THE RELATIONSHIP BETWEEN MINDFULNESS AND RESILIENCE
AMONG ADOLESCENTS: MEDIATING ROLE OF SELF-COMPASSION
AND DIFFICULTIES IN EMOTION REGULATION

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ABSTRACT

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The aim of the present study was to test a proposed model for the relationship
between mindfulness and resilience as mediated by self-compassion and
difficulties in emotion regulation among socio-economically disadvantaged
adolescents. A total of 752 students (426 female, 326 male) between 14-19 age
ranges (M = 15.82, SD=.88) participated in the study. The Demographic
Information Form, 14-Item Resilience Scale (RS-14) (Wagnild, 2010; Terzi,
2006 for RS-25 Item), Mindful Attention and Awareness Scale-A (MAAS-A)
(Brown, West, Loverich, & Biegel; 2011), Self-compassion Scale (SCS) (Neff,

2003b, Akın, Akın, & Abacı, 2007) and Difficulties In Emotion Regulation Scale (DERS) (Gratz & Roemer, 2004, Rugancı, 2008) were used as data collection instruments.

In this study, path analysis was used to test the hypothesized relationship between mindfulness and resilience through the mediating effects of self-compassion and difficulties in emotion regulation. The results of the path analysis indicated that mindfulness is a significant positive predictor for self-compassion and a significant negative predictor of difficulties in emotion regulation. The direct relations of self-compassion and difficulties in emotion regulation to resilience were also significant. Self-compassion was also found to significantly and negatively predict difficulties in emotion regulation. In addition, both of the indirect paths from mindfulness to resilience through the mediating effects of self-compassion and difficulties in emotion regulation and also through the interaction of these paths were significant. The findings of the study showed that the proposed model explained 21% of the variance in the resilience scores of adolescents in this study.

Key words: Resilience, mindfulness, self-compassion, difficulties in emotion regulation, socio-economically disadvantaged adolescents.

ÖZ

ERGENLERDE BİLİNÇLİ FARKINDALIK VE KENDİNİ TOPARLAMA
GÜCÜ ARASINDAKİ İLİŞKİ: ÖZ-DUYARLIK VE DUYGU DÜZENLEME
GÜÇLÜĞÜNÜN DÜZENLEYİCİ ROLÜ

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Bu çalışmanın amacı sosyo-ekonomik açıdan dezavantajlı ergenlerde öz-duyarlık ve duygu düzenleme güçlüğünün bilinçli farkındalık ve kendini toparlama gücü düzeyleri arasındaki ilişkide aracı rolünü incelemek için oluşturulan bir modeli test etmektir. Çalışmaya yaşları 14-19 arasında değişen (M = 15.82, SD=.88) toplam 752 (426 kız, 326 erkek) öğrenci katılmıştır. Araştırmada, Kişisel Bilgi Formu, 14-Madde Kendini Toparlama Gücü Ölçeği (Wagnild, 2010; Terzi, 2006 for RS-25 Item), Ergenler İçin Bilinçli Dikkat ve Farkındalık Ölçeği (Brown, West, Loverich, & Biegel; 2011), Öz-duyarlık

Ölçeği (Neff, 2003b, Akın, Akın, & Abacı, 2007) ve Duygu Düzenleme Güçlüğü Ölçeği (Gratz & Roemer, 2004, Rugancı, 2008) veri toplama araçları olarak kullanılmıştır.

Bu araştırmada, öz-duyarlık ve duygu düzenleme güçlüğünün bilinçli farkındalık ve kendini toparlama gücü arasındaki ilişkide varsayılan aracı rolünü test etmek için yol analizi kullanılmıştır. Yol analizi sonuçları bilinçli farkındalık değişkeninin aracı değişken olan öz-duyarlık için anlamlı bir pozitif yordayıcı, duygu düzenleme güçlüğü için ise anlamlı bir negatif yordayıcı olduğuna işaret etmektedir. Modelde, öz-duyarlık ve duygu düzenleme güçlüğünün kendini toparlama gücü ile doğrudan ilişkileri de anlamlı bulunmuştur. Ayrıca, öz-duyarlığın duygu düzenleme güçlüğünü negatif yönde anlamlı bir şekilde yordadığı görülmüştür. Ek olarak, bilinçli farkındalık ve kendini toparlama gücü arasındaki ilişkide öz-duyarlık ve duygu düzenleme güçlüğü aracı etkisiyle oluşturulan her iki dolaylı yol ile bu iki yolun etkileşiminden oluşan dolaylı yol anlamlı bulunmuştur. Araştırmanın sonuçları, önerilen modelin çalışmadaki ergenlerin kendini toparlama gücü puanlarındaki değişimin %21'ini açıkladığını göstermektedir.

Anahtar kelimeler: Kendini toparlama gücü, bilinçli farkındalık, öz-duyarlık, duygu düzenleme güçlüğü, sosyo-ekonomik açıdan dezavantajlı ergenler.

To All People Inspired My Life

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CHAPTER I

INTRODUCTION

1.1. Background to the Study

Adolescence is a transition period characterized by physical, social, cognitive and emotional upheavals along with various challenges and ambiguities. In this period, forming an identity, adapting to new roles, relationships and generating an authentic self-concept can be mentioned as the challenging tasks. Adolescents also experience worry about future, issues regarding psychological adjustment, ambiguity for their status and regrets for losing the belongings of previous life stages (Coleman & Hagell, 2007). It is not surprising that adjusting to those complexities has the potential to bring out certain risks in familial and interpersonal relationships, academic life and mental health of adolescents. Hence, this period can be marked with the increase in the distress level of adolescents due to adapting adverse developmental trajectories as well as many other external factors affecting their well-being.

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According to Coleman and Hagell (2007), in spite of complex transitions and negative experiences, most of the adolescents find ways to cope with adversities and potential risks of this process. On the other hand, those who are more vulnerable to the tasks and difficulties of this period are in a more risky position compared to other ones. Children and adolescents with disabilities, psychiatric illnesses, traumatic experiences or disadvantageous life conditions and those lacking parental care can be regarded as more vulnerable groups in this process (Coleman & Hagell, 2007; Embury & Saklofske, 2014). Yet, it is also a vital point that not all adolescents with such risky situations pass this period with similar results. Thus, this premise brings an important question to be answered in both prevention and development literature: why and how some of those at risk adolescents can manage this period and psychologically adapt in spite of the risky positions they hold? At this point, a rising concept in the literature holding relative answers for the characteristics and experiences of these individuals who successfully overcome many adversities comes on the scene: *resilience*. (Embury & Saklofske, 2014).

The interest in resilience research is not a new effort and dates back to 1950s and 1960s. During that time the research studies were initiated by researchers in traumatology and developmental psychopathology who were curious to understand and explain why and how some extraordinary children overcome many disturbing situations with minor costs. The aims of these initial attempts were to form global theories in order to identify personal qualities and factors

facilitating positive adaptation of individuals to extreme disadvantaged conditions. In these initial phases of resilience research, the term was defined as a personality trait and a resilient outcome was characterized as the absence of psychopathology. However, since these first sparks, resilience research evolved through different theoretical perspectives and debates over addressing and defining resilience as a dynamic process rather than a trait, specifying protective factors or mechanisms in resilient outcomes and determining the interaction of risks and protective factors in specific disadvantaged contexts (Graber, Pichon, & Carabine, 2015). In addition, in the following phases, the focus of resilience perspective changed from the psychopathological view to understand and specify why and how of human experience through the lenses of risk and protective factor framework and positive psychological functioning (Richardson, 2002).

According to Masten (2001), resilience theories and frameworks require two important mechanisms that were also common dynamics addressed in both initial and current resilience studies. These two important mechanisms involve a risk context or a threat to the normative development process and a good adaptation in spite of these risk factors. In this standpoint, a risk factor was characterized as an expected predictor of an undesirable outcome for individuals. In general, these risk factors highlighted in resilience-oriented studies can be classified as negative past experiences, biological vulnerabilities, traumas in community level, low socio-economic status, complications in birth, family

factors such as divorce and cumulative risk factors. According to Wright, Masten and Narayan (2013), these risk factors rarely show up in isolation, rather at risk individuals generally hold a complex and cumulative range of risk factors in their lives. Based on this premise, examination of resilience in the context of cumulative risk factors was assumed to provide a broad picture for understanding the convergence of protective domains, risk contexts and resilience outcomes in these risk groups.

Correspondingly, from the influential models and studies implemented in resilience literature including the first generation studies, it is a salient point that both risky contexts and protective factors along with their interaction in resilience process of at risk individuals were jointly examined issues. For instance, Garmezy, Masten and Tellegen (1984), examined resiliency process among children having schizophrenic parents in terms of risk and certain protective domains such as optimism, problem solving, self-esteem, internal locus of control, nurturing family environments and external systems. Through a similar perspective, Rutter (1987) conducted an extensive study of resilience process in children with risky family environments, parental loss, challenging personality traits and similar factors. This study also focused on generation of certain individual (self-efficacy, self-esteem positive personality factors, etc.), familial (good relation with adults, etc.) and community level protective domains (school experiences) in these children. In another remarkable study, Werner and Smith (1992) also conducted an extensive resilience study with children

suffering from poverty, mental health problems of parents, daily hassles and perinatal stress by emphasizing that a responsible and tolerant personality, high self-esteem and supportive social environments can be regarded as highlighted protective domains interfering with risky conditions of these groups. Following these initial studies on risk and protective factors for high-risk children and adolescents, resilience literature started to be extended through many different theoretical orientations and extensive studies to discover protective covers and answers to the interaction of these processes to risk factors in various risky and disadvantaged groups in the society.

Stemming from the risk context emphasis as a requirement in resiliency theory (Masten, 2001; Wright, Masten, & Narayan, 2013), a large rate of protective factor frameworks were directed toward understanding resilience process in various at risk individuals and groups. Across a wide range of risk factors determined in resilience studies, examination of single or multiple level risky conditions underlined an influential risk factor holding multiple and cumulative level risks for many individuals that is namely low socio-economic status. As emphasized in different resilience studies, socio-economic status is one of these highlighted risk factors that include a wide range of cumulative risk factors influencing the child and adolescent development (Luthar, 1991; Werner & Smith, 1992; Ungar & Teram, 2000; Coleman & Hagell, 2007; Brennan, 2008; Embury & Saklofske, 2014). Supported through various risk focused studies, children and adolescents with such disadvantageous living conditions experience

mental health problems (Miech, Caspi, Moffitt, Wright, & Silva, 1999; Hudson, 2005; Torikka, Kaltiala-Heino, Rimpelä, Marttunen, Luukkaala, & Rimpelä, 2014), behavioral and emotional problems (Schneiders, Drukker, Ende, Verhulst, Os, & Nicolson, 2003), antisocial behaviors (Piotrowska, Stride, Croft, & Rowe, 2015), attempts to suicide, cigarette abuse and heavy drinking (Newacheck, Hung, Park, Brindis, & Irwin, 2003) and higher rates of physical symptoms and diseases (Chen & Paterson, 2006; Colhoun, Hemingway, & Poulter, 1998; Kaplan & Keil, 1993) much more than adolescents with a more socioeconomically advantageous status. In addition, along with the other studies on child and adolescent resiliency in low socio-economic conditions, Chen and Miller (2012) clearly stated that in spite of their disadvantageous condition, some children and adolescents with such conditions do not develop mental and physical health problems compared to others. Thus, it is clear that there should be some mechanisms involved in this context that help these groups successfully manage their lives in spite of various risky conditions they hold.

Resilience literature suggests various studies conducted with children and adolescents holding socio-economically disadvantaged status in the society. As well as the emphasis of the initial studies and models investigating risk and resilience process with multiple risk factors including low-socio economic status, there are current reviews that elaborately conceptualize and specify risk and resilience interaction and possible protective and risk domains among socio-economically disadvantaged children and adolescents. For instance, Stepleman,

Wright and Bottonari (2009), summarized key risk and resilience factors for families and young people with low socioeconomic status. In this study, risk factors for this group were categorized through three different domains: community, family/social and individual level risk factors in these groups. In general, possible risk factors disturbing these groups as subsidiary to socio-economic disadvantage were mentioned as limited opportunities for care, problems and challenges in neighborhood such as crime, pollution and etc., exposure to racism and discrimination, acculturation, mental health problems in family, family disintegration, parental education, single parenting, individual factors of race, sexual orientation, age and gender, possible psychological vulnerabilities associated with these risks. Besides, a number of community, family and individual level protective factors leading to positive outcomes in these groups were also summarized in this study. These protective factors include identification with culture, facilitated opportunities for health care, social support from family and friends, parental attitudes and child care, economic and educational resources, gender, being married and having nurturing relations, psychological factors of personal control, competence, self-esteem, involvement in religion and spirituality and lastly education and work status. In another review study of resilience and protective factors in children and youth reared in disadvantageous life conditions like poverty, violence, substance abuse and family conflicts, Zolkoski and Bullock (2012) revealed that individual characteristics (autonomy, optimism, independence, etc.), self-regulation, positive self-concept, supportive parenting styles and family structure, support

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from community sources and such other factors as faith, biological factors, education level generate protective and resilience factors for this population.

Based on this pertinent literature of risk and resilience frameworks for especially at risk children and adolescents due to their disadvantaged life conditions, it can be inferred that there are multiple factors operative in the adaptation process of these individuals to the difficulties they experience. Indeed, resilience literature for these groups addresses that there are individual, familial as well as community level protective domains that have the potential to be operative as a risk encounter in the risky populations. According to Stepleman, Wright and Bottonari (2009), identifying and strengthening each level of these protective domains and isolating the ones leading to negative outcomes have potential to provide these at risk individuals with flourishment and healthy functioning in life. In other words, working on all or one of the social, familial or individual level protective and risk domains through a strength based and risk reduction perspective may hold valuable contributions for at risk individuals as well as individuals and families with socio-economically disadvantageous conditions.

Examining resilience and mindfulness literature thoroughly implies that these constructs share similar psychological processes that are also important markers of physical and mental health. Grabbe, Nguy and Higgins (2012) proposed that individuals who are resilient have the perception that they are able to cope with the life situations and accept those situations adaptively. Acceptance plays a

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significant role in recovery from life adversities and traumas (Thompson, Arnkoff, & Glass, 2011). This is a similar assumption in mindfulness practice emphasizing a transcendence sense of self and self-acceptance without judgment to bring out flexibility and adaptability in human life (Kabat-Zinn, 2005). Kemper, Mo and Khayat (2015) also found out that self-compassion that is being gentle toward self as a part of mindfulness is an important determinant of resilience process and also physical health. In addition to these, in order to adapt to negative life situations, affect regulation and enactment of positive affect were also determined as the facilitators to cope with these difficulty situations that are also important experiences emphasized in mindfulness practice (Tomac, 2011; Rogers, 2013).

In the literature, resilience is indicated to be directly related to mindfulness as pointed out by a limited number of studies examining these relations in normative population. In such a study, Keye and Pidgeon (2014), investigated the concepts of mindfulness, resiliency and academic self-efficacy as they are related to each other. The findings of this research showed that mindfulness and academic self-efficacy are significant predictors of resilience and these factors were concluded as possible protective domains in resiliency theory. Kurilova (2013) also investigated the resilience process as it is related to mindfulness, self-compassion and attachment styles. The results of this cross-sectional study supported that mindfulness and especially self-compassion as derived from mindful awareness are significant predictors in explaining a vast amount of

resilience. At another study, Pidgeon and Keye (2014) conducted a study on the role of mindfulness and resilience in the well-being levels of university students and found out positive relations between mindfulness and resilience and significant contributions of these variables to well-being.

In addition to the direct relations between mindfulness and resilience supported through the literature, there are different perspectives and studies suggesting that mindful awareness accompanied with the related therapeutic processes have the potential to open and facilitate the pathways to psychological adaptation, life satisfaction and well-being (Mace, 2008; Nilsson, 2014). Supported in various studies, attentive awareness to the present moment as it is; self-acceptance and non-judgmental stance toward individual experiences (Mace, 2008), functional coping responses (Weinstein, Brown, & Ryan, 2008), emotional intelligence (Schutte & Malouff, 2011), autonomy and self-regulation (Parto & Besharat, 2011), regulating emotions (Southwick & Charney, 2012), compassion toward self (Bluth & Blanton, 2014) and self-esteem (Bajaj, Gupta & Pande, 2016) form some of the mindfulness derived therapeutic processes facilitating healthy individual functioning, resilience and wellness. In addition, Emery (2013) underlined the role of enhancement of attention, self-awareness, and well-being, improvement in executive function and reductions in anxiety and stress levels in mindfulness oriented improvements as facilitators of resilient tendencies and well-being.

In this direction, a mindfulness based approach that is implemented as facilitators of psychological well-being and adaptive functioning in various groups (Nilsson, 2014) was assumed to include a number of protective domains leading to resilient outcomes for this specific group of adolescents. More distinctly, investigation of the personal appraisals and therapeutic counterparts of mindfulness through generating a model of resiliency for at risk adolescents became the priority of the study in order to contribute to the protective factor framework of evolving resilience literature theoretically. Besides, the proposed model for resilience for this risky group is also intended to encourage the generation of mindfulness based intervention and strategies for enhancing resilience in adolescent population especially in at risk groups through emphasizing and reinforcing protective domains and their interaction in resilience process in such populations. In this picture, converging both mindfulness and resilience literature to form an authentic point of view for a mindfulness model of resilience, it can be straightly stated that there are some factors that can be accepted as powerful mechanims holding certain implications in mindfulness and resilience literature. From common psychological factors aroused in both literature, self-compassion is assumed to be as one of these highlighted factors that is assumed to connect mindfulness to resilience in the current study. From the view of mindfulness theory and practice, mindful awareness and acceptance of individual experiences through tolerance and empathy is a common definition of self-compassion (Wiliams & Kabat-Zinn, 2013). According to Neff (2003a), self-compassion requires treating kind and

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understanding toward self in pain or failures rather than getting harshly self-critical to oneself, accepting individual experiences as a natural side of all human experience rather than evaluating them as isolating and also grabbing painful thoughts and feelings through a mindfully aware state rather than sticking with them. This way of being tolerant and emphatic toward cognitions, emotions and external world provide individuals with a more non-judgmental attitude towards self and bring out a more realistic and authentic viewpoint of the reality. In this way, this individual process is assumed to bring effective coping, mental, emotional equanimity and wellness to the individual life and hence facilitating resilience for various populations (Kabat-Zinn, 2005).

Given the similar implementations over mindfulness and resilience literature, another possible psychological factor that is assumed to have certain effects on resilience is emotion regulation for this study. According to several resilience researchers, negative events and life adversities include highly emotional states for individuals. In this regard, effective regulation of emotions can be a critical point for facilitating individuals' resilient tendencies in the face of these stressful experiences (Lazarus, 1999; Sarason, Johnson, & Siegel, 1978). Besides, mindfulness literature inherently suggests certain connections of mindful awareness for effective regulation of emotions as also viewed a crucial factor in resilience literature. Examining the core principles of mindfulness process for emotions yields that mindful attention involves compassionately processing and accepting the emotional stimuli and cognitive patterns without judgment of any

stimuli coming to the mind. In this way, emotions are processed in a more healthy and adaptive ways rather than ruminative patterns of feelings directing both negative thinking styles and behaviors. Besides, intentionally recognizing and accepting the manifestation of affective states and especially painful emotions brings the person into a more open and healthy state of balance that would provide individuals with better functioning and coping (Teper, Segal, & Inzlicht, 2013) implying a possible role of emotion regulation for resilience process in this study.

Based on these implications of mindfulness literature for resilience, it can be stated that mindfulness has direct or indirect connections to resilience process as examined in limited number of studies. In other words, in addition to the direct links of mindfulness to resilience, mindful attention is also assumed to have specific effects on resilience process through the mediating influences of certain mindfulness related therapeutic processes such as self-esteem, self-compassion, internal locus of control, emotion regulation, self-awareness and acceptance, autonomy, elimination of anxious and stressful interpretations of experiences and similar factors that are operative in mindful awareness and flow as specified in the previously mentioned studies. Indeed, it should be emphasized that in resilience studies conducted with various risk groups, some of these factors were also generated as protective factors in different resilience focused studies. As emphasized by various resilience researchers, self-esteem (Garmezy, Masten, & Tellegen, 1984; Rutter, 1987; Werner & Smith, 1992; Haase, 2004; Fergus &

Zimmerman, 2005), internal locus of control (Garmezy, Masten, & Tellegen, 1984; Luthar, 1991; Kumpfer, 1999; Milkman & Wanberg, 2012), emotion regulation and emotion stability (Masten et al., 1999; Kumpfer, 1999; Bonanno, Papa, & O'neill, 2001), self-compassion (Kurilova, 2013; Kemper, Mo, & Khayat, 2015), awareness of feelings and interpersonal relations (Kumpfer, 1999), autonomy (Zolkoski & Bullock; 2012) are some of the psychological factors that can also be regarded as protective domains in resilience process as well as their relations to mindful awareness.

To sum up, regarding and integrating the available literature in resilience theory and practices, emerged personal risk and protective factors for adolescents with risky contexts and also mindfulness practice promoting mental and physical well-being in various populations, both mindfulness and related therapeutic processes of self-compassion and emotion regulation were accepted as possible individual level protective domains in ongoing resilience research and programs directed to different groups as well as adolescent population.

1.2. Purpose of the Study

The aim of the present study is to test a proposed model for the relationship between mindfulness and resilience as mediated by self-compassion and difficulties in emotion regulation among socio-economically disadvantaged 9th, 10th and 11th grade adolescents. Derived from the literature and current studies

over mindfulness theory and practice, the study aimed at explaining a mindfulness model of resilience through the moderating role of the individual attributes of self-compassion and difficulties in emotion regulation for a group of at risk adolescents.

1.3.Research Question

The research question addressed in this study is;

"To what extent resilience is explained by the proposed mindfulness model as mediated by self-compassion and difficulties in emotion regulation among adolescents?"

1.4. Proposed Path Model and Hypotheses

In the proposed path model for resilience, the relationship between mindfulness and resilience as mediated by self-compassion and difficulties in emotion regulation was tested. In the model, mindfulness constitutes the exogenous variable of the study while self-compassion, difficulties in emotion regulation and resilience constitute the endogenous variables. Besides, based on the theoretical grounds, self-compassion was proposed as a predictor for difficulties in emotion regulation in the model. In addition, both self-compassion and

difficulties in emotion regulation were tested for their direct and indirect mediator effects between mindfulness and resilience.
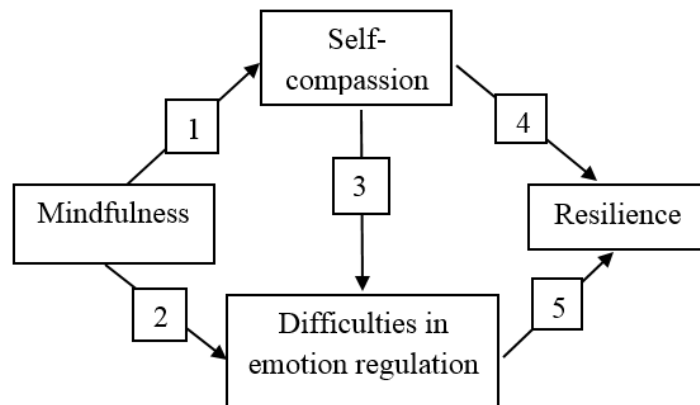
Figure 1.1. Hypothesized Path Model of Resilience

The following hypotheses will be tested in the present study:

Hypothesis 1: Mindfulness will be related to;

(a) self-compassion (Path 1)

(b) difficulties in emotion regulation (Path 2)

Hypothesis 2: Self-compassion will be related to difficulties in emotion regulation (Path 3).

Hypothesis 3: Resilience will be related to;

(a) self-compassion (Path 4).

(b) difficulties in emotion regulation (Path 5)

Hypothesis 4: Mindfulness will be related to resilience indirectly;

(a) through self-compassion (Path 1 and Path 4)

(b) through difficulties in emotion regulation (Path 2 and Path 5)

(c) through self compassion and difficulties in emotion regulation (Path 1, Path 3 and Path 5)

1.5. Significance of the Study

In today's world, humanity faces with many crises surrounding them through economic, social and environmental pitfalls. Political wars, daily hassles, migration, economic difficulties and ambiguities, natural disasters, pollution and cultural conflicts are accessible to many families and hence their children. Indeed, the global adversities and challenges of the modern world relatively create a context that negatively influence both physical and mental well-being of many individuals in the society. On the other side, in this complex picture, diverse populations like homeless people, at-risk youth, individuals exposed to violence or these suffering from chronic illnesses are claimed to be in a much more disadvantaged place due to the fact that they try to deal with the global distresses of today's world as well as the adversities and challenges that their personal conditions bring out (Embury & Saklofske, 2014).

Among the various vulnerable groups in this challenging context, young people holding several risky conditions and backgrounds have occasionally been accepted as one of the disadvantaged groups who might possess multiple risk factors leading to engagement in harmful experiences to balance the individual and societal complexities in this age. As specified previously, children and youth with special needs or certain mental health disorders, adolescents grown up in substitute cares, young people with impaired family backgrounds or those exposed to social exclusion due to disadvantaged life conditions are some of these fragile groups who also appear as at risk groups in the society (Coleman & Hagell, 2007). Thus, in both developmental and preventive perspectives, it has occasionally been proposed as a critical effort to study the influences of various risky contexts and challenging conditions on the physical and mental status of children and adolescents (Embury & Saklofske, 2014). In this regard, extensive examination of the risk encounters and the pathways to the risky behaviors for young people has been under the interest of the researchers and professionals in order to have a better understanding for this challenging context. Different theoretical approaches and micro/macro level factors were generated in many studies with the purpose of identifying personal or environmental antecedents of those pathways to the risk contexts and engagement in harmful actions in this developmental period (Sales & Irwin, 2009).

In the first generation of the risk frameworks and studies to understand vulnerability in children and adolescent groups, the main tendency of researchers

was to determine the risky antecedents and destructive actions in these populations (Coleman & Hagell; 2007). However, the course of the positive psychology movement in 1990s has been the milestone in risk and psychopathology research history also influencing the risk studies directed toward child and adolescent population in this age. More specifically, the rise of positive psychological perspective highlighted the notions of 'competency building' and strengths rather than focusing on the 'pathological' side of human functioning and correcting those sides. Thus, this novel approach changed the direction of researchers to comprehend and work on positive characteristics of individuals like well-being, optimism, social skills, etc. rather than the pathological individual functions, risky experiences and negative parts of the experience and personality (Seligman & Csikszentmihalyi, 2000). Moreover, these apparent shifts from risky behaviors and contexts toward a strength based perspective as highlighted through positive psychology movement had also certain reflections for the previously mentioned risk studies directed toward various populations. Stated in other way, rather than putting emphasis on risky behaviors and mechanisms, working on the positive parts of human functioning started to be accepted as a crucial step in strengthening positive psychological functioning and adaptation (Masten & Powell, 2003; Rutter, 2012). Thus, a risky factor or risk context focus in the literature changed its place with a new and positive outlook to understand individual and social factors that facilitate successful adaptation of individuals to the various risk factors and life adversities they have. At this point, this positive outlook directed toward functional coping

and adaptation of individuals who can be considered at risk underlined the value of resilience theory that started to be implemented and studied over thirty years with specific risky populations in the society (Rutter, 2012).

Given the specified implications of positive psychology perspective and reflections of this process on resiliency theory for at risk groups, the motivation and starting point of this study have become examining the role of possible individual level protective factors contributing resilience in a group of at risk adolescents residing in socio-economically disadvantageous districts. Through a number of statistical procedures, the districts selected in the study were characterized as holding low income and educational level, migration and overpopulation, excessive number of students in schools, high rates of unemployment, inadequate health facilities, and low levels of life quality in terms of happiness and hope measures (Şeker, 2011; TÜİK, 2013). Indeed, many of these indicators are also occasionally stated as generating multiple risk factors for socio-economically disadvantageous children and adolescents in global literature (Stepleman, Wright & Bottonari, 2009; Willms, 2002). According to Coleman and Hagell (2007), socio-economic status is an independent risk factor that is outside the control of the individual. However, due to the freedom obtained in adolescence, this population have the potential to develop further non-independent risk factors that increase with age (e.g. relationship difficulties, taking health risks). Thus, understanding resilience process and protective factors in these children and adolescents with such risky situations and life

conditions is valued as a comprehensible and necessary effort for both resiliency theory and resilience focused interventions and programs in such groups (Coleman & Hagell, 2007; Embury & Saklofske, 2014).

Investigation of national literature on the basis of resilience process and possible protective factors for risky groups and especially adolescent population yields that there are a limited number of studies examining, individual and social level protective domains interfering in resilience process for at risk children and adolescents. However, as emphasized by Coleman & Hagell (2007), resilience research brings the necessity of expanding and advancing the ongoing literature on resilience and adaptive human functioning through both theoretical and practical domains for supporting development in a healthy direction especially for at risk groups. Thus, based on this and other premises for the expansion of resilience research and also the common themes in psychological factors when studying resilience, a resilience model was generated through offering certain individual level protective processes for disadvantaged adolescents.

On the basis of the previously emerged protective domains for adolescents and various populations as well, certain individual level protective factors were proposed as contributors of resilience in the current study. In this direction, a new approach stemming from cognitive behavioral tradition, that is namely mindfulness and mindfulness based interventions with its specific implications for positive development and well-being was accepted as a possible novel and

powerful perspective for resilience research. At first glance, the support for this assumption was generated through the implications of mindfulness based approaches that were studied with different individual processes and various groups by showing the benefits of mindful flow in psychological well-being and functioning (Nilsson, 2014). Secondly, in recent years, mindfulness and many related therapeutic factors were found to promote physical and mental health through therapeutic alliances of the process of mindfulness in different studies. These therapeutic factors involved in mindfulness based well-being literature were awareness and flow of being with a compassionate way and accepting things as how they are in reality through liberating the factors influencing mindful state (Mace, 2008), generation of self-compassion, emotional regulation and well-being (Bluth & Blanton, 2014; Myers, 2015), self-acceptance, awareness of feelings, positive self-judgment and forgiveness (Kyrimis, 2007). Based on these premises, not only mindfulness but the therapeutic alliances of mindful awareness that are self-compassion and emotion regulation in this study could be accepted as possible predictive factors of resilience in various groups. Overall, offering a mindfulness model of resilience for at risk adolescents and also identification of certain individual level protective domains in resilience processes of these adolescents through generating a mindfulness based model is assumed to be a contributory step for the extensive resilience literature at first glance. Specifically, uncovering possible individual level protective characteristics in these adolescents is expected to add a different and novel contribution to the existing resilience literature. In addition, Kumpfer (1999)

pointed out that prevention oriented resilience programs for high risk youth should focus on the development of resilience characteristics and traits identified in these groups. Thus, studying resilience through a mindfulness based perspective is also expected to provide a framework and an outline for interventions and programs directed to improve resilient tendencies through promoting protective factors and resilient responses or decreasing the undesirable consequences of risk exposures in adolescent population.

1.6. Definition of Terms

Mindfulness: Directing attention in a particular way to the present moment purposefully and non-judgmentally (Kabat-Zinn, 1994).

Self-compassion: Treating the self with kindness, noticing the shared humanity of the self, and having a mindful stance toward the negative aspects of self (Neff, 2003b).

Emotion regulation: The processes in which individuals influence the selection, scope, timing, experience and expression of their own emotions (Gross, 1998).

