

INTERPLAY OF PARENTAL INVOLVEMENT, SCHOOL BELONGING, PEER
SOCIAL SUPPORT, AND SELF-ESTEEM IN RESILIENCE OF ADOLESCENTS
FROM LOW SOCIOECONOMIC DISTRICTS

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ABSTRACT

INTERPLAY OF PARENTAL INVOLVEMENT, SCHOOL BELONGING, PEER SOCIAL SUPPORT, AND SELF-ESTEEM IN RESILIENCE OF ADOLESCENTS FROM LOW SOCIOECONOMIC DISTRICTS

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The aim of the current study is to investigate the role of individual factor (self-esteem) as mediator on the relationship among parental factor (perceived parental acceptance/involvement), environmental factors (perceived peer social support, and sense of school belonging) and resilience in adolescents from low socioeconomic districts.

The sample of the study was composed of 1312 high school students (673 female, 639 male) between 13-19 age ranges ($M = 15.67$, $SD = 1.18$). Demographic Information Form, 14-Item Resilience Scale, Parental Attitude Scale, Psychological Sense of School Membership Scale, Social Support Appraisals Scale for Children and Rosenberg Self-Esteem Scale were used to gather data. Structural equation modeling (SEM) was used to test hypothesized resilience model.

The results of SEM indicated that resilience was positively predicted from perceived parental acceptance/involvement, perceived peer social support, and sense of school belonging. Self-esteem was also found to predict resilience significantly and positively. In addition, self-esteem partially mediated the association between perceived parental acceptance/involvement, perceived peer social support, sense of school belonging and resilience. The results of the study showed that the proposed model explained 33% of the variance in the resilience of adolescents. Consequently, the findings supported significance of individual, parental, and environmental variables in adolescents' resilience.

Keywords: Resilience, Parental Acceptance/Involvement, Environmental Factors, Self-esteem, Adolescents from Low Socioeconomic Districts

ÖZ

DÜŞÜK SOSYO-EKONOMİK SEMTLERDEKİ ERGENLERİN YILMAZLIKLARINDA AİLE KATILIMI, OKUL AİDİYETİ, AKRAN SOSYAL DESTEĞİ VE ÖZ-SAYGININ ETKİLEŞİMİ

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Bu çalışmanın amacı, düşük sosyo-ekonomik semtlerdeki ergenlerde, bireysel (öz-saygı), ebeveyne ilişkin (ebeveynden algılanan kabul/ilgi) ve çevresel faktörler (akranlardan algılanan sosyal destek, okula aidiyet hissi) ile yılmazlık arasındaki ilişkiye aracılık etme rolünü incelemektir.

Çalışmanın örneklemini yaşları 13-19 arasında değişen ($M = 15.67$, $SD = 1.18$) toplam 1312 lise öğrencisi (673 kız, 639 erkek) oluşturmuştur. Araştırmada veri toplama araçları olarak Kişisel Bilgi Formu, 14-Madde Kendini Toparlama Gücü Ölçeği, Anne Baba Tutum Ölçeği, Okula Aidiyet Duygusu Ölçeği, Çocuk ve Ergenler İçin Sosyal Destek Değerlendirme Ölçeği ve Rosenberg Öz-saygı Ölçeği kullanılmıştır. Önerilen yılmazlık modelini test etmek için Yapısal Eşitlik Modellemesi (YEM) kullanılmıştır.

YEM sonuçları ebeveynden algılanan kabul/ilgi, akranlardan algılanan sosyal destek ve okula aidiyet hissi değişkenlerinin yılmazlığı olumlu yönde yordadığını

göstermiştir. Ayrıca, öz-saygı değişkeni de yılmazlığı anlamlı ve olumlu yönde yordamıştır. Buna ek olarak, öz-saygının ebeveynden algılanan kabul/ilgi, akranlardan algılanan sosyal destek, okula aidiyet hissi değişkenleri ile yılmazlık arasındaki ilişkilere kısmı olarak aracılık ettiği bulunmuştur. Araştırmanın sonuçları önerilen modelin ergenlerin yılmazlıklarındaki varyansın %33'ünü açıkladığını göstermektedir. Sonuç olarak, bulgular ergenlerin yılmazlığında bireysel, ebeveyne ilişkin ve çevresel değişkenlerin önemini desteklemiştir.

Anahtar Kelimeler: Yılmazlık, Ebeveynden Algılanan Kabul/İlgi, Çevresel Faktörler, Öz-saygı, Düşük Sosyoekonomik Semtlerdeki Ergenler

To my little sunshine, to my daughter, Nehir

&

To my beloved better half, Gökhan

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CHAPTER 1

INTRODUCTION

1.1. Background to the Study

Adolescence is a developmental transition period in which individuals encounter with many changes, challenges and transformations. Major transformations such as onset of puberty, accelerated physical development, increased complexity of brain development, acquaintance with new roles start at the period of adolescence (Erikson, 1959; Steinberg, Vandell, & Bornstein, 2011). Adolescents encounter with various developmental tasks such as making mutual relationships with peers, attaining emotional independence from parents, forming an identity, preparing for roles of adulthood or reflecting on career goals, and how they handle with these tasks have a life-long impact on their lives (Lerner & Steinberg, 2004).

In spite of multiple stress-inducing changes in this period, most adolescents pass through it without significant problems (Eccles et al., 1993). However, adolescents who are under risk such as having chronic disorder or psychiatric problem, having parents with mental disorder, living in a dangerous neighborhood or under adverse life conditions have a higher potential to develop negative physical or mental health outcomes (Zimmerman & Brenner, 2010). The identification of characteristics of adolescents who successfully pass through this developmental period is critical for prevention of psychological problems and supporting healthy development (Compas, 2004). At this point, resilience research which has focused on enlightening individual, familial or environmental characteristics of individuals successfully adapted to or overcome challenges could help understanding factors facilitating enhanced adjustment in adolescence period (Prince-Embury & Saklofske, 2014; Luthar, 2006).

The early studies on the concept of resilience mostly addressed the individual characteristics of resilient children from a developmental psychological perspective (Masten, 2014) and individuals who overcome challenges or successfully develop in spite of adverse life conditions were called as “invulnerable” (Werner & Smith, 1992). Garmezy (1993), who was one of the most influential researchers in resilience, challenged this label since it implies a fixed quality in individual. The upcoming various studies have underlined that resilience is a dynamic process of interaction between individual characteristics and environmental factors (Luthar, Cicchetti, & Becker, 2000; Masten & Wright, 2010). Although the debate about the definition, conceptualization and mechanisms of resilience has been continuing (Fletcher & Sarkar, 2013; Masten, 2014), a number of risk and protective factors operating for various populations have been identified in the literature. The resilience research has evolved from determination of protective factors to examining complex interaction of individual, familial, biological, social or cultural systems. Correspondingly, ecological system perspective considering these multilevel transactions has been utilized in recent years (Ungar, 2012; Wright, Masten, & Narayan, 2013).

