtiyaçları olup olmadığı net değildir (Diener ve ark., 2003). Bu bağlamda, Diener’in (1984) hem içsel/sürekli hem de durumsal/baglamsal değişkenlerin öznel iyi oluşu açıklamada yararlı olabileceği çıkarımına dayanarak, bu içsel/sürekli ve durumsal/baglamsal değişkenlerin arasındaki karmaşık karşılıklı etkileşimin ve bu etkileşimin öznel iyi oluş üzerindeki etkisinin incelenmesi öznel iyi oluş kuram ve araştırmaları açısından önem taşıyabilir.

Öznel iyi oluşun temelleri her ne kadar antik Yunan felsefecilerine dayanacak kadar eski olsa ve de takip eden yıllarda birçok öznel iyi oluş kuramı önerilse

de, öznel iyi oluş kavramı üzerine yapılan çalışmalar Pozitif Psikoloji'nin ortaya çıkışıyla daha detaylı ve bütüncül hale gelmiştir. Pozitif Psikoloji, olumlu duygu ile olumlu kişilik özellikleri ve bunlara olanak sağlayan olumlu kurumların araştırılmasını hedefleyen bir şemsiye kavram (üst kavram) olarak tanımlanmıştır (Seligman ve ark., 2005, s. 410). Pozitif Psikoloji, insanların güçlü yönleri, erdemleri ve potansiyelleri üzerine içgörü ve açıklamalarda bulunan birçok kuramın geniş ailesi gibidir. Bu çalışmanın kuramsal çerçevesini Pozitif Psikoloji oluşturmaktadır. Pozitif Psikoloji anlayışına dayanarak bu çalışmada, pozitif psikolojinin ana kavramlarından biri olan öznel iyi oluş kavramının yordanmasında, birçok olumlu değişkenin yordayıcılığına başvurulmuştur. Daha belirgin bir şekilde ifade etmek gerekirse, bir psikolojik güç olarak kabul edilen sürekli umut, olumlu bir kişilik özelliği benzeri değişken olarak bilişsel esneklik, olumlu bir durumluk değişkeni olarak durumluk umut ve olumlu bağlamsal belirleyiciler olarak başa çıkma stratejileri bu çalışmada öznel iyi oluşun olası yordayıcıları olarak seçilmiştir.

Bir olumlu psikolojik güç olarak kabul edilen umut, öznel iyi oluşun en tutarlı yordayıcılarından biridir. Umut Kuramı'na göre (Snyder, 1994, 2002), umut kavramı; amaçlar, amaca götüren yollar (pathways thinking) ve amaca ilişkin motivasyon (agency thinking) bileşenlerini içeren bir üçlemeden oluşmaktadır. Umut, bilişsel ve amaç-odaklı bir düşünme süreci olarak tanımlanıp ayrışabilen iki düşünceye dayanmaktadır: (a) bireyler, amaca götüren yollar bileşeni ile amaçlarına ulaşmak için ilk ve alternatif yolları planlayabilirler ve üretebilirler; (b) amaca ilişkin motivasyon bileşeni ile bireyler ürettikleri yolları kullanıp amaçlarına erişebilirler. Snyder (2000, s. 8), umut için şu kısa tanımlamayı sunmuştur: "Umut, arzulanan amaçlara yönelik yollar üretebilme ile bu yolları kullanabilecek motivasyona sahip olma üzerine olan bireylerin algıladıkları kapasitelerinin toplamıdır.". Umudun, amaca götüren yollar ile amaca ilişkin motivasyon bileşenleri ayrışabilen bileşenler olsa da, bu bileşenlerin umutlu düşünme sürecinde sürekli olarak karşılıklı etkileşimde olduğu, birbirine katkıda

bulundukları ve birbirlerini etkiledikleri ileri sürülmüştür (Snyder, 2002; Snyder ve ark., 1991). Umut Kuramı'nda (Snyder, 1994, 2002), yüksek seviyede umuda sahip olmanın olumlu değişkenlerle ve düşük seviyede umuda sahip olmanın da olumsuz değişkenlerle ilişkili olduğu önerilmiştir. Dünyada ve Türkiye'de yapılan çalışmaların sonuçları da Umut Kuramı'nın bu iddiasını destekler niteliktedir (kapsamlı derlemeler için bkznz. Cheavens ve Ritschel, 2014; Çetin Gündüz, 2016). Umut ve öznel iyi oluş arasındaki ilişkiye bakılacak olursa, hem sürekli umut (dispositional hope) hem de durumluk umut (state hope) birçok yerli ve yabancı çalışmada öznel iyi oluşun ya da onun bileşenleri olan olumlu ve olumsuz duygulanım ile yaşam doyumunun anlamlı yordayıcıları olarak bulunmuşlardır (örn, Bailey ve ark., 2007; Bailey ve Snyder, 2007; Ciarrochi ve ark., 2007; Demirli ve ark., 2015; Eryılmaz, 2011; Gültekin ve Arıcıoğlu, 2016; Marques ve ark., 2013; Muyan ve Demir, 2016; O' Sullivan, 2011; Sarıçam ve ark., 2015; Sharma ve Mathur, 2016; Sigmon ve Snyder, 1990; Snyder ve ark., 1996; Şahin ve ark., 2012; Uzun Özer ve Tezer, 2008). Anlamlı yordayıcılığının yanı sıra umudun, öznel iyi oluş ve öznel iyi oluşun çeşitli yordayıcıları arasındaki ilişkilerde ortalayıcı (Goodman ve ark., 2017; Muyan ve ark., 2016; Valle ve ark., 2006; Visser ve ark., 2013) ve aracı (Cotton Bronk ve ark., 2009; Halama, 2010; Quan ve ark., 2016; Rustøen ve ark., 2010; Yalçın ve Malkoç, 2015; Yang ve ark., 2016) rolleri bulunmuştur. Umut ve öznel iyi oluş üzerine yapılan araştırmalar göz önüne alındığında, hem sürekli umudun hem de durumluk umudun, bireylerin öznel iyi oluşlarının anlaşılmasında önemli rol oynadığı kanısına varılabilir.

Bilişsel esneklik, umut gibi, öznel iyi oluşun önemli belirleyicilerinden biridir. İlk olarak Spiro ve Jehng (1990, s. 169) tarafından ortaya atılmış ve “mevcut ya da oluşan bir anlayışın ya da problem-çözme durumunun gerektirdiği belirgin ihtiyaçların karşılanması amacıyla bilginin farklı boyutlarının durumla uygun bir şekilde yeniden bir araya getirilmesi yeteneği” olarak tanımlanmıştır. Bu tanımlamayı takip eden yıllarda bilişsel esneklik için birçok kavramsallaştırma

önerilmiştir. Ionescu (2012) ortaya atılan bu kavramsallaştırmaları derlemiştir. Bazı araştırmacılar bilişsel esnekliği uygun olanakların ve alternatiflerin farkında olunması, esnek olmaya isteklilik ve yeni durumlara uyum sağlamada yetkinlik olarak tanımlarken (Martin ve Anderson, 1998; Martin ve ark., 1998; Martin ve Rubin, 1995), bilişsel esneklik Dennis ve Vander Wal (2010) tarafından çevresel değişimlere ayak uydurmak adına varolan bilişsel setleri değiştirebilme yeteneği olarak tanımlanmıştır. Yapılan tüm tanımlamaların üç ortak noktayı içerdiği gözlemlenmiştir: (a) bilişsel esneklik değişim gösterme yeteneğidir (Canas ve ark., 2003; Dennis ve Vander Wal, 2010); (b) bilişsel esneklik farklı kategorilerin ve kavramların düşünülmesidir (Hirt ve ark., 2008; Murray ve ark., 1990); (c) bilişsel esneklik birden fazla bakış açısını algılamaktır (Bishop ve ark., 2004; Feldman ve ark., 2007). Bilişsel esnekliğin, stresle baş ederken yeterli donanımına sahip olma açısından önemli bir belirleyici olduğuna ki bunun da bireylerin iyi oluşunu arttığına inanılmaktadır (Koesten ve ark., 2009). Çalışmalar bilişsel esnekliğin, öznel iyi oluşun ya da onun bileşenleri olan olumlu ve olumsuz duygulanım ile yaşam doyumunun anlamlı bir yordayıcısı olduğu sonucuna ulaşmıştır (Akbari Chermahini ve Hommel, 2012; Güler, 2015; Gülüm ve Dağ, 2012; Gündüz, 2013; Metzl, 2009; Muyan ve Demir, 2016; Satan, 2014). Ek olarak, Türkiye’deki üniversite öğrencileriyle yapılan bir çalışmada, bilişsel esnekliğin duygu düzenleme stratejileri ile yaşam doyumu arasındaki ilişkide aracı rolü oynadığı bulunmuştur (Küçüker, 2016).

Umut ve bilişsel esneklik gibi, stresle başa çıkma stratejileri de iyi oluşun önemli belirleyicileridir (Lazarus, 1993). Stres ve Başa Çıkmanın Transaksiyonel Modeli (Stres ve Başa Çıkmanın Bilişsel Kuramı), stresle başa çıkma kavramını “bireyin kaynaklarını aşan belirli dış ve / veya iç talepleri yönetmek için sürekli olarak değişen bilişsel ve davranışsal çabalar” olarak tanımlamıştır (Lazarus & Folkman, 1984, s. 141). Alanyazında stresle başa çıkmayı ele almada iki model hakimdir. Bunlar, stresle başa çıkmayı kişisel yatkınlık (dispositional) olarak açıklayan yaklaşımlar (Carver ve ark., 1989; Vaillant, 1971, 1977) ile stresle