Emotion dysregulation/Difficulties in emotion regulation: The difficulties and challenges in any or all the following abilities *(a) awareness and understanding of emotions, (b) acceptance of emotions, (c) ability to control impulsive behaviors and behave in accordance with desired goals when experiencing*

negative emotions, and (d) ability to use situationally appropriate emotion regulation strategies flexibly to modulate emotional responses as desired in order to meet individual goals and situational demands. (Gratz & Roemer, 2004; p. 42).

Resilience: An individual quality of people who exhibit courage and show adaptive responses in the face of difficulties and misfortune events that they meet in life (Wagnild and Young, 1990).

Socioeconomically disadvantaged adolescents: Adolescents who are in a disadvantaged position over the proxies of social status indicators of income, education and occupation in that income is the most tied proxy to health outcomes (Stronks, van de Mheen, van den Boss & Mackenbach, 1997).

CHAPTER II

REVIEW OF LITERATURE

In this part, definitions, models and current studies of resilience were summarized. Moreover, explanations and theoretical justifications over the study variables of mindfulness, self-compassion and difficulties in emotion regulation were presented in the following parts of this section.

2.1. Resilience

There are pioneering theoretical definitions and debates to explain the process of resilience and the factors involved in the successful adaptation of individuals in the face of the adversities.

In a prominent definition of resilience, Garmezy (1991) defined the concept as the tendency and capacity of individuals to bounce back despite the life stressors and negative experiences they face. In this view, resilience has been broadly explained as acquisition and accumulation of certain talents, abilities, knowledge, and insight that become functional when individuals try to deal with

the struggles and adversities they encounter (Garmezy, 1994). This perspective to resiliency emphasizes that resilience should be evaluated as a dynamic and ongoing process that help individuals to overcome the obstacles and disadvantaged conditions rather than a fixed innate trait (Cicchetti & Garmezy, 1993).

Werner and Smith (1992) explained resilience and protective factors as opposite and positive counterparts to the vulnerability to a disorder. In this definition, vulnerability is indicated to result in biological and psychosocial costs through increasing the possibility to a bad or poor developmental outcome in the face of adversities and risks. Resilience is viewed as a personal characteristic unique to individuals while protective factors are more specific constructs modifying individual responses to risky situations that have the potential to result in negative outcomes. In this framework, it was highlighted that protective factors and resilience are evident when certain stressor or combination or stressors dominate individuals' lives.

In another pioneering approach for resilience research, Masten (2001) has defined resilience as "*a class of phenomena characterized by good outcomes in spite of serious threats to adaptation or development*" (p. 228). In this perspective, there are two important mechanisms in the formation of resilience: a risky context (whether past or present) and a positive development and adaptation in spite of the risk factors. Risky context is defined as having a

condition or status that possibly result in poor or negative outcome evidenced through statistical predictions (Masten & Garmezy, 1985; as cited in Masten, 2001). Socio-economic status, major life events and traumas, complications during birth and infancy are some of the risk contexts that have the potential to negatively affect individuals. On the other hand, for explaining the concept of 'successful adaptation' or 'good outcome', there are still debates over the criteria set to explain this phenomenon. Developmental tasks, competence and cultural expectations are some of the standards that were put to evaluate the outcome or developmental response as bad or good (Masten & Coatsworth, 1995).

In a similar approach, Rutter (2006) conceptualized the resiliency as the reduction in vulnerability towards surrounding challenges and handicaps and reaching a good outcome in the face of stress and risk factors. In this framework, as similar to other approaches, resilience is emphasized to be an ongoing process in that individuals faced with a stressful condition may develop decreased levels of vulnerability to further stressful life events.

In sum, from these pioneering definitions over resilience it can be concluded that there are some adaptive and positive mechanisms and factors for resilient individuals that become operative when they face with difficult and challenging life circumstances. These adaptive factors that can be either individual or social have the capacity to neutralize or eliminate the negative effects of risky

conditions or events that otherwise cause impairments in individual's functioning.

2.1.1. **Early Models and Studies of Resilience**

Resilience literature suggests theoretical models and studies by different disciplines proposed in diverse groups. Besides, the first sparks of resilience models have been initiated through the efforts of identifying child and youth variations of responses to certain risky factors. As Rutter (1985) pointed out, individual differences to accept and adapt to certain risky conditions encouraged the generation a new field of research in resilience process.

In the first phases of resilience research, Garmezy, Masten and Tellegen (1984) investigated risk, competence and protective factors to understand developmental pathways to psychopathology in children with schizophrenic mothers. In this stress resistance framework to this specific risk factor, a number of qualities including personality attributes, family characteristics and parental attributes, developmental characteristics as well as the stress factors (adverse life events and SES) and competence indicators (school based competence, interpersonal competence, general intellectual ability) were measured. In this cognitive approach to resilience, a 3-factor model was generated to indicate the effect of the interaction of risk and personal characteristics in resilience. These models were named as *compensatory, challenge* and *protective* factors models.

In compensatory model to resilience, it is emphasized that personality attributes (such as problem solving skills) have the potential to counteract and compensate the person's experience of risk and stress. In the challenge model, it is assumed that optimal levels of stressors may enhance adaptive functioning by supporting individual competence. In a problem situation, overcoming the challenge provide more skills to the person for other problems. In the third model, protective factors model, a protective factor interferes with the risky situations by diminishing the impact of risk factors. In protective factor model, it is assumed that the existence of protective factors doesn't allow the stress and risk factors to negatively affect individual's adaptation and competence and vice versa. Main protective factors that modulate risk factors were classified as dispositional attributes, environmental conditions, biological predispositions and positive events in this model. More specifically, such protective factors as optimism, internal locus of control, self-esteem and self-discipline, problem solving skills, humor, critical thinking skills, nurturing family environment and supportive external systems were determined as counterparts to risk exposure in this model.

In initial works to risk and resilience models and studies, Rutter (1987) released a resilience framework after a series of studies to investigate resilience process and possible protective mechanisms in different groups. In this approach, it is emphasized that attention in resilience research should be directed to how and why some individuals overcome the adversities in the key turning points of their

lives. The model underlines and clarifies some risk factors through their interaction to protective processes. These risk factors included sex (being male), adverse temperament (low regulative processes, negative mood, etc.), family discord, lack of marital support, lack of planning in marriages and work, negative school experiences (academic or non-academic), early parental loss and life turning points. Rutter (1987) emphasized that the interaction of protective mechanisms to risk factors can be categorized through following four processes: a) reduction of risk impact, b) reduction of negative chain reactions, 3) establishment and maintenance of self-esteem and self-efficacy, and 4) opening up of opportunities (Rutter, 1987, p. 316). In reduction of risk impact, two different mechanisms are present: alteration of the risk factor or alteration of the risk exposure. Alteration of the risk factor means that individual understanding and meaning of a risk factor can be altered through controlled exposure to stress for the benefit of child leading to successful coping. On the other hand, alteration of risk exposure indicates that the child's exposure to risky situations can be altered through some ways. For instance, efficient parental monitoring can be the means of getting children and adolescents away from risks and allows parents to give nurturing feedback for the behaviors of their children. The second superiority of protective mechanisms to risk factors is operative as a counterpart for the negative chain reactions after a risk exposure. For example, the negative and enduring consequences of early parental loss can be diminished through the support or care from the remaining parent or from other alternative sources having nurturing bonds with child. The third protective factor framework covers

the individuals' reactions and beliefs about themselves and their social world. These protective mechanisms are self-esteem and self-efficacy. Indeed, importance of positive personal relations generally with parents in childhood and task accomplishment are highlighted as important mechanisms highly influential in the secure formation of self-esteem and self-efficacy in individuals' lives. Lastly, opening up opportunities is another process that let protective mechanisms buffer against risk factors. These opportunities can also be regarded as the flourishing experiences of individuals in key turning points of their lives. For instance, delay in a marriage can open up further opportunities in work life and social network. In general, positive school atmosphere, self-efficacy and self-esteem, self-mastery, easy temperament, a nurturing relationship with an adult form main resilient mechanism for young people in this framework.

In an early study, Werner (1989) also published the results of a longitudinal study focusing on resilience and stress factors in high risk children due to poverty, being reared by mothers with low education level, family divorce or discord, perinatal stress, family environment with parental alcoholism or mental illness. In this study, the protective domains in the original sample were presented through the long-term effects of these factors in these children as adults. In this study, Werner (1989) took an ecological perspective to work on individual, familial and community level protective factors in this group. These protective factors were mentioned to hold direct and indirect effects on resilience and adaptation process. In this study, individual level protective factors were

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determined as communication and engagement with others (parents and peers), problem solving skills, engaging in an activity valued by other people and having faith for the contributory effects of their own actions. Familial level protective factors involve effective emotional bonds characterized as trust, autonomy and initiation in extended family while community level protective factors include systems that support competence in children such as a caring neighborhood environment, positive teacher, peer, mentor and youth worker role models. In this model to resilience, it is emphasized that adaptive change can always occur when the individuals find a chance to reach strengthening sources in their lives. In addition, decreasing the risk exposure in child and adolescent population and empowering the competencies and protective domains were highlighted as valuable steps for the generation of resilience in this population.

Following the blow of these first round models in resiliency theory, the studies and models for resilience process continued at full speed in 1990s. In a remarkable effort in this period, Luthar (1991) conducted a study with 144 adolescents living in urban districts, having low socio-economic status and exhibiting behavioral problems. The study focused on the impact of negative life events to the social competence levels as moderated by intelligence, internal locus of control, social skills, positive life events and ego development. Following theoretical ground of Garmezy and Rutter, the study distinguished the compensatory factors that have direct effects on social competence from protective/vulnerability factors that impact social competence through

interacting with stress factors. In this study, social competence was assessed through teacher and peer reports of assertiveness, responsibility, sociability, disruption, disengagement and also school grades of these children. In this framework, ego status was determined as a compensatory factor that buffers against stress through having direct effects on competence. In addition, internal locus of control and social skills were found to be protective factors while positive life events and intelligence were determined as vulnerability factors as interacting with risk factors. One of the most striking findings of this study was that although resilient children exhibit more competent attitudes toward negative life events, they are more anxious and depressed compared to children with low risk environments. Thus, Luthar (1991) concluded that children might have a domain specific resilience characteristic meaning that they may exhibit competence in one negative life event but not in other. In this condition, the ultimate aim of resilience models and studies was suggested to be finding the least damaging way that can be operative in all negative events.

In the same decade, Masten, as the student of Garmezy, conducted notable studies in order to contribute the existing resilience literature. What she called as an 'ordinary magic' was a different perspective to define resilience as a consequence of basic adaptation systems and normative mechanisms in individuals' lives (Masten, 2001). Along with the previous resilience studies she conducted, Masten, et al. (1999) conducted a project competence with children experiencing perinatal distress, loss and disadvantages in familial and

psychosocial domains. The competence areas measured for these children were peer social competence and academic success. High competence level was indicated through the existing of two or three competence areas and vice versa. In addition, exposure to certain risks was measured both in the beginning and later phases of the study. These children when they reach to adolescence were also measured through following two dimensions: parenting quality in terms of warmth, family structure and expectations and also psychological wellbeing through the indicators of self-regard, mood, distress and negative and positive emotionality temperament. The results of this longitudinal study offered three different profiles in adolescents: resilient, competent and maladaptive. Resilient profile was characterized as holding high adversity and sufficient competence, competent profile was defined as low adversity and sufficient competence while maladaptive profile was determined as having high adversity but insufficient competence. In this framework, it was also emphasized that psychosocial resources (intellectual functioning and parenting resources) are important mechanisms that determine resilience level of these adolescents.

As well as these pioneering models generally bringing out and discussing individual and familial level protective domains and also their interaction in risk and resilience stairway, some of the following models and studies drew attention to the significance of culture, community and context factors in ongoing resilience models and studies. In one such a study, Ungar and Teram (2000), conducted a postmodernist view to work on the possible role of narratives for

determining personal and social resilience in high risk adolescents suffering from poverty, mental disorder in one of the parents, physical and sexual abuse, violence, neglect, mental disorders of depression, addictions and similar. The study indicated that through the interviews with 41 high-risk adolescents in counseling process, participants started to realize that they have the capacity and power to affect their well-being through influencing social debates that formed their identities. In progress of sessions, participants started to get power to manage their mental health resources to re-form their identities by changing the language of these social discourses directed toward them. In later years, Ungar et al. (2007) also emphasized the culture and context as important mechanisms in resilience process. Through examining data from 14 different countries, the researchers selected 89 adolescents experienced at least three of the following risk factors of war, poverty, genocide, violence, marginalization, drug and alcohol addictions, family breakdown, mental illness and early pregnancy. In this study, seven tensions of resilience were determined; (1) *Access to material resources* – availability of economic, educational, health and employment assistance and also access to basic needs of food, clothing and shelter (2) *Relationships* – having in touch with significant others, friends and adults in extended family and larger community, (3) *Identity* –sense of purpose both personally and collectively, self-evaluation of strengths, weaknesses, aspirations, beliefs and values, holding a spiritual and religious identification, (4) *Power and control* – being caring for self and others; the capacity to change social and physical environment for easily accessing to health resources, (5)

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Social justice – having experiences and roles meaningful for community and social equality, (6) *Cultural adherence* – loyalty to local and/or global cultural practices, values and beliefs, (7) *Cohesion* – equanimity of personal interests through having responsibility for the greater good; a sense of social and spiritual belongingness to something larger than the self, feeling a part of something larger than one's self. Ungar et al. (2007) claimed that adolescents deal with these tensions in a culturally congruent way. In addition, context, culture and individual strengths were emphasized to intercept in the tension framework.

In 2000s, Bonanno and his colleagues started to present frameworks for resilience process following a loss by also emphasizing cultural and social factors as important mechanisms in resilience. Bonanno, Papa and O'neill (2001) examined the worldwide literature in terms of resilience process during the bereavement. In this examination, it was highlighted that continuity in social identification and also cultural manifestations of the continuity for emotional bonds to the deceased are important mechanisms in resilience process. In this framework, worldview (e.g. an accepting attitude toward death, holding a view that world is fair) self-enhancement, concrete aspects of self (roles, behaviors, goals and plans) and emotion regulation were determined as the facilitators and determinants of identity continuity in resilient individuals. Following this study, Mancini and Bonanno (2005), presented a resilience framework in the face of potential trauma and loss in adult population. The resilience process in potential traumas were mainly examined in the light of previous studies conducted with

individuals experienced the death of a spouse at midlife (Bonanno, Keltner, Holen, & Horowitz, 1995) and individuals exposed to World Trade Center attacks (Bonanno, Rennicke, & Dekel, 2005). In this study, researchers pointed out three important characteristics of resilience process: resilience isn't equivalent to recovery, resilience is common in loss and traumatic events and multiple systems and unpredicted pathways are operative in resilience process. Several conclusions were derived from the studies examined in adult groups experienced traumatic attack of September 11 and loss of a spouse. These findings showed that married individuals, younger people, males, Asian Americans, more educated individuals and people with higher income can be characterized as more resilient compared to other ones. In addition, personality and coping styles were determined as important predictors for adult resilience. More specifically, flexible adaptation that covers ego resilience and hardiness and pragmatic coping that include repressive coping strategies, dismissive attachment, and utilization of self-enhancing attributes and biases are found as important mechanisms in resilience. As a concluding remark of this study, the ethnic and cultural differences in resilient responses to loss and traumatic events were also emphasized as valuable dynamics that should be taken into account in similar resilient oriented studies.

As evident in the resilience literature over the twenty-year influential efforts and studies, there are many different ideas and theoretical approaches emerged to understand risk, protective and resilience factors and processes in various

populations. In order to identify the dominant factors and processes determined by many pioneering studies in this period, Kumpfer (1999) conducted an extensive review study to summarize and classify these factors and processes. This study presents a framework through gathering the dynamic factors predicting resilience through assuming a convergence between resilient individuals and the risky environments they have. In this transactional model, three areas of inquiry were included: a) environmental factors known as risk and protective factors, b) characteristics of resilient individuals, c) the resilient integration or positive finality following negative life experiences and also the dynamic processes that are mediators between the person and the environment and between the person and outcome. In this framework, (See Figure 2.1. p. 39) resilience variables and processes were categorized through six constructs:

1) *Stressor and challenges:* The resilience process starts with the activation of stress factors leading to disequilibrium in the homeostasis levels of individuals or wider organizations (e.g. family, group, community).

2) *External environmental context:* The equilibrium and interplay in the risk and protective factors that exist in the child's external environment holding an influential effect (e.g. family, community, culture, school, peers)

3) *Person-environment interactional processes:* The interactive process between the child and the external world in a way that child or caregivers notice and clarify adversities and threats in order to form more protective outcomes.

4) *Internal self-characteristics:* These characteristics cover spiritual, cognitive, social/behavioral, physical and emotional/affective strengths the child should have in order to be competent in developmental duties and different culture and environments.

5) *Resilience processes:* Learned resilient responses through exposure to adversities and challenges facilitating individual adaptation to these stress sources.

6) *Positive outcomes:* Competent adaptation to certain developmental challenges support further adaptation in later tasks and adversities.
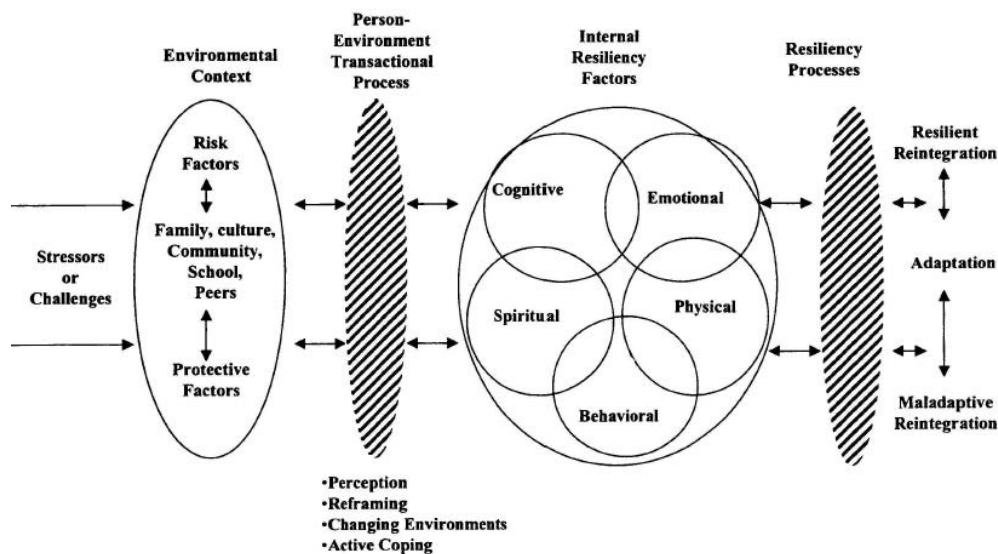
Figure 2.1. Resilience Framework (Kumpfer, 1999, p.185)

In this framework, a number of risky contexts in that resilience studies were conducted summarized through the support from previous studies and models. Given the interactional processes between the individuals and their

environments in resilience process, internal individual resilience factors (genetic and biological invulnerabilities, in utero factors and temperament/personality) factors were discussed as they are related to resilience. In addition, specific attention was given to clarify a very detailed examination over external and especially internal self-resiliency factors. Based on the previous studies, internal self-resiliency factors were classified through spirituality, cognitive competency, behavioral and social skills, emotional stability and physical well-being dimensions (See Figure 2.2. p. 40).
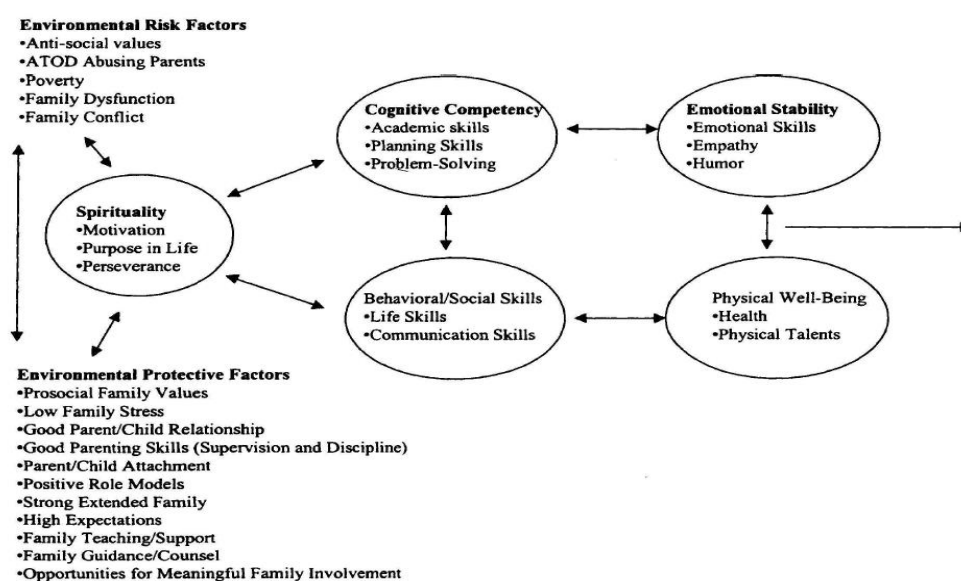
Figure 2.2. Internal Self Resiliency Characteristics (Kumpfer, 1999, p.196)

In each of the internal self-resiliency factors, previously indicated specific individual characteristics were explained and supported through other studies in this framework. Psychological factors that were included in each self-resiliency factors were summarized as:

1) Spirituality: Dreams, goals, purpose in life, existential meaning, spirituality, belief or uniqueness or in oneself, internal locus of control, hopefulness and optimism, determination and perseverance in cognitive styles (Kumpfer, 1999, p. 198).

2) Cognitive-competency: Intelligence, academic success, delay of gratification, reading skills, moral reasoning, insight, interpersonal awareness, self-esteem, planning abilities and creativity (Kumpfer, 1999, p. 201).

3) Behavioral/social skills: Social skills, problem solving skills, communication skills, peer-resistance skills, multicultural competency, bi-gender competency, talent, capacity for intimacy (Kumpfer, 1999, p. 205).

4) Emotional stability: happiness, recognition and awareness of feelings, emotional regulation, capacity to control depression and anxiety and retrieve self-esteem, humor and hopefulness (Kumpfer, 1999, p. 208).

5) Physical health: Health and maintenance skills, physical attractiveness and talent (Kumpfer, 1999, p. 209).

2.1.2. Current Models and Studies of Risk and Resilience Factors in Adolescents

In the late phases of 1990s, Jessor, Turbin and Costa (1998) outlined a remarkable framework of psychosocial risk and protective contexts in many different problem behaviors of adolescence such as drug use, youth crime and

similar. In this model named Problem Behavior Theory, three systems in psychosocial development of risk and resilience in adolescence were determined; Personality System, Perceived Environment System and Behavior System. In those systems, different structures operate as risk contexts or protective factors. In pathways to the development of psychopathology, lack of self-esteem (Personality System), models for deviant behavior (Perceived Environment System) and poor school performance (Behavior System) are some of the sample factors outlined as leading improper adjustment in adolescence. On the other hand, value on achievement (Personality System), family cohesiveness (Perceived Environment System) and participation in voluntary activities (Behavior System) are examples for protective domains that work against the risk factors (Jessor, 1987).

In another framework for child and youth resiliency, Masten (2004) who conducted extensive studies of resilience in the past decade, offered a model covering both risk and resilient domains in children and adolescence. In this framework, developmental psychopathology of young people was examined in the light of following potential causal factors: emergence of mental disorders at those ages, problematic interaction of the individuals with other systems (family, peers, school, etc.), genetic influences, and easy access to technological tools and possible harmful information sources. Regarding the correlates of resilient characteristics working against those risks, possible predictors were determined as; good relations with one or two parents, attachment to skillful and caring

adults, cognitive skills (attention, problem solving), emotional and behavioral regulation skills, hope for future, positive self-concept, socioeconomic condition, prosocial peer models, appreciation from community, success in school and having effective community conditions.

In the same year, Haase (2004) developed a model of resiliency for adolescents with cancer called Adolescent Resilience Model (ARC) based on two philosophical approaches: a) life span development and b) meaning-based models. There are a number of protective factors and risks involved in the quality of life and resilient response of adolescents. The risk factors include; illness related risks (uncertainty in illness, disease and symptom-related distress) and defensive coping responses (e.g. evasive, emotive, and fatalistic coping). Protective factors in this model are determined as; family atmosphere (e.g. adaptability and cohesion, parent-adolescent communication, perceived social support-family), family support and resources (e.g. family network and socioeconomic variables), social protective factors of social integration factors (e.g. perceived social support-friends, influence of others with the same or similar condition, attitudes of illness disclosure) and health care resources, individual protective factors of courageous coping (e.g. confrontive, optimistic, and supportive coping) and derived meaning (e.g. hope and spiritual perspectives). In this model, resiliency is described through the individual characteristics of confidence, mastery, self-transcendence and self-esteem (p.291).

In a review study, Fergus and Zimmerman (2005), summarized an extensive framework of the resources and assets that may provide adolescents with coping skills in the problems and risks they encounter. They emphasize that resilience theory is operative when high-risk population reach to a positive outcome in spite of those risks. Otherwise, reaching to a good outcome when having a low risk status is part of the normative development process. In this framework, promotive factors were classified as assets or resources that function as protective cover for the pathways to risks. Assets (within individual promotive factors) and resources (external promotive factors) are the factors that help adolescents to avoid negative outcomes and reach a positive one. Assets are composed of such factors as competence, self-esteem and coping skills while resources cove external domains like parental support and quality, prosocial adult models and community services and organizations.

From a dynamic system perspective, Brennan (2008) also presented a framework of adolescent resilience as an interactional process between communities and youth to clarify resilience theory through a multi-system stance. In this approach, it is emphasized that resilience in the community is a critical predictor in youth resiliency so working on enhancing community resiliency is an important part of providing youth a protective framework. According to this model, socioeconomic (low income, employment opportunities, etc.) and social vulnerabilities are important adversities in communities. These adversities increase the potential of individuals to search for social support sources fostering

attainment of community agencies in youth and communities. Thus, social support and community sources enhance well-being and also resiliency by interfering with the local obstacles that individual's experience.

Mancini and Bonnano (2009), known as their studies in resilience process after loss and traumatic events, developed a new resiliency theory of loss for adolescents and described different individual characteristics and reactions to loss. In this model, the protective characteristics and risky pathways are mentioned to interact with each other across individuals to produce the resilient response. They proposed a model of resilience in that individual differences (e.g. personality such as attachment, optimism, self-enhancing biases, a-priori beliefs, identity complexity, positive emotions, comfort with positive memories) and exogenous resources (e.g. financial resources, physical health, cultural beliefs and practices) are operative a response to a loss. These differences and resources form appraisal processes and social support channels for individuals resulting in coping (e.g. emotional, cognitive and behavioral) and hence resilient responses described as decrease in symptoms, resolution of sadness and more positive experiences in loss event (p. 1821).

In a current study, Milkman and Wanberg (2012) summarized factors leading to the development of problematic behaviors and resilient outcomes in adolescence with delinquency and substance abuse. By combining the findings from different studies, they categorized the core risk factors into individual, familial and

psychosocial contexts. In this model, individual risk factors consist of such factors as self-concept and behavioral problems; familial risk factors include insecure attachment in infancy and parental characteristics while psychosocial risk factors are school problems, socio-economically disadvantageous status, peer associations and teen culture. Some of the resilience factors outlined by this study are personal competence, social orientation, empathy, internal locus of control, positive family interaction and attachment to conventional models.

To sum up, from all of the specified early and current studies conducted with various risk groups, it can be inferred that resilience is a process that is largely influenced by the interplay between risk conditions and protective factors available to the individual. These protective factors include individual, familial and community level factors that have the potential to interfere with the risk factors and facilitate individual adaptation and hence resilient responses. It is also evident in these models the protective mechanisms as well as competence factors may have the potential to differentiate and become operative in terms of many factors including experience of various risk factors, developmental processes, contextual and cultural determinants and similar. Thus, investigation of protective domains in a single or multiple risk contexts requires taking these specific contextual factors into account in resilience oriented studies.

Given the first waves and following remarkable studies of resilience models and theories, it is also a salient point that many of these models and studies were

directed to understand resilience process in child and adolescent population with various risks. These models provided different perspectives through presenting extensive risk and protective factor frameworks to the dynamic resilience literature. After the sparks of the initial studies and models, resilience continued to be a crucial area of inquiry and research conducted in various populations. Within the dozens of these models developed for different groups, close examination of the studies for adolescent resiliency yielded that the priority of researchers was to understand adolescent resiliency through a multilevel perspective. As similar to the early waves, these current studies also examined individual, familial and community level factors influential in adolescent resilience through a deep and contemporary understanding of risk/protective factor and resilience triad. Investigation of the protective factor frameworks in these current studies with adolescents highlight such influential individual level protective factors as personality, self-esteem, emotional/behavioral regulation skills, cognitive skills of problem solving and attention, an optimist view of future and self, empathy, coping skills, internal locus of control and similar; family level protective factors as cohesiveness and communication in family, supportive parents, resources in family, quality of parent child interaction and similar while community level protective factors as convenient adult models, access to community resources and participation in community activities, cultural beliefs as they interact with resilience process for this population.

2.1.3. Studies on Adolescent Resiliency in Turkey

In the face of these transitions and over thirty year advancements for resilience research in Western literature it is a clear fact that psychological resiliency attracted the attention of Turkish researchers and practitioners in the last decades (Gizir, 2004). In recent years, as well as the review publications on resilience (Gizir & Aydın, 2007; Karaırmak, 2006), various resilience based studies started to be conducted with different populations like resilience process in eight graders (Önder & Gülay, 2008), first year college students (Yalım, 2007), elementary school students in regional boarding schools (Kaya, 2007), earthquake survivors (Karaırmak, 2007) and so on.

Regarding at risk children and adolescent populations, it is a salient point in the literature that resilience process and resilience based interventions with especially children and adolescents with risky conditions isn't an extensively examined area in Turkey (Gizir, 2004). In a notable study on the resilience process for at risk children and adolescents, Gizir (2004), conducted a study to find out protective factors for academic resiliency in eight graders living in poverty. Results of the study indicated a number of protective factors for these groups including external protective factors of high expectations at home, care and loving relationships at school and personal protective factors of positive self-concept for academic competency, high academic expectancies, being empathetic, intrinsic self-regulation and hope for future.

At another study, Özcan (2005), compared resiliency characteristics and protective factors in adolescents in terms of parental divorce and gender. In this study, it was found that adolescents whose parents are non-divorced have higher levels of caring relations, satisfactory expectations in community and also in family, higher chances of expressive participation in family, goals and ambitions and problem solving skills than adolescent with divorced parents. In addition, results of this study indicated that these adolescents differ in terms of resiliency traits and protective factors in favor of adolescents with non-divorced parents have higher levels of resilient traits and protective factors than adolescents with divorced parents.

In Turkish literature related to adolescent risk and resiliency process, Siyez and Aysan (2007), conducted an extensive study of risk and resiliency process in adolescence based on the theoretical grounds of Problem Behavior Theory by Jessor, Turbin and Costa (1998). Regarding the risk contexts for adolescents, personality system, conflicts in family, peer relations and the role of environment were found significant predictors in explaining the problem behaviors like substance abuse, antisocial behaviors in adolescents. Considering the resilience process, value on achievement, social support, and conventional family models were mentioned as important resources that empower adolescents in the face of risks. In this study, it was found that individual level protective and risk factors are a better predictor of problematic behaviors than the factors in perceived environment system and behavioral system.