A variety of theories or models explaining resilience processes and mechanisms in different populations suggested that interaction between risk conditions and protective factors should be considered in examining resilience (Fletcher & Sarkar, 2013). In regard to risk factors, Masten and Reed (2002) argued the concept of cumulative which refers to risk factors rarely occur in isolation, instead, individuals under risky conditions experience the effects of multiple risk factors. The low socio-economic status, which has been one of the risk factors negatively influencing healthy development of adolescents (Garmezy, 1993; Masten & Reed, 2002; Werner, 1989), has been considered as including cumulative risk factors (Luthar, 1991; Smokowski, Reynolds & Bezruczko, 1999; Ungar & Teram, 2000; Werner & Smith, 1992).

As Seidman and Peterson (2003) suggested, socioeconomic strains bring about many problems such as dangers in neighborhood, low-qualified schools, low parental

education or interaction with delinquent peers. The findings of many studies have supported that adolescents with disadvantageous socio-economic status reported higher mental health problems (Hudson, 2005; Miech, Caspi, Moffitt, Wright, & Silva, 1999), higher rates of physical diseases (Chen & Paterson, 2006), higher emotional and behavioral problems (Schneiders et al., 2003), higher risky behaviors (Newacheck, Hung, Park, Brindis, & Irwin, 2003), higher violent behaviors (Dornbusch, Erickson, Laird, & Wong, 2011; Edari & McManus, 1998) than adolescents with enhanced socioeconomic conditions. Fortunately, not all adolescents living under socioeconomically disadvantageous conditions develop physical or mental health problems (Masten & Coatsworth, 1998; Prince-Embury & Saklofske, 2014).

Resilience research has contributed revealing risk and protective factors, processes and mechanisms; and interaction between risky conditions and protective factors in adolescents under disadvantageous socio-economic conditions. Internal protective factors were found to be as intelligence (Luthar, 1991; Masten et al., 1999; Vanderbilt-Adrianne & Shaw, 2008), easy temperament (Werner & Smith, 1982, 1992), problem solving skills and social skills (Luthar, 1991), regulation skills such as good impulse control, self-control or self-regulation (Buckner, Mezzacappa, & Beardslee, 2003; Conger & Conger, 2002), internal locus of control (Luthar, 1991; Ungar & Teram, 2000), self-esteem (Buckner et al., 2003), self-efficacy (Smokowski et al., 1999; Wyman et al., 1999), having a sense of autonomy and purpose in life, optimism, hope (Smokowski et al., 1999) and empathy (Wyman et al., 1999).

Familial protective factors were supportive relationship with at least one parent or a family member (Conger & Conger, 2002; Masten et al., 1999; Seidman & Peterson, 2003; Smokowski et al., 1999; Vanderbilt-Adrianne & Shaw, 2008; Werner & Smith, 1982, 1992), family cohesion (Werner & Smith, 1982, 1992), consistent rules, structure and expectations at home, consistency in disciplinary practices (Buckner et al., 2003; Werner & Smith, 1982, 1992), parental involvement, parental monitoring (Buckner et al., 2003; Smokowski et al., 1999), and authoritative parenting style

(Conger & Conger, 2002). Studies have also found out various environmental protective factors such as having adult mentors outside home (Conger & Conger, 2002; Werner & Smith, 1982, 1992), having bonds with teachers in school (Smokowski et al., 1999; Werner & Smith, 1982, 1992), peer acceptance and support (Seidman & Peterson, 2003; Smokowski et al., 1999; positive school experiences (Werner & Smith, 1982, 1992).

Some studies in Turkey also investigated protective factors in adolescents under adverse economic conditions from resilience framework. The findings of these studies revealed that cognitive flexibility, perceived social support (Yavuz, 2015), high home expectations, caring peer relations, positive self-perception about one's academic abilities, having high educational aspirations, empathy, internal locus of control, being hopeful for future (Gizir, 2004) was associated with academic resilience in adolescents with low socioeconomic status. Sipahioğlu (2008) investigated resilience in adolescents living in poverty and found that adolescents with higher level of resilience reported higher peer caring relationships, empathy, having goals and educational aspirations, higher sense of problem solving abilities. Esen-Aktay (2010) revealed that resilient adolescents with low socioeconomic status had higher academic success, perceived support from parents, peers and teachers, bonds with schools, higher school expectations, and higher self-efficacy than adolescents with low resilience.

Based on this extensive literature on risk and resilience perspectives for at-risk adolescents, it can be inferred that multiple factors related to individual, familial and environmental levels influence positive adaptation of adolescents to adverse conditions. As Zolkoski and Bullock (2012) stated, listing protective factors and discovering how these protective factors operate are different phenomena. Inspired by ecological system theory, Lerner (2006) also proposed that resilience is neither an individual characteristic nor resources in environment of the individual, instead, it is a positive developmental attribute which thrives through interactions between the individual and his/her environmental context. Moreover, the rapid developmental

changes in adolescence necessitate the consideration of interplay between external resources and personal protective factors for resilience (O'Neill, Kuhlmeier, & Craig, 2018; Steinberg et al., 2011).

The focus on processes and mechanisms is considered as essential to contribute development of resilience research and to develop prevention and intervention programs for at-risk individuals (Luthar, 2006; Masten et al., 1999; Masten, 2001). In other words, examination of individual, familial and environmental protective factors as well as interaction among these different factors from a protective mechanism perspective may provide valuable contribution for adolescents with socio-economically disadvantageous conditions. In this direction, investigation of the interaction among personal, parental and environmental protective factors through generating a model of resilience for at risk adolescents became the focus of the current study to contribute to evolving resilience literature.

According to ecological systems theory (Bronfenbrenner, 1979), which guides the theoretical framework of this study, human behavior and development is shaped by simultaneous influences of individual, interpersonal and contextual factors. Although this theory considers the impact of four systems, namely, microsystem, mesosystem, exosystem and macrosystem, the influence of proximal contexts (e.g., the individual, family and peer factors in microsystem level) is suggested to be more powerful (Bronfenbrenner, 1979). In addition, Seidman and Peterson (2003) argued that cascading nature of economic adversity causes individuals being exposed to various distal risk factors, but proximal risk and protective circumstances are more detrimental for developmental outcomes from resilience perspective.

Based on findings of various studies mentioned above, the family is certainly one of the most influential factors in microsystem of adolescents facing difficult life conditions. In respect to resilience literature about adolescents living under socioeconomically adverse conditions, parental support, parental warmth, positive

relationship with parents and involvement of parents into the adolescents' life (Cauce, Stewart, Rodriguez, Cochran, & Ginzler, 2013; Conger & Conger, 2002; Masten et al., 1999; Seidman & Peterson, 2003) come into prominence. The acceptance/involvement refers to perceiving parents as warm, involved, responsive, and sensitive about the child's needs (Jaffe, 1998). Baumrind's (1991) parenting styles typology seems to capture both involvement and warmth received from parents. Lamborn, Mounts, Steinberg, and Dornbusch (1991), who adapted Baumrind's parenting framework to adolescent populations, reported two basic dimension of parenting; parental acceptance/involvement and parental strictness/supervision.