başa çıkmayı birey-çevre etkileşimine odaklanarak bağlamsal şekilde açıklayan görüşlerdir (Lazarus, 1966, 1991; Folkman ve Lazarus, 1980). Bu çalışmada stresle başa çıkma kavramı bağlamsal bir değişken olarak ele alınmıştır. Stresle başa çıkmayı bağlamsal olarak ele alan Stres ve Başa Çıkmanın Transaksiyonel Modeli'ne göre, stresli birey-çevre etkileşimlerinde bireyler çoğunlukla iki yola başvururlar: bireyler ya problem üzerine odaklanıp çevre ya da kendileriyle ilgili düzenlemelere giderler (problem-odaklı başa çıkma) ya da bireyler bu stresli etkileşim yarattığı duygusal tepkileri düzenlemeye çalışırlar (duygu-odaklı başa çıkma). Problem odaklı başa çıkma stratejileri, nedenleri belirleme, yeni beceriler öğrenme, alternatif yollar üretme ve hareket planları hazırlama gibi yolları içerirken duygu-odaklı başa çıkma stratejileri mesafe koyma, kendine soyutlama, kendini suçlama ya da kaçınma gibi yolları içermektedir (Folkman ve Lazarus, 1985). Aynı zamanda hem problem-odaklı başa çıkmaya hem de duygu-odaklı başa çıkmaya hizmet eden, sosyal desteğe başvurma gibi, başa çıkma yolları da bulunmaktadır (Folkman ve Lazarus, 1985; Vitaliano ve ark., 1987). Folkman ve Lazarus (1980, 1985), bireylerin stresli durumlarda karmaşık başa çıkma stratejilerinden yararlandıklarını ve problem-odaklı ile duygu-odaklı başa çıkma stratejilerini birlikte kullandıklarını not etmişlerdir. Başa çıkma stratejilerinin öznel iyi oluş üzerindeki etkisini araştıran çalışmaların çoğunda problem-odaklı başa çıkma stratejisinin olumlu, duygu-odaklı başa çıkma stratejisinin olumsuz katkıları olduğu gözlemlenmiştir (örn., Alkan, 2004; Conway ve Terry, 1992; Coyle ve Vera, 2013; Nunes ve ark., 2016; Topal, 2011). Ancak Lazarus (1993), başa çıkma stratejilerini olumlu ya da olumsuz olarak etiketlemenin genel geçer bir ölçütü olmadığını, bir başa çıkma stratejisinin olumlu olup olmadığının o stratejiyi kullanan kişiye, birey-çevre etkileşimine, stresin etkili olduğu süreye ve sonuçların çeşitlerine bağlı olduğunu iletmiştir. Lazarus'un (1993) bu açıklamasıyla tutarlı olarak, değişimin mümkün olmadığı, kontrol edilemeyen durumlarda duygu-odaklı başa çıkma stratejilerinin problem-odaklı olanlara oranla daha iyi sonuçlar verebileceği ve hatta problem-odaklı başa çıkma stratejisinin bu durumlarda kullanımının kronik

strese (Folkman ve Lazarus, 1980; Lazarus, 1993; Lazarus ve Folkman, 1987) ve kaygıya (Cheng ve ark., 1999; Miller ve ark., 1996) neden olabileceği bulunmuştur. Başa çıkma stratejilerinin öznel iyi oluşu doğrudan yordamalarının yanında öznel iyi oluş ile yordayıcıları arasında ortalayıcı (Coyle ve Vera, 2013) ve aracı (Chen, 2016; Phan, 2013; Yıldız, 2014) rolleri oynadığı gözlemlenmiştir.

Yukarıda sunulduğu gibi, hem sürekli/kişilik özellerine benzer değişkenler olan sürekli umut ve bilişsel esneklik hem de durumluk/bağlamsal değişkenler olan durumluk umut ve başa çıkma stratejileri, bireylerin öznel iyi oluşlarının anlaşılmasında önemli faktörlerdir. Hem yurtiçinde hem yurtdışında yapılan çalışmalarda bu faktörlerin öznel iyi oluşu anlamlı şekilde yordadığı saptanmıştır. Ancak, yapılan bu araştırmalar çoğunlukla basit yordama modellerine dayalı oldukları için bu anlamlı yordayıcı ilişkilerinin seçilen değişkenlerin doğrudan etkilerine mi bağlı olduğu yoksa bu değişkenlerin ek değişkenlerin katkılarıyla öznel iyi oluş üzerinde dolaylı etkilere mi sahip olduğu konusunda bilgi sunamamaktadırlar. Bu doğrultuda, öznel iyi oluşun anlamlı yordayıcılarının etkilerinin ayrı ayrı test edildiği basit yordama yöntemlerinden ziyade tüm değişkenleri kapsayacak ve bunların arasındaki doğrudan ve dolaylı ilişkileri sunabilecek daha karmaşık yöntemlere başvurmak öznel iyi oluş araştırmalarını bir sonraki adıma taşımak adına önemli olabilir.

1.1 Çalışmanın Amacı

Bu çalışmanın amacı; sürekli umut, bilişsel esneklik, durumluk umut ve başa çıkma stratejilerinden oluşan bir modelin öznel iyi oluşu ne derecede açıkladığını incelemektir. Bu doğrultuda çalışmanın ana araştırma sorusu: “Sürekli umut, bilişsel esneklik, durumluk umut ve başa çıkma stratejilerinden oluşan bir model öznel iyi oluşu ne derecede açıklamaktadır?” şeklinde ifade edilmiştir.

1.2 Çalışmanın Önemi

Bu çalışmanın kuram, araştırma, uygulama ve psikolojik danışman eğitimi alanlarına önemli katkıları olabileceğine inanılmaktadır. Aşağıdaki paragraflarda bu alanlarla ilgili bu çalışmanın olası önemine değinilecektir.

İkinci Dünya Savaşı'ndan başlayıp 20. yüzyılın sonuna kadar süren zamanda psikoloji, akıl sağlığı hastalıklarının tedavisi ve problemlere odaklanmakla oldukça meşgul olup diğer amaçları olan insanların daha doyurucu yaşamlara ulaşmaları için yardım etme ve yeteneklerini geliştirme odaklarını göz ardı etmiştir (Gillham ve Seligman, 1999; Seligman ve Csikszentmihalyi, 2000). Problem ve hastalık tedavisi üzerine yapılan büyük yatırımın yanında insanların hayatlarını daha yaşamaya değer kılacak kavramların araştırılması Pozitif Psikoloji'nin ortaya çıkışına kadar geri planda kalmıştır (Gillham ve Seligman, 1999). Pozitif Psikoloji hareketinin ortaya çıkışıyla olumlu kavramlar üzerine çalışmalar artsa da, Pozitif Psikoloji, kavram ve görüşlerinin farklı kültür ve örneklemelerde araştırılması gereken hala genç bir disiplindir. Diener ve arkadaşları (1997) Pozitif Psikoloji'nin çıkarımlarının çoğunlukla batı kültürlerinde test edildiğini ve diğer kültürlerde de test edilmesine ihtiyaç duyulduğunu iletmişlerdir. Bu çalışma, Pozitif Psikoloji'yi kuramsal çerçeve olarak kabul etmesi ve Pozitif Psikoloji'nin de kavramlarından olan birçok olumlu değişkeni Türkiye kültürü içerisinde çalışması açısından Pozitif Psikoloji ile bu şemsiye altındaki olumlu kuramların Türkiye'deki gelişimine katkıda bulunabilir.

Bu çalışma, öznel iyi oluş araştırmalarının güncel bir ihtiyacı olan insanların nasıl, neden ve hangi süreçler aracılığıyla daha mutlu insanlar haline geldiğinin ve daha doyurucu hayatlar yaşadığının araştırılmasına yönelik bir girişim olması açısından öznel iyi oluş araştırmaları için önem taşıyabilir. İlgili alanyazın hem sürekli değişkenlerin hem de durumsal/bağlamsal değişkenlerin önemine işaret

edip günümüzde bu farklı düzeylerdeki değişkenlerin birlikte incelenmesini kapsayan araştırmalara ihtiyaç duyulduğunu vurgulamaktadır. Bu çalışmada da sürekli umut ve bilişsel esneklik gibi sürekli değişkenler ile durumluk umut ve başa çıkma stratejileri gibi durumluk/bağlamsal değişkenlerin araştırılmasıyla bu ihtiyaca yönelik bir araştırma tasarlanmıştır. Ek olarak farklı düzeylerdeki (sürekli, durumluk ya da bağlamsal) bu değişkenler, öznel iyi oluşun açıklanmasında Umut Kuramı'nın (Snyder, 2002) önerdiği dizilimde test edilmiştir. Bu dizilim, sürekli değişkenlerin durumluk değişkeni, bu değişkenin de bağlamsal değişkenleri yordadığı ve bu sürecin sonunda da bireylerin öznel iyi oluşlarının belirlendiği bir dizilimdir. Bu doğrultuda bu çalışma, farklı düzeylerdeki değişkenlerin bir arada çalışılması açısından sadece öznel iyi oluş araştırmalarına katkıda bulunmakla kalmayıp Umut Kuramı'nın dizilimini test ederek de Umut Kuramı'nın Türkiye'deki araştırmalarına da katkıda bulunabilir. Tüm bunlara ek olarak, seçilen tüm değişkenler arasındaki doğrudan ve dolaylı ilişkilerin incelenmesi adına bu çalışmada Yapısal Eşitlik Modellemesi (YEM) kullanılmıştır. Bu ileri analiz yönteminin kullanılması, gelecek çalışmalarda da basit yordama modellerini tercih etmektense araştırmacıları daha karmaşık ilişkilerin test edilmesine izin veren bu ileri düzey analizi seçmeleri konusunda cesaretlendirebilir. Tüm bu noktalar düşünüldüğünde; farklı düzeylerdeki değişkenlerin öznel iyi oluş üzerindeki etkilerinin bir arada incelenmesi, bu etkilerinin incelenmesinde Umut Kuramı'nın diziliminden yararlanılması, bu değişkenlerle ne yurtiçi ne yurtdışında gerçekleştirilen bir çalışma olmaması ve basit yordama modellerindense ileri düzey bir analiz kullanılması açısından bu çalışma araştırma alanına önemli katkılarda bulunabilir.