In a recent study, Yılmaz and Sipahioğlu (2012) examined the resilience levels of adolescents who can be accepted at risk due to living in poverty, having single parents, gender effects and school type. This study indicated that home caring relations, high expectations and participation in home activities are main protective factors for students whose parents are divorced compared to adolescents living with both parents. In addition, regarding the protective factors in terms of both gender and poverty, empathy, caring peer relationships, educational aspirations were found as protective characteristics for females while sense of problem solving abilities was found as a protective factor in males with low socio-economic status.

2.2. Study Variables of Resilience in the Current Study

2.2.1. Mindfulness

Mindfulness taking its roots from Buddhist meditation practices has become a popular topic in the scientific literature through the effectiveness of mindfulness based stress reduction (MBSR) training program by John Kabatt-Zinn in University of Massachusetts Medical Center in 1979 as well as the emphasis of mindfulness as a central concept in dialectical behavior therapy and acceptance and commitment therapy brought the concept of mindfulness into the psychology literature with the motivation of converging western empirical science and the empiricism of meditative disciplines (Davis & Hayes, 2011).

This convergence created a different perspective and insight to the theoretical and practical applications in clinical and health psychology, cognitive approaches and neuroscience, different levels of educational settings and business fields through emphasizing the value of positive personal discovery and transition in the face of existential issues of human suffering (Wiliams & Kabatt-Zinn, 2013).

Starting from the initial implementation of mindfulness in the field of psychology, the construct was described through different perspectives that also share some similar premises. According to Hanh (1991), mindfulness is *"keeping one's consciousness alive to the present reality"* (p. 11). In another pioneering definition, Kabat-Zinn (1994), defined mindfulness as *"intentionally paying attention in a particular way: on purpose, in the present moment and nonjudgmentally"* (p.4). In a similar perspective, Germer (2005) described mindfulness as having awareness for present experiences through an accepted way. According to Bishop et al., (2004) mindfulness is a metacognitive awareness and regulation of attention to the immediate internal experiences through a non-judgmental and accepting stance for these experiences (thoughts, senses, physical presence) emerged in this awareness process. What is meant by 'acceptance' in this definition is getting an open and non-judgmental stance for the thoughts, emotions, and sensations rather than avoiding from or pushing away these thoughts.

Based on these and other definitions emerged, Mace (2008) summarized several key characteristics of mindfulness. First of all, mindfulness is a *deliberate* attempt of directing attention to internal experiences such as breathing, emotions, body and cognitions. Secondly, mindfulness holds two particular characteristics that are namely *acceptance* and *non-judgment* for immediate experiences. Third, for some, mindfulness doesn't include an emotional quality and it is neutral but for others mindful awareness is closely linked with the feelings of kindness and love. In addition, one of the unique characteristics of mindfulness is related to its *wordlessness* meaning that the immediate characteristic of mindful attention is the result of the preconceptual nature of mindful thinking that occurs prior to experiences. Lastly, mindfulness entails *presentness* that is mindful awareness is a way of directing attention to what is happening in present moment through excluding the past and future.

Siegel, Germer and Olenzki (2008), made a distinction between the core characteristics of mindfulness embedded in Buddhist psychology and unique aspects of mindful awareness emphasized in Western psychotherapy. From the lenses of Buddhist psychology, one of the aspects of mindfulness is *awareness* of what is happening at the present moment. This way of focused attention to the present has the power to move individuals away from their ruminative preoccupations and harsh feelings. The second aspect of mindfulness is *remembering* that doesn't imply to be occupied with past rather remembering to get awareness of present. In this sense, mindfulness includes another

characteristics that is *intentionality* meaning that we should remind ourselves to be aware constantly. In Buddhist psychology, these aspects of mindfulness are emphasized to protect individuals from the unnecessary burdens of suffering through getting insight into their minds and also the physical world. Besides, adoption of *awareness, remembering, intentionality* aspects of mindfulness from Buddhist psychology to Western science, somehow altered the ancient meanings of mindfulness in certain ways. In Western psychotherapy, therapeutic characteristics of mindfulness started to be associated with *non-judgment, acceptance* and *compassion* that are also the therapeutic characteristics emphasized in many pioneering definitions of mindfulness. A non-judgmental touch to the experiences provide individuals to see these experiences as they are in reality. In addition to non-judgment as an important aspect of mindfulness, the psychotherapeutic mutual role of awareness, acceptance and compassion in suffering were distinctly stressed factors. These aspects of mindfulness are emphasized as the facilitators of well-being through creating a relating attitude toward what is happening at the present moment, whether positive, negative or neutral, rather than getting a reactive stance toward these experiences (Germer, 2005).

Given the theorized therapeutic frameworks and implementations of mindfulness since the initial conceptualization of this construct, robust number of theoretical and practical studies were conducted to understand the phenomenon better as well as its function and relation to many psychological

processes. Taking the theoretical part into account, mindfulness literature demonstrated that the concept is a therapeutic facilitator in such psychological processes as psychological well-being, self-esteem, vitality, competence and optimism (Brown & Ryan 2003), self-acceptance (Carson & Langer, 2006), empathy (Dekeyser, Raes, Leijssen, Leysen, & Dewulf, 2008), better performance and decision making (Ritchhart & Perkins, 2000) and similar. Conversely, mindfulness was also found to be a counterpart to such psychological factors as depression and anxiety (Bouvet, Grignon, Zachariou & Lascar, 2015), substance use behaviors (Karyadi, VanderVeen, & Cyders, 2014), emotion regulation difficulties (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006), posttraumatic growth (Hanley, Peterson, Canto, & Garland, 2015), aggression (Peters, Smart, Eisenlohr-Moul, Geiger, Smith, & Baer, 2015), social anxiety and stressor responding (Parsons, 2015), perceived stress (Rodriguez, Wei, Xiaoming, & Xinghua, 2015), burnout (Piatkowska, 2015) and similar.

Mindfulness based approaches and meditative disciplines stress that mindfulness is a skill that can be cultivated by everyone through training (Germer, 2005). In this regard, many structured training programs were prepared to cultivate mindfulness through taking awareness, non-judgment, acceptance and compassion aspects of mindful awareness into account. In general, these structured programs include cultivating mindfulness through awareness of body movement and sensation, stretching exercises and practicing awareness of thoughts, emotions and body senses in daily routines such as sitting, eating, etc.,

guided body scan activities, self-compassion exercises and similar activities (Wiliams & Kabatt-Zinn, 2013). In such programs, mindfulness based interventions were developed and applied with clinical or non-clinical populations and proven its effectiveness in providing psychological functioning in many different groups. Some of those mindfulness based programs found to be effective interventions in following psychological processes: well-being, depression and stress in adolescents (Lau & Hue, 2011), cognitive and social development for children (Schonert-Reichl, et al., 2015), resilience in healthcare professionals (Johnson, Emmons, Rivard, Griffin, & Dusek, 2015), stress management and self-perception in college students (Berne-Cico, Possemato, & Cheon, 2013), eating disorders (Brandenborg, 2015), anxiety disorders (Kabat-Zinn, et al., 1992), psychological distress and life quality in cancer patients (Fish, Ettridge, Sharplin, Hancock, & Knott, 2014) and smoking cessation for mild intellectually disabled individuals (Singh, et al., 2013).

Regarding the mindfulness studies in Turkish literature, Özyeşil (2012) conducted a cross-sectional study between Turkish and American university students in terms of mindfulness and psychological needs. The results of this study showed that based on the mean scores, American university students have higher scores in mindfulness measure and also in all dimensions of psychological needs (autonomy, competence and relatedness). Ögel, Sarp, Gürol and Armağan (2014), investigated mindfulness and the factors affecting mindfulness in alcohol/drug addicted or normative sample. This study indicated that

mindfulness didn't significantly differ in clinical addicted and normative individuals but significant differences were found between these groups in terms of metacognition, suppression, impulsivity and physical problems. Yıkılmaz and Güdül (2015), also studied mindfulness, life meaning and life satisfaction as they differ in terms of perceived socio-economic status in university students. This study addressed that mindfulness didn't differ in terms of perceived socio-economic condition and also both mindfulness and life meaning were found as significant predictors of life satisfaction. At another study, Ülev (2014), found that mindfulness is positively correlated to self-confidence, optimism and social help searching dimensions of coping with stress and negatively correlated to anxiety, stress, depression, self-blame and submissive attitudes of stress coping in university students. In addition to these studies, Demir (2015) evaluated the effectiveness of a mindfulness based cognitive therapy program for the depressive symptoms in university students aged between 19 and 26. This 8 week structured program was found out significantly effective in reducing depressive symptoms of participants.

Based on all of the theoretical and practical implementations drawn from mindfulness literature, mindfulness that is a specific form of focused attention through a non-judgmental and accepting stance can be inferred as a valuable and strong factor in various psychological well-being and adaptive processes. More specifically, the concept of therapeutic mindfulness specifying the therapeutic aspects of mindful attention, self-compassion, awareness, acceptance and non-

judgment ingredients of mindful attention can be implemented as the unique therapeutic aspects of facilitating wellness and functioning for various groups (Germer, 2005). Thus, in this study, mindful attention is proposed to predict resilience through the hypothesized therapeutic influences of this process in facilitating self-compassion and emotion regulation skills of adolescents.

2.2.2. Self-Compassion

Similar to mindfulness, compassion is a distinct construct drawn from Buddhist psychology and it is extended through the efforts of synthesizing the mediative perspective with that of western empiricism. Literally, compassion as a word is composed of two Latin words: cum and passus. The correspondence of the word cum is "with" and passus means "to suffer". By this way, compassion literally means "to suffer with". Based on this definition, Neff and Dahm (2015) specifically underlined the inference for compassion as noticing and openly perceiving the suffering in life. In addition, compassion entails a kind and caring attitude toward the pains and sufferings of other people as well as the self-meaning that compassion is a two-fold process. A caring attitude toward the suffering of other people is an important and valuable component of compassion. However, it is emphasized that individuals who don't have a caring and kind attitude toward their own harsh experiences are accepted to have a superficial compassion toward others. Thus, the supportive and accepting stance toward self

in difficult times is as valuable as the compassion directed to others (Neff & Dahm, 2015).

Considering the theorized flourishing and therapeutic premises for compassion directed toward self, researchers started to define and conduct studies for understanding and clarifying self-compassion extensively in the last decade. In this short process, along with the limited number of definitions emerged for self-compassion, Neff (2012), as a pioneer researcher of self-compassion, declared the concept as "…*being warm and understanding toward ourselves when we suffer, fail, or feel inadequate, rather than flagellating ourselves with self-criticism*" (p. 2). More specifically, compassion towards self means that suffering or failures are inevitable parts of life so rather than getting harsh and judgmental toward oneself in stressful times, being kind, accepting and friendly with these experiences creates the opportunity of soothing the ruminating and restless mind as well as transferring the negative experiences into a more clear and peaceful realm (Neff, 2012). Through the perspective of this pioneering and impressive definition for self-compassion, the construct was theoretically divided into three important psychological components: self-kindness versus self-judgment, common humanity versus isolation and mindfulness versus over-identification in the face of painful times. In this framework to self-compassion, self-kindness is defined as being warm and friendly toward self in harsh times while common humanity means understanding that life is imperfect and we are not the only ones who suffer from these painful experiences. Lastly, the

mindfulness component of self-compassion means recognition and awareness of painful emotions, thoughts and experiences through an accepting and non-judgmental attitude (Germer & Neff, 2013).

Since the first implementation of self-compassion as an important factor to scientific literature, the construct was found to hold unique roles in psychological functioning and mental health variables for various groups. Supported in progressive self-compassion literature, this unique role of self-compassion was examined through different studies. In such a study, Neff, Kirckpatrick and Rude (2007) conducted two different studies on the role of self-compassion in anxiety and psychological well-being in college students. The results of both studies showed the positive roles of self-compassion in buffering against anxiety in one study and facilitating psychological well-being at another one. In addition, Leary, Tate, Allen, Adams and Hancock (2007), studied the relations between self-compassion and cognitive and emotional reactions to negative events. This study revealed that self-compassion is an important positive determinant of people's emotions and reactions to stressful events. At another study, Pauley and McPherson (2010), investigated the role of self-compassion in depression and anxiety with a group of clinical sample. In this study, it was found out that self-compassion is an important factor for improving psychological functioning perceived by this group. Neff and McGeehee (2010), also conducted a study for examining the role of this process in resilience for adolescents and young adults. The findings of this study disclosed that self-

compassion has strong connections to adolescent resiliency. In addition, self-compassion was found to mediate the relations between family factors (maternal support, family functioning and attachment security) and psychological well-being in this population.

The role of self-compassion in certain psychological processes was also examined through various studies in Turkish literature. Akın (2008) conducted a study revealing that self-compassion is positively correlated with achievement goal orientations in university students. In the following studies by the same researcher, self-compassion was also found to be related to submissive behaviors (Akın, 2009), interpersonal cognitive distortions (Akın, 2010) and automatic thoughts in university students (Akın, 2012). Çetin, Gündüz and Akın (2008) also tested a structural model for the relations between self-compassion, motivation and burnout. The results of this study showed that the self-compassion dimensions of self-kindness, awareness of common humanity, and mindfulness are positively related to motivation while the sub-dimensions of self-judgment and isolation are negatively related to motivation levels of participants. In addition, Aydın and Soyer (2012) studied self-compassion as it interacts with anxiety levels of special education teacher candidates through finding out that self-compassion is negatively and strongly related to anxiety levels of these students. At another study, İkiz and Totan (2012) found that self-compassion has significant positive relations with emotional intelligence levels of university students.

From the perspective of mindfulness theory and practice, compassion toward self has always been an important ingredient and therapeutic factor emerged in mindful attention. In mindfulness view, compassion is broadly an '*orientation of mind*' or '*capacity to respond*' in a way that mindful awareness is directed to understand the suffering in human experience accompanied with the ability to welcome those experiences with empathy, equanimity and patience (Wiliams & Kabat-Zinn, 2013, p.8). Similarly, self-compassion literature argues that mindfulness is a significant constituent of self-compassion. Regarding these theoretical stances of both mindfulness and self-compassion studies, it is clearly indicated that both psychological processes are similar and also different from each other in certain ways. Mindfulness and self-compassion overlap through the psychological processes of an acceptance stance toward suffering and harsh experiences, reducing the catastrophic results of reactivity and ensuring well-being for individuals. On the other hand, self-compassion and mindfulness are also distinct processes from each other in certain ways. First of all, mindfulness ingredient of self-compassion has a restricted scope than mindfulness in the way that mindful awareness in self-compassion means *only* the awareness for negative emotions and cognitions while mindfulness entails a balanced awareness for any positive, negative and neutral experiences. Secondly, self-compassion is a more extensive construct than mindfulness since self-compassion involves the processes of self-kindness and common humanity as well as mindfulness. Self-compassion and mindfulness may not co-occur in this sense. In other words, individuals may have a kind attitude for their suffering as

well view these pains shared by others but may not have mindful awareness over their negative experiences and vice versa. Another implication embedded in self-compassion and mindfulness literature is that the target of mindful attention is the internal experiences of individuals while self-compassion is much more related to the *experiencer* who is also sufferer. More specifically, mindfulness is an aware, non-judgmental and accepting stance toward emotions, cognitions and senses aroused in present moment while self-compassion is more related with the individuals' wish and efforts to be free from the burdens of suffering and live fully (Neff & Dahm, 2015).

In the face of the theoretical overlaps and distinctions made between mindfulness and self-compassion, many related studies in the literature indicate a positive relation between mindful attention and self- compassion in various groups (Barnard & Cury; 2011; Bluth, Roberson & Gaylord, 2015; Charles, 2010; Germer & Neff, 2013; Kemper, Mo & Khayat, 2015; Soysa & Wilcomb, 2013; Neff, 2003a; Woodruff, et al., 2013). In addition to these studies on the direct relations between mindfulness and self-compassion, these two processes were also examined together in terms of their role in some psychological processes. In such a study, Woodruff et al. (2013) conducted a study on the role of mindfulness, self-compassion and psychological flexibility in psychological health. The results of their study showed that mindfulness, self-compassion and psychological flexibility are indicators of psychological health yet self-compassion and psychological flexibility explain greater variance than

mindfulness in prediction of mental health. In a similar study, Bluth and Blanton (2014) conducted a research on the role of mindfulness and self-compassion in predicting emotional well-being in adolescent population. The results of this study yielded that self-compassion mediates the relationship between mindfulness and perceived stress and mindfulness mediates the relations between self-compassion and positive affect in adolescents. Moreover, this study also revealed that mindfulness and self-compassion exhibit a reciprocal relationship in predicting well-being.

In sum, supported through both mindfulness and self-compassion literature, a caring, supportive and mindful attitude toward the suffering of the self can be accepted as holding important and valuable roles for psychological well-being, adaptation and mental health of individuals. As Kabat-Zinn (2005), from the mindfulness perspective, underlined that compassion toward thoughts and emotions that human mind engages constantly has the potential to help individuals to recognize and accept these experiences as they are in reality. This can be described as a process of training and directing the mind in a way that well-being and psychological balance for human being is inevitable (Kabat-Zinn, 2005). Thus, regarding the predicted role of self-compassion for psychological well-being and resilience as evident in many studies, this individual process is assumed to moderate the relations between mindfulness and resilience for adolescent population in the current study.

2.2.3. Emotion Regulation

All individuals experience several forms and states of emotions in their daily life. Some of these emotions may reflect the spectrum of positive emotions such as pleasure, happiness and joy while some emotions can be categorized under the general title of negative states such as anger, anxiety, fear etc. Whether belong to positive or negative states, all emotions have something to say us-warning us to escape in dangerous experiences, encourage us to take actions for change or tell us that we are pleased and satisfied. However, some individuals get complexity in the experience of emotions meaning that they become overwhelmed through their emotions, carry a fear of their feelings and lose their ability to cope with some of these feelings as they believe these feelings (such as anxiety) block their behaviors in certain ways (Leahy, Tirch, & Napolitano, 2011).

From a multilevel perspective, emotions include many different factors as *appraisal, physical sensation*, *motor behavior*, *goals or intentionality*, *interpersonal expression*, and other processes. Based on this fact, emotions were examined in terms of the dominant characteristics of each psychotherapy stream taking some or different perspectives over these factors when studying emotions in psychological literature. For instance, from a neurobiological perspective, the physical and brain activity processes of emotions were the area of focus while the role of cognitions, schemas, stimulus and behavioral activation were the main

aspects of inquiry for emotions in cognitive-behavioral tradition. Indeed, the core value of emotions in many psychological theories lie in the main principles of providing awareness for emotions and emotional regulation strategies, control and modification of dysfunctional and disturbing emotional responses and reaching to an emotionally secure and balanced zone to some degree. In this regard, the therapeutic role of effective regulation of emotions was accepted as a valuable psychological factor for many psychological processes (Leahy, Tirch, & Napolitano, 2011).

Stemming from the assumptions that emotions are vital part of individuals' psychological functioning and understanding how individuals manage these emotions is a crucial effort in psychology, Gross (1998) underlined an emerging field in psychological literature: *emotional regulation*. In his framework to emotion regulation, emotions are described through such processes as the generation of emotional cues as modulated by behavioral, experiential and physiological emotion response tendencies that result in emotional responses. In this pioneering view, regulating emotions is specifically defined as "*the processes by which individuals influence which emotions they have, when they have them and how they experience and express these emotions*" (p. 275). Through this perspective, emotional regulatory processes were characterized with the continuum of uncontrolled or controlled, conscious or unconscious and having single or multiple effects at different times. In addition, regulating emotions was emphasized to lead the changes in the relations between

behavioral, experiential and physiological aspects of emotional responses when the emotions are present.

Given another influential view to emotions and emotion regulation, Leahy, Tirch and Napolitano (2011) made an expressive definition of emotion dysregulation in their examination. In this framework, emotion dysregulation was defined as "*difficulty or inability in coping with experience or processing emotions.*" (p. 2). There are two states that emotional dysregulation may show itself: *excessive intensification of emotion* or *excessive deactivation of emotion*. Excessive intensification of an emotion is a form of dysregulation in that individuals intensify the experience of a negative and overwhelming emotion. Such intensification may result in overwhelming affective states of panic or dread and lead to infrustrations of tolerating these emotions. Excessive deactivation of emotion is strongly related to the dissociative experiences of emotions such numbness of emotions, depersonalization, etc. This type of emotional regulation strategy is also accepted as a characteristic aspect of avoidance coping style in this framework.

Following these conceptualizations for emotion regulation/dsyregulation as well as its vitality emphasized in different psychological theories, many studies were conducted to elaborate on the role of this construct in many psychological processes. In such studies, emotion regulation/dysregulation were generally indicated to be a related and predictive construct in anxiety disorders (Cisler,

Olatunji, Feldner, & Forsyth, 2010), aggression (Roberten, Daffern, & Bucks, 2012), job related stress and well-being (Rosen, Halbesleben, & Perrewe, 2013), eating disorders (Danner, Sternheim, & Evers, 2014), resilience in the face of trauma and loss (Boden, Kulkarni, Shurick, Bonn-Miller, & Gross, 2014), self-esteem (Garofalo, Holden, Hill, & Velotti, 2015), post-traumatic stress disorder (Radomski & Read, 2016), depression (Hopfinger, Berking, Bockting, & Ebert, 2016), drug abuse (Kelly & Bardo, 2016), and comparable processes.

The emotion regulation was also studied through its relations with certain psychological processes in Turkish literature. Eldoğan and Barışkın (2015), investigated the mediating role of emotion regulation difficulties for the relationship between early maladaptive schemas and symptoms of social phobia found out that emotion regulation is an important mediator between disengagement, impaired autonomy, impaired limits schemas and social phobia symptoms. In a similar study, Yakın (2015) also showed the mediating roles of self-compassion and emotion regulation in the relationship between schemas and well-being in in adults. At another study, Karagöz and Dağ (2015) discovered that difficulties engaging in goal-directed behaviors, difficulties controlling impulsive behaviors, and limited access to effective emotion regulation strategies are important determinants of self-mutilation in substance dependence patients. Safrancı (2015) also revealed that limited access to effective emotion regulation strategies is a significant predictor of psychological symptoms. Akıncı (2015) examined the role of emotion regulation as a mediator between

narcissism and psychological well-being. The results of this study showed that shame, anger, emotion regulation difficulties, and pride hold mediating effects for the relationship between vulnerable and grandiose narcissism and psychopathological symptoms.

Similar to other psychological approaches paying attention to the unique aspects of emotions in psychological functioning, mindfulness theory and practice also hold certain implications for emotions and emotional regulatory processes. In mindfulness texts, it is common to meet the phrases like 'emotional equanimity', 'emotional balance' 'emotional suffering' and 'emotional regulation' implying that emotions play an important role in the cultivation of non-judgmental attention and soothing the ruminative patterns of mind (Wiliams & Kabat-Zinn, 2013). In mindfulness and acceptance based approaches, emotion regulation is conceptualized as the awareness, understanding and acceptance of all emotions (Gratz & Tull, 2010) rather than controlling or avoiding them (Wegner, Schneider, Carter, & White, 1987) and recognizing that all positive and negative emotions are functional instead of eliminating or ignoring any of those emotions (Gratz & Tull, 2010). In addition, mindfulness based approaches emphasize that rather than changing the forms of altering cognitions or emotions, it is important to change individual's relations with those emotions through a more accepting and non-judgmental stance. Thus, compassion and kindness toward personal experiences including positive and negative emotions, cognitive patterns and bodily senses provide individuals with a more independent sense of self as a

different territory than those internal and external experiences (Blackledge & Hayes, 2001).

As well as the theoretical implications of mindfulness theory and practice for emotion regulation, current studies examining the convergence of mindful attention and emotion regulation in different groups also underlined that mindfulness has a positive influence for creating and enhancing positive emotions and emotion regulation skills for various groups (Blackledge & Hayes, 2001; Garland, Farb, Goldin, & Fredrickson, 2015; Lalot, Delplanque, & Sander, 2014; Luberto, Cotton, Mcleish, & Mingione, 2013; Pepping, O'Donovan, Gembeck, & Hanisch, 2014; Prakash, Hussain, & Schirda, 2015; Tang, Tang, & Posner, 2016; Teper, Segal, & Inzlicht, 2013).

In addition to the direct relations between mindfulness and emotion regulation implemented both theoretically and practically, a number of studies were also conducted to uncover the possible role of mindfulness in certain psychological processes through the possible mediating effects of emotion regulation in these relations. In such as study, Tomac (2011) who examined the role of mindfulness in predicting resilience through the mediating effects of attachment style, emotion regulation and self-esteem found out emotion regulation has strong mediating effects for the relations between mindfulness and resilience. In another study, Desrosiers, Vine, Klemanski and Hoeksama (2013) investigated the possible effects of mindfulness and emotional regulation in depression and

anxiety in a clinical adult sample. The results of this study addressed that emotional regulation strategies mediate the relationship between mindfulness and depression/anxiety and also operate as related to both of these psychological processes. In a parallel study, Prakash, Hussain and Schirda (2015) revealed that emotional regulation is a significant mediator between mindfulness and perceived stress at different age groups and also regulating emotions is an important factor in explaining individual reactions to stress. At another study, Nyklíček (2011) set a model of mindfulness and psychological well-being as mediated by emotional regulation and the model showed that mindfulness have positive effects on well-being through the beneficial effects of emotion regulation. In sum, based on these studies, the interaction between mindfulness and emotion regulation can be mentioned as an influential process in psychological well-being, distress, coping and resilience mechanisms for various groups.

Based on the specified effects of mindfulness for emotion regulation as well as the predicted mediating effects of emotion regulation between mindfulness and certain psychological processes, this correlate of mindful attention is hypothesized to mediate the relation between mindfulness and adolescent resiliency in the current study. According to Broderick and Zennings (2012), taking the emotional turbulence of adolescence period into account, understanding emotion regulation in especially adolescent population is a crucial mechanism for generating psychological well-being and preventing risky

behaviors in this population. Thus, as well as the studies indicating the specific relations between emotion regulation and mindfulness, this perspective that regulation of emotions is accepted as a distinct and crucial concept for adolescent population.

2.3. Conclusion

Resilience literature suggests different definitions and theoretical perspectives to examine this process through individual, social or multi-level perspectives. In the first phase of resilience studies, the contribution of possible individual level protective factors and qualities were extensively investigated in various risky groups while the second phase added a developmental and ecological perspective to understand situation and culture specific resilience process and protective factors. Regarding resilience studies for at risk adolescents in Turkey, it can be inferred that some individual and familial level protective factors were determined in these limited number of studies. However, the fact that resilience studies need to be expanded and advanced in order to have a better understanding for theoretical and practical implications of this process brings the necessity of conducting extensive studies of resiliency for especially at risk groups. Thus, in this study, based on a protective factor perspective, resilience process is aimed to be examined through the possible individual factors of mindfulness, self-compassion and difficulties in emotion regulation.

CHAPTER III

METHOD

This section summarizes methodological information for the study. In the first part of the section, the overall research design is presented with the variables of the study. In the second part, information about the participant characteristics is explained. Then, data collection instruments are presented along with statistical procedures conducted for the validity and reliability evidence of the each measure. In the next part, data collection process and general considerations in data analysis process are summarized. Last part of this section presents limitations for the study.

3.1. Research Design

This study investigates theoretically proposed relationships between mindfulness, self-compassion, difficulties in emotion regulation and resilience. This is a quantitative correlational study investigating the strength and direction of relationships among proposed variables (Fraenkel, Wallen, & Hyun, 2011). In this study, path analysis model that solves simultaneous and sequential

regression equations was used to solve direct and indirect complex relationships between observed variables (Keith, 2015). The direct and indirect hypothesized relations between mindfulness and resilience as mediated by self-compassion and difficulties in emotion regulation were explored in the study. These relations were explored by generating a path model for the hypothesized relations. In the model, mindfulness is accepted as a predictor for the dependent variable of resilience while difficulties in emotion regulation and self-compassion constituted mediator variables of the study.

3.2. Participants

Population of the study consists of 9th, 10th and 11th grade adolescents attending Anatolian High Schools in socio-economically disadvantaged regions of Istanbul. In sample selection process, convenience sampling method was utilized due to the time and cost advantages of this method to the researcher (Marshall, 1996) as well as the suitability of this sampling process to the purpose of this study (Fraenkel, Wallen, & Hyun, 2011). In Turkish education system, Anatolian high schools are regarded as general high schools in that students are selected based on their scores in national exam. A student who scores satisfactorily high in these exams is placed in an Anatolian high school. Thus, students placed in these schools can be regarded as holding certain academic success in national exam. Regarding resilience studies emphasizing the relationship between academic success and resilience (Kumpfer, 1999), the

sample group of the study is selected from the same type of schools in order to have a homogenous group of participants as much as possible regarding the academic succes criterion. As parallel to this assumption, in order to select the school districts and hence participants, the indicators for low socio-economic status such as low income, education level, unemployment rates, etc. (Stepleman, Wright and Bottonari, 2009; Willms, 2002) were checked across different regions in İstanbul. Thus, three districts, Sultanbeyli, Sarıgazi and Ümraniye were selected as the study regions because these districts were also marked as having low income and educational level, migration and overpopulation, excessive number of students in schools, high rates of unemployment, inadequate health facilities, and low levels of life quality in terms of happiness and hope measures in different statistical examinations (Şeker, 2011; TÜİK, 2013). A total number of 795 volunteer 9th, 10th and 11th grade students in five selected schools from these regions participated in the study. The data were collected during the spring semester of 2015-2016 academic year. After data cleaning procedure, 53 cases who had incomplete measures and those who had patterned fillings were eliminated from the study. Thus, the total of 752 students (426 female, 326 male) formed the sample of the study. The age range of the students changed between 14-19 with the average age of 15.82 and standard deviation of .88.

Socio-demographic information related to students' family income, education level of mothers, fathers, number of children in family and current residential

status were also obtained from the participants. The frequencies regarding these variables are presented in Table 3.1.

Table 3.1. *The distribution of the sample with respect to socio-demographic status*

Variable	Groups	N	%
Income	500 TL and below	16	2.2
	501-1000 TL	19	2.6
	1001- 1500 TL	159	21.4
	1501-3000 TL	326	43.9
	3001-5000 TL	148	19.9
	5001 TL and above	47	6.3
Mother Education	Illiterate	43	5.8
	Elementary school	338	45.6
	Secondary school	180	24.3
	High school	136	18.3
	College and above	41	5.5
Father Education	Illiterate	9	1.2
	Elementary school	242	32.6
	Secondary school	199	26.8
	High school	195	26.3
	College and above	85	11.5
Number of children in the family	1	39	5.3
	2	243	32.7
	3	255	34.4
	4	131	17.7
	5 and above	74	10.0
Residence	With family	715	96.4
	Dormitary	17	2.3
	With relatives	4	.5
	With friends	4	.5

According to the latest statistics of the poverty rate in Turkey, the poverty threshold is 4.997 TL in a family with four members (TÜİK, 2016). Regarding the rate of income and the number of members in the family for the sample group in the study, it can be said that almost %95 of the participants fall below the poverty threshold based on these statistics. Stronks, van de Mheen, van den Boss

and Mackenbach (1997) identified that income is the highest predictor of the poor health outcomes associated with disadvantaged socio-economic status. As well as the low income indicator emerged in the sample group, the high percent of low education level of fathers (nearly % 33.8 illiterate or graduated from elementary school) and mothers (nearly % 50 illiterate or graduated from elementary school) also indicate a socio-economically distorted status for this groups as identified in the literature.