The perceived parental attitudes have been also found to be predictive of whether adolescents cope with stressful life events in an adaptive way (Dusek & Danko, 1994; Wagner, Cohen, & Brook, 1996). In a nearly twenty-year longitudinal study, Conger and Conger (2002) investigated resilience of adolescents with economically disadvantageous conditions. The nurturing, supportive parenting or parenting with low hostility had a direct impact, or compensatory effect, on positive outcomes defined as few emotional and behavioral problems for children and adolescents under economic adversity. The quality of parenting, the quality of sibling relationships and perceived support from adults outside the family were protective factors which had a moderating or buffering effects for adolescents experiencing economic strains. Smokowski and colleagues (1999) conducted a qualitative study to find out protective factors in resilience of adolescents from low-income families. In terms of family factors, adolescents also attributed their endurance for difficulties or resilience to family, especially maternal support and guidance, motivational support in the form of giving information about environmental risks, and parental monitoring.

The other essential factors in microsystem of adolescent development are certainly schools and peers. As the conceptualization of resilience evolved from defining it stable characteristic or trait to a dynamic, ongoing and modifiable process, the role of schools attracted the attention of resilience researchers as a protective factor (Brooker,

2006). Considering that children and adolescents spend a vast amount of their time in school, many protective factors and processes within the school environment could be utilized to foster their resilience. In spite of emphasis on important role of caregivers in resilience, connectedness to school and wider social relationships has been under-researched (Prince-Embury & Saklofske, 2014).

From an ecological system perspective to resilience, Henderson (2012) stated that schools are filled with many environmental protective factors which may foster resilience of children and adolescents. For instance, the results of Kauai Longitudinal Study conducted by Werner and Smith (1992) showed that teachers and schools were one of the most essential protective factors for children and adolescents with many risk factors. Henderson and Milstein (2003) asserted six steps for supporting resilience of children and adolescents in school environment; increasing bonding through asking parental involvement and allowing students participation in school activities; setting clear, consistent boundaries; teaching life skills; providing caring and support; setting and communicating high expectations; providing opportunities for meaningful participation. Along these, one of the valuable potential contribution of school context in resilience of children and adolescents could be considered as fulfillment of sense of belonging (Berk & Meyer, 2015; Sanders & Munford, 2016).

Both belonging hypothesis (Baumeister & Leary, 1995) and self-determination theory (Osterman, 2000) discussed that the sense of belonging and relatedness are basic human psychological needs contributing to psychological wellbeing of individuals. As Booker (2006) underlined, adolescents in high school mostly engage in identity, relatedness and autonomy issues. In this regard, school belonging could be a valuable contributor to high school adolescents' needs for belonging, relatedness, identity formation in the context of relationships. At that point, the sense of school belonging has a potential to convey acceptance, value, empathy or care to children and adolescents through school environment (Goodenow, 1993).

The resilience perspective has supported that school atmosphere with satisfying relationship needs could provide valuable protective effects for youth under risky conditions (Benard, 2004). Nowicki (2008) examined the predictive role of self-efficacy, sense of school belonging and social support from family, friends, significant others on resilience of 9th and 10th grade students. The self-efficacy, sense of school belonging and social support in combination explained one quarter variation in resilience of adolescents. Besides, many studies have showed that school belonging related factors such as bonding with school (Esen-Aktay, 2010), positive school experiences (Werner & Smith, 1982, 1992), caring relationships at school (Gizir, 2004), having bonds with school personnel (Smokowski et al., 1999; Werner & Smith, 1982, 1992) or school attachment (Yavuz, 2015) were positively associated with resilience of adolescents living under socioeconomically negative conditions.

As well as school context fulfilling sense of school belonging, peer relationships play an important role in resilience of adolescents as a factor in microsystem of the adolescent's ecology. With the onset of adolescence, not only parents but also peers become an important source of both emotional and social support contributing to positive psychological adjustment (Steinberg et al., 2011); and supportive peer relationships becomes one of social level factors having an impact on resilience of adolescents (Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003). The social support contributes to psychological adjustment of adolescents either regardless of stress or buffers the hazardous effects of stressful life conditions (Cohen & Wills, 1985). For instance, socioeconomic strains bring about the risk of involvement in deviant peer groups, in turn, emotional or behavioral problems in youth (Eamon, 2002; Hill, Howell, Hawkins, & Battin-Pearson, 1999) but, positive peer relationships providing social support for adolescents have a noteworthy potential to protect the youth from adverse life conditions (Collishaw et al., 2007; La Greca & Harrison, 2005).

Social support acts as a buffering factor against stressful life conditions and thereby decrease the possible hazardous effects of stress (Kef & Dekovic, 2004). As a valuable external protective factor, a variety of studies have supported that peer social support fosters the resilience of adolescents (Banks & Weems, 2014; Galaif, Sussman, Chou, & Wills, 2003; Garnezy, 1971; Huurre, 2000; Licitra-Kleckner & Waas, 1993; Rutter, 1979; Werner & Smith, 1982). Specifically, some studies have supported the buffering effect of social support received from peers in adolescents living under socioeconomically disadvantageous conditions. For instance, Malecki and Demaray (2006) investigated buffering role of perceived social support from parent, teacher, classmate, close friend and school on academic achievement of early adolescents from families with low socioeconomic status. The results showed that perceived social support moderated the relationship between academic achievement and poverty. There was no significant relationship between academic success and poverty for students with high socioeconomic status while there was a significant and moderate relationship between academic success and poverty for students with low socioeconomic status. van Harmelen et al. (2017) conducted a prospective study with adolescents aged between 14 and 24 in order to examine the role of support from family and friends on later resiliency. Both family and friend support were significantly correlated with concurrent resiliency of adolescents. However, the association between friend support and adolescent resiliency was significant one year later while the association between family support and adolescent resiliency was not significant.

The merging perspective of ecological system theory and resilience framework suggested that negative life conditions bring about various distal risk and protective factors, but proximal risk and protective factors are also influential for developmental outcomes (Seidman & Peterson, 2003). Moreover, the impact of proximal factors such as personal factors in resilience perspective may change the way distal factors affects the individual (Seidman & Peterson, 2003). As well as direct effects of environmental protective factors on resilience for adolescents under risky conditions, indirect effects through individual protective factors need to be addressed in order to both find out

why the similar environmental protective factors result in different resilience level in adolescents and capture complex interactions among internal and external protective factors. Similarly, identification of individual protective factors which could change the way parental or environmental protective factors influence resilience of children and adolescents could provide comprehensive understanding for researchers and practitioners.

The resilience research has revealed substantial number of personal traits and characteristics promoting resilience in adolescents. Kumpfer (1999) underlined that identification and improvement of resilient attributes and characteristics are critical for interventions with at-risk youth. The individual factor included in this study is self-esteem that is referring to one's perceptions and judgments about overall self-worth, self-regard or self-acceptance (Rosenberg, 1965). As stated by Haase (2004), self-esteem is surely one of the crucial internal protective resources fostering resilience, and influential in overcoming risky conditions in adolescence period. A variety of studies have supported that the self-esteem contributes psychological wellbeing or improved mental health of adolescents (Bergman & Scott, 2001; Dumont & Provost, 1999; Fisher, Pastore, Schneider, Pegler, & Napolitano, 1994; Jessor, Turbin, & Costa, 1998; Jones & Heaven, 1998; Orth, Robins, & Roberts, 2008; Wood, Heimpel, Michela, 2003). The enhanced self-esteem also increases the probability of positive adjustment of children and adolescents in the face of stressful life conditions (Dumont & Provost, 1999; Ziegler-Hill, 2011), and acts as a buffering protective factor for resilience (Baumeister, Campell, Krueger, & Vohs, 2003).