Bu çalışma üniversite öğrencileri ile gerçekleştirildiği için, bu çalışmanın üniversite öğrencileriyle yapılacak uygulamalarda olası önemine değinmek yerinde olabilir. Üniversite öğrencileri, ergenlikten genç yetişkinliğe geçtikleri bu geçiş döneminde; akademik başarıya ulaşma, doyurucu ilişkiler kurma ve bu ilişkileri sürdürme ile yetişkin hayatının zorluklarıyla baş etmeye başlama

açısından stresli yaşantılar geçirmektedirler. Bu stresli geçiş döneminde öğrenciler yüzleştikleri sorunlarla başa çıkmada uygun yolları bulmada ve öznel iyi oluşlarını korumada yardıma ihtiyaç duymaktadırlar. Üniversite psikolojik danışma servisleri bu konuda oldukça önem taşımaktadırlar. Önleyici psikolojik danışma servisleri aracılığıyla, psikolojik danışmanlar üniversite öğrencilerini olası stres kaynaklarına karşı hazırlayabilir ya da gelişimsel servisleri aracılığıyla öğrencilerin sahip oldukları güçleri bu stresli süreçte nasıl daha etkili kullanıp daha mutlu hayatlar yaşayabilecekleri konusunda öğrencilere yardımcı olabilirler. Bu noktada, üniversite psikolojik danışma servislerinde çalışan uzmanlar, önleyici ve gelişimsel hizmetlerini planlarken bu çalışmanın sonuçlarından yararlanabilirler. Bu çalışma, umutlu olmanın, esnek düşünebilmenin ve birey-çevre etkileşimine uygun başa çıkma stratejilerini seçmenin üniversite öğrencilerinin öznel iyi oluşları üzerinde etkili olduğunu ortaya koymuştur. Uzmanlar buradan yola çıkarak bireysel ya da grup uygulamaları aracılığıyla bireylerin umut ve bilişsel esneklik seviyelerini arttırıcı uygulamalar tasarlayabilirler ve öğrencilere geçirdikleri bu stresli dönemde stresle nasıl daha etkili bir şekilde başa çıkabilecekleri konusunda yardımcı olabilirler.

Son olarak psikolojik danışman eğitimi düşünüldüğünde, bu çalışma Pozitif Psikoloji'nin Türkiye'deki psikolojik danışman eğitimindeki yerinin geliştirilmesi açısından katkıda bulunabilir. Türkiye'deki psikolojik danışman eğitimi programlarının çoğunda, bireylerin güçlü yanlarına odaklanan yaklaşımlar göz ardı edilip sorunların bulunup çözüm üretildiği yaklaşımlara daha fazla önem verilmektedir. Bu çalışma, olumlu değişkenlerin Türkiye'deki üniversite öğrencilerinin mutluluk ve yaşam doyumlarındaki etkisini ortaya koyarak bu konudaki bilgi birikimine katkıda bulunmuştur. Olumlu kavramların etkililiğine dair bilgi birikiminin artışıyla, psikolojik danışman eğitiminde görevli olan eğitimciler, bu olumlu değişkenlerin önemine daha fazla ikna olup Pozitif Psikoloji'yi ve Pozitif Psikoloji şemsiyesi altında yer alan insanların

güçlü yanlarını çalışan diğer kuramları, eğitim programlarına daha kapsamlı bir şekilde entegre edebilirler.

2. YÖNTEM

2.1 Araştırma Deseni

Üniversite öğrencilerinin öznel iyi oluşlarını açıklama, sürekli umut, bilişsel esneklik, durumluk umut ve başa çıkma stratejilerinden oluşan bir modelin ne derecede etkili olduğunu araştıran bu çalışmada, belirtilen değişkenler arasındaki ilişkiler test edileceği için ilişkisel araştırma deseninden yararlanılmıştır.

2.2 Örneklem

Bu çalışmanın örneklemini oluşturmak amacıyla Ankara’da büyük bir devlet üniversitesinde öğrenimlerine devam eden 1280 lisans öğrencisine uygun örnekleme yöntemi ile erişilmiştir. Ancak yanıtlanmayan bazı ölçek maddeleri ve uç değerler göz önüne alınarak, katılımcı sayısı 1222’ye indirgenmiştir. Örneklem, % 49.2’sini ($N = 601$) kadın ve % 50.8’ini ($N = 621$) erkek lisans öğrencileri oluşturmuştur. Katılımcıların yaşları 17 ile 32 arasında olup ortalamaları 20.83’tür ($SS = 1.72$). Katılımcıların toplam akademik başarıları 0.48 ile 4.00 arasında değişirken ortalamaları 2.69’dur ($SS = 0.66$). Katılımcıların öğrenim gördükleri fakülteler ve sınıf düzeylerine göre dağılımları Tablo 1’de sunulmuştur.

2.3 Veri Toplama Araçları

Bu çalışmanın veri toplama sürecinde, Sürekli Umut Ölçeği (Snyder ve ark., 1991), Bilişsel Esneklik Envanteri (Dennis ve Vander Wal, 2010), Durumluk

Umut Ölçeği (Snyder ve ark., 1996), Stresle Başa Çıkma Ölçeği (Türküm, 2002), Olumlu ve Olumsuz Duygu Ölçeği (Watson ve ark., 1988), Yaşam Doyumu Ölçeği (Diener ve ark., 1985) ve araştırmacı tarafından hazırlanan kişisel bilgi formu kullanılmıştır. Kullanılan bu ölçeklerin geçerlik ve güvenirlik analizleri, ana verinin toplandığı üniversitede öğrenim gören 389 (235 kadın ve 154 erkek) lisans öğrencisinden uygun örnekleme yöntemiyle toplanan veriler aracılığıyla pilot çalışmada test edilmiştir.

2.3.1 Sürekli Umut Ölçeği

Sürekli Umut Ölçeği, Snyder ve arkadaşları tarafından (1991) bireylerin sürekli umut düzeylerini ölçme amacıyla geliştirilmiştir. Ölçek, 12 maddelik ve dörtlü ölçeklendirmeye dayanan bir ölçektir. Ölçekten alınan puanın yüksekliği daha yüksek seviyede sürekli umut düzeyine işaret etmektedir. Snyder ve arkadaşları (1991) ölçeğin yapısını, iki alt boyuttan oluşacak şekilde test edip onaylamışlardır. Bu iki alt boyut, amaca götüren yollar ve amaca ilişkin motivasyondur. Ölçeğin iç tutarlığı, Snyder ve arkadaşları (1991) tarafından tüm ölçek için .74 ve .84; amaca götüren yollar alt boyutu için .63 ve .80; ve amaca ilişkin motivasyon alt boyutu için de .71 ve .76 değişmekte olarak bulunmuştur. Ölçeğin Türkçe'ye uyarlanması, Akman ve Korkut (1993) tarafından gerçekleştirilmiştir. Akman ve Korkut'un uyarlama çalışmasında ölçek tek alt boyutlu bir yapı sunarken takip eden çalışmalarda orijinali ile tutarlı bir şekilde iki alt boyutlu bir yapıya rastlanılmıştır (örn., Kemer, 2006). Ölçeğin iç tutarlılığı, Akman ve Korkut'un uyarlama çalışmasında tüm ölçek için .65 olarak bulunurken Kemer'in (2006) çalışmasında tüm ölçek için .51, amaca götüren yollar alt boyutu için .72 ve amaca ilişkin motivasyon alt boyutu için .66 olarak bulunmuştur. Bu çalışmada da ölçeğin iki alt boyutlu yapısı Doğrulamalı Faktör Analizi aracılığıyla desteklenmiş ve iç tutarlılık katsayısı da tüm ölçek için .81, amaca götüren yollar alt boyutu için .76 ve amaca ilişkin motivasyon alt boyutu için .67 olarak bulunmuştur.

2.3.2 Bilişsel Esneklik Envanteri

Bilişsel Esneklik Envanteri, Dennis ve Vander Wal (2010) tarafından bireylerin sahip oldukları bilişsel esneklik düzeylerini ve türlerini ölçme amacıyla geliştirilmiştir. Ölçek, 20 maddelik ve yedili Likert tipi ölçeklendirmeye dayanan bir ölçektir. Ölçekten alınan puanın yüksekliği daha yüksek seviyede bilişsel esnekliğe işaret etmektedir. Dennis ve Vander Wal (2010) ölçeğin yapısını, iki alt boyuttan oluşacak şekilde test edip onaylamışlardır. Bu iki alt boyut, alternatifler ve kontroldür. Ölçeğin iç tutarlığı, Dennis ve Vander Wal (2010) tarafından tüm ölçek için .91; alternatifler alt boyutu için .91; ve kontrol alt boyutu için de .77 olarak bulunmuştur. Ölçeğin Türkçe'ye uyarlanması, Gülüm ve Dağ (2012) ile Sapmaz ve Doğan (2013) tarafından gerçekleştirilmiştir. Ölçeğin Türkçe uyarlama çalışmalarında beşli Likert tipi ölçeklendirme kullanılmıştır. Gülüm ve Dağ (2012) ile Sapmaz ve Doğan (2013) tarafından gerçekleştirilen uyarlama çalışmalarında orijinali ile tutarlı bir şekilde iki alt boyutlu bir yapıya rastlanılmıştır. Ölçeğin iç tutarlılığı, Gülüm ve Dağ'ın (2012) uyarlama çalışmasında tüm ölçek için .90, alternatifler alt boyutu için .89 ve kontrol alt boyutu için .85 olarak bulunmuştur. Sapmaz ve Doğan'ın (2013) uyarlama çalışmasında ise iç tutarlılık, tüm ölçek için .90, alternatifler alt boyutu için .90 ve kontrol alt boyutu için .84 olarak bulunmuştur. Bu çalışmada da ölçeğin iki alt boyutlu yapısı Doğrulayıcı Faktör Analizi aracılığıyla desteklenmiş ve iç tutarlılık katsayısı da tüm ölçek için .91, alternatifler alt boyutu için .91 ve kontrol alt boyutu için .86 olarak bulunmuştur.

2.3.3 Durumluk Umut Ölçeği

Sürekli Umut Ölçeği, Snyder ve arkadaşları tarafından (1996) bireylerin anlık/durumluk umut düzeylerini ölçme amacıyla geliştirilmiştir. Ölçek, 6 maddelik ve dörtlü ölçeklendirmeye dayanan bir ölçektir. Ölçekten alınan puanın yüksekliği daha yüksek seviyede durumluk umut düzeyine işaret

etmektedir. Snyder ve arkadaşları (1996) ölçeğin yapısını, iki alt boyuttan oluşacak şekilde test edip onaylamışlardır. Bu iki alt boyut, amaca götüren yollar ve amaca ilişkin motivasyondur. Ölçeğin iç tutarlılığı, Snyder ve arkadaşları (1996) tarafından tüm ölçek için .88, amaca götüren yollar alt boyutu için .59 ve amaca ilişkin motivasyon alt boyutu için de .86 olarak bulunmuştur. Ölçeğin Türkçe'ye uyarlanması, Denizli (2004) tarafından gerçekleştirilmiştir. Denizli'nin (2004) uyarlama çalışmasında, orijinali ile tutarlı bir şekilde iki alt boyutlu bir yapıya rastlanılmıştır. Ölçeğin iç tutarlılığı, Denizli (2004) tarafından tüm ölçek için .48 olarak, amaca götüren yollar alt boyutu için .58 ve amaca ilişkin motivasyon alt boyutu için .66 olarak bulunmuştur. Bu çalışmada da ölçeğin iki alt boyutlu yapısı Doğrulayıcı Faktör Analizi aracılığıyla desteklenmiş ve iç tutarlılık katsayısı da tüm ölçek için .85, amaca götüren yollar alt boyutu için .77 ve amaca ilişkin motivasyon alt boyutu için .80 olarak bulunmuştur.