3.3. Data Collection Instruments

In this study, the demographic information form, 14-Item Resilience Scale (RS-14) (Wagnild, 2010; Terzi, 2006 for RS-25 Item), Mindful Attention and Awareness Scale-A (MAAS-A) (Brown, West, Loverich, & Biegel; 2011), Self-compassion Scale (SCS) (Neff, 2003b, Akın, Akın, & Abacı, 2007) and Difficulties In Emotion Regulation Scale (DERS) (Gratz & Roemer, 2004, Rugancı, 2008) were used as data collection instruments.

For the each instrument, reliability and validity studies were conducted. Checking the evidence for reliability, Cronbach Alpha coefficient was calculated for the each instrument. For testing construct validity of Resilience Scale, Mindful Attention and Awareness Scale-Adolescent, Self-compassion Scale and Difficulties In Emotion Regulation Scale, separate Confirmatory Factor Analyses were conducted.

3.3.1. Demographic form

In order to identify certain characteristics of the sample, a demographic information form was prepared consisting of questions related to the participants' class, age, gender, income, place of residence, family education and family structure (*see* Appendix C for the demographic form).

3.3.2. The 14-Item Resilience Scale (RS-14; Wagnild, 2010)

Resilience Scale (RS) is a 14-item self-report inventory assessing the degree of resilience among adolescents that was developed as an alternative to 25 item adult form (Wagnild & Young, 1993)**.** The adult RS-25 scale is a 7 point Likert type scale ranging from 1 (Strongly disagree) to 7 (Strongly agree) for each item. Higher scores indicate high levels of resilience tendencies. Validation study of this form for adult population was conducted with 810 adults through examining a principal component analysis with oblimin rotation for five factor solution. The result of factor analysis indicated one factor solution for the scale but due to evidence on the explained variance, a two factor solution was also proposed for the 25 item form. Evidence for concurrent validity of 25-item resilience measure showed that the scale is correlated with life satisfaction, depression and stress measures. Besides, the Cronbach alpha value of the scale was found .91 indicating a good internal consistency for the overall scale (Wagnild & Young, 1993).

The RS-14 resilience measure for adolescents aged between 14-18 has been derived from eliminating the items with low factor loadings (below .40) from the original 25 item form. The scale was administered to 690 middle aged and older adults. The results of the PCA using oblimin rotation supported one factor solution with high loadings of these items on one factor for RS-14 as similar to the factor structure of RS-25-item form. The RS-14-item form was also formed as 7 point Likert type ranging from 1 (Strongly disagree) to 7 (Strongly agree) with higher scores indicating higher levels of resilience. The scale doesn't have any reverse items. The highest score that can be gathered from the scale is 98 while the lowest score is 14. Cronbach's alpha coefficient for the overall RS-14 was reported as .93 (Wagnild, 2010).

Other than the original version, two studies of RS-14; one in Japanese sample (Nishi, Uehara, Kondo, & Matsuoka, 2010) and the other one in Brazilian sample (Damasio, Borca, & Silva, 2011), were also conducted for adaptation and validation of RS-14. In Japanese version, EFA with similar steps as in the original version was conducted and the results of this adaptation study supported one factor structure of RS-14 (Nishi et al., 2010). In other study for Brazilian version, exploratory and confirmatory factor analyses were conducted to test the best model for the factor structure of the scale. The results of EFA supported one factor solution for RS-14 with acceptable loadings (above .30). Furthermore, model fit indices emerged in CFA supported a 13-item single factor solution as

the best fit for RS-14 confirmatory model ($\chi 2/df$ =2.96, RMSEA=.06, CFI=.93; TLI=.91) (Damasio, Borsa, & Silva, 2011).

Turkish adaptation and validation study of the original 25-item adult form was conducted by Terzi (2006) with 155 undergraduates. A two-step principal components exploratory factor analysis was conducted to test the factor structure of RS-25. In the first round of PCA, two items (item 13 and item 26) that were explored to have high loadings in two factors were omitted. Then, a second exploratory factor analysis was conducted with the remaining 23 items. The results of second PCA yielded seven factors for RS-25 with acceptable factor loadings (above .30) and the reliability coefficient was calculated as .82 in this study. Moreover, the scale was also found to be significantly correlated with self-efficacy measure.

3.3.2.1. Reliability and Construct Validity of the 14-Item Resilience Scale for the Present Study

In the original development process, the RS 14-item adolescent form was developed and validated through excluding eleven items from the initial form of RS-25 adult form (Wagnild, 2010). The translation and adaptation study of RS-25 adult form was conducted by Terzi (2006). Under this study, the last form of RS-14 was generated by using the translated items from the 25- item adult form of the Turkish version by Terzi (2006) through making minor changes approved by Terzi in item 2 ("Hayatta başarmış olduklarımla gurur duyarım" in the 25-

item adult form was changed with "Hayatta birşeyleri başarmış olmaktan gurur duyarım." in the 14-item adolescent form) And item 5 ("Zaman içinde birçok şeyi yapabileceğimi düşünürüm" in the 25- item adult form was changed with "Birçok şeyi aynı anda yapabileceğimi düşünürüm." in the 14-item adolescent form). In addition, item 7 ("Daha önce de zorluklar yaşadığım için zor zamanların üstesinden gelebilirim.") was re-translated since it wasn't included in the translated version of 25-item adult form by Terzi (2006) (*see* Appendix H for the Turkish version of the scale)

For the current evidence of construct validity for RS-14, Confirmatory Factor Analysis was conducted for testing item-factor structure of the instrument. In order to test the acceptability of one factor solution of the scale emerged in the original study and in later adaptation studies, maximum likelihood estimation through AMOS 18 program (Byrne, 2001) was conducted with 752 adolescents. Model fit indices showed acceptable goodness of fit values for one factor structure of 14 items of the scale. The indices found for RS-14 and acceptable ranges are presented in Table 3.2.

Table 3.2. *Model fit indices from measurement models of RS-14*

Goodness of Fit Indexes	Measurement Model of RS-14	Criterion Ranges (Kline, 2011, Bentler, 1990; Tucker & Lewis, 1973, Browne & Cudeck, 1993, Brown, 2006; Jöreskog & Sörbom, 1993)
χ^2, df	334.9; 77	Non-significant
χ^2/df	4.4	χ^2/df < 3
CFI	.93	.90 < CFI or close to 1
TLI	.91	.90 < TLI or close to 1
RMSEA	.07	.05 < RMSEA < .08 or RMSEA < .05
GFI	.94	.90 < GFI

In the second part of CFA results, unstandardized and standardized parameter estimates were examined for one factor structure of RS14. Standardized errors, t values for each indicator and explained variance were presented in Table 3.3.

Table 3.3. *Unstandardized and standardized parameter estimates for RS-14*

Construct	Item	Unstandardized Factor Loadings	Standardized Factor Loadings	SE	T	R^2
Resilience	RS-14-1	1.22	.75	.09	17.18	.56
	RS-14-2	.84	.63	.11	17.69	.40
	RS-14-3	.63	.54	.10	18.48	.29
	RS-14-4	1.20	.66	.09	16.75	.43
	RS-14-5	1.11	.62	.11	18.44	.39
	RS-14-6	1.07	.58	.11	18.20	.34
	RS-14-7	.98	.57	.18	18.88	.33
	RS-14-8	.75	.38	.11	18.19	.15
	RS-14-9	.97	.57	.12	18.13	.33
	RS-14-10	.89	.52	.11	17.88	.27
	RS-14-11	1.30	.73	.11	17.61	.53
	RS-14-12	.82	.51	.09	18.37	.26
	RS-14-13	1.17	.65	.08	17.81	.42
	RS-14-14	1.22	.70	.07	16.54	.49

Note. All t values were significant, p < .001

As seen in Table 3.3, standardized factor loadings for one factor structure of RS-14 have values between .38 and .75 and all t values are significant for all of the

items. The amount variance explained by each item ranged from 15% to 56%. Based on all of these results emerged in CFA, it can be proposed that one factor structure for RS-14 was confirmed for the current study.

For checking evidence of internal consistency, Cronbach alpha level was also calculated and found .81 for the overall scale.

3.3.3. Mindful Attention Awareness Scale-Adolescent (MAAS-A)

Mindful Attention Awareness Scale-Adolescent (Brown, West, Loverich, and Biegel, 2011) version is a self-report 14-item inventory for assessing core characteristics of mindfulness in 14-18 aged clinical and non-clinical adolescents. The scale is in 6 point Likert type ranging from 1 to 6 for each item; higher scores indicating the presence of mindful awareness. There aren't any reverse items in this scale and the highest score that can be gathered from the scale is 84 while the lowest score is 14 in the instrument.

MAAS-A was developed as a single factor scale measuring a receptive state of attention, observation and awareness to the present and immediate experiences. In the development process and identification of psychometric properties of the scale, Brown, West, Loverich, and Biegel (2011) collected data from 595 adolescents aged between 14 and 18 within normative sample. Cronbach alpha for the scale was .82 while test-retest reliability was .79 for normative adolescent

sample. Exploratory Factor Analysis and Confirmatory Factor Analysis were utilized to identify the factor structure of the scale. In EFA procedure, maximum likelihood parameter estimation and principal factors methods were used to identify the factor structure of the scale. The results of these analyses supported one factor structure of the scale through the loadings ranging from .28 to .78. In one factor solution the item 6 (I forget a person's name almost as soon as I've been told it for the first time) had the lowest loading (.28) but Brown, West, Loverich, and Biegel (2011) defend that when analyzing a broadband construct like mindfulness such low loadings may occur so it is a more preferable way to keep this item for further analyses. In CFA, through the maximum likelihood estimation of a single factor structure, it was seen that a single factor structure of MAAS-A is supported through goodness of fit tests (χ^2 /df =189.57/90, GFI; .92, CFI: .91, RMSEA: .058). In this study, the scale also showed significant correlations with measures of psychological well-being and adaptive functioning (Brown, West, Loverich, & Biegel, 2011).

In a recent study, Bruin, Zijlstra, Bergsma and Bögels (2011) conducted the adaptation study of MAAS-A with 717 Dutch adolescents aged between 11 and 17. Using principal component analysis through Exploratory Factor Analysis, the study yielded a two factor solution for the scale but because of the fair difference between first (5.06) and second (1.03) eigenvalues of the components, one factor solution was mentioned as more appropriate than two factor structure for the scale. For one factor solution, item loadings ranged between .37 and .75

for the whole scale. The results of Confirmatory Factor Analysis also supported one factor structure of MAAS-A in this study (RMSEA=.035, 90% CI (.019, .050), comparative fit index=.991, parsimony normed fit index=.822.). Cronbach Alpha level for the scale has been found .80 indicating good reliability for the scale.

The 15 item version of Mindful Attention Awareness Scale developed for adult population (Ryan and Brown, 2003) has been adapted to Turkish by Özyeşil, Arslan, Kesici and Deniz (2011) in a study with university students. In 15-item form of the scale, there is one additional item ("I drive places on 'automatic pilot' and then wonder why I went there") to the 14-item form and the other remaining items are the same in both scales. Due to the inappropriateness of this additional item for adolescent population, the original authors eliminated this item when developing MAAS-A. In the translation and adaptation procedures by Özyeşil, Arslan, Kesici and Deniz (2011) 15 item mindfulness form was applied with university population. Cronbach alpha for the scale was computed as .80 while test-re-test correlation was found .86 in this adaptation study. To provide evidence of construct validity for the scale, Exploratory Factor Analysis was run with the data obtained from 289 university students and Confirmatory Factor Analysis was conducted with 284 university students. The results of EFA showed the five factor solution for the scale with the eigenvalues above 1 and these factors explained %58. 02 of the total variance of the scale. However, through the evidence from scree plots, the authors argued that because the first

sudden change occurs after the first factor, the scale can be accepted as a one-dimensional measure. The loadings for each item to one factor ranges between .48 and .81 that are acceptable ranges. The results of CFA also supported the model fit of a single factor with the values of χ^2=187.811 (sd=90, p<.01), (χ^2/sd)=2.086, RMSEA=.06, standardized RMS=,06, GFI=.93 and AGFI=.91 (Özyeşil, Arslan, Kesici, & Deniz, 2011).

3.3.3.1. Translation and Adaptation Procedure of Mindfulness Scale

Translation and adaptation studies of MAAS 15-item to Turkish population were already conducted with university students (Özyeşil, Arslan, Kesici, & Deniz, 2011). However, under this study, Turkish version of MAAS-A was reexamined to enhance the comprehensibility and clarity of items for adolescent population.

Permission to use Mindful Attention Awareness Scale-Adolescent version is given by the Brown, West, Loverich, and Biegel (2011) to be used in public domain for research or practical purposes (*see* Appendix E for the permission paper). Ensured by this permission, for translating the scale into Turkish, five experts were asked for their collaboration in the translation process and all of them accepted to be a part of this procedure. Two of the experts were from the English Language Teaching department (one of them having doctoral degree in the department and one of them is an instructor in ELT with a M.S. degree) and three of them who were fluent in English were faculty members from

Psychological Counseling department (two of them having PhD in counseling and one of them holding M.S degree from Clinical Psychology) of a university in İstanbul. After the translations, five different translated versions emerged for the scale. For deciding on the most appropriate translated version, two experts examined (a Professor in counseling and the researcher) the items in terms of clarity, comprehensibility and suitability of the translated statements for the adolescents. After the examination, the final version of the scale was piloted with high school students (n= 383) from two Anatolian High Schools in the second term of 2015-16. In the pilot study, feedback from the participants were taken for the clarity of directions and statements in the items. There was no feedback stating a problem for comprehensibility in any sections and items of the scale.

3.3.3.2. Pilot Study of Reliability and Validity of Turkish Version of Mindful Attention and Awareness Scale-Adolescent

Mindful Attention and Awareness Scale-Adolescent version was translated under this study by following the steps described above. A pilot study was conducted with 383 high school students from two different Anatolian High School (One of them was from Ümraniye and the other school was from Sultanbeyli district). The sample of the pilot study consists of 225 females and 157 males attending to 9th, 10th and 11th grades in these schools. One of the participants did not indicate gender. The age range of the students changed between 14-18 with the average age of 15.6 and standard deviation of .86. In

terms of the class level, the number of participants was 195 (50.9%) 9th graders, 106 (27.7%) 10th graders and 82 (21.4%) 11th graders.

In order to check for overall reliability of the scale, Cronbach alpha coefficient was calculated. Results indicated satisfactory evidence (.81) for internal consistency (Tabachnick & Fidell, 2006).

For testing the construct validity of the scale Confirmatory Factor Analysis was conducted. In CFA the researcher should have firm evidence on the number of factors and the relations of all items to their factor based on prior theory and research (Brown, 2006). Based on the fact that original theory and development process of the scale (Brown, West, Loverich, & Biegel, 2011) and later adaptation studies (Bruin, Zijlstra, Bergsma, & Bögels, 2011; Özyeşil, Arslan, Kesici, & Deniz, 2011) confirming one factor structure of MAAS-A, a confirmatory factor analysis was preferred to measure and test the fit of one factor structure for the scale.

Before conducting CFA for the scale, assumptions of CFA; accuracy of data entry, missing value and outlier analysis, adequate sample size, linearity, normality, and multicollinearity were examined (Brown, 2006). For checking the possible problems in data entry, descriptive statistics of frequency tables and mean values were examined for each item and all item entries were found accurate. Secondly, missing values were determined and the method of mean

substitution was used to deal with the missing data. Because the number of missing items were less than 5% of the total, replacing the missing cell with mean was preferred. Then, univariate outliers were checked by calculating standardized z cores for each case. Those cases with standardized scores in excess of ±3.29 are potential outliers. In the scale, no items were found to have a z score exceeding ±3.29 range. Multivariate outliers were also checked using Mahalanobis distance values through $\chi 2$ distributions. Problematic cases are accepted to have values above critical $\chi 2$ value. Critical $\chi 2$ value was determined by examining the table for critical $\chi 2$ values together with α value at .001 and was found as 29.141. No cases were found above this critical value $\chi 2$ (14) = 29.141, (p < .001) (Tabachnick & Fidell, 2006).

The next assumption of CFA is to include adequate sample size in the study. The decision over the adequate sample size is under the debate in confirmatory factor analysis. However, as a rule of thumb, it is recommended to include at least 200 cases for a study using CFA or 5 or 10 cases per parameters of the study (Kline, 2011). In the pilot study, there are 383 participants ensuring this assumption of CFA.

Linearity assumption was also checked through the examination of bivariate scatterplots over each individual item. If a two set of variables are linearly related, the scatterplot is oval-shaped so this assumption was also ensured because all the relations were linear in the plots (Tabachnick & Fidell, 2006).

For analyzing univariate normality, Skewness and Kurtosis values were calculated and the range was found -1.04 and 0.92 for Skewness and -1.19 and 0.38 for Kurtosis. Stevens (2002) recommended that Skewness and Kurtosis values between ± 3 are acceptable ranges for normality assumption. Thus, normality of the items was ensured through the values found in this study.

And lastly, multicollinearity was addressed by checking the correlation between the items in correlation matrix. Tabachnick and Fidell (2006), mentioned that correlation coefficient higher than .90 indicate multicollinearity problem for the variables. Multicollinearity was addressed by checking the correlation between 14 items in correlation matrix. In the correlation matrix, the range of correlation was .01 and .47 with no correlation coefficient above .90 between items. This indication showed that there was no any problem of multicollinearity among the items of the measure.

After checking and providing evidence for the assumptions, Confirmatory Factor Analysis was conducted for testing item-factor structure of MAAS-A. Because of the satisfactory evidence for assumptions and especially for normality, Maximum likelihood estimation was conducted through AMOS 18 (Byrne, 2001) statistical program. The model tested was one factor model with fourteen items derived from the theoretical ground for MAAS-A. In the first part, model fit was tested through a number of indices emerged after the CFA processes in maximum likelihood estimation. For checking goodness of fit of the scale, model

chi-square value, normed chi square value, comparative fit indexes of CFI and Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA) and goodness of fit index (GFI) were used as the criterion indices.

The results of the ML method of CFA for one factor solution yielded a significant model chi-square value (χ^2= 214.5, df=77) that indicates a poor fit of the model. However, due to sample size sensitivity of this model fit indication, normed chi square value was calculated by dividing the value by degrees of freedom. The normed chi square value was found 2.79 a value that falls below the cut-off value of 3 indicating a good fit (Kline, 2011). Comparative fit indexes of CFI and TLI was found .87 and .85 respectively. These values don't meet the criterion cut-off point of .90 for indicating a good fit (Bentler, 1990; Tucker & Lewis, 1973) Besides, RMSEA value was found .07 that is in acceptable ranges of .05-.08 for a good fit of the model (Browne & Cudeck, 1993). Lastly, GIF value was found .92 that is also indicating an acceptable goodness of fit. These modification index values shows that normed chi-square value, RMSEA and GFI values meet the criteria for a model fit but CFI and TLI values indicates that some adjustments could be taken to improve the model fit of the scale.

According to Brown (2006), there are three sources for poor fit of the models tested in CFA: number of factors, indicators and factor loadings and correlated errors. Firstly, measurement error can be the result of improper number of factors in CFA. However, a strong testimony from the theory and the results of EFA

from previous studies of MAAS-A, it can be proposed that one factor structure of the scale has firm conceptual and empirical evidence in the literature (Brown, West, Loverich, and Biegel, 2011). Next, another source of a poor fit conclusion for a scale in CFA may be the inaccurate design of the relationship between indicators and latent factors. MAAS-A was designed as a one-factor structure scale on mindfulness and in both development and adaptation studies this structure was confirmed by factor loadings of the items to this structure (Brown, West, Loverich, & Biegel, 2011, Bruin, Zijlstra, Bergsma, & Bögels, 2011; Özyeşil, Arslan, Kesici, & Deniz, 2011). This is also the case for this study because standardized estimates for the item loadings emerged in CFA (ranging from 26 to .67) confirm the one-factor structure solution as in previous studies for MAAS-A.

The last source of poor fit for the presented model in CFA is the inappropriate relationships between error variance of indicators. A high correlation between the error variance among indicators imply that there is an unexplained variance in the indicator variable in addition to the variance explained through the latent factor. In other words, there is a shared variance of latent factor and an outside cause for this indicator variable (Brown, 2006). For checking this error source, modification indices were checked for the items of MAAS-A and two of the covariances between errors were found significantly correlated with each other. These correlations were found between item 7 and item 10 (maximum modification index = 25.31, expected parameter change = .37) and also item 12

and item 13 (maximum modification index = 15.75, expected parameter change = .37). According to Brown (2006), high relations among error variance for the items may result from similar wording, reverse-wording or social-desirability for these items. When these items were checked based on these assumptions, it was seen that item 7 (Sanki, yaptığım şeyleri çok farkında olmadan "otomatiğe bağlamış" gibi yapıyorum.) and item 10 (İşleri ve görevleri ne yaptığımın farkında olmadan otomatik bir şekilde yaparım) have identical words (e.g. 'otomatik', 'farkında olmadan) and also carry similar meanings for indicating automatic pilot of awareness (Brown, West, Loverich, & Biegel, 2011). Similarly, in item 12 (Kendimi sürekli gelecek ya da geçmişi düşünürken bulurum) and in item 13 (Kendimi dikkatimi vermeden birşeyler yaparken bulurum), a similar sentence structure was used that may facilitate the responder tendency to rate these items in the same manner. So, based on these premises, for improving the model fit for MAAS-A, CFA was re-conducted by letting the errors between item 7 – item 10 and item 12- item 13 to correlate with each other (Brown, 2006). Freeing the correlation between residuals of these items resulted in a better model fit indices indicating a better model solution for one factor model structure over fourteen items of MAAS-A ($\chi2$ = 162.5, df = 75, $\chi2$ / df = 2.17; GFI = 0.94, CFI = 0.92; TLI = .90; RMSEA = 0.06).

After examination and adjustment of error residuals between items, unstandardized and standardized parameter estimates were checked.

Standardized errors, t values for each indicator and explained variance were presented in Table 3.4.

Table 3.4. *Unstandardized and standardized parameter estimates for Turkish MAAS-A*

Construct	Item	Unstandardized Factor Loadings	Standardized Factor Loadings	SE	T	R^2
Mindfulness	MAAS-A1	.52	.35	.14	13.40	.12
	MAAS-A2	.91	.55	.15	12.46	.31
	MAAS-A3	.98	.60	.14	12.10	.36
	MAAS-A4	.63	.38	.18	13.33	.14
	MAAS-A5	.59	.40	.14	13.25	.16
	MAAS-A6	.52	.36	.14	13.37	.13
	MAAS-A7	.88	.58	.13	12.15	.34
	MAAS-A8	.77	.56	.10	12.44	.32
	MAAS-A9	.38	.26	.15	13.60	.07
	MAAS-A10	.88	.61	.11	11.90	.38
	MAAS-A11	.72	.45	.16	13.06	.20
	MAAS-A12	.62	.43	.13	13.05	.18
	MAAS-A13	1.09	.67	.13	11.35	.45
	MAAS-A14	.98	.57	.17	12.48	.31

Note. All t values were significant, $p < .001$.

Standardized factor loadings range between .26 and .67 for the items indicating the loading of each item to the factor of mindfulness. As a rule of thumb, .30 is accepted as the cut-off point for an item to load on a factor but for CFA this criterion can be accepted as a liberal decision because of using scale composite items as indicators in especially construct validation studies. So, the variance explained by each item through R^2 values and significance of t values for individual items should be examined (Brown, 2006). The variance explained by each item ranges from 7 % to 45% and all t values for items were found significant. Thus, it can be advocated that, these indications and also model fit

indices after adjustment procedures mentioned above support one factor structure of MAAS-A for Turkish adolescents.

3.3.4. Self-Compassion Scale (SCS)

Self-Compassion Scale (Neff, 2003a) consists of 26 items measuring compassion in six different dimension; self-kindness, self-judgment, common humanity, isolation, mindfulness and over-identification. The scale is a 5 point Likert type ranging from 1 (almost never) indicating strong disagreement and 5 (almost always) indicating strong agreement. For calculating an overall self-compassion score, the subscales of self-judgment, isolation and over-identification items are reverse coded and then total subscale scores are added to each other. Higher scores from the scale indicate higher levels of self-compassion for the individual. Maximum score that can be gathered from the scale is 130 while minimum score is 26.

In the original development process of the scale, 391 undergraduate students with a mean age of 20.91 were included as the sample of the study. Exploratory and Confirmatory factor analyses (first and second order) were conducted to decide on the factor structure of 71 items generated initially. After omitting the loadings below .40 and converging the items with high cross-loadings, the results of EFA yielded a six factor structure for the scale with the following number of items: self-kindness (5 items), self-judgment (5 items), common humanity (4

items), isolation (4 items), mindfulness (4 items) and over-identification (4 items). The results of CFA also supported a good model fit for the six item structure of SCS (NNFI= .90; CFI= .91). The standardized loadings for the items range between .57 and .80 for 26 item scale. Besides, internal consistency levels (Cronbach alpha) for the overall scale was .93 and the scale showed good convergent validity with positive mental health outcomes like high life satisfaction, low levels of depression and anxiety (Neff, 2003b).

Turkish adaptation of the scale was conducted by Akın, Akın and Abacı (2007) with 633 university students (*see* Appendix F for the Turkish version of the scale). After the translation procedure, exploratory and confirmatory factor analyses for the Turkish version were conducted respectively. The results of EFA yielded the same structure for the sub-scales as in the original scale development with following factor loading ranges: self-kindness (.52-.84), self-judgment (.43-.82), common humanity (.58-.78), isolation (.62-.77), mindfulness (.57-.82) and over-identification (.57-.82). The results of CFA for the six factor structure of SCS also supported six factor solution through model fit indices (RMSEA= .056, NFI= .95, CFI= .97, IFI= .97, RFI= .94, GFI= .91; SRMR= .059). For measuring internal consistency level of the scale, Cronbach alpha levels for the subscales were calculated and found .77 for self-kindness, .72 for self-judgment, .72 for common humanity, .80 for isolation, .74 for mindfulness and .74 for over-identification subscales.

3.3.4.1. Reliability and Construct Validity of Self Compassion Scale for the Present Study

A confirmatory factor analysis with maximum likelihood estimation with 752 adolescents was conducted to confirm six factor structure model of SCS. Model fit indices for the goodness of fit of measurement for SCS and acceptable ranges are presented in Table 3.5.

Table 3.5. *Model fit indices from measurement models of SCS*

Goodness of Fit Indexes	Measurement Model of SCS	Criterion Ranges (Kline, 2011, Bentler, 1990; Tucker & Lewis, 1973, Browne & Cudeck, 1993, Brown, 2006; Jöreskog & Sörbom, 1993)
$\chi 2$, df	920.5; 284	Non-significant
$\chi 2$/df	3.2	$\chi^2/df < 3$
CFI	.89	.90 < CFI or close to 1
TLI	.88	.90 < TLI or close to 1
RMSEA	.05	.05 < RMSEA < .08 or RMSEA < .05
GFI	.91	.90 < GFI

Modification indices of RMSEA (.05) and GFI (.91) values meet the criteria for the model fit but normed chi-square value, CFI (.89) and TLI (.88) values suggests that the items of SCS should be checked for necessary adjustments to improve the goodness of fit of the scale. As mentioned previously, for improvement of CFA models three sources of poor fit: number of factors, indicators and factor loadings and highly correlated errors should be checked (Brown, 2006). Items in each factor were examined against their loadings on this latent factor or possible loadings on another factor. Standardized estimates for

factor loadings of items (ranging from .38 to .77) under each latent factor were checked and the six-factor structure of SCS with 26 items were supported based on these estimates. Then, the correlation between error variances for the items was examined. Through checking modification indices for six-factor structure, it was seen that there is a very high correlation between the error variance of item 19 and item 25 (maximum modification index = 92.11, expected parameter change = .44). For checking the source of this shared correlation between these items the semantic structure of the items and the latent factor undermining these items were explored. Both of these items are negatively stated items in isolation sub-scale. A closer look to the semantic structure of the statements reveals that item 19 ("Kendimi üzgün hissettiğimde, diğer insanların çoğunun belki de benden daha mutlu olduklarını düşünürüm.'') and item 25 ("Zor durumlarla mücadele ettiğimde, diğer insanların daha rahat bir durumda olduklarını düşünürüm.'') share very similar meanings, words and sentence structures. Thus, as mentioned by Brown (2006), having items with similar words or meanings in a scale may be the reason for the high correlation between the errors of items. So, for improving the model, letting the error variance for these items to correlate and then re-conducting CFA for testing the structure of the scale is offered as a good solution for this problem.

After freeing the error correlation between item 19 and item 25, through covariation these items, CFA was conducted again on the six-factor structure of 26 items of SCS. The model fit indices increased to better levels as providing

evidence over the confirmation of six factor structure of SCS as a result of this

adjustment ($\chi2$ = 808.7, df = 283, $\chi2$ / df = 2.86; GFI = 0.92, CFI = 0.91; TLI = .90; RMSEA = 0.05).

In the next step, unstandardized and standardized parameter estimates were also checked for six factor structure over SCS. Standardized errors, t values for each indicator and explained variance were presented in Table 3.6.

Table 3.6. *Unstandardized and standardized parameter estimates for SCS*

Construct	Item	Unstandardized Factor Loadings	Standardized Factor Loadings	SE	T	R^2
Self-kindness	SCS2	.57	.46	.07	18.36	.21
	SCS6	.72	.54	.07	17.87	.29
	SCS13	.80	.63	.06	16.92	.40
	SCS17	.78	.62	.06	17.06	.39
	SCS21	.91	.68	.06	16.18	.46
Self-judgment	SCS4	.70	.52	.07	17.92	.27
	SCS7	.85	.65	.06	16.58	.42
	SCS15	.80	.62	.06	16.92	.39
	SCS20	.81	.62	.06	16.96	.39
	SCS26	1.00	.72	.06	15.35	.51
Common humanity	SCS1	.46	.38	.07	18.41	.14
	SCS8	.62	.47	.08	17.83	.22
	SCS12	.76	.59	.07	16.50	.34
	SCS22	.98	.77	.06	11.04	.60
Isolation	SCS5	.76	.56	.07	17.04	.32
	SCS11	.97	.71	.07	13.76	.51
	SCS19	.74	.54	.07	17.22	.29
	SCS25	.68	.52	.07	17.44	.27
Mindfulness	SCS9	.76	.59	.06	17.39	.35
	SCS14	.70	.59	.05	17.45	.34
	SCS18	.88	.72	.05	15.38	.51
	SCS23	.74	.64	.05	16.89	.40

Note. All t values were significant, p < .001.

Table 3.6. (cont'd) *Unstandardized and standardized parameter estimates for SCS*

Over-	SCS3	.71	.52	.08	17.77	.27
identification	SCS10	.78	.56	.08	17.42	.31
	SCS16	.72	.52	.08	17.79	.27
	SCS24	.98	.71	.07	14.69	.50

Note. All t values were significant, p < .001.

Standardized factor loadings range between .38 and .77 and all t values are significant for the items. The variance explained by each item ranges from 14% to 60%. Thus, these indications and also model fit indices support the theory based six factor structure SCS for Turkish adolescents.

Internal consistency indicator of Cronbach alpha was also calculated and found .89 for the overall scale.