Buckner et al. (2003) carried out a study comparing resilient and non-resilient children and adolescents from families with low income. Homelessness, having single-parent, and residential instability were other reported adversities along with poverty. By using multiple assessment instruments, resilient and non-resilient participants were distinguished according to four criteria; behavior problems, mental health status, level of functioning and competence in academic, social and school areas. This study

especially focused on the impact of internal protective factors on resilience. Results showed that self-esteem was one of the most influential independent predictors of resilience. Resilient adolescents reported significantly higher levels of self-esteem than non-resilient adolescents. In a study conducted with homeless children and adolescents, Kidd and Shahar (2008) investigated protective role of attachment, social involvement and especially self-esteem in resilience. The results of this survey study showed that self-esteem was an important protective factor against mental health problems such as loneliness, suicidal ideation or insecure attachment.

Stress theories asserted that self-esteem, self-confidence, and positive perceptions about the self may buffer the negative impact of stress by decreasing perceived threat and allowing implementation of effective coping strategies (Lazarus & Folkman, 1984). For development and consolidation of self-esteem in children and adolescents, supportive relationships with parents, peers or friends are critical. Children and adolescents experience being valued, accepted or understood when they perceive support from significant others, contributing consolidation of self-esteem. In other words, self-esteem develops within a supportive network of social relationships, internalized as an individual characteristic, and in turn impacts mental health of individuals (Huurre, 2000). Based on the suggestions of theories and research findings supporting that self-esteem is an individual protective factor contributing to resilience, healthy coping mechanisms, or wellbeing in under-risk youth (Gizir, 2007; Karairmak, 2006; Zimmerman & Brenner, 2010; Zolkoski & Bullock, 2012), and the opinions or evaluations of significant others (i.e., parents and peers in microsystem of adolescents) in the context of accepting, supportive relations are critical for self-esteem development (Cooley, 1902; Harter, 2006), it is considered as a mediator individual level factor in this study.

To sum up, based on the available literature on resilience theory and research which emphasizes that resilience is a multifactorial construct influenced by different systems surrounding the individual, the examination of individual level factors as mediator

between parental, environmental factors and resilience seems to contribute understanding potential pathways to resilience of adolescents under risky conditions (i.e., low socioeconomic status). Regarding the available literature on protective factors for adolescents and integrating ecological system theory and resilience theory, perceived parental acceptance/involvement, perceived peer social support and sense of school belonging were accepted as environmental level protective domains in microsystem of adolescents in this study. In order to reveal possible mechanisms, the mediating role of self-esteem which is shaped and fostered by familial and environmental factors was accepted as individual level protective domain.

1.2. Purpose of the Study

The aim of the present study is to investigate the role of individual factor (self-esteem) as mediator on the relationship among parental factor (parental acceptance/involvement), environmental factors (peer social support, sense of school belonging), and resilience among adolescents from low socioeconomic districts as outlined in the hypothesized structural model (Figure 1.1).

Specifically, the present study will address following research question: “To what extent resilience of adolescents from low socioeconomic districts is explained by hypothesized structural model comprised of individual factor (self-esteem), parental factor (parental acceptance/involvement), and environmental factors (peer social support, sense of school belonging)?”

1.3. Hypothesized Structural Model

The following structural model (Figure 1.1) was proposed in order to investigate parental, environmental and personal contributors of resilience in adolescents from low socioeconomic districts. The model was based on resilience framework and ecological system theory perspective. More specifically, a model was suggested to

examine the relationships among parental, environmental and personal factors and to what degree the combination of these factors account for resilience in adolescents from low socioeconomic districts in a Turkish sample.

In the hypothesized model, parental acceptance/involvement, peer social support, and sense of school belonging were exogenous variables while self-esteem and resilience were endogenous variables in the current study. In addition, self-esteem was tested for both its direct effects on resilience and indirect mediator effect between parental acceptance/involvement, peer social support, sense of school belonging and resilience.