2.3.4 Stresle Başa Çıkma Ölçeği

Stresle Başa Çıkma Ölçeği, Türküm (2002) tarafından bireylerin stresli olaylarla karşılaştıklarında kullandıkları baş etme stratejilerinin türlerini ve seviyelerini belirlemek amacıyla geliştirilmiştir. Ölçek, 23 maddelik ve beşli Likert tipi ölçeklendirmeye dayanan bir ölçektir. Türküm (2002) ölçeğin yapısını, üç alt boyuttan oluşacak şekilde önermiştir. Bu alt boyutlar; kaçınma, problem-odaklı başa çıkma ve sosyal desteğe başvurmaktır. Ölçeğin alt boyutlarından alınan puanın yüksekliği daha yüksek seviyede ilgili baş etme stratejisinin kullanımına işaret etmektedir. Ölçeğin iç tutarlılığı, kaçınma alt boyutu için .65, problem-odaklı başa çıkma alt boyutu için .80, ve sosyal desteğe başvurma alt boyutu için .85 olarak raporlanmıştır (Türküm, 2002). Bu çalışmada da ölçeğin üç alt boyutlu yapısı Doğrulayıcı Faktör Analizi aracılığıyla desteklenmiş ve iç tutarlılık katsayısı da kaçınma alt boyutu için .61, problem-odaklı başa çıkma alt

boyutu için .76, ve sosyal desteğe başvurma alt boyutu için .84 olarak bulunmuştur.

2.3.5 Öznel İyi Oluş Ölçekleri

Bu çalışmada katılımcıların öznel oluşlarının ölçülmesi adına Olumlu ve Olumsuz Duygu Ölçeği ve Yaşam Doyumu Ölçeği kullanılmıştır. Bu iki ölçeğin tek bir “öznel iyi oluş” değişkeni oluşturması adına, öznel iyi oluş bu çalışmada ikincil seviye bir değişken olarak ele alınmıştır. Pilot çalışmada yapılan Doğrulayıcı Faktör Analizleri, bu ikincil seviye öznel iyi oluş değişkeninin yapısını desteklemiştir. Ek olarak da, oluşturulan bu yeni öznel iyi oluş değişkenine ilişkin iç tutarlılık katsayısı .88 olarak hesaplanmıştır. Aşağıda öznel iyi oluş değişkeninin parçaları olan Olumlu ve Olumsuz Duygu Ölçeği ve Yaşam Doyumu Ölçeği’ne ilişkin bilgiler sunulmuştur.

2.3.5.1 Olumlu ve Olumsuz Duygu Ölçeği

Olumlu ve Olumsuz Duygu Ölçeği, Watson ve arkadaşları (1988) tarafından bireylerin belirlenmiş bir zaman diliminde sahip oldukları olumlu ve olumsuz duyguların ve bu duyguların seviyelerinin belirlenmesi amacıyla geliştirilmiştir. Ölçek, 20 maddelik ve beşli Likert tipi ölçeklendirmeye dayanan bir ölçektir. Watson ve arkadaşları (1988) ölçeğin yapısını, iki alt boyuttan oluşacak şekilde sunmuşlardır. Bu iki alt boyut, olumlu duygular ve olumsuz duygulardır. Ölçekten alınan puanın yüksekliği daha yüksek seviyede olumlu ya da olumsuz duygu düzeyine işaret etmektedir. Ölçeğin iç tutarlılığı, olumlu duygular alt boyutu için .86 ve .90 arasında; olumsuz duygular alt boyutu için .84 ve .87 arasında değişmektedir (Watson ve ark., 1988). Ölçeğin Türkçe’ye uyarlanması, Gençöz (2000) tarafından gerçekleştirilmiştir. Gençöz’ün (2000) uyarlama çalışmasında, orijinali ile tutarlı bir şekilde iki alt boyutlu bir yapıya rastlanılmıştır. Ölçeğin iç tutarlılığı, Gençöz (2000) tarafından olumlu duygular

alt boyutu için .83 ve olumsuz duygular alt boyutu için .86 olarak bulunmuştur. Bu çalışmada da ölçeğin iki alt boyutlu yapısı Doğrulayıcı Faktör Analizi aracılığıyla desteklenmiş ve iç tutarlılık katsayısı da olumlu duygular alt boyutu için .86 ve olumsuz duygular alt boyutu için .85 olarak bulunmuştur.

2.3.5.2 Yaşam Doyumu Ölçeği

Yaşam Doyumu Ölçeği, Diener ve arkadaşları (1985) tarafından bireylerin yaşamlarından aldıkları doyumun belirlenmesi amacıyla geliştirilmiştir. Ölçek, 5 maddelik ve yedili Likert tipi ölçeklendirmeye dayanan bir ölçektir. Diener ve arkadaşları (1985) ölçeğin yapısı için tek boyut önermişlerdir. Ölçekten alınan puanın yüksekliği daha yüksek seviyede yaşam doyumuna işaret etmektedir. Ölçeğin iç tutarlığı .87 olarak raporlanmıştır (Diener ve ark., 1985). Ölçeğin Türkçe'ye uyarlanması, Köker (1991) tarafından gerçekleştirilmiştir. Köker (1991) uyarlama çalışmasında, ölçeğin geçerliğini görünüş geçerliği aracılığıyla test etmiştir. Ek olarak Köker (1991), .71 ve .80 arasında değişen madde-ölçek korelasyonları ve üç hafta aralıkla hesaplanan .85 test-yeniden test yöntemi korelasyonları raporlayarak ölçeğin güvenilirliğine dair kanıtlar sunmuştur. Ölçeğin yapı geçerliliğine dair çalışma Yetim (1991) tarafından gerçekleştirilmiştir. Yetim (1991) ölçeğin orijinali ile tutarlı bir şekilde tek boyuttan oluştuğu sonucuna ulaşmıştır. Bu çalışmada da ölçeğin tek alt boyutlu yapısı Doğrulayıcı Faktör Analizi aracılığıyla desteklenmiş ve iç tutarlılık katsayısı da ölçek için .85 olarak hesaplanmıştır.

2.3.6 Kişisel Bilgi Formu

Kişisel Bilgi Formu, araştırmacı tarafından hazırlanmıştır. Bu formda, katılımcıların cinsiyetleri, yaşları, öğrenim gördükleri fakülteleri, sınıf düzeyleri ve genel akademik ortalamalarına ilişkin sorular bulunmaktadır. Ek olarak, bu form çalışmanın kısa bir açıklamasını, yönergeyi, gizlilik ve gönüllülük

ilkelerine ilişkin kısa bir bilgilendirmeyi ve araştırmacının iletişim bilgilerini içermektedir.

2.4 İşlem

Veri toplama sürecinden önce, ODTÜ İnsan Araştırmaları Etik Komitesi'nden gerekli izinler alınmıştır. Üniversitenin beş fakültesinde görev yapmakta olan öğretim üye ve görevlileriyle iletişime geçilip çalışma hakkında bilgi verilerek sınıflarında veri toplama talebinde bulunulmuştur. Veriler, öğrencilerden 2015-2016 akademik yılı içerisinde sınıf ortamlarında toplanmıştır. Araştırmacı tüm gruplara standart bir bilgilendirme sunup tüm uygulamaları kendi yürütmüştür. Verilerin toplanması yaklaşık olarak 15-20 dakika almıştır. Tüm katılımcılar, gizlilik ve gönüllük konusunda bilgilendirilip katılımları için teşekkür edilmişlerdir. Veri toplama sürecinden sonra araştırmacı öğrencilerden çalışmayla ilgili gelen tüm e-postaları yanıtlamıştır.

2.5 Verilerin Analizi

Çalışmada betimleyici istatistikler aracılığıyla veriler temizlenmiş, değişkenler arası korelasyonlara bakılmış ve ana analizin varsayımları test edilmiştir. Bu analizler, SPSS Version 22 (IBM Corp., 2015) aracılığıyla gerçekleştirilmiştir. Çalışmada kullanılan ölçeklerin geçerliği, PASW Version 18 (SPSS Inc., 2009) programı üzerinde Doğrulayıcı Faktör Analizleri aracılığıyla pilot çalışmada test edilmiştir. Bu çalışmanın amacı olan sürekli umut, bilişsel esneklik, durumluk umut ve başa çıkma stratejilerinden oluşan modelin üniversite öğrencilerinin öznel iyi oluşlarını ne derecede açıkladığını ortaya koymak amacıyla YEM analizi AMOS Version 18 (Arbuckle, 2009) aracılığıyla gerçekleştirilmiştir.

3. BULGULAR

3.1 Betimsel Analiz Bulguları

Bu çalışmada kullanılan değişkenlerin ortalamaları, standart sapmaları, ve aralarındaki ilişkiyi gösteren korelasyon analizleri betimsel analizler aracılığıyla hesaplanmıştır. Bu betimsel analizlerin sonuçları Tablo 3’de sunulmuştur. Bir başka betimsel analiz olarak katılımcıların cinsiyetlerinin öznel iyi oluş değişkenleri (olumlu ve olumsuz duygulanım ile yaşam doyumu) üzerindeki olası etkisi bağımsız örneklem t-testi analiziyle kontrol edilmiştir. Analizin sonuçlarına göre sadece olumlu duygulanım değişkeninde anlamlı cinsiyet farkları bulunmuştur. Anlamlı cinsiyet farklarının tüm öznel iyi oluş değişkenleri için gözlemlenmemesi ve olumlu duygulanım için gözlemlenen farkın çok küçük olması göz önüne alınarak cinsiyet daha sonra yapılan ana analizlere katılmamıştır.

3.2 Yapısal Modelin Bulguları

Bu çalışmada önerilen modelin YEM aracılığıyla test edilmesinden önce, ölçüm modeline başvurulmuştur. Bu ölçüm modeli 7 faktörlü bir yapıya sahip olup Doğrulayıcı Faktör Analiziyle test edilmiştir. Sonuçlar, bu 7 faktörlü yapının veri ile kabul edilebilir uyum gösterdiğini ortaya koymuştur ($\chi^2(863) = 3301.87$, $p = .00$, $\chi^2/df\text{-ratio} = 3.83$, $CFI = .90$, $TLI = .89$, $RMSEA = .05$ [90% $CI = .05$, $.05$], $p_{Close} > .05$, and $SRMR = .07$).