3.3.5 Difficulties in Emotion Regulation Scale (DERS)

Difficulties in Emotion Regulation Scale is a 36-item self-report measure assessing difficulties in emotion regulation. DERS is in 5 point Likert type ranging from 1 (Almost never) to 5 (Almost always); higher scores indicating greater emotional dysregulation. The original development and validation process of the scale was conducted with 357 undergraduate students. Based on the emotion regulation literature, the scale initially consisted of 41 items. Through the principal axis factoring with oblique rotation, exploratory factor analysis was conducted. Factor loadings below .40 was omitted from the scale

with 41 items and hence 5 items were excluded based on this criteria. The results of EFA for 36 items yielded a six factor structure for DERS and these items were named as; non-acceptance of emotional responses (6 items), difficulties engaging in goal-directed behavior (5 items), impulse control difficulties (6 items), lack of emotional awareness (6 items), limited access to emotion regulation strategies (8 items), and lack of emotional clarity (5 items). For calculating overall score of DERS six items (item 2, item 6, item 8, item 10, item 17, item 34) in lack of emotional awareness scale, two items (item 1 and item 7) in lack of emotional clarity, one item (item 20) in difficulties engaging in goal-directed behavior, one item (item 22) in limited access to emotion regulation strategies and one item (item 24) in impulse control difficulties are reverse coded and the scores are summed. Maximum score gathered from the scale is 180 while minimum score that can be gathered is 36 for the scale.

Item total correlations of the scale ranged from .16 to .69 for the items. For testing evidence of construct validity of DERS, a number of clinical measurements were also used. DERS was found to be significantly and expectedly correlated to a common measure for emotion regulation, self-harm, interest and intimate partner abuse measurements. Cronbach's alpha coefficient for overall DERS was .93 and for the subscales this value was calculated between .80 and .89 in the original sample. Besides, test-re-test reliability of DERS was .88 in 4-8 week intervals.

Turkish adaptation of the scale was conducted by Rugancı (2008) to examine the factor structure and reliability indicators of DERS (*see* Appendix G for the Turkish version of the scale). Exploratory factor analysis through principle axis factoring method with promax oblique rotation was conducted to test the factor construct of the scale. Through taking .30 criterion for factor loadings into account, the results of EFA yielded a seven factor structure for DERS but due to the evidence in scree plot, the original 6 sub-scale structure (non-acceptance of emotional responses, difficulties engaging in goal-directed behavior, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies and lack of emotional clarity) was proposed by the author. The similar factor loading structure as in the original version emerged in this study but only one problematic item (item 10) was excluded from the reliability analysis due to its low loading (.06) and reliability coefficient. The Cronbach alpha level for the overall scale, by excluding item 10, was found .94 and for the subscales, these values were showed up as .82 for clarity, .90 for goal, .90 for impulse, .83 for non-acceptance, .89 for strategy and .75 for awareness.

3.3.5.1. Reliability and Construct Validity of Difficulties in Emotion Regulation Scale for the Present Study

For testing the six factor structure of DERS, a confirmatory factor analysis with maximum likelihood estimation with 752 adolescents was conducted. The model fit indices found for DERS and acceptable ranges are presented in Table 3.7.

Table 3.7. *Model fit indices from measurement models of DERS*

Goodness of Fit Indexes	Measurement Model of DERS	Criterion Ranges (Kline, 2011, Bentler, 1990; Tucker & Lewis, 1973, Browne & Cudeck, 1993, Brown, 2006; Jöreskog & Sörbom, 1993)
$\chi 2$, df	2080.1; 579	Non-significant
$\chi 2$/df	3.5	$\chi^2/df < 3$
CFI	.88	.90 < CFI or close to 1
TLI	.87	.90 < TLI or close to 1
RMSEA	.06	.05 < RMSEA < .08 or RMSEA < .05
GFI	.85	.90 < GFI

As seen in the Table 3.7. only one model fit value, RMSEA (.06), indicates the acceptable fit for the scale structure of DERS. Although, other indices of normed chi-square value (3.5), CFI (.88), TLI (.87) and GFI (.85) are also close to the cut-off criterion, the model was checked for any revisions that could be made to improve the goodness of the six-factor structure for the scale. In this direction, standardized estimates for each variable (ranging from .22 to .83) under the latent factor it belongs were checked. Then, correlations between the items were also checked in the correlation matrix for the items. Both factor loadings and correlation matrix indicate satisfactory evidence for the item-factor structure of the scale. In the last step, the correlations between error variances of each item were examined. As mentioned earlier, high correlations between error variances of items is a cause of poor fit of a model in CFA (Brown, 2006). Examination of modification indices showed that there are slightly high correlations in residuals among three sets of items in the scale. These high correlations emerged between item 5 and item 9 (maximum modification index = 80.01, expected parameter change = .36); item 12 and item 21 (maximum modification index = 102.96,

expected parameter change = .26) and between item 22 and item 24 (maximum

modification index = 157.86, expected parameter change = .57). These items

were checked in terms of the semantic structure of the statements and the

relations of these items to the latent factor it belongs. Examination of semantic

structure of the statements shows that item 5 ("Duygularıma bir anlam vermekte

zorlanırım.'') and item 9 ("Ne hissettiğim konusunda karmaşa yaşarım.'') have

very identical meanings and connotations indicating the complexity of emotions

in clarity subscale. A similar situation also exists for item 12 ("Kendimi kötü

hissettiğimde, böyle hissettiğim için utanırım.") and item 21 ("Kendimi kötü

hissettiğimde, bu duygumdan dolayı kendimden utanırım.") that have same

words (e.g. "kendimi kötü hissetiğimde", "utanırım") and also similar meanings

in non-acceptance subscale. Lastly, item 22 in strategies subscale ("Kendimi

kötü hissettiğimde, eninde sonunda kendimi daha iyi hissetmenin bir yolunu

bulacağımı bilirim.") and item 24 in impulse subscale ("Kendimi kötü

hissettiğimde, davranışlarımı kontrol altında tutabileceğimi hissederim") were

found to share similar word structures (e.g. kendimi kötü hissettiğimde) as well

as these items are the sequential positive statements in the scale in which there

are only a few positively stated items. Thus, assuming that similar words or

meanings of the items in a scale (Brown, 2006) and responder tendency to rate

items based on the previous items as in the case between item-21 and item-24

(Green & Hershberger, 2000) may be the sources for the poor fit, error variance

between all of these item sets were let to correlate in the model. Then, CFA was

conducted again through covariation of these three sets of items (Brown, 2006).

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Freeing the error correlation between item 5 - item 9, item 12 - item 21 and item

22 -item 24 increased the model fit values to the acceptable levels indicating a

good fit for six factor structure of DERS ($\chi2$ = 1696.5, df = 579, $\chi2$ / df = 2.95;

GFI = 0.88, CFI = 0.91; TLI = .90; RMSEA = 0.05).

Then, unstandardized and standardized parameter estimates were also checked

for six factor structure of DERS. Standardized errors, t values for each indicator

and explained variance were presented in Table 3.8.

Table 3.8. *Unstandardized and standardized parameter estimates for DERS*

Construct	Item	Unstandardized Factor Loadings	Standardized Factor Loadings	SE	T	R^2
Non-acceptance	DERS11	.71	.58	.06	17.54	.34
	DERS12	.73	.64	.04	16.77	.42
	DERS21	.72	.65	.04	16.67	.43
	DERS23	.82	.61	.06	17.24	.38
	DERS25	.85	.75	.04	15.01	.56
	DERS29	.87	.77	.05	14.32	.60
Goals	DERS13	.89	.71	.05	17.02	.50
	DERS18	1.01	.81	.04	15.00	.65
	DERS20	-.70	-.55	.06	-18.26	.31
	DERS26	1.05	.83	.04	14.23	.69
	DERS33	1.01	.80	.04	15.12	.65
Impulse	DERS3	.72	.58	.06	18.29	.34
	DERS14	1.05	.78	.04	16.26	.61
	DERS19	1.12	.82	.04	15.37	.67
	DERS24	-.70	-.55	.06	-18.45	.30
	DERS27	1.07	.81	.04	15.66	.66
	DERS32	1.10	.83	.04	14.95	.70
Awareness	DERS2	.73	.73	.03	13.83	.54
	DERS6	.82	.74	.04	13.64	.55
	DERS8	.77	.71	.04	14.55	.51
	DERS10	.24	.22	.06	19.03	.05
	DERS17	.45	.38	.07	18.51	.14
	DERS34	.38	.32	.07	18.75	.10

Note. All t values were significant, p < .001.

Table 3.8.(cont'd) *Unstandardized and standardized parameter estimates for DERS*

Strategies	DERS15	1.02	.74	.05	16.88	.55
	DERS16	1.12	.62	.11	18.01	.39
	DERS22	-.60	-.47	.07	-18.70	.22
	DERS28	.93	.70	.05	17.42	.48
	DERS30	.79	.64	.05	17.87	.42
	DERS31	.87	.68	.05	17.57	.46
	DERS35	.90	.72	.04	17.09	.53
	DERS36	1.01	.74	.05	16.86	.55
Clarity	DERS1	-.85	-.75	.04	-15.84	.56
	DERS4	-1.01	-.84	.03	-12.56	.71
	DERS5	.56	.46	.06	18.48	.22
	DERS7	-1.01	-.83	.04	-13.00	.69
	DERS9	.77	.61	.06	17.67	.37

Note. All t values were significant, p < .001.

Standardized factor loadings range between .22 and -.84 and all t values are significant for the items. The variance explained by each item ranges from 5% to 71%. It should be noted that, negatively loaded items in each factor are positively stated items while remaining items were formed through negative statements of emotion regulation skills.

Taking the standardized factor loadings, explained variance by each item and also model fit indices into account, it can be proposed that theory based six factor structure of DERS for Turkish adolescent is supported in this study. In addition, Cronbach alpha level for internal consistency of the scale was also calculated and this value was found .84 for the overall scale.

3.4. Data Collection Procedure

Before data collection procedure of the study, permission letters from Human Subjects Ethics Committee of Middle East Technical University (*see* Appendix A for the approval letter) and Istanbul Provincial Directorate of National Education (*see* Appendix B for the permission letter) were taken. Then, the researcher contacted to school principals and psychological counselors of five schools and inform them about the purpose and procedure of data collection of the study. The availability of teachers and classrooms were checked and appropriate data collections times were determined for each school in a way that the researcher can attend classes to administer of the scales. Before the administration of the scales, the school counselor of each school distributed the parent consent form to students to be filled by their parents and returned to the researcher in the administration day (*see* Appendix I for the parent consent form).

In each school, the researcher conducted the administration process of the scales during the class hours. Initially, the students were informed about the researcher, purpose of the study and what is expected from them when filling the instruments. A voluntary participation form was also obtained from the students (see Appendix J for the voluntary participation form). Students were requested not to write their names, IDs or any other personal information on the survey package provided to them to guarantee confidentiality of the provided

information. Then, a package of instruments were distributed in the following order: Mindful Attention and Awareness Scale for Adolescents, Self-Compassion Scale, Difficulties in Emotion Regulation Scale and 14-item Resilience Scale. The approximate time to complete the instruments nearly took 35 minutes.

Following all of the same steps prior to data collection process, the main data for the study (n =752) was collected in May, 2016 from three Anatolian High Schools.

3.5. Data Analyses

After completing the data collection process, initially, data cleaning and data screening procedures for the accuracy of data entry, missing values, outlier analysis and normality were examined (Tabachnick & Fidell, 2006). Both data cleaning, screening procedures were examined through SPSS 20 statistical package program (IBM, 2011). The same package program was also used for descriptive statistics and correlation analysis. Then, in order to test the model fit indices and path coefficients of the proposed model for the relationship between mindfulness and resilience as mediated by self-compassion, and difficulties in emotion regulation, path analysis through AMOS 18 (Byrne, 2001) software was used. Lastly, Mplus software program (Muthen and Muthen, 1998-2010) was utilized for specifying the significance level of the indirect path from

mindfulness to resilience through the multiple paths of the mediators of self-compassion and difficulties in emotion regulation.

3.5.1. Path Analysis

In this study, path analysis model was used instead of regression models because path models allow researchers to examine complex relationships among a set of observed variables by using correlation coefficients and regression analysis. Path analysis solves a set of regression equations simultaneously to establish indirect and direct theoretical relationships between observed variables proposed in the path model (Keith, 2015). Path analysis is accepted as one of the simple forms of structural equation modeling in which causal assumptions between the observed variables can be explained by making use of simultaneous and sequential regression processes through a diagram for the variables specified. In this regard, due to conducting the analysis through observed variables rather than the latent constructs and also using a composite total score in the scales rather than using the subscales in the study, path analysis was preferred over structural equation modeling in the study (Kline, 2011).

In *path analysis model*, a diagram is created to identify the relations in the proposed model. In this diagram, single-headed, double-headed or curve shaped arrows are drawn to specify hypothesized theoretical relations between constructs. A single-headed arrow is drawn from causal factor to the effect in the

model representing presumed influences. A double headed or curved arrow are used when illustrating the relations or covariances between variables without assuming a causal relationship between these variables (Keith, 2015).

In a proposed path model, variables are classified as exogenous variables, endogenous variables and moderators. *Exogenous variables*, also known as independent variables, are called presumed causal factors with no paths pointing them. *Endogenous variables,* also known as dependent variables, are defined as the presumed effects in the model described through the paths drawn towards them. *Moderators* are defined as the process or intervening endogenous variables involved in the interaction effect of exogenous variables with endogenous variables (Kline, 2011).
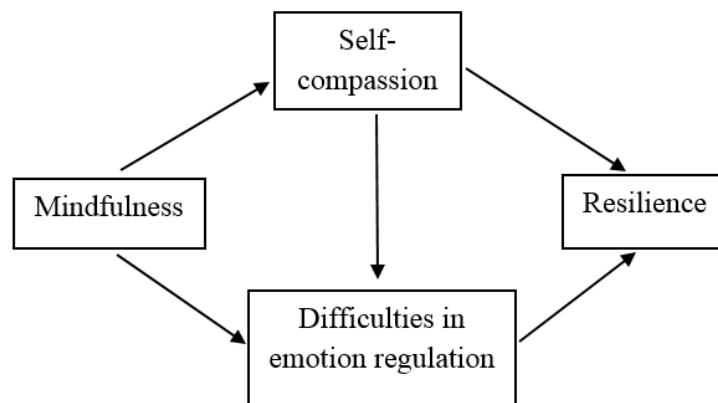
Figure 3.1. Proposed Path Model of Resilience

The proposed path model of the study is presented in Figure 3.1. In this study, mindfulness constitutes the exogenous variable; self-compassion and difficulties

in emotion regulation are mediator variables and resilience constitutes endogenous variables in the model. In addition, self-compassion and difficulties in emotion regulation were proposed as mediators between mindfulness and resilience in the theoretical model. In other words, the relations between mindfulness and resilience was assumed to be mediated and hence strengthened through the individual attributes of self-compassion and difficulties of emotion regulation.

Conducting path analysis with a proposed model yields some values to test the strength and goodness of the model. *Path coefficient/path weight* is one of these values that indicate the direct effect of an exogenous variable on an endogenous variable by calculating a standardized regression coefficient in the path. Path coefficient measures the variance explained by each indicator by controlling for other prior variables and assumed to be significant for confirming the strength of a hypothesized path (Schumacker & Lomax, 2004).

Model fit indices are also values calculated in path analysis for indicating goodness of fit of the proposed model. Model fit values propose the appropriateness of sample variance- covariance to data in the model. The model fit values emerged are evaluated in terms of the criterion cut-off values set in the literature (Schumacker & Lomax, 2004).

The chi-square test model of fit ($\chi2$) assumes that variance-covariance values for observed and estimated values differ. A statistical significant chi-square value proposes that the difference between these observed and estimated parameters comes from the sampling variation and a non-significant value indicates that the model produces significant variance-covariance relationship in the matrix. Thus, for a good model fit, a non-significant chi-square value based on the degrees of freedom should be obtained in a model (Schumacker & Lomax, 2004). However, because the chi-square criterion of model fit can be erroneous with large sample size (generally above 200), a normed chi square value is calculated by dividing chi-square by the degrees of freedom as a more appropriate approach to decide on the model fit in large samples. The normed chi-square value should be lower than three for a good fit (Kline, 2011).

Goodness of fit index (GFI) is another index for deciding on a model fit for the proposed model. GFI indicates the amount of variance and covariance in sample as assumed by the reproduced matrix. Similarly, adjusted goodness of fit index (AGFI) is the adjustment of degrees of freedom in a relative model by the variables included in the model (Schumacker & Lomax, 2004). Ideally, GFI and AGFI values (ranging between 0-1.00) approaching 1.0 indicate acceptable fit for the model (Byrne, 2011).

Root mean square residual index (RMR) is another indicator for the goodness of fit in path analysis. RMR runs comparisons over the model fit of two different

models within the same data set. A value of RMR less than .05 is indicative of a model fit (Schumacker & Lomax, 2004). Another similarly categorized model fit index is root mean square error of approximation (RMSEA) that measures the approximate fit for a model by estimating a penalty for poor fit in a proposed theoretical model. RMSEA values below or equal to .05 are accepted as perfect fit indicator and also values between .05 and .08 are acceptable ranges for the goodness of fit decision (Browne & Cudeck, 1993).

The comparative fit indexes (CFI) and also Tucker–Lewis index (TLI) are other model fit indices comparing the established model with the null model. CFI estimation is based on the improvement of population fit over the null model while TLI assumes a slight correction for parsimony of the model as independent from the sample size. Both CFI and TLI have values between 0 and 1.00 and in both indexes values above .90 indicate a good model while values above .90 can be accepted as appropriate for a model fit assumption (Bentler, 1990).

Along with the standardized direct estimates and model fit indices examined through AMOS 18 program (Byrne, 2001), the significance levels of direct and total effects of each variable as well as the specific indirect effects between the hypothesized relations in the path model can be examined through bootstrapping extension that is a resampling method of data in AMOS 18 program (Arbuckle, 2009).

3.6. Limitations

There are some limitations and constraints when referring to the results and contributions of this study. Firstly, this study relies on the administration of self-report instruments to the participants in the classroom settings. The accuracy and fairness of the information provided by the participants can't be controlled in these kinds of self-report measures. So, it is one of the limitations of the study to be only able to assume that genuine and reliable responses are obtained from the participants rather than confirming or proving this assumption.

Another limitation is related to the sample and sample selection. The data for this study was collected through convenient sampling procedures in three different Anatolian high schools in socio-economically disadvantaged Sultanbeyli Sancaktepe and Umraniye districts in Istanbul. Although the sample was chosen in line with the purpose of the study, randomization when selecting the sample wasn't used. Besides, the participants of the study were 9th, 10th and 11th grade high school students from socio-economically disadvantageous districts who may serve as homogenous groups demographically so application of the same process with different groups may create different results due to the sample selection procedures mentioned above and specific characteristics of this homogenous sample group. Moreover, 12th graders were not included in the study sample because the application dates for data collection were very close to the national university entrance exam and and attendance rate of 12th graders to

school were very low. Thus, generalizability of the findings for this study is limited to the adolescents with similar characteristics, demographic backgrounds and class level.

Another limitation of the study was related to the low standardized factor loadings emerged in the scales used in the study. In MAAS-A, item 9 was found to have a low standardized factor loading of .26 in CFA conducted for the scale. Regarding MAAS-A, West, Loverich, and Biegel (2011) indicate that because mindfulness is a broadband construct, such possible low loadings may occur in the measure. Thus, it is a more preferable way to keep this item for further analyses. A similar situation also emerged for DERS in that item 10 was found to have a low factor loading of .22 as a similar finding emerged in the Turkish adaptation study (Rugancı, 2008). In this study, these items weren't eliminated from further analyses due to the assumption of measuring such broadband constructs may yield low factor loadings but researchers should be careful and critical with the fit and reliability of these items when using these scales in their study.

One of the limitations of the study could also be the variables proposed to predict resilience in adolescent population. In this study, a number of individual level variables were selected for proposing and estimating a model for resilience. Although the model significantly explains % 21 of the total variance on resilience, there is still an unexplained 79% variance. Thus, researchers should

be cautious with the results of the present research when studying the same or similar set of variables in resilience models. Besides, theoretical framework or logical inferences should be made with caution when deciding and working on other levels of variables (family, social environment, etc.) in resilience oriented studies in adolescents or other age groups.

CHAPTER IV

RESULTS

This section presents the results of the study. In the first part, preliminary analyses of missing values, outliers and assumptions of path analysis for the data set are summarized. In the second section, descriptive statistics, correlations between variables of the study and also gender differences in terms of resilience scores are provided. In the third part, the results of path analysis for the proposed model as well as the hypothesized direct and indirect relationships between variables are presented.

4.1. Preliminary Analyses

Before conducting path analysis for the proposed model, a number of analyses were conducted. First of all, preliminary analyses of missing value and outlier analysis were carried out to examine any problems for the main variables in the data set. Then, assumptions of adequate sample size, univariate normality, linearity, homoscedasticity and multicollinearity for the path analysis were

checked. The results of preliminary analyses and assumption check for path analysis are presented in this section.

4.1.1. Missing Value Analysis

For each of the main variable of the study, missing values were determined by checking the number of each missing cell for the items in the scales. As a rule of thumb, when the number of missing cells is below %5 of the total cells for this item, the method of mean substitution is used to deal with the missing data. For each missing value in the data set, there was no pattern and the number of missing cells weren't higher than 5% of the total cells. So, replacing the missing cell with the scale mean was preferred to handle the missing data in this study (Tabachnick & Fidell, 2006).

4.1.2. Outlier Analysis

To detect outliers in the data set, univariate outliers were checked by calculating standardized z cores for the each case in the data. For each of the major variable of the study, standardized z-scores above or below ±3.29 range are accepted as outlier cases. Univariate outlier analysis yielded 23 cases having z scores exceeding ±3.29 for any variable in the data set. Thus, these cases were excluded from further analyses (Field, 2009). Moreover, multivariate outliers were also examined through checking Mahalanobis distance values in $\chi 2$ distribution table.

Multivariate outliers are assumed to exceed the critical χ2 value found as 13.28 with α value at .001 for the data. 17 cases were found above this critical value χ^2 (4) = 13.28, (p < .001) and these cases were also excluded from the study.

4.1.3. Assumptions of the Path Analysis

Before running the analysis for the proposed model, following assumptions for path analysis were checked: adequate sample size, univariate normality, linearity, homoscedasticity and multicollinearity (Kline, 2011).

For the appropriate sample size in path analysis, there are different criteria set by different researchers. Bentler and Chou (1987) suggest that 5 cases per variable are required for normal distribution in path analysis but when the latent variables consist of multiple indicators, 10 cases per variable should be included in model testing studies. Besides, Kline (2011) proposes that minimum number of 200 cases should be reached to conduct path analysis with model testing. Based on these predictions over appropriate sample size, it can be concluded that there are adequate number of cases (N=712) in the current study ensuring this assumption.

In order to check univariate normality for variables, Skewness and Kurtosis values for each scale were calculated. Skewness and Kurtosis values between ± 3 are recommended acceptable ranges for normality assumption (Stevens, 2002;

Tabachnick & Fidell, 2006). In Table 4.1. Skewness and Kurtosis values of the each measure are presented. Based on the values presented below, it can be proposed that univariate normality indicators for each scale fall between the suggested ± 3 ranges confirming the assumption of normality.

Table 4.1. *Skewness and Kurtosis Values of the Variables of Study*

Variable	Skewness	Kurtosis
MAAS-A	-.22	.08
SCS	-.10	-.03
DERS	-.27	-.23
RS-14	-.71	.29

Note: MAAS-A=Mindful Attention and Awareness Scale Adolescent Version
SCS=Self Compassion Scale
DERS=Difficulties in Emotion Regulation Scale
RS-14= 14 Item Resilience Scale

In order to check linearity assumption, matrix scatterplot between the variables of the study was checked. As seen in Figure 4.1. all of the plots between variables have elliptic shape that indicate no violation for linearity assumption (Field, 2009).
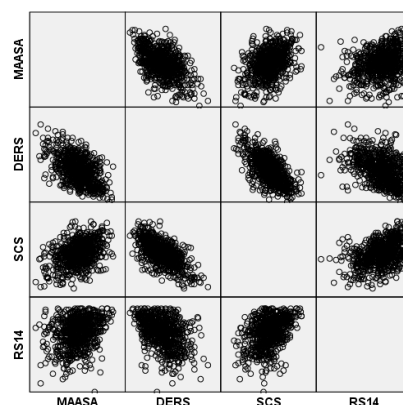
Figure 4.1. Scatterplot Matrix of Variables

The assumption of homoscedasticity was also checked through examining the scatter plot of predicted value and residuals. In this assumption, the plots are expected not to follow a pattern (Tabachnick and Fidell, 2006). In the scatter plot shown in Figure 4.2., there seems to be no apparent pattern of centered dots indicating satisfactory evidence for not violation of homoscedasticity assumption over the data.
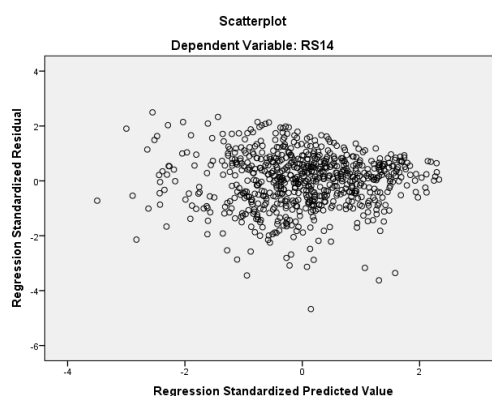
Figure 4.2. Scatterplot of Predicted Value and Residuals

In sum, based on the results of preliminary analyses, 40 outlier cases were excluded from the study due to exceeding the standardized z scores and multivariate outlier criteria. Thus, further analyses were conducted with the data obtained from 712 participants. Besides, given the results of path analysis assumptions, it can be concluded that univariate normality, linearity and homoscedasticity assumptions are met in current study.

4.2. Descriptive Statistics, Gender Differences and Correlations

4.2.1. Descriptive Statistics

Descriptive statistics of means and standard deviations for each variable were computed. The results for descriptive statistics are presented in Table 4.2.

Table 4.2. *Means and Standard Deviations for Variables*

Variable	M	SD
1. MAAS-A	55.56	11.01
2. SCS	80.98	16.92
3. DERS	92.72	22.13
4. RS-14	75.77	13.65

Note: MAAS-A=Mindful Attention and Awareness Scale Adolescent Version
    SCS=Self Compassion Scale
    DERS=Difficulties in Emotion Regulation Scale
    RS-14= 14 Item Resilience Scale

Given the descriptive statistics for the variables of the study, the mean score for mindfulness was found 55.56 with a standard deviation of 11.01. In MAAS-A the highest score that can be obtained is 84 with higher values indicating higher levels of mindfulness. Secondly, the mean score and standard deviation for Self-compassion Scale, in that the highest score could be 104, were calculated as 80.98 and 16.92 respectively. In SCS, negatively stated items were reverse coded so higher items in these scales assume higher levels of self-compassion. In Difficulties in Emotion Regulation Scale (DERS), the highest score that can be

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taken is 180 while the mean value for this study was computed as 92.72 with a standard deviation of 22.13. It should be noted that, positively stated items for DERS were reverse coded so higher scores in this scale mean higher levels of difficulties with emotion regulation for participants. Lastly, mean and standard deviation values in resilience measurement were found as 75.77 and 13.65. In RS-14, the maximum score for the scale is 98 with higher scores indicating higher levels of resilience in individuals.

4.2.2. Gender Differences

In the literature over structural equation models, testing the endogenous or dependent variable in terms of any possible gender difference is suggested in order to explore whether the model is testable with the whole sample. For a researcher to conduct path analysis without taking gender factor into account, there should be no difference between males and females in terms of the endogenous variable of the study. If a significant difference between males and females emerges in terms of the endogenous variable, then structural models should be run and interpreted for each gender separately (Schumacker & Lomax, 2004).

An independent samples t-test was employed to explore any possible significant difference in resilience scale in terms of gender. Results of independent samples t-test showed no significant difference between males and females in resilience

($t = -1.12$; $p = .70$) scale. Thus, due to the insignificant difference between male and female participants emerged for resilience measure, path analysis was conducted without regarding any gender effect on the model.

4.2.3. Correlations

Inter-correlations among the exogenous variable of mindfulness, mediator variables of self-compassion and emotion regulation difficulties and endogenous variable of resilience were examined through Pearson product-moment correlation coefficients. The results for correlation analyses are presented in Table 4.3.

Table 4.3. *Inter-correlations between Variables*

Variable	1	2	3	4
1. MAAS-A	-			
2. SCS	.40***	-		
3. DERS	-.54***	-.66***	-	
4. RS-14	.28***	.41***	-.43***	-

Note. N = 712; ***p < .001, (2-tailed).

In the correlation matrix summarized in Table 4.3., bivariate correlations between mindfulness, self-compassion, emotion regulation difficulties and resilience were presented. Before examining the correlation coefficients between variables, the correlation matrix was checked against any problem over multicollinearity. According to Tabachnick and Fidell (2006), a correlation

coefficient above .90 between independent variables indicate a violation of multicollinearity assumption of path analysis. The correlations presented above indicate that the maximum correlation coefficient found is -.66 between self-compassion and difficulties in emotion regulation. Thus, because there is no a correlation coefficient exceeding .90 for predictors and mediators, the assumption for multicollinearity was ensured for the variables of the study.

It can be argued that several correlational frameworks emerged in terms of the correlational coefficients between variables. Expected significant positive and negative relationship patterns emerged between exogenous, mediator and endogenous variables. The endogenous variable of resilience was found to be significantly and moderately related to exogenous variables of mindfulness ($r = .28$, $p < .001$) and mediator variables of self-compassion ($r = .41$, $p < .001$) and emotion regulation difficulties ($r = -.43$, $p < .001$). The exogenous variable of mindfulness was also found out to be significantly and positively related to the mediator of self-compassion ($r = .40$, $p < .001$) while negatively related to emotion regulation difficulties ($r = -.54$, $p < .001$). Besides, the relations among mediators also showed a significant negative relationship between self-compassion and emotion regulation difficulties ($r = -.66$ $p < .001$). In sum, these patterns imply that increase in mindfulness level of participants leads to increase in self-compassion levels but also decrease in emotion regulation difficulties by a significant level and vice versa. In addition mindfulness was found to be positively related to the resilience levels of participants. Regarding the relations

between the self-compassion, difficulties in emotion regulation and resilience, self-compassion was found to be positively correlated to resiliency while difficulties in emotion regulation has negative correlation with resilience levels of participants.

4.3. Path Analysis for Resilience Model

In this study, path analysis was used for testing a model of resilience through mindfulness as exogenous variable and self-compassion and difficulties in emotion regulation as mediators. Path analysis, a simple form of structural equation modeling, examines causal relationships between variables through running simultaneous regression analyses for testing the direct and indirect effects of observed variables specified by the researchers (Keith, 2015). Besides, the analysis creates estimates for the strength and significance of the relations between theoretically hypothesized paths namely the sets of variables and also offers alternative suggestions for the proposed models (Schumacker & Lomax, 2004).

In order to check the hypothesized relationships between variables in the proposed model shown in Figure 4.3. (p.128), AMOS 18 software program (Byrne, 2001) was utilized. Maximum likelihood estimation was conducted regarding the satisfactory evidence for normality assumption over variables. Maximum likelihood estimation method for path analysis yields the variance

explained through each path and significance of the relations between the variables defined in the model. In addition, the results of the analysis provides model fit indices required to check the goodness of fit for the theorized model (Kline, 2011).