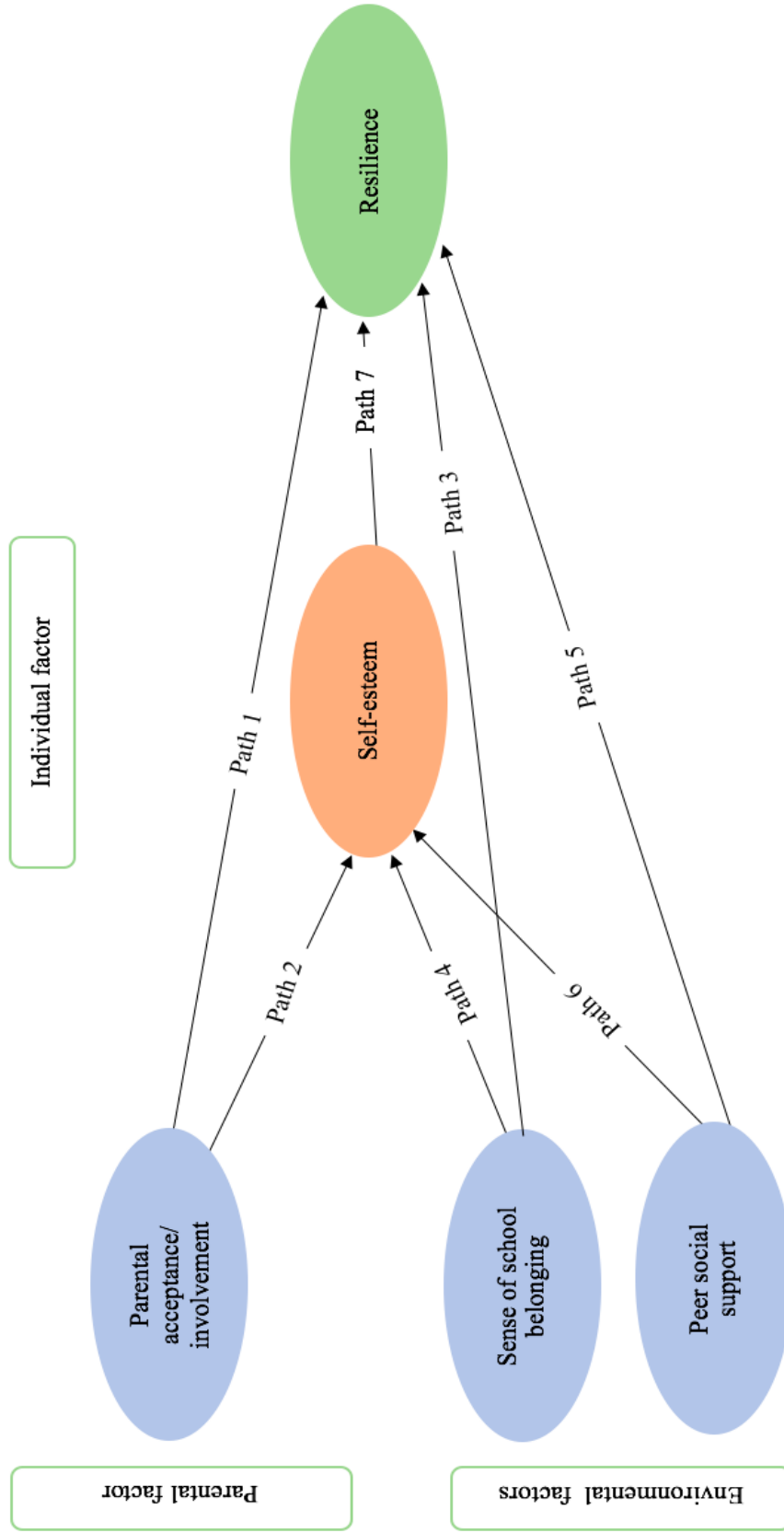


Figure 1.1. The hypothesized structural model.

1.4. Hypotheses

The following hypotheses for direct and indirect paths will be tested in the present study.

1.4.1. Hypotheses for the Direct Effects in the Model

Hypothesis 1a: (Parental acceptance/involvement to Resilience) Perceived parental acceptance/involvement will be related to resilience directly (*Path 1*).

Hypothesis 1b: (Parental acceptance/involvement to Self-esteem) Perceived parental acceptance/involvement will be related to self-esteem directly (*Path 2*).

Hypothesis 2a: (Sense of school belonging to Resilience) The sense of school belonging will be related to resilience directly (*Path 3*).

Hypothesis 2b: (Sense of school belonging to Self-esteem) The sense of school belonging will be related to self-esteem directly (*Path 4*).

Hypothesis 3a: (Peer social support to Resilience) Perceived peer social support will be related to resilience directly (*Path 5*).

Hypothesis 3b: (Peer social support to Self-esteem) Perceived peer social support will be related to self-esteem directly (*Path 6*).

Hypothesis 4: (Self-esteem to Resilience) Self-esteem will be related to resilience directly (*Path 7*).

1.4.2. Hypotheses for the Indirect Effects in the Model

Hypothesis 5: (Parental acceptance/involvement to Self-esteem to Resilience). Parental acceptance/involvement will be related to self-esteem, which in turn, related to resilience (*Path 2 & Path 7*).

Hypothesis 6: (Sense of school belonging to Self-esteem to Resilience). The sense of school belonging will be related to self-esteem, which in turn, related to resilience (*Path 4 & Path 7*).

Hypothesis 7: (Peer social support belonging to Self-esteem to Resilience). Peer social support will be related to self-esteem, which in turn, related to resilience (*Path 6 & Path 7*).

1.5. Significance of Study

The changes and challenges in adolescence period bring about various possible problems as well as new opportunities for maturation. Some adolescents with risk factors such as residing in low socioeconomic districts may need additional buffering factors in order to be protected from adverse effects of these risk factors. The resilience framework, which is the basis of this study, allows investigating the ways and mechanisms through which mental health professionals may contribute healthy development of adolescents under risky conditions. In earlier years, resilience research focused on understanding vulnerability in individuals and risk factors influencing negative developmental outcomes. However, with positive psychology movement, examination of factors facilitating successful adaptation has increased and the resilience research started investigating what kind of factors and mechanisms may be protective for individuals facing with difficult life experiences (Rutter, 2012).

In recent years, researchers in field of resilience have also shifted away from identifying protective factors to investigating protective processes/mechanisms and understanding *how* individual, family, environmental factors contribute to resilience or positive outcomes (Luthar et al., 2000). As stated previously, extensive studies in resilience literature has revealed a number of individual, family, environmental protective factors. But, exploring processes and mechanisms through which these protective factors enhance resilience is very different from listing these factors. It has been suggested that understanding resilience from such a process and mechanism oriented perspective is essential for advancement of the theory and for designing appropriate prevention and intervention programs (Fergus & Zimmerman, 2005; Luthar, Crossman, & Small, 2015; Luthar et al., 2000; Masten, 2014). At this point, ecological system perspective has been suggested to examine relative contribution of variables into resilience (Ungar, 2012), because this perspective includes interaction of different systems and contexts which is critical in studying resilience. However, in Turkey, resilience studies have largely focused on determining individual risk and protective factors (Arat, 2014). The aim of this study is to explore possible pathways between external (microsystem level) and internal factors, and so, understand the mechanisms of resilience in at-risk adolescents comprehensively.

This study attempts to go beyond the well-founded association between protective internal and external factors, and resilience to investigate the mechanisms underlying this association by testing the hypothesized structural model. In other words, this study would contribute to the counseling field by investigating the simultaneous influence of both parental and environmental factors in relation to individual factor as mediator. Such a comprehensive consideration would help understanding complexity of mechanisms in adolescent resilience. While the first wave of resilience research focused on identification of protective and risk factors, the second wave of resilience research has enlightened the processes and mechanisms through which complex relations among external and internal protective factors operate in resilience. This

study is expected to be an example of second wave resilience research which has been limited in our country (Arat, 2014).

As Prince-Embury and Saklofske (2014) stated, further research about the impact of schools and social relations outside the family in resilience is still needed. Therefore, including environmental factors as well as parental factor in this study would also contribute understanding resilience of adolescents from a wider perspective. In addition, examining personal factor as a mediator would also contribute designing prevention and intervention programs for this group of adolescents. Understanding which factors mediate the influence of protective factors in microsystem of adolescents would provide valuable knowledge in designing effective programs. Lastly, resilience research has been widely studied in Western culture, but it has received attention in Turkey for approximately fifteen years and research in this area still needs to be expanded in Turkey (Arat, 2014; Gizir, 2007; Işık, 2016; Kararmak, 2006). The findings of this study are expected to contribute to advancement of resilience literature, and specifically, understanding the resilience of at-risk adolescents in our country from a wider perspective.

1.6. Definition of Terms

Parental Acceptance/Involvement: The parental acceptance/involvement refers to degree to which adolescents perceive their parents as caring, responsive, loving and involved (Lamborn et al., 1991).

Sense of School Belonging: It is defined as “the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment” (Goodenow, 1993, p. 80).

Peer Social Support: Perceived peer social support is conceptualized as the information allowing the individual believing that he or she is cared, loved, valued, and esteemed in his or her peer network (Cobb, 1976; Dubow & Ullman, 1989).

Self-esteem: Self-esteem refers to the person's global judgements or view about self-acceptance, self-respect or self-worth (Rosenberg, 1965).

Resilience: Resilience is defined as "a process, capacity or outcome of successful adaptation despite challenges or threatening circumstances. Resilience is described by three kinds of phenomena: good outcomes despite high risk status, sustained competence under threat and recovery from trauma" (Masten, Best, & Garmezy, 1990; p. 426).