Ölçüm modelinin test edilmesinden sonra yapısal modelin testine geçilmiştir. Bu aşamada sürekli umut, bilişsel esneklik, durumluk umut ve başa çıkma stratejilerinden oluşan modelin öznel iyi oluşu ne derecede açıkladığı YEM analizi ile test edilmiştir. Sonuçlara göre test edilen model, kabul edilebilir uyum göstermiştir ($\chi^2(866) = 3374.42$, $p = .00$, $\chi^2/df\text{-ratio} = 3.90$, $CFI = .90$, $TLI = .89$,

$RMSEA = .05$ [90% CI = .05, .05], $p_{Close} > .05$, and $SRMR = .07$). Ek olarak, bu çalışmada önerilen modelin öznel iyi oluş içerisindeki toplam varyansın % 79'unu açıkladığı görülmüştür. Doğrudan ve dolaylı etkilerin incelenmesiyle aşağıda listelenen bulgulara erişilmiştir:

1. Doğrudan etkileri göz önüne alındığında, durumluk umut, sosyal desteğe başvurma ve problem-odaklı başa çıkma değişkenleri öznel iyi oluşun anlamlı yordayıcıları olarak bulunmuşlardır. Durumluk umut ve sosyal desteğe başvurma öznel iyi oluşu olumlu yönde yordamaktadır. Ancak problem-odaklı başa çıkma öznel iyi oluşu olumsuz yönde yordamaktadır. Sürekli umut, bilişsel esneklik ve kaçınma değişkenlerinin, doğrudan etkileri kapsamında, öznel iyi oluşu anlamlı düzeyde açıklayamadığı görülmüştür.

2. Bu çalışmada önerilen modelde, sürekli umut ve bilişsel esneklik arasında anlamlı bir korelasyonel ilişki beklenmektedir. Ek olarak, sürekli umut ve bilişsel esnekliğin durumluk umudu anlamlı bir şekilde yordaması beklenmektedir. Beklentilerle uyumlu olarak, sürekli umut ve bilişsel esneklik arasında anlamlı ve olumlu yönde bir ilişki bulunmuştur. Ek olarak, sürekli umudun anlamlı şekilde ve olumlu yönde durumluk umudu yordadığı bulunmuştur. Bir başka deyişle, bu çalışmada sürekli umut seviyeleri yüksek olan katılımcıların durumluk umut seviyeleri de yüksektir. Ancak, beklentilerin aksine, bilişsel esnekliğin durumluk umudu anlamlı bir şekilde yordayamadığı görülmüştür.

3. Ek olarak bu çalışmada önerilen modelde, başa çıkma stratejilerinin (kaçınma, problem-odaklı başa çıkma ve sosyal desteğe başvurma) sürekli umut, bilişsel esneklik ve durumluk umut tarafından anlamlı bir şekilde yordanması beklenmektedir. Bu değişkenlerin kaçınma stratejisi üzerindeki doğrudan etkileri göz önüne alındığında, sürekli umudun anlamlı bir yordayıcı olmadığı, bilişsel esnekliğin anlamlı ve olumsuz yönde bir yordayıcı olduğu ve durumluk

umudun da anlamlı ve olumlu yönde bir yordayıcı olduğu görülmüştür. Bir başka deyişle, bu çalışmadaki katılımcılardan düşük seviyede bilişsel esneklik ile yüksek seviyede durumluk umuda sahip olanların stresli durumlarla başa çıkarken kaçınma stratejisini daha fazla kullandıkları görülmüştür.

4. Problem-odaklı başa çıkma stratejisinin yordanmasında, sürekli umut anlamlı bir yordayıcı olarak bulunamazken bilişsel esneklik ve durumluk umut anlamlı ve olumlu yönde yordayıcılar olarak bulunmuşlardır. Bu çalışmada yer alan bilişsel esneklik ve durumluk umut seviyeleri yüksek olan katılımcılar, stresli durumlarla baş ederken problem-odaklı başa çıkma stratejisine daha fazla başvurumaktadırlar.

5. Sosyal desteğe başvurma başa çıkma stratejisinin yordanmasında, sürekli umut anlamlı ve olumsuz yönde bir yordayıcı olarak bulunmuşken bilişsel esneklik ve durumluk umut anlamlı ve olumlu yönde yordayıcılar olarak bulunmuşlardır. Bu bulgu, bu çalışmadaki katılımcılardan düşük sürekli umut seviyesi ve yüksek bilişsel esneklik ile durumluk umut seviyeleri olanların stresle başa çıkarken sosyal desteğe daha fazla başvurduklarını göstermektedir.

6. Bu çalışmada, doğrudan etkilerin yanında bazı dolaylı etkiler de anlamlı bulunmuştur. Sürekli umudun, durumluk umut aracılığı ile tüm başa çıkma stratejileri üzerinde dolaylı bir etkisinin olduğu görülmüştür. Bir başka deyişle, sürekli umudu yüksek olan katılımcıların aynı zamanda yüksek düzeyde durumluk umuda sahip oldukları ve bu durumun da katılımcıların stresli durumlarda belirtilen başa çıkma stratejilerini kullanma olasılıklarını arttırdığı sonucuna ulaşılmıştır. Bu noktada, durumluk umudun, sürekli umut ve başa çıkma stratejileri arasında aracı rolü oynadığı görülmüştür.

7. Ek olarak, sürekli umudun öznel iyi oluş üzerinde doğrudan bir etkisi bulunamazken öznel iyi oluş üzerinde anlamlı ve olumlu yönde dolaylı etkisi

olduğu görülmüştür. Bu dolaylı etkinin dört olası yol ile gerçekleşebileceği gözlemlenmiştir. Bu yollar; durumluk umut, sosyal desteğe başvurma, durumluk umut ve problem-odaklı başa çıkma ile durumluk umut ve sosyal desteğe başvurmaktır.

8. Bu çalışmada bazı dolaylı etkiler de anlamsız bulunmuştur. Bilişsel esneklik tüm başa çıkma stratejileri üzerinde anlamlı doğrudan etkilere sahip olsa da, bilişsel esnekliğin tüm başa çıkma stratejileri (kaçınma, problem-odaklı başa çıkma, sosyal desteğe başvurma) üzerindeki dolaylı etkileri anlamsız olarak bulunmuştur. Doğrudan etkisine benzer olarak, bilişsel esnekliğin öznel iyi oluş üzerindeki dolaylı etkisi de anlamsız olarak gözlemlenmiştir.

9. Ek olarak durumluk umudun öznel iyi oluş üzerindeki doğrudan etkisinin anlamlı bulunmasına rağmen öznel iyi oluş üzerindeki dolaylı etkisi istatistiksel olarak anlamsız bulunmuştur.

4. TARTIŞMA

Bu çalışmanın amacı, sürekli umut, bilişsel esneklik, durumluk umut ve başa çıkma stratejilerinden oluşan bir modelin Türkiye’deki üniversite öğrencilerinin öznel iyi oluşlarını ne derecede açıkladığını incelemektir. Bu modeli test etmek adına gerçekleştirilen YEM analizi, önerilen modelin veriyle kabul edilebilir uyum gösterdiğini ve öznel iyi oluş içerisindeki toplam varyansın % 79’unu açıkladığını göstermiştir. Değişkenlerin öznel iyi oluş üzerindeki doğrudan etkilerine bakıldığında, sürekli umut ve bilişsel esnekliğin öznel iyi oluş üzerindeki doğrudan etkilerinin anlamsız olduğu görülmüştür. Bu bulgu, alanyazındaki umutla ilgili (Bailey ve ark., 2007; Demirli ve ark., 2015; O’Sullivan, 2011; Steffen ve Smith, 2013; Şahin ve ark., 2012; Uzun Özer ve Tezer, 2008) ve bilişsel esneklikle ilgili önceki bulgularla (Akbari Chermahini ve Hommel, 2012; Dağ ve Gülüm, 2013; Küçüker, 2016; Metzl, 2009; Muyan

ve Demir, 2016) çelişmektedir. Önceki bulgularla olan tutarsızlık, önceki çalışmalarda kullanılan analiz yöntemleriyle bu çalışmada kullanılan analiz yöntemi arasındaki farklara bağlı olabilir. Alanyazındaki çalışmalar çoğunlukla basit yordama modellerine dayalı olup bu sürekli değişkenleri öznel iyi oluşa taşıyabilecek olası mekanizmaları göz ardı etmektedirler. Bu sürekli değişkenler ile öznel iyi oluş arasında rol alabilecek olan mekanizmaların göz ardı edilmesiyle bu değişkenlerin doğrudan etkileri önceki çalışmalarda anlamlı bulunmuş olabilir. Ancak bu çalışmada olduğu gibi sürekli değişkenler ile öznel iyi oluş arasında durumluk/bağlamsal değişkenlerin eklenmesi bu sürekli değişkenlerin doğrudan etkilerinin anlamsız çıkmalarına neden olabilir. Bu bulgudan yola çıkılarak, bu sürekli/kişilik özelliğine benzer değişkenlerin öznel iyi oluşu açıklamada tek başlarına yeterli olmadığı bireyleri öznel iyi oluşa yönlendirecek ek süreçlere ihtiyaç duyabilecekleri sonucuna varılabilir.