For the present study, model fit indices of chi-square value (χ^2), normed chi-square index (χ^2/df), root-mean-square error of approximation (RMSEA), the comparative fit index (CFI), Tucker-Lewis index (TLI), and the goodness of fit index (GFI), were used to test the goodness of fit of the proposed model. The goodness of fit indicators emerged for the proposed model and acceptable ranges for model fit indices used in this study are presented in Table 4.4.

Table 4.4. *Model Fit Indices for the Proposed Model and Acceptable Ranges*

Goodness of Fit Indexes	Model Fit Indices of the Proposed Model	Criterion Ranges Schumacker and Lomax, 2004, Kline, 2011, Byrne, 2011, Browne & Cudeck, 1993; Bentler, 1990
χ^2, df	2.1; 1	Non-significant
χ^2/df	2.1	χ^2/df < 3
CFI	1.00	.90 < CFI
TLI	.99	.90 < TLI
RMSEA	.04	RMSEA <.05
GFI	1.00	.90 < GFI

Based on the modification indices for the proposed model of the study, chi-square value was found non-significant $\chi^2 (1) = 2.1$, p= .16 indicating a good fit for the model (Schumacker and Lomax, 2004). Similarly, normed chi-square value as expected to be lower than 3 was calculated as 2.1. also indicating an

acceptable fit over the proposed model (Kline, 2011). Besides, RMSEA value that should be below the cut-off criterion of .05 was found .04 as in the acceptable range (Browne & Cudeck, 1993). Indicators of comparative fit index CFI (Bentler, 1990) and Tucker Lewis Index (TLI; Bentler, 1990) values were found to be 1.00 and .99 respectively that also fall above the criterion value of .90 for a good fit. In addition, goodness of fit index (GFI; Byrne, 2011) that should be close to 1.00 for accepting a good fit of the model was calculated 1.00 proposing a perfect fit of the data for the generated model.
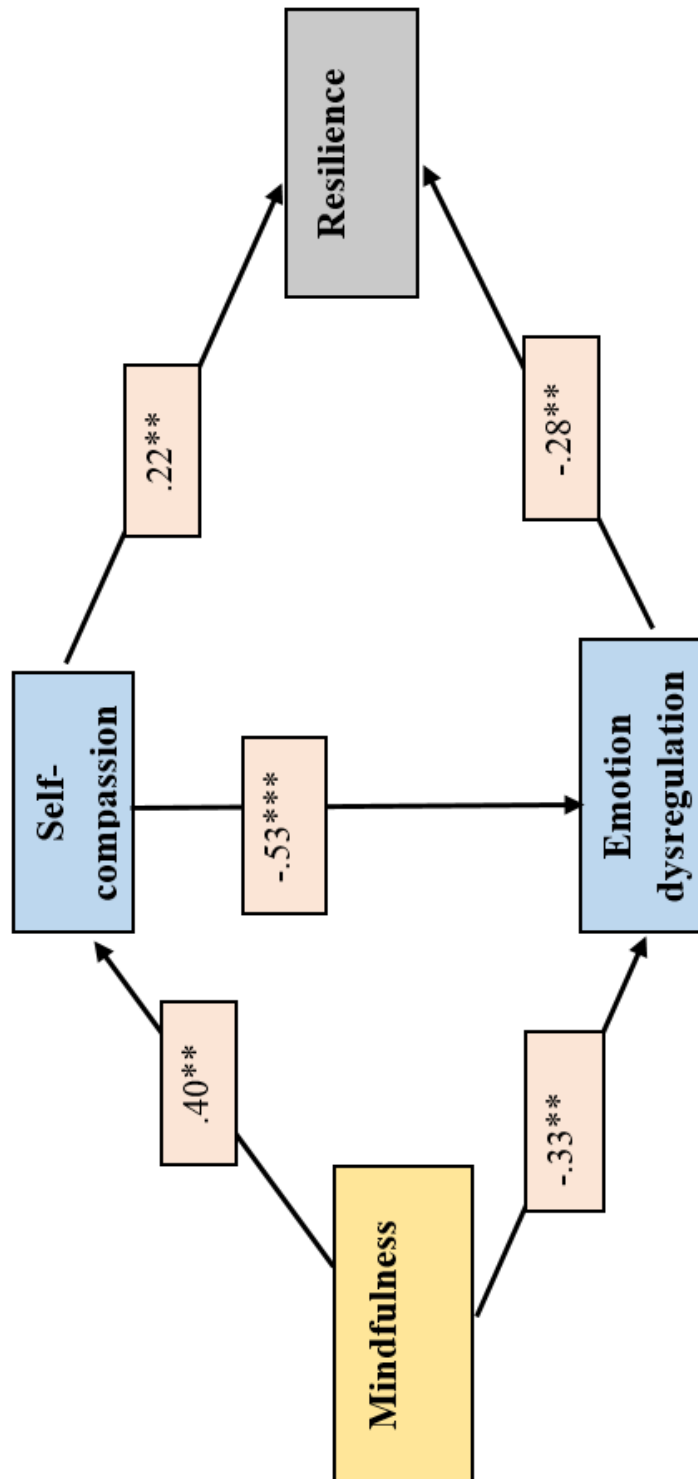
Figure 4.3. Standardized Path Coefficients for the Proposed Model
p < .05; **p* < .01; ***p* < .001.

Standardized path coefficients for each path proposed in Figure 4.3. (p.128) show that coefficients between the paths range from .22 to -.53. According to Kline (2011), effect size index for standardized path coefficient (β) proposes that an absolute standardized direct effect < .10 can be accepted a "smaller" effect; values around .30 a "medium" effect; and values > .50 can be considered a "larger" effect. Based on this assumption over standardized path coefficients, mindfulness has medium direct effects in self-compassion ($\beta=.40$) and difficulties in emotion regulation ($\beta=-.33$). In addition, both difficulties in emotion regulation ($\beta=-.28$) and self-compassion ($\beta=.22$) have direct medium effects of endogenous variable of resilience. Regarding the direct paths tested in the proposed model, all five paths were found significant in the proposed model.

Besides, the results of the squared multiple correlation coefficient (R^2) for explained variance in the proposed model yielded that the model accounts for %21 of the variance in resilience for the current study.

4.3.1. Direct and Indirect Relationships

The standardized total, direct and indirect effects and their statistical significance for the proposed model were also examined and presented in Table 4.4. For checking the statistical significance of total, direct and total indirect effects of each path, bootstrapping extension of AMOS program was used (Arbuckle, 2009). As offered in structural model testing, bootstrapping is a method of

resampling the data in a way that cases from the first data set are randomly selected and replaced for generating other data sets especially through the same number of cases as the original (Kline, 2011). Thus, through fixing the number of bootstrapping samples to 1000 and setting the confidence interval to %95 for the resampling, bootstrapping was conducted to calculate the significance of total, direct and total indirect effects for each path (Arbuckle, 2009). In addition, for identifying the specific indirect effects as defined in the path model, the macro for estimating indirect paths of multiple mediators generated by Preacher and Hayes (2008) was used. In this macro, acceptable intervals for specific indirect effects are calculated with 95% confidence intervals. The specific indirect values that fall between these confidence intervals are accepted to be significant moderators (p=.05 level) between the outcome and predictor variable in the model. In addition, for testing the significance of multiple indirect paths from mindfulness to resilience through self-compassion and difficulties in emotion regulation paths, Mplus software program (Muthen and Muthen, 1998-2010) was used. Mplus is a statistical program that allows researchers to conduct a number of statistical analyses with single level and also multilevel data in structural equation models through estimators, models and algorithms (Muthen and Muthen, 2010). The specific indirect effects of mediators and their significance levels in resilience for the proposed model were also presented in Table 4.5.

Table 4.5. *Standardized Total, Direct, and Indirect Estimates of the Proposed Model*

Paths	Standardized Estimates (β)
Mindfulness ⟶ Resilience	
Indirect (Total)	.28***
Indirect by self-compassion	.11*
Indirect by difficulties in emotion regulation	.17*
Indirect by self-compassion and difficulties in emotion regulation	.02*
Self-compassion ⟶ Resilience	
Direct	.22**
Difficulties in emotion regulation ⟶ Resilience	
Direct	-.28**

Note. *p < .05; **p < .01; ***p < .001.

4.3.2. Hypothesis Testing

Hypothesis 1a: Mindfulness will be directly related to self-compassion (Path 1). A positive significant relationship between mindfulness and self-compassion was found (β = .40, p < .01). Thus, the results of the study supported Hypothesis 1a.

Hypothesis 1b: Mindfulness will be directly related to difficulties in emotion regulation (Path 2). Hypothesis 1b was accepted because mindfulness was found to be significantly and negatively related to emotion regulation difficulties (β = -.33, p < .01).

Hypothesis 2: Self-compassion will be related to difficulties in emotion regulation (Path 3). Hypothesis 2 was accepted as the results yielded a negative significant and negative relationship between self-compassion and difficulties in emotion regulation ($\beta = -.53$, $p < .001$)

Hypothesis 3a: Resilience will be related to self-compassion (Path 4). The positive significant relationship found between self-compassion and resilience ($\beta = .22$, $p < .01$) confirmed Hypothesis 3a.

Hypothesis 3b: Resilience will be related to difficulties in emotion regulation (Path 5). Difficulties in emotion regulation was found to be negatively and significantly related to resilience ($\beta = -.28$, $p < .01$). Thus, Hypothesis 3b was supported.

Hypothesis 4a: *Mindfulness will be indirectly related to resilience through self-compassion (Path 1 and Path 4).* Hypothesis 4a was confirmed as the indirect relation between mindfulness and resilience through self-compassion was found significant ($\beta = .11$, $p < .05$).

Hypothesis 4b: *Mindfulness will be indirectly related to resilience through difficulties in emotion regulation (Path 2 and Path 5).* The indirect effect of mindfulness on resilience through difficulties in emotion regulation was found significant so Hypothesis 4b was accepted ($\beta = .17$, $p < .05$).

Hypothesis 4c: *Mindfulness will be indirectly related to resilience through self-compassion and difficulties in emotion regulation paths (Path1, Path 3 and Path 5).* The indirect effect of mindfulness on resilience through multilevel paths of self-compassion and difficulties in emotion regulation was found significant so Hypothesis 4c was accepted ($\beta = .02$, $p < .05$).

4.3.3. Summary of the Results

The proposed path model of the study was generated through the hypothesized effects of mindfulness on resilience as mediated by self-compassion and difficulties in emotion regulation. Possible gender difference in terms of resilience was tested. As no difference was found between males and females in terms of resilience, the model was tested with the whole sample without taking the gender factor into account. Overall, model fit indices examined for the structural model supported the goodness of fit of the proposed model. The results of the path analysis supported all of the hypothesized relationship between variables. Direct and indirect effects between the paths of the hypothesized constructs were also examined. The results yielded that mindfulness is significantly and positively related to the mediator of self-compassion and significantly and negatively related to difficulties in emotion regulation. In addition, both self-compassion and difficulties in emotion regulation were found significant predictors of resilience. The indirect effects of mindfulness on resilience through the mediators of self-compassion and difficulties in emotion

regulation and also through the multilevel paths of self-compassion and difficulties in emotion regulation were also found significant in the proposed model for adolescents.

CHAPTER V

DISCUSSION

In this chapter, a general discussion followed by specific findings and conclusions for the hypothesized relationships between the variables of the study is presented. Then, based on the conclusions drawn, implications and recommendations for practice and further research are summarized.

5.1. General Discussion

The aim of this study was to test a mindfulness model of resilience through the mediating effects of self-compassion and difficulties in emotion regulation among socio-economically disadvantaged Turkish adolescents. Based on the literature over the variables of the study, a model was generated between mindfulness and resilience along with the specific effects of self-compassion and difficulties in emotion regulation in this relationship as well as the interaction of these mediators with each other. A mediational model was tested to see the direct effects of mindfulness on self-compassion and difficulties in emotion regulation. The interaction of self-compassion to difficulties in emotion regulation was also

tested in the proposed model. Besides, direct relations of self-compassion and difficulties in emotion regulation to resilience were also examined. To test the proposed relationships between variables, path analysis was performed to examine the fit of the proposed model as well as the specific relationships hypothesized in the study.

Gender was emerged as a crucial factor in many resilience studies (Kumpfer, 1999), thus in the current study, before conducting the path analysis, gender was tested to identify whether this factor interferes with the endogenous variable. The results yielded no significant difference between males and females students' resilience scores. On the basis of not significant difference in gender based resilience scores, the proposed model of the current study was tested using Path analysis with the whole sample. In the path analysis model, individual level factors of mindfulness, self-compassion and difficulties in emotion regulation were tested against their contributions on resilience as well as the interactions between these factors were examined. The mediating effects of self-compassion and difficulties in emotion regulation between mindfulness and resilience were tested in the analysis. The results of Path analysis showed that all of the hypothesized relationships are supported by the data. The model fit indices also showed that the proposed model perfectly fits the data obtained in the study. Regarding the predicting direct effects of mediators, the best predictor of resilience was difficulties in emotion regulation ($\beta=-.28$) followed by self-compassion ($\beta=.22$). Regarding the indirect paths tested in the proposed model,

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the indirect effect of mindfulness on resilience is predicted best through difficulties in emotion regulation (*β=.17*) followed by self-compassion (*β=.11*) in the model.

5.2. Hypothesized Direct Relationships between Mindfulness, Self-Compassion and Difficulties in Emotion Regulation

Results of this study supported Hypothesis 1a stating that mindfulness is positively and directly related to self-compassion. In other words, as mindfulness levels of participants increase self-compassion tendencies also increase and vice versa. This finding of the study is consistent with many other studies investigating the predictive role of mindfulness for self-compassion in different populations (Bluth, Roberson, & Gaylord, 2015; Charles, 2010; Kemper, Mo, & Khayat, 2015; Soysa & Wilcomb, 2013; Woodruff, et al., 2013). Besides, this result is also congruent with self-compassion literature emphasizing that mindfulness allows individuals to attend and accept the present reality through liberating self-evaluations and worries over one's past and future and hence providing individuals with a compassionate and gentle view toward their self (Barnard & Cury; 2011; Germer & Neff, 2013; Neff, 2003a). In other words, mindfulness that is having attentiveness and awareness of the present and immediate experiences provide more compassion toward self. According to Neff and McGehee (2010), adolescence period is characterized as a process of emotional fluctuations along with the self-judgments and social comparisons that all affect the well-being of the adolescent. In this process, adolescents

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evaluate their self through a number of negative judgments that isn't surprisingly increases the stressful pathways of this period. These negative judgments towards self and also social comparisons that adolescents engage in this period may be assumed to be valid and also severe in adolescents with low SES. In this regard, non-judgmental awareness of present reality that is mindfulness can be accepted as an important supportive mechanism for adolescents and also specifically for disadvantaged groups in forming a kind and tolerant evaluation over their experiences as well as their inner self through facilitating self-compassion.

As expected, mindfulness was also found to be negatively and significantly related to emotion regulation difficulties as supporting Hypothesis 1b. This result that participants with a more mindful attention have lower difficulties for regulation over their emotions emerged in this study is supported with other studies examining the relations of mindfulness to emotion regulation (Garland, Farb, Goldin, & Fredrickson, 2015; Lalot, Delplanque, & Sander, 2014; Luberto, Cotton, Mcleish, & Mingione, 2013; Pepping, O'Donovan, Gembeck, & Hanisch, 2014; Prakash, Hussain, &Schirda, 2015; Tang, Tang, & Posner, 2016). As mentioned previously, adolescents with socio-economically disadvantageous conditions experience more emotional and related problems interfering to the mental health and well-being in these groups (Miech, Caspi, Moffitt, Wright, & Silva, 1999; Hudson, G. C., 2005; Torikka, Kaltiala-Heino, Rimpelä, Marttunen, Luukkaala, & Rimpelä, 2014; Schneiders, Drukker, Ende, Verhulst, Os, &

Nicolson, 2003). Depicted in mindfulness oriented emotion regulation literature, mindful attention through non-judgmental acceptance creates a gentle and balanced view toward self and internal experiences of emotions, cognitions and sensations. This new relationship toward self characterized as acceptance and equanimity toward internal experiences provide individuals with a more positive regulation of affective and cognitive stances (Blackledge & Hayes, 2001; Teper, Segal, & Inzlicht, 2013). Thus, based on the findings related to mindfulness predicting emotion regulation difficulties in the current study, direct and non-judgmental awareness of present can be claimed to interfere with awareness, acceptance and regulation of negative emotional experiences of such adolescents who especially experience problems related to the cognitive and emotional trajectories in this period (Stepleman, Wright, & Bottonari, 2009).

One hypothesis was also formed to mention the direct effects between mediators of the study. In Hypothesis 2, a relationship between self-compassion and difficulties in emotion regulation was hypothesized. Results of the study indicated a negative significant relationship between self-compassion and emotion regulation difficulties. Self-compassion was found to be a significant negative predictor of emotion regulation difficulties. This specific relation emerged between two processes takes also support from other studies examining the same relationship in different groups such as psychologists (Jones, Rees, & Kane, 2015) and university students (Odou & Brinker, 2014). According to Neff (2003b), self-compassion is an important process for diminishing maladaptive

emotion regulation strategies of ruminating and thought suppression. Thus, directing compassion and kindness toward self-maintain individuals with a calm and acceptance stance toward both their emotions and cognitive experiences and bringing them to an emotionally balanced and clear state. In this regard, this finding of the study indicates that positive and tolerant descriptions for external and also inner experiences may be an essential ingredient of regulating and managing the experience of stressful emotions effectively in such adolescents experiencing stressful pathways of adolescence as well as a number of other risk factors associated with socio-economically disadvantageous condition they have.

5.3. Hypothesized Direct Relationships of Self-compassion and Difficulties in Emotion Regulation to Resilience

For examining direct effects of mediators on the outcome variable of resilience, two hypotheses were formed and tested. In Hypothesis 3a, it was stated that self-compassion will be directly related to resilience. Self-compassion was found to be positively and significantly predicts resilience. This finding of the study indicates that socio-economically disadvantaged adolescents with compassionate thinking have higher levels of resilient tendencies. According to Neff and McGehee (2010), adolescents start to form identities through positive and negative evaluations of their self. In this period, having negative and cruel self-judgments can be associated with a number of psychological dysfunctions interfering with the mental health of the adolescent. Besides, self-compassion

may provide a different perspective towards self-views of adolescents that may open the pathways to resilience in this period. In their study, Neff and McGehee (2010), supported these theoretical assumptions through finding out that self-compassion is a contributing factor for the well-being and resilience responses in adolescent and also adult population. Through a similar perspective, Trompetter, Klein and Bohlmeijer (2016) emphasized that self-compassion creates a context in that negative experiences can be handled through an accepting and friendly attitude. In this regard, self-compassion has the potential to ensure well-being through facilitating an adaptive emotion regulation response as well as forming an important mechanism for resilience tendencies of individuals in the face of psychopathology. Supporting this premise, these researchers conducted a study examining the role of mental health factor of self-compassion in predicting resilience and adaptive emotion regulation in general population. The results of this study also showed that self-compassion is an important mediator between psychological well-being and psychopathology through predicting higher levels of resilience and adaptive emotion regulation responses that buffer against psychopathology.

Secondly, a direct hypothesized relationship was set between difficulties in emotion regulation and resilience in this study. In Hypothesis 3b, difficulties in emotion regulation was predicted to be directly related to resilience. The results of the study confirmed this hypothesis through showing that as adolescents having more difficulties in regulating their emotions they become less resilient.

In other words, it can be stated that disadvantaged adolescents holding an accepting and regulatory stance to their emotional states have higher resilient tendencies in the face of distresses they experience. Given the emotional fluctuations and transitions experienced in adolescence period, emotion regulation is accepted as an important channel providing well-being and also resilience in adolescent groups (Broderick & Zennings, 2012). Theoretically, Troy and Mauss (2011), underlined emotion regulation as a protective factor for resilience in a way that when individuals face with a stressful event the appraisal processes of selective attention control and cognitive reappraisal comes into the scene. The more functional these two cognitive emotion regulation processes the more adaptive emotional responses emerge as a precursor of resilience responses. In this framework, emotion regulation is emphasized as a mediator between stressful life events and resilient tendencies. In another view to emotion regulation for resilience, Tugade and Fredrickson (2007), in their study with university students indicated that emotion regulation has influences on resilience through the regulation of positive emotions as a distinct emotion regulation strategy. In this study, regulation of positive emotional experiences were underlined as crucial mechanisms by cultivating positive emotions and automatic activation of these emotions in stressful times. The emphasis and privileges given to the unique roles of emotion regulation for resilience process in these two studies support the finding of the study showing the significant role of difficulties in emotion regulation in resilience process.

5.4. Hypothesized Indirect Relationships between Mindfulness and Resilience

Two hypothesis were formed two address the indirect relations between mindfulness and resilience in the current study. In Hypothesis 4a, it was specified that mindfulness is indirectly related to resilience through the mediating effect of self-compassion. The results of path analysis as well the analyses of indirect effects for the relations between mindfulness and resilience in the proposed model indicated that self-compassion has a significant mediating effect in the relationship of mindfulness to resilience. In other words, the increases in mindfulness levels of adolescents have a significant role in the increase in self-compassion that has a positive effect on resilience. Bluth and Blanton (2014) claimed that adolescents of today's world are exposed to the many stress factors in family, social and school life as well as trying to adapt to the tremendous cognitive, physiological, and psychosocial changes special to this process. In this regard, mindfulness and self-compassion may be argued to have crucial roles in diminishing the stress responses of adolescents to the external and developmental complexities that they experience. In their study for the role of mindfulness and self-compassion in well-being indicators for adolescents, Bluth and Blanton (2014) also found that mindfulness and self-compassion through mediating each other are contributors of positive and negative affect, life satisfaction and perceived stress in adolescents. In this study, it was concluded that mindfulness and self-compassion have an iterative process

with each other in explaining emotional well-being in adolescent population. Woodruff, et al. (2013) also conducted a study with university students through examining the role of mindfulness and related constructs of self-compassion and psychological inflexibility as predictors of psychological health. In this study, self-compassion and psychological inflexibility were found to hold unique contributions to the psychological health more than single-factor mindfulness in university students. Overall, regarding the specific finding of the study as well as the similar studies in the literature, self-compassion in the form of kindness toward self, common-humanity and non-judgmental mindfulness toward harsh experiences can be accepted as a gateway between mindful awareness and attentiveness to present reality and resilient responses of adolescents with disadvantaged conditions.

Moreover, in Hypothesis 4b, it was stated that mindfulness has an indirect relation to resilience through difficulties in emotion regulation. The results of the study showed that difficulties in emotion regulation has a significant negative mediating effect between mindfulness and resilience. This result implies that as mindful attention increases individual's difficulties to regulate their emotions decreases by positively influencing resilience. In the literature there isn't any specific study investigating the role of emotion regulation in mediating the relations of mindful attention to resilience. Besides, Prakash, Hussain and Schirda (2014) conducted a study on the role of emotion regulation as a mediator between mindfulness and perceived stress in older and young adults. In this

study, mindfulness was theoretically defended to hold physiological and psychological stress-buffering effects in many groups. The findings of this study showed that regardless of age group, emotion regulation has mediating effects between mindfulness and perceived stress. In this direction, ability to regulate emotions was accepted as an important factor over stress-reducing capacity of mindfulness as also the case in this study for adolescent resilience.

5.5. Implications for Practice

There are several implications that could be drawn from the findings of this study for professionals especially for psychological counselors. The current study tested a mindfulness model of resilience as mediated by self-compassion and difficulties in emotion regulation in 9th, 10th and 11th grade adolescents residing in socio-economically disadvantageous districts. First of all, the results of the study showed that resilient tendencies of adolescents within these districts don't differ significantly as a function of gender. Thus, school counselors designing and conducting interventions with such adolescents may consider that girls and boys residing in these districts may be similar in resilience levels.

Specific direct and indirect relationships between variables of the study were explored to predict the unique or interactive contributions of individual level factors in resilience in these adolescents. The significant relationship of these individual level psychological processes to resilience emerged in the study may

inform school counselors especially working in similar districts as regarding the emerged role of mindful awareness in predicting self-compassion and emotion regulation skills that could be possible facilitators of resiliency and psychological well-being for adolescents they are working with.

Given the total variance explained through the mindfulness generated resilience model, the variables of the study may inform school counselors especially working in low SES districts and also other mental health professionals to conduct structured programs with adolescents in those regions. Specifically, the indirect relations of mindfulness to resilience accompanied with moderate direct role of difficulties in emotion regulation and self-compassion in resilient responses for adolescents may provide professionals with general headlines and structure over mindfulness oriented resilience programs. On the basis of developmental issues for adolescents, group interventions and programs can be arranged to cultivate mindful awareness along with self-compassion and tolerance training, emotional acceptance and regulation skills and related processes that target to induce resilience and similar well-being processes in adolescents with disadvantageous life experiences and risky contexts.

Regarding theoretical and practical underpinnings of resilience theory and practice, it should be noted that resilience based interventions and programs can be directed towards understanding the protective factors in a number of risky groups in schools or other settings. In this regard, school counselors and

practitioners working with children and adolescents with risky conditions such as ones experiencing parental divorce, living in orphanages, experiencing family dysfunctioning or exposed to traumatic experiences in their lives may be targeted for resilience based programs and interventions. In such theoretical and practical programs these practitioners may also consider the role of mindful attention and awareness and related concepts (self-compassion, emotion regulation) as possible mechanisms of resilience for these groups.

Another implication of the study for professionals would be related to the theoretical assumptions of positive psychology when organizing practical interventions and programs with such populations. Based on this perspective, when working with adolescents, it becomes an important issues to emphasize and support their resources and coping skills rather than insisting on their problem areas and contexts (Rutter, 2012). In this study, a number of individual level processes (mindfulness, self-compassion and emotion regulation/dysregulation) predicting resilience were generated for discovering possible protective mechanisms in adolescent groups. Thus, professionals with a more competence and skill based perspective may consider these mechanisms as protective processes when conducting resilience or related interventions and programs with such vulnerable groups.

5.6. Implications for Further Research

Several implications for future studies can be drawn based on the findings of this study. In this study, Mindful Attention and Awareness Scale Adolescent version (MAAS-A) was translated and applied with adolescent population. In addition, through making minor changes in previously translated 25-item Resilience Scale, the 14-item version of Resilience Scale was used in the first time with adolescents under this examination. The reliability and construct validity of these two scales as well as the other ones were conducted as part of the study. However, in future studies intending to use these scales, researchers should be critical with the validity and reliability evidence of these scales in their study. In both MAAS-A and RS-14, further evidence of validity and reliability with larger groups are required for future studies.

The current study examined the role of some individual level psychological mechanisms (mindfulness, self-compassion and difficulties in emotion regulation) in resilience among economically disadvantaged groups. Mindfulness and related concepts of self-compassion and emotion regulation were preferred as they may carry crucial implications regarding emotional fluctuations, generation of self-concept and identity formation processes of adolescence (Coleman & Hagell, 2007). These individual level processes were found to explain a certain percentage of variance in resilience levels of adolescents but there are still some other psychological mechanisms not included

in this study that have the potential to also involve in resilience process. In this direction, a more complex model along with mindfulness and related constructs can be proposed to discover the interaction of these mindfulness related factors with each other in predicting resilience for adolescent groups.

The study was implemented through the application of standard scales to 9th, 10th and 11th grade adolescents attending Anatolian High Schools in Sultanbeyli, Sancaktepe and Ümraniye districts in Istanbul. These schools selected are accepted as locating in low socio-economic regions of the city. In corresponding studies for adolescent resilience through similar psychological processes and age groups as in this study, the sample may include larger groups from different regions or different types of schools (such as vocational schools) with similar characteristics in Istanbul. Besides, similar steps can also be taken to collect data from high school adolescents living in low-socio-economic districts in different cities in order to see the possible confounding effects of these demographic differences in mindfulness oriented resilience models.

In addition, resilience literature suggests the examination of resilience and multilevel protective factors in various risky groups through a context specific focus. In this regard, this study was conducted with adolescents from socio-economically disadvantageous regions who were assumed to hold risky conditions in the society. Future studies that aim to investigate adolescent resilience may be carried out with individuals carrying other risk factors and

negative experiences such as adolescents with a chronic or psychiatric illness, those living in orphanages, dealing with family instability or parental problems etc. as emerged in global literature (Coleman & Hagell, 2007; Embury & Saklofske, 2014). In addition, regarding Turkish literature, Siyez and Aysan (2007), reported that psycho-social risk factors of alienation, stress, depression, peer pressure, problematic role models in family, lacking interest in school, and accessibility to substances can be regarded as main risk factors for the problem behaviors in adolescence. Thus, future resilience oriented theoretical and practical studies in school or other settings can also be conducted with adolescents having such risk factors as emerged in these studies.

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APPENDICES

Appendix A: Middle East Technical University Human Subjects Ethics

Comitee Approval Letter / Ortadoğu Teknik Üniversitesi İnsan

Araştırmaları Etik Kurulu Onay Mektubu

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER

ORTA DOĞU TEKNİK ÜNİVERSİTESİ
MIDDLE EAST TECHNICAL UNIVERSITY

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06 NİSAN 2016

Gönderilen: Prof.Dr. Oya YERİN GÜNERİ

Eğitim Bilimleri

Gönderen: Prof. Dr. Canan SÜMER

İnsan Araştırmaları Kurulu Başkanı

İlgi: Etik Onayı

Sayın Prof.Dr. Oya YERİN GÜNERİ' nin danışmanlığını yaptığı doktora öğrencisi Zeynep Aydın SÜNBÜL'ün "Öz-Duyarlık, duygu düzenleme ve umut düzeyinin sosyo-ekonomik açıdan dezavantajlı ergenlerin bilinçli farkındalık ve psikolojik sağlamlıkları arasındaki ilişkide düzenleyici rolü: bir model test etme çalışması" başlıklı araştırması İnsan Araştırmaları Komisyonu tarafından uygun görülerek gerekli onay **2016-EGT-040** protokol numarası ile **20.03.2016-30.12.2016** tarihleri arasında geçerli olmak üzere verilmiştir.

Bilgilerinize saygılarımla sunarım.

Prof. Dr. Canan SÜMER
Uygulamalı Etik Araştırma Merkezi
İnsan Araştırmaları Kurulu Başkanı

Prof. Dr. Meliha ALTUNIŞIK
İnsan Araştırmaları Kurulu
Üyesi

Prof. Dr. Ayhan SOL
İnsan Araştırmaları Kurulu
Üyesi

Prof. Dr. Mehmet UTKU
İnsan Araştırmaları Kurulu
Üyesi

Yrd.Doç.Dr. Pınar KAYGAN
İnsan Araştırmaları Kurulu
Üyesi

BU BÖLÜM, İLGİLİ BÖLÜMLERİ TEMSİL EDEN İNSAN ARAŞTIRMALARI ETİK ALT KURULU TARAFINDAN DOLDURULACAKTIR.

Protokol No: 2016- EGT-040

İAEK DEĞERLENDİRME SONUCU

Sayın Hakem,

Aşağıda yer alan üç seçenekten birini işaretleyerek değerlendirmenizi tamamlayınız. Lütfen "Revizyon Gereklidir" ve "Ret" değerlendirmeleri için gerekli açıklamaları yapınız.

Değerlendirme Tarihi: 06-04-2016

Ad Soyad: Metin girmek için tıklayın

☑ **Herhangi bir değişikliğe gerek yoktur. Veri toplama/uygulama başlatılabilir.**

☐ **Revizyon gereklidir**

   ☐ Gönüllü Katılım Formu yoktur.

   ☐ Gönüllü Katılım Formu eksiktir.