CHAPTER 2

REVIEW OF LITERATURE

In this chapter, literature review related to conceptual definitions of resilience, theoretical perspectives or models of resilience in different adolescent populations were firstly summarized. Then, the resilience studies in adolescents were presented. The resilience studies carried out in Turkish adolescents were addressed separately. After that, parental factor (parental acceptance/involvement), environmental factors (peer social support, sense of school belonging), and personal factor (self-esteem) in relation to resilience in adolescents were explained.

2.1. Resilience

There has been debate about the definition, mechanisms and operationalization of the resilience in both research and practice. Despite nearly fifty years of research on resilience, scholars have not agreed upon a single definition of resilience. Hereby, the concept of resilience has been described in multiple ways (Luthar et al., 2000). The rise of concept of resilience has been closely related with history of developmental psychopathology. World War II accelerated the emergence of resilience research, because adverse situation of children affected by devastation attracted attention of researchers in the field of child psychology. Rather than focusing on psychopathology, theorists and practitioners strived to find out which factors help children succeed in spite of serious threats to their development. Thus, researchers who have made valuable contribution to resilience research started to emerge in 1970s and 1980s (Masten, 2014).

The early studies on resilience tended to regard individuals survived despite adverse conditions as “invulnerable”, “hardy” or “invincible” (Werner & Smith, 1992).

However, Garmezy (1993) criticized the use of the term “invulnerable” since it refers that people are incapable of being hurt or adversely affected. These labels implied that resilience is a fixed and innate quality. A growing body of research on resilience has supported that resilience is not an innate or fixed quality, but rather a dynamic, alterable set of process which could be enhanced (Masten, 2001). Moreover, researchers have emphasized that resilience stems from dynamic interaction between individuals and their environment and so, it should not be conceptualized as a static trait of individual (Masten, 2001; Masten & Wright, 2010).

In early definition of the concept of resilience, Rutter (1987) defined it as protective factors which alter or alleviate an individual’s response to environmental stress or adversity having a potential of resulting in negative outcomes. In this view, resilience was conceptualized as an ongoing process, not a fixed attribute. It was underlined that individuals who deal with obstacles in a situation may respond negatively to other adversities when their circumstances change. Rutter (1987) also emphasized that protective processes and mechanism rather than variables or factors should be given attention.

According to Masten, Best, and Garmezy (1990), resilience is defined as process, capacity or outcome of good adaptation in spite of threatening or stressful conditions. The authors stated that resilience has been used to explain three classes of phenomena in literature. The first class has focused on individuals who are from high-risk groups have better outcomes than expected. The second class investigates successful adaptation under stressful circumstances. The third class has focused on individual differences in recovery from trauma.

One of the most important pioneers in resilience research, Garmezy (1991), defined resiliency as tendency to bounce back or recoil which requires the capacity to react and bear despite adverse life experiences or stressors. This definition implied that resilience was explained as skills, potentials, knowledge, abilities, insight etc. gained

as the person deals with adversities and challenges (Garmezy, 1993, 1994). In this view, resilience is viewed as an ongoing and dynamic process helping individuals deal with struggles and difficulties.

Werner and Smith (1992) defined resilience and risk factors as positive counterparts to vulnerability and risk factors. This perspective viewed vulnerability as individuals' tenderness to disorder. Risk factors are described as biological and psychological threats increasing the likelihood of unfavorable developmental outcomes. Resilience was viewed as a characteristic which could vary from person to person whereas protective factors or mechanisms are more specific and modify or buffer the person's response to negative circumstances. It was underlined that protective effects are evident only in the presence of a risk factor.

Masten (2001) defined resilience as a class of phenomena described by positive outcomes despite conditions or situations threatening successful adaptation or development. In this respect, resilience is viewed as a contextual construct. Masten (2001) also described resilience as ordinary magic to underline that children who overcome adversities do not have extraordinary skills or resources, but have ordinary resources and protective factors in their lives. In order to consider an individual as resilient, two major judgments are required: (1) significant threat to development, (2) positive adaptation or developmental outcome. According to Masten (2001), the current or past threat should have risk which has been statistically evidenced as predictor of negative outcomes.

American Psychological Association (2014) defined resilience as: "the process of adapting well in the face of adversity, trauma, tragedy, threats or even significant sources of stress - such as family and relationship problems, serious health problems, or workplace and financial stressors". Lee, Cheung, and Kwong (2012) asserted that rather than such a broad definition, resilience studies should adopt a narrower

definition of resilience which describes specific developmental outcomes at specific developmental stage.

Alongside the debate over the definition of resilience, there has been controversy about the conceptualization of resilience as either a personality characteristic or a process (Fletcher & Sarkar, 2013; Luthar et al., 2000; Masten, 2014). When resilience is considered as a trait, it refers to a set of characteristics which enable individuals to handle with difficulties or adversities they encounter (Connor & Davidson, 2003; Kaplan, 1999). In a substantial number of studies, resilience has been operationalized as an outcome in the face of stressful conditions and positive adaptation has been defined as functionality, psychological well-being, self-esteem, academic success etc. (Fletcher & Sarkar, 2013; Windle, 2011). However, the debate over the criteria of positive adaptation or good developmental outcome has been still continuing in the literature. Whereas some investigators considered positive adaptation as attainment of developmental tasks or competences, others are concerned with absence of psychopathology or lower level of impairment (Masten & Reed, 2002).

Resilience has also been conceptualized as a dynamic developmental process by a variety of researchers (Brennan, 2008; Masten et al., 1990; Olsson et al., 2003; Richardson, 2002; Rutter, 2012). It has been underlined that resilience research has focused on finding out the processes or mechanisms contributing to positive adaptation, especially after 1990s (Luthar et al., 2000; Windle, 2011). From the process oriented perspective, resilience is viewed as the result of interplay and interaction between individual factors and environmental factors (Ahern, 2006; Kia-Keating, Dowdy, Morgan, & Noam, 2011; Luthar et al., 2000; Masten, 2001; Masten & Powell, 2003; Olsson et al., 2003; Zolkoski & Bullock, 2012). Ecological system perspectives have largely emphasized dynamic interaction between protective factors in different systems including family, society, community (Dyer & McGuinness, 1996; Fraser, 1997; Ungar, 2012). As Masten (2014) stated, the maturing of resilience science witnessed the advanced consideration of contextual and cultural variations and

use of pathway model of resilience to reveal complex and multilevel trajectories of resilience.

Another confusion related to the concept of resilience is due to the lack of consensus about key terms such as protective factor, resource, asset or risk factors (Luthar et al., 2000; Luthar, Sawyer, & Brown, 2006; Wright & Masten, 2006). Risk is defined as “an elevated probability of an undesirable outcome” and risk factor as “a measurable characteristic in a group of individuals or their situation that predicts negative outcome in the future on a specific outcome criterion” (Masten & Reed, 2002, p. 79). By taking into account that individuals experience multiple risk factors or negative life events instead of single risk factor, cumulative risk concept was argued and it was defined “the total effect of multiple risk factors combined or the piling up in time of multiple risk factors” (Masten & Reed, 2002, p. 79). Adversity refers to “environmental conditions that interfere with or threaten the accomplishment of age-appropriate developmental tasks” (Wright & Masten, 2006, p. 19). Although vulnerability and risk have been used interchangeably, vulnerability refers to “individual susceptibility to undesirable outcomes; the diathesis in diathesis-stressor models of psychopathology” (Wright & Masten, 2006, p. 19).