Çalışmadaki durumluk/bağlamsal değişkenlerin öznel iyi oluş üzerindeki doğrudan etkilerine bakılınca; durumluk umut, problem-odaklı başa çıkma ve sosyal desteğe başvurma değişkenlerinin anlamlı doğrudan etkilere sahip olduğu bulunurken kaçınma başa çıkma stratejisinin anlamlı bir doğrudan etkisine rastlanılamamıştır. Durumluk umudun öznel iyi oluş üzerindeki olumlu ve anlamlı doğrudan etkisi alanyazındaki bulgularla tutarlıdır (örn., Demirli ve ark., 2015; Denizli, 2004; Sharma ve Mathur, 2016; Valle ve ark., 2006; Yalçın ve Malkoç, 2015; Yang ve ark., 2016). Durumluk umudun öznel iyi oluş üzerindeki olumlu etkisi şu şekilde açıklanabilir: Yüksek seviyede durumluk umuda sahip olan insanlar hedeflerine ulaşmak için daha uygun yollar seçip bu yolları daha yüksek bir motivasyonla takip edebildikleri için doğrudan hedeflerine ulaşabilir ki bu hedefe ulaşma süreci de Umut Kuramı'nın (Snyder, 2002) önerdiği gibi olumlu duyguların artmasına ve olumsuz duyguların azalmasına neden olabilir. Problem-odaklı başa çıkma stratejisi, beklentinin ve önceki bulguların (örn., Alkan, 2004; Chen, 2016; Coyle ve Vera, 2013; Nunes ve ark., 2016; Topal, 2011; Yıldız, 2014) aksine bu çalışmada öznel iyi oluş üzerinde olumsuz bir

doğrudan etkiye sahiptir; ancak Türkiye örnekleminde problem-odaklı başa çıkmanın öznel iyi oluş ya da bileşenleriyle olumsuz yönde ilişkili olduğunu gösteren araştırmalar da bulunmaktadır (örn., Odacı ve Çıkrıkçı, 2012; Yılmaz ve ark., 2013) Bu bulgu, katılımcıların veri toplama sürecinde seçtikleri ya da deneyimledikleri stres kaynaklarıyla ilintili olabilir. Lazarus (1993) kontrol edilemeyen stres koşullarında problem-odaklı başa çıkma stratejisini kullanmanın sağlıklı sonuçlar doğuramayabileceğini hatta bireylerin stres düzeylerini arttırabileceğini ifade etmiştir. Lazarus'un (1993) bu ifadesi bazı çalışmalarla desteklenmiştir (örn., Cheng ve ark., 1999; Miller ve ark., 1996). Bu çalışmanın veri toplama zamanı da katılımcıların kontrol edemeyecekleri bazı stres kaynaklarını (örn., terör saldırıları) deneyimlemek zorunda kaldıkları bir döneme denk gelmektedir. Problem-odaklı başa çıkma stratejilerine başvurmalarına rağmen bu durumu ortadan kaldıracak bir çözüme ulaşamadıkları için katılımcıların öznel iyi oluş düzeyleri bu katılımcılar için daha düşük olabilir. Sosyal desteğe başvurma stratejisi alanyazınla tutarlı bir şekilde (örn., Deniz, 2006; Folkman ve Lazarus, 1988; Topal, 2011; Yılmaz ve ark., 2013) öznel iyi oluş üzerinde olumlu doğrudan etkiye sahip olarak bulunmuştur. Hem problem-odaklı başa çıkma hem de duygu-odaklı başa çıkma stratejilerine hizmet edebilen bu başa çıkma stratejisi katılımcıların hem kontrol edilebilir hem de kontrol edilemeyen stresli yaşantılarla daha etkili bir biçimde baş etmesine yardımcı olabilir. Bu başa çıkma stratejisi sayesinde bireyler, hem duygusal hem de enstrümantal destek sağlayarak olumlu duygularını ve yaşam doyumlarını arttırıp olumsuz duygularını azaltabilirler. Kaçınma başa çıkma stratejisinin öznel iyi oluş üzerine etkisi alanyazında çelişkilidir. Bazı çalışmalar kaçınmanın olumsuz bir yordayıcı olduğunu (örn., Conway ve Terry, 1992; Folkman ve Lazarus, 1988; Nunes ve ark., 2016; Yılmaz ve ark., 2013) bazıları kaçınmanın olumlu bir yordayıcı olduğunu (örn., Chen, 2016; Odacı ve Çıkrıkçı, 2012; Topal, 2011) ve bazıları ise öznel iyi oluş ile anlamlı ilişkisi olmadığını bulmuşlardır (örn., Deniz, 2006; Phan, 2013). Bu çalışmada kaçınmanın doğrudan etkisinin anlamlı bulunmaması; bireylerin her bir kaçınma maddesi

için farklı stresli yaşantıyı düşünmesinden ya da kaçınma stratejisinin öznel iyi oluşun her bir bileşeni için farklı işlevde bulunmasından kaynaklanıyor olabilir.

Modeldeki değişkenlerin arasındaki dolaylı etkileri incelendiğinde sürekli umudun tüm baş etme stratejileri üzerinde durumluk umut aracılığı ile anlamlı dolaylı etkileri olduğu sonucuna varılmıştır. Yüksek düzeyde sürekli umuda sahip olan katılımcıların aynı zamanda yüksek düzeyde durumluk umuda sahip olduğunu ki bu durumun da bireyleri stresle baş ederken belirtilen baş etme stratejilerinin daha çok tercih etmeye yönlendirdiği görülmüştür. Bu bulgu, Umut Kuramı'nın (Snyder, 2002) önerdiği ileri-beslemeli umutlu düşünme süreciyle tutarlılık göstermektedir. Ek olarak sürekli umudun öznel iyi oluş üzerinde dört olası yol aracılığıyla anlamlı dolaylı etkiye sahip olduğu bulunmuştur. Bu yollar; durumluk umut, sosyal desteğe başvurma, durumluk umut ve problem-odaklı başa çıkma ile durumluk umut ve sosyal desteğe başvurma yollarıdır. Genel olarak bakıldığında bu bulgular, Umut Kuramı'nın önerdiği dizilimle (Snyder, 2002) tutarlılık göstermektedir. Bu dizilimde önerildiği gibi durumluk umudun sürekli umut ile amaç odaklı davranışlar (başa çıkma stratejileri) arasında aracı rolü gördüğü ve sürekli değişkenlerden başlayıp durumluk umut ve başa çıkma stratejileri ile devam eden bu sürecin, bireylerin öznel iyi oluşunu etkilediği sonucuna ulaşılmıştır. Çalışmada bilişsel esnekliğin başa çıkma stratejileri ve öznel iyi oluş üzerindeki dolaylı etkilerinin anlamsız olduğu sonucuna varılmıştır. Bilişsel esnekliğin tüm başa çıkma stratejileri üzerinde anlamlı doğrudan etkisi düşünüldüğünde bilişsel esnekliğin başa çıkma stratejilerine ulaşma açısından başka hiçbir ek sürece ihtiyaç duymadığı sonucuna varılabilir. Bireyler, farklı yolların farkında olarak, gerektiğinde bilişsel setlerinde gerekli değişiklikler yaparak, esnek olmaya gönüllü olarak ve değişim gösterdikleri yollarda kendilerini yetkin hissederek başka hiçbir ek değişkene gerek kalmadan stresli bir durumda baş etme stratejilerine başvurabilirler. Bilişsel esnekliğin öznel iyi oluş üzerinde ne doğrudan ne dolaylı ilişkisinin bulunamaması ilgili alanyazın ile çelişmektedir (örn., Akbari

Chermahini ve Hommel, 2012; Dennis ve Vander Wal, 2010; Fernandez-Abascal ve Martin Diaz, 2013; Gülüm ve Dağ, 2012; Muyan ve Demir, 2016; Sapmaz ve Doğan, 2013; Zambianchi ve Ricci Bitti, 2014). Alanyazınla tutarsız olan bu bulgu iki noktayla ilintili olabilir; bu tutarsız bilgi, bu örneklemin özellikleri ile herhangi bir ölçüm sorununa bağlı olabilir ya da modeldeki güçlü yordayıcılar bilişsel esnekliğin öznel iyi oluşu yordamadaki gücünü sınırlamış olabilirler. Son anlamsız dolaylı etki ise durumluk duruma aittir. Durumluk umudun öznel iyi oluş üzerinde baş etme stratejileri aracılığıyla gerçekleştirilecek olan dolaylı etkisi anlamsızdır. Buradan yola çıkarak durumluk umudun ek süreçlere ihtiyaç duymadan kendi başına öznel iyi oluşun kuvvetli bir belirleyicisi olduğu sonucuna varılabilir. Durumluk umudun bu kuvvetli belirleyiciliği alanyazında birçok çalışma tarafından desteklenmektedir (Cheavens ve Ritschel, 2014).

4.1 Bulgulara İlişkin Çıkarımlar

Bu çalışmanın bulguları; araştırma, uygulama ve psikolojik danışman eğitime yönelik çıkarımlara işaret edebilir. Araştırmaya yönelik çıkarımlara bakıldığında, bu çalışma farklı düzeylerdeki (sürekli, durumluk ve bağlamsal) değişkenlerin belirlenen bir dizilimle öznel iyi oluş üzerindeki rolünü incelemiştir. Bulgular, hem sürekli hem durumluk/bağlamsal değişkenlerin önemine işaret etmektedir. Öznel iyi oluşun yordayıcılarının tek tek incelendiği araştırmalardansa farklı düzeydeki yordayıcılarının bir arada test edilmesine dayalı bakış açısıyla, öznel iyi oluş araştırmacıları bu çalışmaya benzer şekilde öznel iyi oluşu daha bütüncül incelemek adına daha kapsamlı modellerin araştırılmasına odaklanabilirler.

Uygulamaya yönelik çıkarımlara bakılacak olursa, bu çalışmada durumluk umudun ve başa çıkma stratejilerinin (kaçınma dışında) öznel iyi oluş üzerinde doğrudan etkileri olduğu ve sürekli umudun da başa çıkma stratejileri ve öznel

iyi oluş üzerinde dolaylı etkileri olduğu sonucuna varılmıştır. Doğrudan ya da dolaylı etkileri düşünüldüğünde, ister sürekli ister durumluk düzeyinde olsun, umudun öznel iyi oluşun önemli bir belirleyicisi olduğu görülmektedir. Bu noktada, üniversite psikolojik danışma servisleri, üniversite öğrencilerinin öznel iyi oluşlarının korunması ve artırılması adına umudun artırılmasını hedefleyen bireysel ya da grup uygulamalarından yararlanabilir. Uzmanlar, çalıştıkları kurumlardaki üniversite öğrencilerinin özelliklerine göre kendilerine özgü umut temelli programlar geliştirebilirler ya da uluslararası alanyazında etkililiği onaylanmış bireysel uygulamaları (örn., Feldman ve Dreher, 2012) ya da grup uygulamalarını (örn., Cheavens ve ark., 2006) uyarlayarak kendi kampüslerinde uygulayabilirler. Stresle başa çıkma stratejilerinin öznel iyi oluşun üzerindeki anlamlı katkısı düşünüldüğünde ise uzmanlar, önleyici hizmetler sunmak adına öğrencilere gelecek stresli yaşantılarında nasıl daha etkili başa çıkabilecekleri konusunda eğitimler, grup uygulamaları ya da bireysel uygulamalar sunabilirler. Bu eğitimlerde tüm başa çıkma stratejilerine yönelik bilgi sunulabilir, öğrencilerin bu stratejileri deneyimlemeleri için fırsat sunulabilir. Kontrol edilebilen stresli birey-çevre etkileşimleri için problem-odaklı başa çıkma stratejileri üzerinde durulabilirken kontrol edilemeyen stresli etkileşimler için hem problem-odaklı hem duygu-odaklı başa çıkmaya hizmet edebilecek başa çıkma stratejilerinden yardım alınabileceği öğrencilere aktarılabilir. Bu çalışmanın bulguları da hem problem-odaklı baş etmeye hem de duygu-odaklı baş etmeye hizmet eden sosyal destek arama başa çıkma stratejisinin öznel iyi oluş üzerindeki olumlu etkisini ortaya koymuştur. Bu noktada uzmanlar, üniversite öğrencilerini stresli yaşantılara hazırlama adına önleyici ile geliştirici hizmetler sunmakla birlikte stresli yaşantılarla baş eden öğrencilere de iyileştirici hizmetler aracılığıyla yardım edebilirler.