     Gerekçenizi ayrıntılı olarak açıklayınız:

   ☐ Katılım Sonrası Bilgilendirme Formu yoktur.

   ☐ Katılım Sonrası Bilgilendirme Formu eksiktir.

     Gerekçenizi ayrıntılı olarak açıklayınız:

   ☐ Rahatsızlık kaynağı olabilecek sorular/maddeler ya da prosedürler içerilmektedir.

     Gerekçenizi ayrıntılı olarak açıklayınız:

   ☐ Diğer.

     Gerekçenizi ayrıntılı olarak açıklayınız:

☐ **Ret**

   Ret gerekçenizi ayrıntılı olarak açıklayınız:

Appendix B: İstanbul Province Directorate of National Education

Approval Letter / İstanbul İl Milli Eğitim Müdürlüğü Onay Mektubu

İSTANBUL VALİLİĞİ
İl Millî Eğitim Müdürlüğü

Sayı : 59090411-44-E.3478596   28.03.2016
Konu: Anket ve Araştırma İzin Talebi

Sayın: Zeynep AYDIN SÜNBÜL

İlgi: a) 22.03.2016 tarihli dilekçeniz.
        b) Valilik Makamının 25.03.2016 tarih ve 3459747 sayılı oluru.

"Öz-Duyarlık, Duygu Düzenleme ve Umut Düzeyinin Sosyo-Ekonomik Açıdan Dezavantajlı Ergenlerin Bilinçli Farkındalık ve Psikolojik Sağlamlıkları Arasındaki İlişkide Düzenleyici Rolü: Bir Model Test Etme Çalışması" konulu teziniz hakkındaki ilgi (a) dilekçe ve ekleri ilgi (b) valilik onayı ile uygun görülmüştür.

Bilgilerinizi ve söz konusu talebiniz; bilimsel amaç dışında kullanılmaması, *uygulama sırasında bir örneği müdürlüğümüzde muhafaza edilen mühürlü ve imzalı veri toplama araçlarının uygulanması*, katılımcıların gönüllülük esasına göre seçilmesi, araştırma sonuç raporunun müdürlüğümüzden izin alınmadan kamuoyuyla paylaşılmaması koşuluyla, gerekli duyurunun araştırmacı tarafından yapılmasını, okul idarelerinin denetim, gözetim ve sorumluluğunda, eğitim -öğretimi aksatmayacak şekilde ilgi (b) Valilik Onayı doğrultusunda işlem bittikten sonra 2 (iki) hafta içinde sonuçtan Müdürlüğümüz Strateji Geliştirme Bölümüne rapor halinde bilgi verilmesini rica ederim.

Mustafa YİĞİT
Şube Müdürü

EK:1- Valilik Onayı
    2- Ölçekler

	Elektronik İmzalı Aslı Sistemimizde Mevcuttur	
Adı Soyadı	:	Mualla ÇELEBİ
Ünvanı	:	Bölüm Şefi
Tarih	:	28.03.2016
İmza	:	

İl Milli Eğitim Müdürlüğü   A. BALTA VHKİ
E-Posta: sgb34@meb.gov.tr   Tel: (0 212) 455 04 00-239
                                                 Faks: (0 212)455 06 52

Bu evrak güvenli elektronik imza ile imzalanmıştır. http://evraksorgu.meb.gov.tr adresinden 0929-ffa2-34bb-9107-2c5f kodu ile teyit edilebilir.

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Sevgili Öğrenciler;

Dolduracağınız formlarda kendiniz, aileniz ve sosyal çevreniz ile ilgili birtakım sorular yer almaktadır. Bu sorular sizinle ilgili bir değerlendirme yapmak için değil, bilimsel bir araştırmaya veri sağlama amacıyla sorulmaktadır ve bilgiler saklı tutulacaktır. Bu araştırma okulunuzla ilgili değildir. Formlara isminizi yazmanıza gerek yoktur. Size yöneltilen soruları yanıtlarken lütfen her maddeyi dikkatli okuyunuz ve size en uygun seçeneği işaretleyeniz. Araştırma sonuçlarının geçerliliği açısından soruları içtenlikle yanıtlamanız sizden beklenmektedir. Yardımlarınız ve dürüst yanıtlarınız için teşekkür ederim.

ZEYNEP AYDIN SÜNBÜL

Ortadoğu Teknik Üniversitesi

Psikolojik Danışmanlık ve Rehberlik Doktora Öğrencisi

1.Okulunuzun adı:

2. Cinsiyetiniz: ( ) Kız ( ) Erkek

3. Doğum tarihi ve yeri (Lütfen ay ve gün belirterek yazınız.): Kaç Yaşındasınız?

4. Kaçıncı sınıfa devam ediyorsunuz?

( ) 9. Sınıf ( ) 10. Sınıf ( ) 11. Sınıf ( ) 12. Sınıf

5. Kaç kardeşsiniz?

6. Şu anda yaşamakta olduğunuz yer:

( ) Ailemle ( ) Öğrenci yurdunda ( ) Akraba yanında

( ) Evde - arkadaş(lar)la birlikte   ( ) Evde - tek başına   ( ) Diğer:

7. Evinize Giren Net Aylık Geliriniz?

( ) 500 TL ve aşağısı   ( ) 501–1000 TL   ( ) 1001–1500 TL

( ) 1501–3000 TL   ( ) 3001-5000 TL   ( ) 5001 TL ve üzeri

8.

<u>**Annenizin:**</u>

Yaşı: **Mesleği:**

Eğitim düzeyi:

Okuma yazma bilmiyor ( )   İlkokul( )   Ortaokul( )   Lise( )   Üniversite ve üstü( )

<u>**Babanızın:**</u>

Yaşı: **Mesleği:**

Eğitim düzeyi:

Okuma yazma bilmiyor ( )   İlkokul ( )   Ortaokul ( )   Lise ( )   Üniversite ve üstü ( )

APPENDIX D: Sample Items of Mindful Attention and Awareness Scale -

Adolescent / Ergenler için Bilinçli Dikkat ve Farkındalık Ölçeği Örnek

Maddeleri

Günlük Deneyimler

Aşağıda günlük yaşantınızla ilgili birtakım ifadeler yer almaktadır. Her bir deneyimi ne sıklıkla yaşadığınızı aşağıda 1'den 6'ya kadar verilen derecelendirmeyi kullanarak lütfen işaretleyiniz. Cevaplarınızı verirken deneyiminizin nasıl olması gerektiğinden öte *gerçekten yaşantınızı yansıtan* seçeneği belirtiniz.

1	2	3	4	5	6
Hemen hemen her zaman	Çoğunlukla	Bazen	Nadiren	Oldukça az	Hemen hemen hiç bir zaman

1	Bazı duygular yaşıyorum ve aradan biraz geçmeden bu duyguların farkına varamıyorum.	1	2	3	4	5	6
2	Dikkatsizlik, dikkatimi vermeme ya da başka şeyler düşünmem yüzünden bazı şeyleri kırarım ya da dökerim.	1	2	3	4	5	6
3	Şuanda olup bitene odaklanmada zorlanıyorum.	1	2	3	4	5	6

APPENDIX E: Permission Letter of Mindful Attention and Awareness

Scale- Adolescent / Ergenler İçin Bilinçli Dikkat ve Farkındalık Ölçeği İzin

Mektubu

VCU

Monroe Park Campus

Virginia Commonwealth University

College of Humanities and Sciences
Department of Psychology
White House
806 West Franklin Street P.O. Box 842018
Richmond, Virginia 23284-2018
804 828-1193 (Department)
804-828-8089 (Chair)
Fax: 804 828-2237
TDD: 1-800-828-112
www.psychology.vcu.edu

Dear Colleague,

The trait Mindful Attention Awareness Scale-Adolsecent (MAAS-A) is in the public domain and special permission is not required to use it for *non-commercial* research and clinical purposes. The MAAS-A has been validated for use with community and clinical population adolescent aged 14-18 years (Brown, West, Loverich, & Biegel, 2011). A detailed description of the trait MAAS-A is found below, as is the scale and its scoring.

Feel free to e-mail me with any questions about the use or interpretation of the MAAS-A. I would appreciate hearing about any clinical or research results you obtain using the scale. Yours,

Kirk Warren Brown, PhD

Department of Psychology
Virginia Commonwealth University
806 West Franklin St.
Richmond, VA 23284-2018
e-mail kwbrown@vcu.edu

APPENDIX F: Sample Items of Self-Compassion Scale / Öz-duyarlık Ölçeği Örnek Maddeleri

Bu anketten elde edilen sonuçlar bilimsel bir çalışmada kullanılacaktır. Sizden istenilen bu ifadeleri okuduktan sonra kendinizi değerlendirmeniz ve sizin için en uygun seçeneğin karşısına çarpı **(X)** işareti koymanızdır. Her sorunun karşısında bulunan; (1) Hiç bir zaman (2) Nadiren (3) Sık sık (4) Genellikle ve (5) Her zaman anlamına gelmektedir. Lütfen **her ifadeye** mutlaka **TEK yanıt** veriniz ve kesinlikle **BOŞ bırakmayınız**. En uygun yanıtları vereceğinizi ümit eder katkılarınız için teşekkür ederim.

1	Bir yetersizlik hissettiğimde, kendime bu yetersizlik duygusunun insanların birçoğu tarafından paylaşıldığını hatırlatmaya çalışırım.	1	2	3	4	5
2	Kişiliğimin beğenmediğim yönlerine ilişkin anlayışlı ve sabırlı olmaya çalışırım.	1	2	3	4	5
3	Bir şey beni üzdüğünde, duygularıma kapılıp giderim.	1	2	3	4	5

APPENDIX G: Sample Items of Difficulties in Emotion Regulation Scale /

Duygu Düzenleme Güçlüğü Ölçeği Örnek Maddeleri

Aşağıda insanların duygularını kontrol etmekte kullandıkları bazı yöntemler verilmiştir. Lütfen her durumu dikkatlice okuyunuz ve her birinin sizin için ne kadar doğru olduğunu içtenlikle değerlendiriniz. Değerlendirmenizi uygun cevap önündeki yuvarlak üzerine çarpı (X) koyarak işaretleyiniz.

1. Ne hissettiğim konusunda netimdir.				
○ Neredeyse Hiçbir zaman	○Bazen	○ Yaklaşık Yarı yarıya	○ Çoğu zaman	○ Neredeyse Her zaman

2. Ne hissettiğimi dikkate alırım.				
○ Neredeyse Hiçbir zaman	○Bazen	○ Yaklaşık Yarı yarıya	○ Çoğu zaman	○ Neredeyse Her zaman

3. Duygularım bana dayanılmaz ve kontrolsüz gelir.				
○ Neredeyse Hiçbir zaman	○Bazen	○ Yaklaşık Yarı yarıya	○ Çoğu zaman	○ Neredeyse Her zaman

APPENDIX H: Sample Items of 14-Item Resilience Scale / 14-Madde

Kendini Toparlama Gücü Ölçeği Örnek Maddeleri

Aşağıdaki cümleleri okuyunuz. Her bir ifadenin sağ tarafında 1'den (Kesinlikle katılmıyorum) 7'ye (Kesinlikle katılıyorum) kadar numaralandırılmış 7 tane rakam yer almaktadır. Her bir cümlede anlatılan ifade ile ilgili olarak sizi en iyi yansıtan rakamı yuvarlak içine alınız. Örneğin; eğer okuduğunuz ifadenin sizi yansıttığına kesinlikle katılmıyorsanız 1'i yuvarlak içine alınız. Eğer kararsızsanız 4'ü ve eğer kesinlikle katılıyorsanız 7'yi yuvarlak içine alınız, vb.

Her sütunda, size uygun olan rakamı yuvarlak içine alınız	Kesinlikle Katılmıyorum				Kesinlikle Katılıyorum		
1. İşlerin bir şekilde üstesinden gelirim.	1	2	3	4	5	6	7
2. Hayatta birşeyleri başarmış olmaktan gurur duyarım.	1	2	3	4	5	6	7
3. Genellikle ileriye dönük düşünürüm.	1	2	3	4	5	6	7

APPENDIX I: Parent Consent Form / Veli Onay Formu

Sevgili Anne/Baba,

Bu çalışma Prof. Dr. Oya Yerin Güneri danışmanlığında, Ortadoğu Teknik Universitesi Psikolojik Danışmanlık ve Rehberlik Doktora Programı öğrencisi Zeynep Aydın Sünbül tarafından tarafından yürütülmektedir.

Bu çalışmanın amacı nedir? Çalışmanın amacı, öz-duyarlık, duygu düzenleme ve umut düzeyinin sosyo-ekonomik açıdan dezavantajlı ergenlerin bilinçli farkındalık ve psikolojik sağlamlıkları arasındaki ilişkide düzenleyici rolünü incelemektir.

Çocuğunuzun katılımcı olarak ne yapmasını istiyoruz?: Bu amaç doğrultusunda, çocuğunuzdan Ergenler için Bilinçli Farkındalık ve Dikkat Olçeği, Oz-Duyarlık Olçeği, Duygu Düzenleme Güçlüğü Olçeği, Umut Olçeği ve Psikolojik Sağlamlık Olçeği'ni cevaplamasını isteyeceğiz ve cevaplarını anketler yoluyla toplayacağız. Sizden çocuğunuzun katılımcı olmasıyla ilgili izin istediğimiz gibi, çalışmaya başlamadan çocuğunuzdan da sözlü olarak katılımıyla ilgili rızası mutlaka alınacak.

Çocuğunuzdan alınan bilgiler ne amaçla ve nasıl kullanılacak?: Çocuğunuzdan alacağımız cevaplar tamamen gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecektir. Elde edilecek bilgiler sadece bilimsel amaçla kullanılacak, çocuğunuzun ya da sizin ismi ve kimlik bilgileriniz, hiçbir şekilde kimseyle paylaşılmayacaktır.

Çocuğunuz ya da siz çalışmayı yarıda kesmek isterseniz ne yapmalısınız?: Katılım sırasında sorulan sorulardan ya da herhangi bir uygulama ile ilgili başka bir nedenden ötürü çocuğunuz kendisini rahatsız hissettiğini belirtirse, ya da kendi belirtmese de araştırmacı çocuğun rahatsız olduğunu öngörürse, çalışmaya sorular tamamlanmadan ve derhal son verilecektir.

Bu çalışmayla ilgili daha fazla bilgi almak isterseniz: Çalışmaya katılımınızın sonrasında, bu çalışmayla ilgili sorularınız yazılı biçimde cevaplandırılacaktır. Çalışma hakkında daha fazla bilgi almak için Psikolojik Danışmanlık ve Rehberlik Doktora Programı öğrencisi Zeynep Aydın Sünbül ile (e-posta: zeynepadn@yahoo.com) ile iletişim kurabilirsiniz. Bu çalışmaya katılımınız için şimdiden teşekkür ederiz.

Yukarıdaki bilgileri okudum ve çocuğumun bu çalışmada yer almasını onaylıyorum (Lütfen alttaki iki seçenekten birini işaretleyiniz.

Evet onaylıyorum___   Hayır, onaylamıyorum___

Annenin adı-soyadı: _____   Bugünün Tarihi:_____

Çocuğun adı soyadı ve doğum tarihi:_____

(Formu doldurup imzaladıktan sonra araştırmacıya ulaştırınız). ....

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APPENDIX J: Voluntary Participation Form / Gönüllü Katılım Formu

Değerli Katılımcı;

Bu çalışma, Prof. Dr. Oya Yerin Güneri danışmanlığında, Ortadoğu Teknik Universitesi Psikolojik Danışmanlık ve Rehberlik Doktora Programı öğrencisi Zeynep Aydın Sünbül tarafından doktora tezi kapsamında yürütülmektedir. Çalışmanın amacı, öz-duyarlık, duygu düzenleme ve umut düzeyinin sosyo-ekonomik açıdan dezavantajlı ergenlerin bilinçli farkındalık ve psikolojik sağlamlıkları arasındaki ilişkide düzenleyici rolünü incelemektir. Çalışmanın yürütülebilmesi için gerekli etik izinler alınmıştır.

Çalışmaya katılım tamamen gönüllülük esasına dayanmaktadır. Ankette, genel olarak, kişisel rahatsızlık verecek nitelikte sorular bulunmamaktadır. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissederseniz cevaplamayı istediğiniz anda bırakabilirsiniz. Çalışmayı yarıda kesmek size hiçbir sorumluluk getirmeyecektir. Verilen anketlerin hiçbirinin üzerine isminizi yazmayınız. Vereceğiniz bilgiler tamamen gizli tutulacak ve yalnızca bilimsel araştırma amacıyla kullanılacaktır.

Bu anket birden fazla psikolojik test içermektedir. Tüm soruların yanıtlanması yaklaşık 30 dakika sürmektedir. Soruların doğru ya da yanlış cevabı yoktur. Lütfen her bir testin başındaki yönergeyi dikkatlice okuyunuz ve sorulara sizi en iyi şekilde ifade eden cevabı vermeye çalışınız. Çalışmadan elde edilecek sonuçların güvenirliği bakımından tüm soruları içtenlikle ve eksiksiz olarak yanıtlamanız önemlidir.

Bu araştırma hakkında daha fazla bilgi almak isterseniz Ortadoğu Teknik Üniversitesi Psikolojik Danışmanlık ve Rehberlik Doktora Programı öğrencisi Zeynep Aydın Sünbül'e aşağıdaki e-mail adresinden ulaşabilirsiniz.

Katılımınız ve katkılarınız için teşekkür ederiz. Zeynep Aydın Sünbül, e-posta: zeynepadn@yahoo.com

Bu çalışmaya tamamen gönüllü olarak katılıyorum ve istediğim zaman yarıda kesip çıkabileceğimi biliyorum. Verdiğim bilgilerin bilimsel amaçlı yayımlarda kullanılmasını kabul ediyorum. (Formu doldurup imzaladıktan sonra uygulayıcıya geri veriniz).

Tarih   Imza

-----/-----/------   _____

ERGENLERDE BİLİNÇLİ FARKINDALIK VE KENDİNİ TOPARLAMA GÜCÜ ARASINDAKİ İLİŞKİ: ÖZ-DUYARLIK VE DUYGU DÜZENLEME GÜÇLÜĞÜNÜN DÜZENLEYİCİ ROLÜ

GİRİŞ

Ergenlik dönemi fiziksel, sosyal, bilişsel ve duygusal değişimlerin yanısıra birtakım zorluklar ve belirsizliklerin deneyimlendiği bir geçiş dönemidir. Bu süreçte, değişen yeni roller ve ilişkilere uyum sağlamak, bir kimlik oluşturmak ve benlik algısı geliştirmek ergenler için zorlayıcı görevlerdir. Bunlara ek olarak, bu dönemde ergenlerin gelecek ile ilgili belirsizlikler, psikolojik uyum sağlama ve yaşanan değişimler hakkında endişe duyduğu ve daha önceki gelişim dönemlerinin getirilerini kaybetmekten dolayı pişmanlık yaşadıkları belirtilmektedir (Coleman & Hagell, 2007). Bu süreçte yaşanan zorlu değişimlere uyum sağlamaya çalışan ergenler, aileleri ve başkaları ile ilişkilerde sorun yaşamakta, akademik yaşamlarını ve ruh sağlıklarını etkileyecek birtakım risklerle karşılaşabilmektedirler. Özetle, bu dönem, ergenlerin değişen gelişimsel süreçlere uyum sağlamaya çalışmanın yanı sıra, iyi oluşlarını

etkileyen birçok dışsal faktör nedeniyle artan düzeyde stres ve uyumsuzluk yaşamaktadır.

Coleman ve Hagell'e göre (2007), bu karmaşık değişimler ve olumsuz deneyimlere rağmen, birçok ergen yaşadığı zorluklar ve riskli durumlarla başa çıkma yolunu bulabilmektedir. Diğer taraftan, bu sürecin zorlukları karşısında korunmasız ve kırılgan olan ergenler diğerlerine kıyasla daha riskli bir durumda yer almaktadır. Bu kırılgan ve korunmasız gruplar arasında herhangi bir engele, psikiyatrik hastalığa, travmatik deneyimlere ve dezavantajlı yaşam koşullarına sahip ergenler ya da ebeveyn bakımı ve ilgisinden mahrum kalmış çocuk ya da ergenler yer alabilmektedir (Coleman & Hagell, 2007; Embury & Saklofske, 2014). Fakat, bu ve benzeri riskli durumlara sahip ergenlerin hepsinin bu zorlu süreci olumsuz bir şekilde tamamlamadığı bilinmektedir. Olumsuz koşullara ve riskli durumlara sahip ergenlerin bu süreçle başa çıkabilmelerine dair bu varsayım hem önleyici hem gelişimsel alanyazında cevap bulunması için önemli bir soruyu gündeme getirmiştir: Neden ve nasıl bazı risk grubundaki ergenler bu zorlu süreçleri başarı ile tamamlamakta ve riskli durumlarına rağmen uyum sağlayabilmektedir? Tam bu noktada, alanyazında giderek öne çıkan ve bireylerin yaşadıkları zorlukların ve risk içeren durumların başarılı bir şekilde üstesinden gelmesinde yardımcı olan özelliklerini ve deneyimlerini anlamak için bazı cevaplar barındıran bir kavram ortaya çıkmaktadır: *kendini toparlama gücü* (Embury & Saklofske, 2014).

Kendini toparlama gücü kavramını anlamaya yönelik çalışmaların geçmişi 1950 ve 1960'lı yıllarda travmatoloji ve gelişimsel psikopatoloji alanındaki araştırmacıların, risk altındaki çocukların yaşadıkları birçok zorlu durumu küçük zararlarla atlatmalarının nedenlerini anlama ve açıklama çabalarına dayanmaktadır. Bu çalışmalarda, dezavantajlı durumlarına olumlu bir şekilde uyum sağlayabilen bireylerin kendini toparlama gücü düzeyine etki eden temel kişilik özelliklerinin belirlenmesi amaçlanmıştır. Bu başlangıç çalışmaların takip eden diğer çalışmalarda kendini toparlama gücü kavramı kişilik özelliklerinden daha ziyade dinamik bir süreç olarak görülmeye başlanmış ve risk faktörlerinin yanında kendini toparlama gücü ile ilişkili olan ve risk faktörleri ile etkileşim içerisinde bulunan koruyucu birtakım faktörler ve süreçler araştırılmıştır (Graber, Pichon, & Carabine, 2015).

Hem başlangıç çalışmalarında hem de güncel çalışmalarda da vurgulandığı üzere, kendini toparlama gücü kuramları ve yapıları iki önemli süreci içermelidir. Bu iki önemli süreç, bir risk bağlamı ya da normal gelişim sürecine bir tehdit ve bu risk etmenlerine rağmen sağlıklı bir uyum sağlamadır (Masten, 2001). Bu doğrultuda kendini toparlama gücü çalışmaları incelendiğinde varolan bir risk bağlamı ve bu risk bağlamı içerisinde uyum sağlamayı kolaylaştıran koruyucu faktörlerin kişisel ve sosyal boyutlarda incelendiği görülmektedir. Bu çalışmalara örnek olarak Garmezy, Masten ve Tellegen (1984), annesi şizofren olan çocuklarda kendini toparlama gücünü incelemiş ve iyimserlik, problem çözme, özgüven, besleyici aile ilişkileri gibi faktörlerin önemli koruyucu

faktörler olduğu bildirmiştir. Benzer bir doğrultuda, Rutter (1987), riskli ailelerde yetişen, ebeveynini kaybeden ya da zorlayıcı kişilik özellikleri olan çocuk ve ergenlerin kendini toparlama gücünü inceleyerek bu risk grubunda birtakım kişisel, ailesel ve toplumsal koruyucu faktörleri araştırmıştır.

Kendini toparlama gücüne yönelik kuramsal yaklaşımlardaki risk bağlamı vurgusu nedeniyle, koruyucu faktör yapılarının büyük bir çoğunluğunun risk taşıyan bireyler ya da gruplara yönelik olduğu görülmektedir (Masten, 2001; Wright, Masten, & Narayan, 2013). İlgili çalışmalarda belirlenen risk faktörleri arasından tekil ya da çoğul risk durumlarının incelenmesi sonucunda düşük sosyo-ekonomik düzey özellikle çocuk ve ergenler açısından karmaşık zarar tehlikesi barındıran önemli bir risk faktörü olarak karşımıza çıkmaktadır (Luthar, 1991; Werner & Smith, 1992; Ungar & Teram, 2000; Coleman & Hagell, 2007; Brennan, 2008; Embury & Saklofske, 2014). Birçok çalışmada vurgulandığı üzere, sosyo-ekonomik açıdan dezavantajlı ailelerde yetişen çocuk ve ergenlerde ruh sağlığı sorunları (Miech, Caspi, Moffitt, Wright, & Silva, 1999; Hudson, G. C., 2005; Torikka, Kaltiala-Heino, Rimpelä, Marttunen, Luukkaala, & Rimpelä, 2014), davranışsal ve duygusal sorunlar (Schneiders, Drukker, Ende, Verhulst, Os, & Nicolson, 2003), antisosyal davranışlar (Piotrowska, Stride, Croft, & Rowe, 2015), intihara teşebbüs, sigara kötüye kullanımı ve içki alışkanlığı (Newacheck, Hung, Park, Brindis, & Irwin, 2003) ve fiziksel belirti ve hastalık (Chen & Paterson, 2006; Colhoun, Hemingway, & Poulter, 1998; Kaplan & Keil, 1993) gibi durumlar diğer ergenlere göre daha fazla görülmektedir.

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Kendini toparlama gücüne ilişkin alanyazında da sosyo-ekonomik açıdan dezavantajlı gruplarla yürütülen ve bu gruplarda koruyucu faktörleri belirten çalışmalar yer almaktadır. Örneğin Stepleman, Wright ve Bottonari (2009), düşük sosyo-ekonomik düzeye sahip gençlerde birtakım risk ve koruyucu faktörlere işaret etmiştir. Bu gruplar için koruyucu faktörler bireysel (kişisel kontrol, özgüven, cinsiyet, medeni durum,eğitim, vb.), ailesel (ebeveyn tutumları, sosyal destek, vb.) ve toplumsal (kültür ile özdeşleşmek, sağlık imkanlarına erişim, vb.) boyutta sunulmuştur. Benzer bir değerlendirme çalışmasında, Zolkoski ve Bullock (2012) yoksul, şiddete maruz kalmış çocuk ve gençlerde iyimserlik, otonomi, öz-düzenleme, olumlu benlik algısı, destekleyici aile tutumu, toplumsal kaynaklara erişim gibi faktörlerin bu grupta koruyucu faktörleri oluşturduğunu bildirmiştir.

Risk grubu altındaki dezavantajlı çocuk ve ergenler için sunulan risk ve koruyucu yapılara ilişkin alanyazın incelendiğinde, bireylerin karşılaştıkları zorluklarla başa çıkmalarında birçok faktörün etkin olduğunu ortaya koymaktadır. Alanyazında yer alan bu faktörlerden yola çıkarak, bu çalışmada, sosyo-ekonomik açıdan dezavantajlı ergen gruplarının kendini toparlama gücü düzeyleri ile ilişkili olan birtakım bireysel psikolojik süreçlerin incelenmesi amaçlanmıştır. Ek olarak, daha önceki alanyazında ortaya çıkan bireysel koruyucu faktörlere ilişkin ortak bulgular incelenerek, kendini toparlama gücü olgusunun olumlu bireysel gelişim ve iyi olma hali için birtakım varsayımları barındıran güncel bir yaklaşımla ele alınması hedeflenmektedir. Bu doğrultuda,

bilişsel davranışçı yaklaşımların güncel uzantısı olan ve olumlu bireysel gelişim ile güçlü ilişkileri bulunan bilinçli farkındalık ve ilişkili müdahaleler kendini toplama gücü için yeni bir bakış açısı olarak kabul edilmiştir. Bu varsayım, öncelikle bilinçli farkındalık ile ilişkili güncel çalışmalarda, kavramın psikolojik iyi hali ve işlevsellik (Nilsson, 2014) ve kendini toparlama gücü (Keye & Pidgeon, 2014; Kurilova, 2013) ile ortaya çıkan ilişkileri ile desteklenebilir. Ek olarak, bilinçli farkındalık kavramının psikolojik işlevsellik üzerindeki doğrudan etkilerinin yanında, kavramın kuramsal ve pratik olarak ilişkisi olan birtakım teröpatik süreçlerin de fiziksel ve ruhsal iyilik hali değişkenleri üzerindeki etkileri birçok çalışmada ortaya konmuştur. Bilinçli farkındalık ile ilişkili olduğu ortaya konulan bu terapötik süreçler kendini kabul etme, duygu farkındalığı, olumlu öz-yargılama, affedicilik (Kyrimis, 2007) dikkat, farkındalık, gerçekliği olduğu hali ile yargılamadan kabullenme (Mace, 2008), öz duyarlık, duygu düzenleme ve iyi oluş (Bluth & Blanton, 2014; Myers, 2015) olarak belirtilmektedir. Bunun yanı sıra, bilinçli farkındalığın kendini toparlama gücü açısından yordayıcı özelliğinin incelendiği araştırmalarda ise işlevsel başetme tepkileri (Weinstein, Brwon, & Ryan, 2008), özerklik ve öz-düzenleme (Parto & Besharat, 2011), duyguları düzenleme (Southwick & Charney, 2012), öz-duyarlık (Bluth and Blanton, 2014) ve özgüven (Bajaj, Gupta, & Pande, 2016) gibi psikolojik süreçler önemli aracı terapötik değişkenler olarak karşımıza çıkmaktadır. Tüm bu varsayımlardan yola çıkarak, bu çalışmada bilinçli farkındalık ile ilişkili terapötik süreçler, psikolojik işlevsellik değişkenleri ve özellikle kendini toparlama gücü için önemli yordayıcılar olarak ele alınmıştır.

Benzer noktadan hareketle, çalışmada bilinçli farkındalık ve kendini toparlama gücü ile ilişkili alanyazın birlikte ele alındığında, öz-duyarlık ve duygu düzenleme süreçlerinin her iki alanyazında da öne çıkan psikolojik süreçler olduğu dikkat çekmiştir.

Sonuç olarak, bir yandan riskli gruptaki ergenler için ortaya çıkan koruyucu kişisel faktörlerin diğer yandan ruhsal ve fiziksel iyilik halini destekleyen bilinçli farkındalık kuram ve uygulamalarının birlikte ele alınması ile oluşturulan bilinçli farkındalık temelli kendini toparlama gücü modelinin ilk olarak kendini toparlama gücü alanyazınına katkı sağlayacağı varsayılmaktadır. Bilinçli farkındalığın öz-duyarlık ve duygu düzenleme güçlüğü aracılığıyla ergenlerde kendini toparlama gücünü ne derece etkilediğini belirlemek muhtemel koruyucu faktörlerin ortaya çıkarılması açısından da önemli kabul edilmiştir. Buna ek olarak, Kumpfer (1999) riskli gruptaki ergenler için önleyici çalışmaların oluşturulmasında bu gruplarda kendini toparlama gücü ile ilişkili özelliklerin ortaya çıkarılmasının önemli olduğunu ifade etmektedir. Bu nedenle, kendini toparlama gücünün bilinçli farkındalık temelli bir model çerçevesinde incelenmesinin riskli ergen gruplarında bu özellikleri desteklemek ve riskin olumsuz sonuçlarını azalmak için oluşturulabilecek müdahale ve programlar için bir yapı ve çerçeve olacağı varsayılmaktadır.