Luthar and colleagues (Luthar et al., 2000; Luthar et al., 2006) stated that vulnerability and risk factors are different terms, and a vulnerability factor may increase the possible effect of a risk factor. Protective factor is defined as “a measurable characteristic in a group of individuals or their situation that predicts positive outcome in the context of risk or adversity” (Masten & Reed, 2002, p. 79). Protective factors and compensatory factors are different in the sense that compensatory factors have a direct effect on desired outcome and have the same effects across the different levels of risk whereas protective factors interact with risk factors and so, their effects could be revealed in high level of risk or adversity conditions (Luthar et al., 2000; Wright & Masten, 2006). Asset is defined as “a measurable characteristic in a group of individuals or their situation that predicts positive outcome in the future on a specific outcome criterion”

and resource refers to “human, social, or material capital utilized in adaptive processes” (Masten & Reed, 2002, p. 79). Fergus and Zimmerman (2005) made a clear distinction between assets and resources by stating that assets refer to positive factors within the individual such as competence, self-esteem, coping skills, and resources refer to positive factors helping individuals deal with adversities which are external to the individual such as parental support, peer relations or adult mentoring.

Wright et al. (2013) described four major waves of resilience research and practice. The first wave of resilience focused on description of resilience construct, identification of protective factors and assets which enable individuals to overcome with adversities. Individual characteristics or traits helping people thriving in the face of risk were the main focus in the first wave of resilience research. In the second wave, an integrative understanding of the processes contributing to resilience was investigated from a broader perspective. The role of complex relationships among familial, biological, social or cultural systems was examined to reveal dynamic models of resilience in development. An ecological, transactional systems approach was adopted to study individual – environmental interaction in resilience. Based on the findings of first and second wave, the third wave intended to design interventions in order to promote resilience. Especially, prevention programs largely utilized resilience theories and research findings. In the fourth wave, researchers focused on multilevel dynamics and the role of many processes such as brain structure, gene-environment interaction, behavior, neurological structures due to enhancement of complex statistical techniques and brain imagining technologies.

Taken together, there is no unique definition of resilience commonly accepted by researchers. As resilience research has progressed, processes and interactions among many systems were considered as well as individual attributes. Although there is still debate over definition of various aspects of resilience construct, two major aspects of the concept of resilience are prominent; successful adaptation or developmental outcome and presence of adversity or difficulties which have a potential to result in

negative outcomes. Recent studies in resilience has considered contextual variables and interaction between individual and environmental factors.

In this study, psychological resilience will be conceptualized as both as an individual attribute and a process of interaction between environmental resources and individual assets. Wagnild and Young (1993), who developed the Resilience Scale to determine resilience level of individuals, considered resilience as an individual characteristic which enhances individual adaptation. As Fergus and Zimmerman (2005) underlined, conceptualization of resilience as a characteristic does not need to imply that it is a static trait. Moreover, it is a quality which is influenced by the multiple contextual variables. By taking these approaches into account, resilience will be considered as both an individual characteristic and also interactive processes among promotive factors.

2.1.1. Theories and Models of Resilience

A variety of theories explaining resilience in different contexts such as family, sport, nursing, police officer, military families or medical students have been proposed in the literature (Fletcher & Sarkar, 2013). In this section, theories which are relevant to adolescents' psychological resilience will be summarized.

One of the early studies investigating theoretical explanation of resilience by Garnezy, Masten, and Tellegen (1984) focused on risk, competence and protective factors contributing to developmental psychopathology in children. The researchers suggested 3-model approach (i.e., compensatory, challenge and protective models) in order to explain how promotive factors (i.e., resources and assets) decrease negative outcomes or contribute positive outcome in the face of risk factors. These three models have guided the resilience research (Fergus & Zimmerman, 2005; Masten, 2014).

The first one of these models, compensatory model, proposed that risk factors and protective factors have direct effect on outcome and they combine additively to predict the outcome. Protective factors such as personal strengths or resources counteract the impact of risk factors through a direct and independent effect on the outcome. This model would be supported if significant main effect of both risk and protective factors is found in regression analysis (Garmezy et al., 1984).

The second model, challenge model, emphasized that stress could enhance competence if it is not excessive, and helps individuals overcome next higher levels of stress. The exposure to risk factors should be challenging enough to allow individuals develop coping strategies. In this model, the relation between stress and competence becomes curvilinear in statistical analysis (Garmezy et al., 1984). This model has not been studied extensively in resilience research since it requires examination of different levels of risk exposure, longitudinal data or complex statistical calculations (Zimmerman et al., 2013).

In the third model, protective model, protective factors are considered as a kind of “immunity” or “buffering” against stress that moderate the influence of stress on quality of adaptation (Garmezy et al., 1984; Zimmerman & Brenner, 2010). They have an indirect effect on the outcome through risk factors. Individuals who have higher level of protective factors have a lower likelihood of negative outcomes than those having low level of protective factors. Statistically, protective model is examined through moderation models in which protective factors moderate the negative effect of risk factors in predicting outcome. Among three models, protective model has been the most widely studied model in resilience research (Zimmerman & Brenner, 2010). As Garmezy and colleagues (1984) indicated, three models are not mutually exclusively each other and more than one model could be used to study resilience processes.

In progress of resilience research, some researchers have suggested that protective factors may function in several ways to have an impact on outcomes. Luthar et al. (2000) suggested different protective models in order to help clarifying the terms related to direct or moderating effects. In protective-stabilizing model, if there are protective factors, the likelihood of negative outcome does not increase when the level of risk increases. However, likelihood of negative outcome increases when the level of risk increases in the absence of protective factors. In protective-reactive model, the likelihood of negative outcome increases when the level of risk increases for both individuals having protective factors and those not having protective factors. But, overall probability of negative consequences would be lower for individuals having protective factors. In protective-enhancing model, exposure to low or moderate level of stress enhance competence of children and adolescents. According to this model, whether a factor is considered as a risk or promotive factor depends on the level of exposure.

Brook, Gordon, Whiteman, and Cohen (1986), and Brook, Whiteman, Gordon, and Cohen (1989) proposed protective-protective model which suggested that two promotive factors (one asset and one resource, two assets or two resources) interact with each other to increase probability of positive outcome. Thus, one promotive factor enhances the positive effects of another promotive factor. The authors examined this model in a longitudinal study exploring the antecedents of drug use in adolescents (Brook et al., 1989). Firstly, the results of the study showed that presence of protective factors (e.g., conventionality) in adolescence decreased the effect of childhood risk factors (e.g., unconventionality, lack of control of emotions) on increased drug involvement over time. This was called as risk-protective interaction. Secondly, risk-risk interaction emerged, indicating that presence of risk factors (e.g., high temper, low academic achievement) in childhood alleviated the effect of drug use in adolescence, in turn, led to greater drug involvement. Thirdly, protective-protective interactions implied that protective factors in adolescence (e.g., high intolerance of

deviance, low rebellion, high social inhibition) enhanced the effect of another protective factors (e.g., low drug use), and so, led to lower drug involvement.