Bu çalışmanın bir başka çıkarımı da psikolojik danışman eğitime yönelik olabilir. Bu çalışmada Pozitif Psikoloji kuramsal çerçeve olarak ele alınıp bazı olumlu değişkenlerin üniversite öğrencilerinin öznel iyi oluşlarındaki etkisi test

edilmiş ve onaylanmıştır. Bu noktada, bu çalışmanın bulguları bireylerin güçlü yanlarının gelişimine odaklanan Pozitif Psikoloji'nin de en az diğer kuramlar kadar önemli olduğuna dair bilgi birikimine katkıda bulunmaktadır. Ancak ülkemizdeki psikolojik danışman eğitimi düşünüldüğünde, programlar Pozitif Psikoloji'nin eğitimi ve uygulanması açısından oldukça yetersizdir. Örneğin, Pozitif Psikoloji'ye ait henüz hala ayrı bir lisansüstü program olmamakla birlikte Pozitif Psikoloji eğitimleri gönüllü hocaların birkaç üniversitede sundukları seçmeli lisans ve lisansüstü derslerle sınırlıdır. Pozitif Psikoloji uygulamalarının bireylerin mutluluklarındaki kanıtlanmış etkisi düşünülerek üniversiteler, psikolojik danışman eğitimi programlarını yeniden gözden geçirebilir; Pozitif Psikoloji'yi ve bireylerin güçlü yanlarına odaklanan diğer olumlu kuramları eğitim programlarına hangi yollarla entegre edebileceklerini araştırabilirler. Sunulacak Pozitif Psikoloji eğitimleri, psikolojik danışman adaylarının gelecekte bu kuramdan yararlanma şanslarını arttırıp onların daha bütüncül olarak gelişmesine hizmet edebilecektir.

4.2 Gelecek Çalışmalar için Öneriler

Bu çalışmanın sınırlılıkları gelecek çalışmalar tarafından dikkate alınmalıdır. Bu çalışmada ilişkisel araştırma tasarımı kullanıldığı için bulgular neden-sonuç ilişkisi verememektedir. Değişkenler arasındaki neden-sonuç ilişkisini incelemek isteyen gelecek çalışmalar deneysel araştırma tasarımlarından yararlanabilirler. Ek olarak bu çalışmada kesitsel tasarımla verilen tek bir zaman diliminde veri toplanmıştır. Değişkenler arasındaki ilişkinin zaman içerisindeki değişimi ve gelişimini incelemek isteyen araştırmacılar, uzunlamasına tasarıma sahip araştırmalara başvurabilirler. Bu çalışmanın katılımcıları, uygun örnekleme yoluyla seçildiği için bulgular sadece bu ve benzer örneklem için geçerlidir. Daha genellenebilir sonuçlara ulaşmak için gelecek çalışmalar tesadüfi örnekleme yöntemlerinden yararlanabilirler. Bu çalışmada veriler özbildirim ölçekleriyle toplanmışlardır. Bu ölçeklerin kendilerine özgü

avantajları olduđu gibi dezavantajları (örn., bireylerin algılama kapasitesi, sosyal beğenilirliğe göre yanıt verme eğilimi) da vardır. Bu dezavantajları ortadan kaldırmak adına gelecek araştırmacılar, özbildirim ölçeklerine ek olarak özbildirime dayalı olmayan ölçme yöntemlerini de (uzman değerlendirmeleri, akran görüşleri, yüz kodlamaları, gözlemler) veri toplama süreçlerine dahil edebilirler. Bu çalışma öznel iyi oluşun % 79 'unu açıklayan kuvvetli bir modeli ortaya koysa da geride kalan, açıklanamayan varyans öznel iyi oluşun yordanmasında başka değişkenlerin de etkili olabileceğini vurgulamaktadır. Bu noktada gelecek çalışmalarda araştırmacılar, öznel iyi oluş üzerinde etkili olabilecek diğer değişkenleri de (örn., kişilik özellikleri, iyimserlik, demografik değişkenler) modellerine ekleyebilirler. Son olarak, bu çalışma problemleri düzeltme odağından ziyade güçlü yanları geliştirme odağına sahiptir. Bu odaktaki çalışmalar gün geçtikçe artsa da alanyazında hala problemlere odaklanan bakış açısına dair çalışmaların üstünlüğü bulunmaktadır. Bu çalışma Pozitif Psikoloji çerçevesinde Umut Kuramı'na ilişkin olarak bulgular sunmaktadır. Bu noktada gelecek çalışmalar da, bu çalışmayla benzer şekilde Pozitif Psikoloji kuramsal çerçevesinden yararlanarak bu büyük şemsiye altında yer alan diğer belirgin duygusal, bilişsel ve davranışsal kuramların görüşlerini test ederek alanyazındaki bu eksikliğin giderilmesine katkıda bulunabilirler.

K. Curriculum Vitae

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EDUCATION

2010 - 2017	Ph.D.	Middle East Technical University Department of Educational Sciences Psychological Counseling and Guidance Integrated Ph.D. Program
2006 - 2010	B.S.	Hacettepe University Department of Educational Sciences Psychological Counseling and Guidance Undergraduate Program

PROFESSIONAL EXPERIENCE

2010 - Present	Research Assistant Middle East Technical University Department of Educational Sciences
2014 - 2015	Visiting Scholar Department of Psychology, University of Michigan, Ann Arbor, USA.
2011-2015	Member of Publication Commission <i>Turkish Psychological Counseling and Guidance Bulletin.</i> Turkish Psychological Counseling and Guidance Association, Turkey.
2010	Member of Turkey Team <i>VoluntYou Exchange Program: Youth Obsessed with Useful Actions</i> (August 20-30), United Nations Project, Lisbon, Portugal.

- 2009 **Member of Evaluation Board**
Turkish Empathy Award of the Year, Turkish
Psychological Counseling and Guidance Association,
Turkey.
- 2006 - 2010 **Board Member**
Hacettepe University Psychological Counseling
Community, Hacettepe University, Ankara, Turkey.
- 2008 **Selected Group Member**
Emerging Community Leaders: Training for Widening
Horizon and Leadership, Ankara University, Hacettepe
University, and Çankaya Rotary Community, (October, 24
- November, 29), Ankara, Turkey.

AWARDS AND HONORS

- 2017 **The Scientific and Technological Research Council of**
Turkey - ₺ 800 Publication Award
- 2016 **METU Development Foundation** - ₺3,800 Publication Award
- 2014 - 2015 **The Scientific and Technological Research Council of**
Turkey Fellowship - \$31,800 for eleven-month research at
University of Michigan, Ann Arbor, USA.
- 2012 **METU Scientific Research Project Fellowship** - \$2,000 for
counseling-based research

PROFESSIONAL AFFILIATIONS

- 2015 - Present Sigma Xi - The Scientific Research Society
- 2014 - Present American Psychological Association
- 2014 - Present Midwestern Psychological Association
- 2010 - Present Turkish Psychological Counseling and Guidance Association

RESEARCH INTERESTS

My research interests involve psychological counseling in mental health, positive psychology, hope, international psychology, loneliness, social media, intimate partner violence, psychological first aid and preventive counseling services.

RESEARCH EXPERIENCE

2014-2015 **Research Advisor**

USA-Turkey Lab

University of Michigan, USA & Middle East Technical University, Turkey

Faculty Co-advisor: Edward C. Chang, Ph.D.

2014-2015 **Research Assistant**

Perfectionism and Optimism-Pessimism Lab

University of Michigan, USA

Faculty Advisor: Edward C. Chang, Ph.D.

2012 **Research Assistant**

Scientific Research Project (ODTÜ-BAP):

“Shyness and Facebook Usage as Predictors of Loneliness”

Middle East Technical University, Ankara, Turkey.

Project Advisor: Ayhan Demir, Ph.D.

PUBLICATIONS

Papers Published in Peer-Reviewed Journals

1. **Muyan, M.**, & Chang, E. C. (in press). Hope as a mediator of the link between intimate partner violence and suicidal risk in Turkish women: Further evidence for the role of hope agency. *Journal of Interpersonal Violence*, doi: 10.1177/0886260516675465
2. Chang, E. C., Jilani, Z., Yu, T., Lin, J., **Muyan, M.**, & Hirsch, J. K. (2017). Relation between sexual assault and negative affective conditions in female college students: Does loss of hope account for the association? *Journal of Interpersonal Violence*, 32(8), 1249-1266. doi: 10.1177/0886260515588534

3. **Muyan, M.,** Chang, E. C., Jilani, Z., Yu, T., Lin, J., & Hirsch, J. K. (2016). Loneliness and negative affective conditions in adults: Is there any room for hope in predicting anxiety and depressive symptoms? *Journal of Psychology: Interdisciplinary and Applied*, 150(3), 333-341. doi: 10.1080/00223980.2015.1039474
4. **Muyan, M.,** & Chang, E. C. (2015). Perfectionism as a predictor of suicidal risk in Turkish college students: Does loneliness contribute to further risk? *Cognitive Therapy and Research*, 39(6), 776-784. doi: 10.1007/s10608-015-9711-7
5. **Muyan, M.,** Chang, E. C., Jilani, Z., & Yu, T. (2015). Predicting eating disturbances in Turkish adult females: Examining the role of intimate partner violence and perfectionism. *Eating Behaviors*, 19, 102-105. doi: 10.1016/j.eatbeh.2015.07.004
6. Chang, E. C., **Muyan, M.,** & Hirsch, J. K. (2015). Loneliness, positive life events, and psychological maladjustment: When good things happen, even lonely people feel better! *Personality and Individual Differences*, 86, 150-155. doi: 10.1016/j.paid.2015.06.016
7. Chang, E. C., Yu, T., Jilani, Z., **Muyan, M.,** Lin, J., & Hirsch, J. K. (2015). The pursuit of perfection in spiritual engagements: The centrality of parental expectations as a positive and unique predictor. *Personality and Individual Differences*, 79, 162-165. doi: 10.1016/j.paid.2015.02.009
8. Sancak Aydın, G., **Muyan, M.,** & Demir, A. (2013). The investigation of Facebook usage purposes and shyness, loneliness. *Procedia - Social Behavioral Sciences*, 93, 737-741. doi: 10.1016/j.sbspro.2013.09.272

Abstracts and Proceedings Published

1. **Muyan, M.,** Sancak Aydın, G., & Demir, A. (2013). Facebook usage in terms of gender and romantic relationship status. *AWERProcedia Information Technology & Computer Science (Online)*, 3, 251-256. Available from: <http://www.world-educationcenter.org/index.php/P-ITCS>. Proceedings of 3rd World Conference on Information Technology (WCIT-2012), 14-16 November 2012, University of Barcelon, Barcelona, Spain.