Araştırmanın Amacı

Bu çalışmanın amacı sosyo-ekonomik açıdan dezavantajlı 9, 10 ve 11. sınıf öğrencilerinde öz-duyarlık ve duygu düzenleme güçlüğünün bilinçli farkındalık ve kendini toparlama gücü düzeyleri arasındaki ilişkide aracı rolünü incelemek için oluşturulan modeli test etmektir. Bilinçli farkındalık ile ilişkili kuram ve uygulamalardan yola çıkarak, bu araştırma riskli grupta kabul edilen ergenler için bireysel psikolojik süreçler olan öz-duyarlık ve duygu düzenleme güçlüğü aracılığı ile oluşturulan bilinçli farkındalık temelli bir kendini toparlama gücü modeli sunmaya yöneliktir.

Önerilen Model

Kendini toparlama gücüne yönelik önerilen yol modelinde, bilinçli farkındalık ile kendini toparlama gücü arasındaki ilişki öz-duyarlık ve duygu düzenleme güçlüğü aracılığıyla test edilmiştir. Yol modelinde, bilinçli farkındalık çalışmanın bağımsız değişkeni, öz-duyarlık, duygu düzenleme güçlüğü ve kendini toparlama gücü bağımlı değişkenlerdir. Bunun yanı sıra, önerilen modelde, öz-duyarlık ve duygu düzenleme güçlüğü, bilinçli farkındalık ve kendini toparlama gücü arasındaki ilişkide doğrudan ve dolaylı etkileri test edilen ara değişkenlerdir.

Araştırmanın Önemi

Günümüz dünyasında birtakım ekonomik, sosyal ve çevresel tehdit ve kriz yer almaktadır. Politik savaşlar, anlaşmazlıklar, göç, ekonomik belirsizlikler, doğa olayları, kirlilik ve kültürel karmaşalar birçok aileye ve dolayısıyla çocuklarına erişebilmektedir. Modern dünyanın bu zorlukları ve karmaşası toplumdaki birçok insanın fiziksel ve ruhsal sağlığını olumsuz etkileyen bağlamlar yaratmaktadır. Diğer yandan, evsiz bireyler, risk altındaki gençler, şiddete maruz kalanlar ya da kronik hastalığı olan bireyler gibi birtakım gruplar da hem kendi kişisel problemleri hem de dışsal bu zorluklarla başetmeye çalışmakta ve dolayısıyla diğerlerine kıyasla daha dezavantajlı bir konumda bulunmaktadır (Embury & Saklofske, 2014). Bu karmaşık resim içerisinde yer alan kırılgan ve korunmasız gruplar arasından, riskli yaşantı ya da geçmişe sahip olan gençler, yaşadıkları bireysel ve sosyal uyumsuzlukları dengelemek adına zarar verici davranışlarda bulunma potansiyeli olan dezavantajlı gruplardan kabul edilmektedir. Herhangi bir engele ya da belirli bir ruh sağlığı bozukluğuna sahip çocuk ve gençler, yetiştirme yurdunda büyüyenler, dağılmış ya da zayıflamış aile yapısı ya da ilişkilerine sahip olanlar ya da dezavantajlı koşulları nedeni ile sosyal dışlanmaya maruz kalan gençler bu kırılgan gruplar arasında sayılabilir (Coleman & Hagell, 2007).

Gelişimsel ve önleyici yaklaşımlarda, riskli etmenler ve zorlayıcı koşullara sahip olmak gibi durumların çocuk ve ergenler üzerindeki etkileri uzun bir süredir

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araştırılmaktadır (Embury & Saklofske, 2014). Bu doğrultuda, alanyazında risk durumları ve bu gibi durumların yarattığı zarar verici davranışlara ilişkin süreçler birçok çalışmaya konu olmuştur (Sales & Irwin, 2009). Ancak özellikle risk bağlamı ve riskli davranışlar üzerindeki vurgu 1990'lı yıllarda ortaya çıkan pozitif psikoloji kavramı ile değişmeye başlamış, araştırmacılar bireylerin patolojik eğilim ve davranışlarından öte 'yetkinlik' 'güç kaynakları' gibi olumlu özelliklerine odaklanmaya başlamıştır (Seligman & Csikszentmihalyi, 2000). Risk bağlamından güç kaynakları temelli bakış açısına doğru yaşanan bu değişim bahsedilen risk odaklı çalışmalarda da riskli davranış ve bağlamlar üzerindeki vurguyu olumlu psikolojik işlevsellik ve uyum gibi daha olumlu süreçlere yöneltmeye başlamıştır (Masten & Powell, 2003; Rutter, 2012). Bu değişim, özellikle riskli gruplarla yapılan çalışmalarda başa çıkma ve uyum sağlamaya yönelik bir bakış açısını vurgulayarak riskli gruplarla çalışılmakta olan kendini toparlama gücü kavramını biraz daha ön plana çıkarmıştır (Rutter, 2012).

Masten'e göre (2001), kendini toparlama gücü tek ya da çoklu risk faktörlerine sahip bireylerde çalışılması gereken bir kavramdır. Çünkü bu faktörler olmadan herhangi bir zorluğa uyum sağlamak normal gelişimin bir parçasıdır. Destekleyici bir şekilde risk ve koruyucu faktör yapılarını içeren çalışmalar birçok farklı risk grubunda kendini toparlama gücünün 'neden' ve 'nasıl' kısımlarına odaklanmıştır. Daha önce de belirtildiği üzere, bu risk faktörleri içerisinden, çocuk ve ergenlerin psikolojik işlevselliğini ve iyilik halini olumsuz

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etkileyen düşük sosyo-ekonomik düzey önemli bir risk faktörü olarak karşımıza çıkmaktadır (Coleman & Hagell, 2007). Bu risk faktörünü deneyimleyen bireyler, sosyal konumlarını da olumsuz etkileyen yoksulluk, düşük eğitim düzeyi ve vasıfsız meslekler gibi birtakım dezavantajlı koşullara sahiptir (Stepleman, Wright, & Bottonari, 2009). Düşük sosyo-ekonomik düzeyde bulunan çocuk ve ergenler birçok sağlık sorunu ve ölüm oranı (Adler, et al., 1994), psikiyatrik sorunlar (Huurre, Rahkonen, Komulainen, & Aro, 2005) ve ayrımcılık/ırkçılığa maruz kalma (Stepleman, Wright, & Bottonari, 2009) açısından da diğer çocuklara ve gençlere göre daha dezavantajlı durumda yer almaktadır. Dolayısıyla, bu zorluklarla başa çıkmaya çalışan çocuk ve ergenlerde birtakım koruyucu nitelikteki faktörün belirlenmesi kendini toparlama gücü kuramları ve müdahaleleri açısıdan oldukça değerli bir çaba olarak görülmektedir (Coleman & Hagell, 2007; Embury & Saklofske, 2014).

Sonuç olarak, sosyo-ekonomik açıdan dezavantajlı bireylerin deneyimlediği zorluklar ile kendini toparlama gücü ile kuramsal yaklaşımların risk grupları için vurguladıkları noktalara dayanarak bu çalışma düşük sosyo-ekonomik düzeye sahip bir grup ergende kendini toparlama gücü süreci ve birtakım muhtemel koruyucu faktörleri ortaya çıkarmayı amaçlamıştır. Araştırmada yer alan bölgeler yapılan istatistiklerde düşük gelir ve eğitim düzeyi, göç ve nüfus yoğunluğu, okullardaki öğrenci sayısının fazlalığı, yoğun işsizlik oranı, yetersiz sağlık koşulları ve düşük yaşam doyumu, mutluluk ve umut ölçümlerinin olduğu bölgelerdir (Şeker, 2011; TÜİK, 2013). Dolayısıyla çalışmada önerilen kendini

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toparlama gücü modeli, bu ve benzer gruplarda ortaya çıkarılan koruyucu faktörlerin incelenmesi ile oluşturulmuştur. Bu doğrultuda, kendini toparlama gücü kavramı birçok psikolojik süreçle ilişkisi bulunan bilinçli farkındalık temelli bir yaklaşımla ele alınmıştır (Nilsson, 2014). Çalışmada, bilinçli farkındalık ve kendini toparlama gücü arasındaki ilişkinin öz-duyarlık ve duygu düzenleme süreçlerinin aracı rolüyle incelenmesi amaçlanarak varolan koruyucu faktör alanyazınına katkı sağlayacağı varsayılmıştır. Ayrıca, bu grup için önerilen yol modeli ile özellikle riskli gruplarda koruyucu faktörlerin vurgulanmasına dayanan bilinçli farkındalık temelli müdahale ve programları teşvik etmek amaçlanmıştır.

YÖNTEM

Örneklem

Araştırmanın katılımcılarını 2015-2016 eğitim öğretim yılı 2. döneminde Sultanbeyli, Sarıgazi ve Ümraniye bölgelerinde yer alan 3 Anadolu Lisesi'ne devam eden 14-19 yaş aralığında toplam 752 (426 kız, 326 erkek) 9, 10 ve 11. sınıf öğrencilerinden oluşmaktadır.

Veri Toplama Araçları

Araştırmada Kişisel Bilgi Formu, 14 Madde Psikolojik Sağlamlık Ölçeği, Ergenler için Bilinçli Farkındalık ve Dikkat Ölçeği, Öz-Duyarlık Ölçeği ve Duygu Düzenleme Güçlüğü Ölçeği veri toplama araçları olarak kullanılmıştır.

Kişisel Bilgi Formu'nda örneklemin sosyo-demografik niteliklerini belirlemek amacıyla yaş, cinsiyet, sınıf düzeyi, kardeş sayısı, ikamet, ailenin aylık geliri ve ana-baba eğitim düzeyine ilişkin sorular yer almıştır.

14-Madde Kendini Toparlama Gücü Ölçeği (Wagnild, 2010) ergenlerde kendini toparlama gücünü ölçmek amacıyla yetişkinler için geliştirilen 25 maddelik forma alternatif olarak geliştirilmiştir. Ölçeğin 14 madde formu, 25 maddelik formda olduğu gibi kuramsal olarak sakinlik, azim, kendine inanma, anlamlılık ve varoluşsal yalnızlık alt boyutlarından oluşacak şekilde düzenlenmiştir. Ancak, ölçeğin açımlayıcı ve doğrulayıcı faktör analizi sonuçları 14 maddenin tek bir faktöre yüklendiğini göstermiştir. Tek faktörlü yapıda kabul edilen ölçek 1 (kesinlikle katılmıyorum) – 7 (kesinlikle katılıyorum) arasında derecelendirme kullanılarak geliştirilmiştir. Ölçekten alınabilecek en yüksek puan 98 olmakla beraber yüksek puanlar kendini toparlama gücünün yükseliğini bildirmektedir. Ölçeğin Cronbach's alpha iç tutarlık katsayısı .93 olarak bulunmuştur (Wagnild, 2010). Ölçeğin 14 madde formunun Türkçe adaptasyonu yoktur ancak yetişkinler için geliştirilen 25 maddelik formun uyarlama çalışmaları Terzi

(2006) tarafından yapılmıştır. Yapılan faktör analizi sonucunda bir faktöre yüksek düzeyde yüklenen 2 maddenin çıkarılması ile 7 faktörlü bir yapı ortaya çıkmıştır. Ayrıca 23 maddelik bu formun güvenirlik katsayısı .82 olarak bulunmuştur.

Bu çalışma kapsamında, ergenler için geliştirilmiş olan 14 maddelik form, Terzi (2006) tarafından çevirisi ve adaptasyonu yapılan 25 maddelik formun maddelerinde küçük değişiklikler yapılarak yeniden çevirilmiş ve analiz öncesi doğrulayıcı faktör analizi yapılmıştır. Ölçeğin orijinal geliştirilme sürecine paralel olarak, doğrulayıcı faktör analizi sonuçları 14 maddelik formun tek bir faktöre yüklendiğini göstermiştir ($\chi2$ = 334.9, df = 77, $\chi2$ / df = 4.4; GFI = 0.94, CFI = 0.93; TLI = .91; RMSEA = .07). Ayrıca ölçeğin Cronbach's alpha iç tutarlılık katsayısı bu araştırma kapsamında .81 olarak bulunmuştur.

Ergenler İçin Bilinçli Dikkat ve Farkındalık Ölçeği (Brown, West, Loverich, & Biegel, 2011) 14-18 yaş aralığındaki ergenlerde bilinçli farkındalığın temel özelliklerini ölçmek için geliştirilmiş 14 maddelik bir ölçektir. Ölçek tek faktörlü bir yapı çerçevesinde dikkatin algısal boyutunu ve şuanki ya da anlık deneyimlere yönelik gözlem ve farkındalığı ölçmektedir. Her madde 1 (hemen hemen her zaman) – 6 (hemen hemen hiçbir zaman) arasında düzenlenen 6 dereceli ölçek üzerinden değerlendirilmiştir ve yüksek puanlar bilinçli dikkat ve farkındalığın yüksekliğini bildirmektedir. Ölçekten alınabilecek en yüksek puan 84, en düşük puan ise 14'tür. Ölçeğin Cronbach alpha iç tutarlık katsayısı .82,

test-tekrar test güvenirliği .79 olarak bulunmuştur. Açımlayıcı ve doğrulayıcı faktör analizi sonuçları ölçeğin tek faktörlü yapısını desteklemiştir.

Araştırma kapsamında ölçek Türkçe'ye çevirilerek, geçerlik ve güvenirlik çalışmaları 383 öğrenci ile gerçekleştirilen pilot çalışma ile yapılmıştır. Doğrulayıcı faktör analizi sonuçları 14 maddenin orijinal ölçekteki gibi tek faktöre yüklendiğini göstermiştir ($\chi2 = 162.5$, df = 75, $\chi2 / df = 2.17$; GFI = 0.94, CFI = 0.92; TLI = .90; RMSEA = 0.06). Bunun yanı sıre ölçeğin Cronbach's alpha iç tutarlılık katsayısı .81 olarak bulunmuştur.

Öz Duyarlık Ölçeği (Neff, 2003a) öz-duyarlık kavramını özsevecenliğe karşı öz-yargılama, paylaşımların bilincinde olmaya karşı yabancılaşma ve bilinçliliğe karşı aşırı özdeşleşme alt boyutlarını içeren 6 alt boyut ile ölçmekte olan 26 maddelik bir ölçektir. Ölçek maddeleri 1 (hiçbir zaman) - 5 (her zaman) arası derecelendirme ile düzenlenmiştir. Ölçekte toplam puan hesaplanırken öz-yargılama, yabancılaşma ve aşırı özdeşleşme alt ölçeklerine ilişkin maddeler ters puanlanmakta ve bu puanlar öz-sevecenlik, paylaşımların bilincinde olma ve bilinçlilik alt ölçeklerinden elde edilen puanlarla toplanmaktadır. Ölçekten alınabilecek en yüksek puan 130, en düşük puan ise 26 olmakla birlikte yüksek puanlar öz-duyarlığın yükseliğine işaret etmektedir. Ölçeğin içtutarlık katsayısı .93 olarak hesaplanmıştır (Neff, 2003b). Öz Duyarlık Ölçeği, Akın, Akın ve Abacı (2007) tarafından Türkçe'ye uyarlanmış ve ölçeğin 6 faktörlü yapısı bu uyarlama çalışmasında da desteklenmiştir. Ölçeğin uyarlama çalışmasında iç

tutarlık katsayıları öz-sevecenlik için .77, öz-yargılama için .72, paylaşımların bilincinde olma için .72, yabancılaşma için .80, bilinçlilik için .74 ve aşırı özdeşleşme için .74 olarak bulunmuştur.

Bu çalışma kapsamında gerçekleştirilen doğrulayıcı faktör analizi ölçeğin kuramsal olarak sunulan 6 faktörlü yapısını desteklemiştir ($\chi2 = 808.7$, df = 283, $\chi2$ / df = 2.86; GFI = 0.92, CFI = 0.91; TLI = .90; RMSEA = 0.05). Ayrıca bu araştırmada, Cronbach's alpha iç tutarlık katsayısı tüm ölçek için .89 olarak bulunmuştur.

Duygu Düzenleme Güçlüğü Ölçeği (Gratz & Roemer, 2004) duygu düzenleme güçlüklerini ölçmek için geliştirilen 36 maddeden oluşan bir ölçme aracıdır. Ölçek 1 (neredeyse hiçbir zaman) – 5 (neredeyse her zaman) arası derecelendirme ile düzenlenmiştir. Ölçek duygusal farkındalık eksikliği (6 madde), duygusal açıklık eksikliği (5 madde), duygusal tepkileri kabul etmeme (6 madde), duygu düzenleme stratejilerini sınırlı kullanma (8 madde), dürtü kontrol güçlükleri (6 madde) ve amaçlı davranışları gerçekleştirmede zorluklar (5 madde) olmak üzere 6 alt boyuttan oluşmaktadır. Ölçekte toplam puanı hesaplamak için olumlu biçimde ifade edilen farkındalık altölçeğinde 6 madde, açıklık alt ölçeğinde 2 madde, amaçlar alt ölçeğinde 1 madde, stratejiler alt ölçeğinde 1 madde ve dürtü alt ölçeğinde 1 madde ters puanlanmakta ve diğer maddelerden alınan puanlarla toplanmaktadır. Ölçekten alınabilecek en yüksek puan 180, en düşük puan ise 36'dır. Ölçeğin iç tutarlılık katsayısı tüm ölçek için

.93 bulunmuş, alt ölçekler için ise .80 ile .89 arasında bulunmuştur. Test-tekrar test güvenirliği ise .88 bulunmuştur. Ölçeğin Türkçe'ye uyarlama ve adaptasyon çalışması Rugancı (2008) tarafından gerçekleştirilmiştir. Ölçekte 1 madde dışında (madde 10) diğer maddelerin faktör yapısı orjinal ölçekteki gibi bulunmuştur. Ölçeğin Cronbach's alpha iç tutarlılık katsayısı tüm ölçek için .94, açıklık için .82, amaçlar için .90, dürtü için .90, kabul etmeme için .83, stratejiler için .89 ve farkındalık için .75 olarak bulunmuştur.

Araştırma kapsamında ölçeğin geçerlik ve güvenirliği incelenmiş ve doğrulayıcı faktör analizi sonuçları ölçeğin 6 faktörlü yapısını desteklemiştir ($\chi2$ = 1696.5, df = 579, $\chi2$ / df = 2.95; GFI = 0.88, CFI = 0.91; TLI = .90; RMSEA = 0.05). Bunun yanı sıra, tüm ölçek için iç tutarlılık katsayısı .84 olarak hesaplanmıştır.

Veri Analizi

Veri analizi aşamasında öncelikle veri temizleme ve tarama süreçleri, verilerin doğruluğu, kayıp veriler, uç değer analizi ve normallik incelemesi ile betimsel istatistik ve korelasyon değerleri SPSS 20 paket programı ile incelenmiştir (IBM, 2011). Buna ek olarak, önerilen kendini toparlama gücü modeli için model uyum değerleri ve yol katsayılarını saptamak için AMOS 18 (Byrne, 2001) programı kullanılmıştır.

BULGULAR

Araştırmada yol analizi gerçekleştirilmeden önce, ilk olarak kayıp veriler ve uç değerler ön analiz bağlamında incelenmiştir. Kayıp verilerin saptanmasında her bir madde için toplam hücre sayısının %5'inden daha az hücre bulunması durumunda ortalama değer ile yer değiştirme yöntemi önerilmektedir (Tabachnick & Fidell, 2006). Tüm veri seti içerisinde hiçbir maddede toplam hücre sayısının %5'inden daha fazla hücre bulunmadığı için boş veriler için ortalama değer ile yer değiştirme yöntemi kullanılmıştır. Uç değerleri saptamak için, tek değişkenli uç değerler z puanları ile (±3.29), çok değişkenli uç değerler ise χ^2 dağılım tablosu yardımı ile Mahalanobis uzaklık değerleri kriterine göre hesaplanmıştır. Uç değerler ile ilişkili değerlerin incelenmesi sonucunda kriter değerlerin dışında kalan 40 kişiye ait veriler analiz dışı bırakılmıştır (Tabachnick & Fidell, 2006).

Sonraki adımda tek değişkenli normallik, doğrusallık, eşdeğişkenlik ve çoklu doğrusallık incelenmiştir (Kline, 2011). Tekdeğişkenli normallik, Çarpıklık ve Basıklık değerleri ± 3 kriterine göre incelenmiş ve tüm ölçme araçlarına ilişkin verilerin normal dağıldığı görülmüştür. Bunun yanı sıra doğrusallık, saçılım grafiği matriksi ile eşdeğişkenlik ise saçılım grafiği ile incelenmiş ve bu varsayımların karşılandığı görülmüştür. Ayrıca yordayan değişkenler arasında çoklu doğrusallık problemi olup olmadığı korelasyon değerleri ile incelenmiş ve yordayan değişkenler arasında .90 üzerinde bir korelasyon değeri bulunmadığı

için bu varsayım da karşılanmıştır (Tabachnick & Fidell, 2006). Sonuç olarak yapılan ön analizler ve varsayımların incelenmesi ile 40 katılmcıya ait verinin analiz dışında bırakılması ile yol analizi toplam 712 katılımcıya ait veri ile gerçekleştirilmiştir.

Yol analizi gerçekleştirilmeden önce bağımlı değişken kendini toparlama gücü cinsiyet açısından incelenmiştir. Yapılan t-testi sonucu kendini toparlama gücü puanlarında cinsiyet açısından anlamlı bir fark olmadığını göstermiştir ($t = -1.12$; $p = .70$). Sonrasında değişkenler arasında korelasyon değerleri incelenmiştir. Beklenildiği üzere, bilinçli farkındalığın öz duyarlık ile pozitif yönde anlamlı düzeyde, duygu düzenleme güçlüğü ile negatif yönde anlamlı düzeyde ilişkili olduğu bulunmuştur. Öz duyarlık ile duygu düzenleme güçlüğü arasında güçlü negatif ilişiler bulunmuştur. Ayrıca, öz duyarlığın kendini toparlama gücü ile pozitif yönde anlamlı ilişkisi olduğu görülürken, duygu düzenleme güçlüğünün kendini toparlama gücü ile negatif yönde anlamlı ilişkisi olduğu görülmüştür.

Sonraki adımda, yol analizi ile önerilen model test edilmiştir. İlk olarak, bağımsız değişken bilinçli farkındalık ve bağımlı değişken kendini toparlama gücü arasındaki ilişkide ara değişkenler öz-duyarlık ve duygu düzenleme güçlüğünün aracı etkilerine yönelik önerilen modele ilişkin uyum değerleri birtakım uyum indeksleri yolu ile incelenmiş ve ortaya çıkan tüm değerlerin alanyazında önerilen kriter değerlere uygun olduğu bulunmuştur (χ^2, df = 2.1:1, χ^2/df = 2.1, CFI=1.00, TLI = .99, RMSEA=.04, GFI=1.00). Bunun yanı sıra,

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değişkenler arasındaki yol katsayıları hesaplanmış ve bu katsayıların .22 ile -.53 arasında değiştiği görülmüştür (s. 101). Etki büyüklüğü indeksi göz önüne alındığında bilinçli farkındalığın hem öz-duyarlık (β=.40) hem de duygu düzenleme güçlüğü (β=-.33) üzerinde orta düzeyde istatistiki olarak anlamlı etkileri olduğu; benzer şekilde öz-duyarlık (β=.22) ve duygu düzenleme güçlüğünün (β=-.28) kendini toparlama gücü üzerinde orta düzeyde istatistiki olarak anlamlı etkiler taşıdığı görülmüştür. Ayrıca, bilinçli farkındalığın kendini toparlama gücünü hem öz-duyarlılığın (β=.11) hem de duygu düzenleme gücünün (β=.17) aracı etkileri ile anlamlı bir şekilde yordadığı görülmüştür. Ayrıca, kendini toparlama gücüne ilişkin açıklanan varyans değeri (R^2) bilinçli farkındalık, öz-duyarlık ve duygu düzenleme güçlüğü değişkenleri ile oluşturulan modelin kendini toparlama gücündeki varyansın % 21'ini açıkladığını ortaya çıkarmıştır.

TARTIŞMA

Bu çalışmanın amacı sosyo-ekonomik açıdan dezavantajlı ergenlerin bilinçli farkındalık ve kendini toparlama gücü düzeyleri arasındaki ilişkide öz-duyarlık ve duygu düzenleme güçlüğünün düzenleyici etkilerine yönelik önerilen bir modeli test etmektir. İlişkili alanyazının incelenmesi ile bilinçli farkındalık ve kendini toparlama gücü arasındaki ilişkide öz-duyarlık ve duygu düzenleme güçlüğünün düzenleyici etkilerinin yanı sıra aracı değişkenler arasındaki ilişkiler de incelenmiştir. Oluşturulan modelde, bilinçli farkındalığın, öz-duyarlık ve

duygu düzenleme güçlüğü üzerindeki doğrudan etkileri, öz-duyarlığın duygu düzenleme güçlüğü üzerindeki etkisinin yanı sıra öz-duyarlık ve duygu düzenleme güçlüğünün kendini toparlama gücü düzeyi üzerindeki doğrudan etkileri test edilmiştir. Önerilen modelin uygunluğu ile modelin doğrudan ve dolayları etkilerini incelemek için yol analizi kullanılmıştır.

Yol analizi yapılmadan önce, kendini toparlama gücü açısından cinsiyete göre anlamlı bir farklılaşma olup olmadığı t-testi ile incelenmiştir. Bulgular cinsiyet açısından kendini toparlama gücü puanlarına anlamlı bir farklılaşma olmadığını göstermiştir. Ergenlerle gerçekleştirilen çalışmalar incelendiğinde, 14-Maddelik Kendini Toparlama Gücü Ölçeği'ni kullanan çalışmaların cinsiyet farkı açısından tutarsız sonuçlar verdiği görülmüştür. Ancak, Aiena ve ark. (2015) cinsiyete göre kendini toparlama gücü düzeylerinde ortaya çıkan farklılaşmaların klinik ve uygulama açısından anlamlı olduğu sonucundan yola çıkarak kesin yargılara ve sonuçlara varmanın yanıltıcı olacağını savunmaktadır.

Yol analizi sonuçları modelin veriye uyum değerlerinin kriter değerlere mükemmel şekilde uyum sağladığını ortaya koymuştur. Bunun yanı sıra, sonuçlar bilinçli farkındalığın öz-duyarlık üzerindeki etkilerinin pozitif yönde, duygu düzenleme güçlüğü üzerindeki etkilerinin ise negatif yönde anlamlı olduğunu ortaya koymuştur. Ortaya çıkan her iki bulguda alanyazındaki benzer çalışmalarla tutarlılık göstermektedir. Ayrıca, analiz sonuçları öz-duyarlığın kendini toparlama gücü için pozitif yönde anlamlı bir yordayıcı olduğunu, duygu

düzenleme güçlüğünün de kendini toparlama gücünü negatif yönde anlamlı düzeyde yordadığını ortaya koymuştur. Her iki bulgu daha önce gerçekleştirilen çalışmalar ile paralellik göstermektedir. Modelde önerilen aracı etkilere ilişkin sonuçlar incelendiğinde, bilinçli farkındalığın kendini toparlama gücünü hem öz-duyarlık hem de duygu düzenleme güçlüğü aracı etkisi ile anlamlı düzeyde yordadığı bulunmuştur. Bir başka deyişle, bilinçli farkındalık düzeyi arttıkça öz-duyarlık ve dolayısıyla kendini toparlama gücü artmakta, bilinçli farkındalık düzeyi arttıkça duygu düzenleme güçlüğü azalmakta kendini toparlama gücü de artmaktadır.

Araştırmada ortaya çıkan bulgulardan yola çıkarak uygulama açısından birtakım öneriler sunulabilir. Araştırmada bilinçli farkındalık ve ilişkili terapötik faktörlerin ergenlerde kendini toparlama gücü ile ilişkisi, okul psikolojik danışmanlarının benzer ya da farklı risk grubundaki ergenlerle kapsamlı bilinçli farkındalık temelli kendini toparlama gücü programları düzenlemesi konusunda cesaretlendirebilir. Bu programların içerik açısından düzenlenmesinde, bilinçli farkındalık temelli beceriler, öz-duyarlık ve ilişkili süreçler, duygular ve duyguları etkin yönetebilme, kendini kabul etme gibi becerilerin kazandırılması temel başlıklar olarak önerilebilir. Bunun yanı sıra, bu ve benzeri çalışmalar aracılığıyla alanda çalışan uzmanların hem uygulama hem de araştırmalarında ergenlere ilişkin olumsuz birtakım etmen ve süreçlerden öte, daha çok beceri ve yeterlilik odaklı bir yaklaşımla olumlu ve güç kaynağı niteliğindeki etmenlere odaklanmaları teşvik edilebilir.

Araştırmanın bulguları değerlendirildiğinde gelecekte yapılacak benzer çalışmalar açısından da birtakım öneriler sunulabilir. Araştırmada Ergenler İçin Bilinçli Dikkat ve Farkındalık Ölçeği ile 14-Madde Kendini Toparlama Gücü Ölçeği çalışma kapsamında çevrilerek ilk defa kullanılmıştır. Her iki ölçeğin geçerlik ve güvenirlik çalışmalarının daha geniş örneklem grupları ile tekrarlanması önerilebilir. Araştırmanın sonuçları, önerilen değişkenlerin kendini toparlama gücüne ilişkin varyansın %21'ini açıkladığını ortaya çıkarmıştır, dolayısı ile çalışma kapsamında yer almayan birtakım değişkenlerin de kendini toparlama gücü üzerindeki muhtemel etkileri göz önüne alınmalıdır. Ayrıca bu çalışma risk gurubu olarak kabul edilen sosyo-ekonomik açıdan dezavantajlı bir grup ergende kendini toparlama gücünü araştırmaya yönelmiştir; kendini toparlama gücünü anlamaya yönelik bilinçli farkındalık temelli diğer çalışmalar farklı risk grubunda yer alan çocuk ve ergenlerle gerçekleştirilebilir.

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2013-2015	Okan University	Instructor
2015-Present	Istanbul Medipol University	Instructor

FOREIGN LANGUAGES

English (Advanced)

PUBLICATIONS

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APPENDIX M: Tez Fotokopisi İzin Formu

ENSTİTÜ

Fen Bilimleri Enstitüsü	☐
Sosyal Bilimler Enstitüsü	X
Uygulamalı Matematik Enstitüsü	☐
Enformatik Enstitüsü	☐
Deniz Bilimleri Enstitüsü	☐

YAZARIN

Soyadı : AYDIN SÜNBÜL

Adı   : ZEYNEP

Bölümü : EĞİTİM BİLİMLERİ BÖLÜMÜ

TEZİN ADI (İngilizce) : SELF COMPASSION AND DIFFICULTIES IN EMOTION REGULATION AS MEDIATORS OF MINDFULNESS AND RESILIENCE AMONG ADOLESCENTS

TEZİN TÜRÜ : Yüksek Lisans ☐   Doktora X

1.   Tezimin tamamı dünya çapında erişime açılsın ve kaynak gösterilmek şartıyla tezimin bir kısmı veya tamamının fotokopisi alınsın. X

2.   Tezimin tamamı yalnızca Orta Doğu Teknik Üniversitesi kullancılarının erişimine açılsın. (Bu seçenekle tezinizin fotokopisi ya da elektronik kopyası Kütüphane aracılığı ile ODTÜ dışına dağıtılmayacaktır.) ☐

3.   Tezim bir (1) yıl süreyle erişime kapalı olsun.
(Bu seçenekle tezinizin fotokopisi ya da elektronik kopyası Kütüphane aracılığı ile ODTÜ dışına dağıtılmayacaktır. ☐