PROFESSIONAL PRESENTATIONS

Conference Papers and Posters

1. Jilani, Z., **Muyan, M.**, Lee, J., Chen, W., Du, Y., Yu, T., & Chang, E. C. (2016). *Hope as a mediator of the link between intimate partner violence and suicidal risk in Turkish women: Further evidence for the role of hope agency*. Poster was presented at the 28th Association of Psychological Science Annual Convention, Chicago, IL.
2. **Muyan, M.**, & Demir, A. (2016). *Cognitive flexibility as a predictor of life satisfaction: Does hope contribute to further prediction?* Paper was presented at the 7th World Conference on Psychology, Counseling, and Guidance, Aydın, Turkey.
3. **Muyan, M.**, & Chang, E. C. (2016). *The Turkish adaptation of Frequency of Suicide Ideation Inventory: A validity and reliability study*. Paper was presented at the 7th World Conference on Psychology, Counseling, and Guidance, Aydın, Turkey.
4. **Muyan, M.**, & Chang, E. C. (2016). *The Turkish adaptation of Hurts, Insults, Threatens, and Screams (HITS) Scale: A validity and reliability study*. Paper was presented at the 7th World Conference on Psychology, Counseling, and Guidance, Aydın, Turkey.
5. **Muyan, M.**, Lin, J., Chang, E. C., Fowler, E. E., Jilani, Z., Yu, T., & Hirsch, J. K. (2015). *Loneliness, positive life events, and psychological maladjustment: When good things happen, even lonely people feel better!* Poster was presented at the 87th Annual Midwestern Psychological Association Conference, Chicago, IL.
6. **Muyan, M.**, Jilani, Z., Chang, E. C., Yu, T., Lin, J., Fowler, E. E. & Hirsch, J. K. (2015). *Loneliness and negative affective conditions in adults: Is there any room for hope?* Poster was presented at the 87th Annual Midwestern Psychological Association Conference, Chicago, IL.

7. **Muyan, M.**, Jilani, Z., Chang, E. C. & Hirsch, J. K. (2015). *The role of self-compassion in understanding the link between negative life events and psychological maladjustment*. Poster was presented at the 87th Annual Midwestern Psychological Association Conference, Chicago, IL.

8. Jilani, Z., Chang, E. C., **Muyan, M.**, Yu, T., Minami, Y., Vargas, L., Lin, J., & Hirsch, J. K. (2015). *Is spirituality multidimensional? Further evidence for construct validity of the RiTE scale using the NEO-PI-R*. Poster was presented at the Association for Behavioral and Cognitive Therapies 49th Annual Convention in Chicago, IL.

9. Yu, T., Chang, E. C., **Muyan, M.**, Jilani, Z., Vargas, L., Minami, Y., Lin, J., & Hirsch, J. K. (2015). *Sexual assault and negative affective conditions in female students: Is loss of hope enough to account for the relationship?* Poster was presented at the Association for Behavioral and Cognitive Therapies 49th Annual Convention in Chicago, IL.

10. Yu, T., Chang, E. C., **Muyan, M.**, Jilani, Z., Minami, Y., Vargas, L., Lin, J., & Hirsch, J. K. (2015). *Sexual assault and depressive symptoms in college students: Do psychological needs account for the relationship?* Poster was presented at the Association for Behavioral and Cognitive Therapies 49th Annual Convention in Chicago, IL.

11. Yu, T., Chang, E. C., Jilani, Z., **Muyan, M.**, Minami, Y., Vargas, L., & Lin, J. (2015). *Examining parental predictors of eating disturbances in Asian and European American females: Evidence for the centrality of parental expectations*. Poster was presented at the Association for Behavioral and Cognitive Therapies 49th Annual Convention in Chicago, IL.

12. Lin, J., Jilani, Z., Chang, E. C., Yu, T., Fowler, E. E., **Muyan, M.**, Anuar, A. A., & Nestor, J. M., (2015). *Loneliness and psychological symptoms in college students: Evidence for a stress-mediation model in predated anxious symptoms, but not depressive symptoms*. Poster was presented at the 87th Annual Midwestern Psychological Association Conference, Chicago, IL.

13. Minami, Y., Yu, T., Chang, E. C., Vargas, L., Jilani, Z., **Muyan, M.**, Lin, J., & Hirsch, J. K. (2015). *Sexual assault victimization and negative life events as predictors of adjustment in female college students: Is there any evidence for a double-hit model?* Poster was presented at the 27th Association of Psychological Science Annual Convention, New York City, NY.
14. Nestor, J. M., Jilani, Z., Chang, E. C., Anuar, A. A., Yu, T., **Muyan, M.**, & Hirsch, J. K. (2015). *Relations between trauma and anxiety, depression, and PTSD symptoms in college students: Examining self-blame as a mediator.* Poster was presented at the 87th Annual Midwestern Psychological Association Conference, Chicago, IL.
15. Vargas, L., Yu, T., Chang, E. C., Nestor, J. M., Jilani, Z., **Muyan, M.**, & Hirsch, J. K. (2015). *Hope and trauma: Examining an interactive model in predicting negative affective conditions in college students.* Poster was presented at the 87th Annual Midwestern Psychological Association Conference, Chicago, IL.
16. Yu, T., Jilani, Z., Chang, E. C., Fowler, E., Lin, J., **Muyan, M.** & Hirsch, J. K. (2015). *The pursuit of perfection in spiritual engagements: Identifying which dimensions of perfectionism are uniquely involved.* Poster was presented at the 87th Annual Midwestern Psychological Association Conference, Chicago, IL.
17. Fowler, E., Yu, T., Chang, E. C., Jilani, Z., Lin, J., **Muyan, M.**, Anuar, A. A., & Nestor, J. M. (2015). *Social problem solving under assault: Understanding the impact of sexual assault on the relation between social problem solving and suicidal risk in female college students.* Poster was presented at the 87th Annual Midwestern Psychological Association Conference, Chicago, IL.
18. Mesutoğlu, C., Akçabozan, B., **Muyan, M.**, Aydın, G., Ünlü Kaynakçı, F. Z., & Sancak Aydın, G. (2014, April). *Değişen kıyafet uygulamasına yönelik öğretmen, öğrenci ve veli görüşleri [Teachers', students', and parents' perspectives on the dress code changing in schools]*. Paper was presented at the 1st Eurasian Educational Research Congress, İstanbul, Turkey.

19. Demir, A., Sancak Aydın, G., & **Muyan, M.** (2013, September). *Predictors of loneliness: Shyness and Facebook usage*. Paper was presented at the World Congress of Psychological Counseling and Guidance, İstanbul, Turkey.
20. Aydın, Y., **Muyan, M.**, Akçabozan, B., Aslan, S., & Engin-Demir, C. (2013, September). *Advising relationship at a Turkish public university: Satisfaction and perceived support*. Paper was presented at the European Conference on Educational Research (ECER), İstanbul, Turkey.
21. **Muyan, M.** (2012, December). *Psychological first aid*. Paper was presented on the Role of Counselors on Coping with Disaster Panel Discussion at the IV. Psikolojik Danışma ve Rehberlik Uygulamaları Kongresi [IV. Psychological Counseling and Guidance Applications Congress], Ankara, Turkey.
22. Akçabozan, B. & **Muyan, M.** (2012, December). *Disaster and the role of school counselors on coping with disaster*. Paper was presented at the IV. Psikolojik Danışma ve Rehberlik Uygulamaları Kongresi [IV. Psychological Counseling and Guidance Applications Congress], Ankara, Turkey.
23. **Muyan, M.**, Sancak Aydın, G., & Demir, A. (2012, November). *Facebook usage in terms of gender and romantic relationship status*. Paper was presented at the 3rd World Conference on Information Technology (WCIT), Barcelona, Spain.
24. Sancak Aydın, G., **Muyan, M.**, & Demir, A. (2012, October). *The investigation of Facebook usage purposes and shyness, loneliness*. Paper was presented at the 3rd World Conference on Learning, Teaching, and Educational Leadership (WCLTA), Brussel, Belgium.

LANGUAGE

Advanced English

L. TEZ FOTOKOPİSİ İZİN FORMU

ENSTİTÜ

Fen Bilimleri Enstitüsü	<input type="checkbox"/>
Sosyal Bilimler Enstitüsü	<input checked="" type="checkbox"/>
Uygulamalı Matematik Enstitüsü	<input type="checkbox"/>
Enformatik Enstitüsü	<input type="checkbox"/>
Deniz Bilimleri Enstitüsü	<input type="checkbox"/>

YAZARIN

Soyadı : Muyan Yılık

Adı : Mine

Bölümü : Eğitim Bilimleri Bölümü Psikolojik Danışmanlık ve
Rehberlik

TEZİN ADI (İngilizce) : A MODEL TOWARDS SUBJECTIVE
WELL-BEING: THE ROLES OF DISPOSITIONAL AND STATE
HOPE, COGNITIVE FLEXIBILITY, AND COPING STRATEGIES

TEZİN TÜRÜ : Yüksek Lisans ☐ Doktora ☒

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