Another early theory of resilience by Rutter (1987) emphasized the variability of individual differences in response to adversity. By taking into consideration that resilience is a context specific construct, investigation of processes and mechanisms rather than individual characteristics or factors was suggested. In fact, Rutter (1987) suggested using the terms “process” and “mechanism” instead of “variable” and “factor” because one variable operate as a risk factors in one condition but as a vulnerability factor in another condition. The theory proposed four categories of mechanisms through which protective factors operate. The first mechanism, “reduction of risk factor”, implies that either alteration of meaning or severity of risk factor or alteration of the individual’s exposure to risk factor provide a protective process. “Reduction of negative chain responses” is the second mechanism referring that subsequent reactions to risk exposure may affect protective mechanism in positive or negative way. For instance, if parental loss was followed by uncaring of the child, the negative impact of the risk increases. The third mechanism is formation and maintenance of “self-esteem and self-efficacy”. The fourth mechanism is “opening up new opportunities” which are usually experience in turning points in life such as obtaining success in an examination guaranteeing a quality higher education or moving to a region with low level of delinquency.

Jessor and Jessor (1977) developed a psychological model, based on problem-behavior theory, in order to explain behavior problems in adolescents or young adults such as youth crime, substance use, risky sexual behavior. According to the model, three independent but related systems of psychosocial components, namely, Personality System, Perceived Environment System and Behavior System, play role in behavior problems. In next years, problem behavior theory perspective has expanded and the constructs of risk and protective factors were integrated into the model (Jessor et al., 1998). It was an attempt to determine processes and the moderating role of protective

factors underlying individual differences among disadvantaged adolescents. Risk factors were conceptualized as conditions or variables related with lower likelihood of positive or socially desirable outcomes and a higher likelihood of negative or socially undesirable outcomes. Protective factors were conceptualized as conditions or variables which increase likelihood of positive outcomes and decrease likelihood of negative outcomes when exposed to the risk.

In this framework, risk and protective variables were selected from the set of controls (i.e., factors operating against involvement with problem behaviors) and instigations (i.e., factors operating for involvement with problem behaviors) in the personality system, perceived environment system and behavior system of problem-behavior theory. Under perceived-environment system, models for deviant problem and parents, friends normative conflict were considered as risk factors; models for conventional behavior and high controls against deviant behavior as protective factors. In personality system, perceived low life chances, low self-esteem, risk taking propensity were risk contexts while value on achievement, value on health and intolerance of deviance were protective factors. Risk factors in behavior problem were problem drinking and poor social work; protective factors were church attendance, involvement in school and voluntary clubs. The framework explaining risk and protective factors in adolescent problem behaviors has expanded and then included biology/genetic factors and social environment domains (Jessor, 1991).

Kumpfer (1999) introduced a transactional model examining interactions between resilient individual and his/her risk environment from a dynamic framework. The model was based on an extensive review of previous studies identifying processes and factors related with resilient youth under various environmental risk factors. Kumpfer's (1999) transactional model was also motivated by social ecology models investigating interactions among person, process and context and so, studied the relationships among protective and risk factors in the context, characteristics of the individual and interfering processes. This transactional model included: (a)

environmental precursors named as risk and protective factors, (b) resilient individual characteristics, (c) the individual's resilient reintegration or positive consequences after experiencing stressful life experiences, and processes mediating between the individual and the environment and between the individual and outcome. The model was organized into six main constructs; four constructs as influences or predictors of resilience and two constructs as processes: (1) stressor and challenges, (2) environmental risk and protective factors, (3) interactional processes between person and environment, (4) internal self-characteristics, (5) resilience processes, and (6) positive outcomes. A special attention was paid to distinguish external and internal resilience factors.

Based on previous research findings, internal self-resiliency factors were grouped into: (1) spiritual or motivational characteristics (dreams, goals, purpose in life, meaning for life, belief or uniqueness or in oneself, hopefulness, optimism, determination), (2) cognitive skills (intelligence, academic achievement, ability of delay of gratification, reading skills, moral reasoning, insight, interpersonal awareness, self-esteem and ability to repair self-esteem, planning ability and creativity), (3) behavioral and social skills (problem solving skills, communication skills, peer relationship skills, multicultural competencies, talents, capacity for intimacy), (4) emotion stability and management (happiness, awareness of feelings, emotional regulation, ability to control depression and anxiety, ability to repair self-esteem, humor, hopefulness), and (5) physical well-being (good health and health maintenance skills, physical attractiveness, physical skills development) (Kumpfer, 1999).

In the study conducted with adolescents with cancer, Haase (2004) proposed adolescent resilience model (ARM) to explain processes and outcomes of resilience and quality of life of adolescents with cancer. ARM focused on two philosophical views: life-span development and meaning-based models. Life-span development perspective regards the factors influential on development as well as responses of adolescents to health and illness development. Meaning-based models perspective

focuses on meanings, experiences of illness and patients' perceptions about situations, autonomy, beliefs, relationships, choices. In this model, resilience and quality of life were considered as outcomes and resilience was defined as composing of sense of confidence, self-transcendence of the cancer experience and self-esteem. Family protective factors (family atmosphere, family support, family resources), social protective factors (social integration, health care resources), individual protective factors (courageous coping, derived meaning) and illness-related risk factors (uncertainty in illness, disease and symptom-related distress), individual risk factors (defensive coping) were described in the model.

Masten (2004) utilized developmental psychopathology to suggest an integrative perspective for adolescent resilience emphasizing transactional relations between individual and other systems, and neuropsychological development in adolescence. The findings of behavioral resilience studies in developmental psychopathology were regarded as clues for the significance of regulatory processes in adolescence. Based on findings of previous studies, predictors of youth resilience were listed as effective parents, relations with caring adults, cognitive skills, enhanced emotion and behavior regulation, being hopeful, religious faith, good socioeconomic conditions, prosocial peers, effective schools, school bonding and effective community conditions. It was criticized that there have been very few efforts to integrate brain development and adolescent resilience despite that a variety of studies underlined the role of regulatory processes as critical for youth development. Regulatory processes implied by resilience research were listed as executive functions, emotion regulation skills, attachment to adults who support and monitor the adolescent, peer relations, involvement in prosocial activities and community organizations.

A conceptual model combining community and youth resiliency was developed by Brennan (2008). The model based on the perspective that local and community level assistance has a valuable effect on decreasing, responding or recovering communal adversities. It was proposed that socioeconomic vulnerabilities (low income,

unemployment) and social vulnerabilities (limited local opportunities, insufficient channels of communication) are adversities in community which contribute to need for social support resources. Due to this need, individuals search for social support and community agency support. In this way, social support and community agency support promote local well-being and resiliency in community and youth by intervening socioeconomic and social vulnerabilities. Based on the model, interventions to foster youth and community resiliency were suggested.

Another theoretical approach to resilience argued an integrative model of coping, resilience and development (Leipold & Greve, 2009). In this model, resilience is described as a stabilizing source between coping and successful development. The model suggested that an individual's resilience under adverse circumstances results from coping processes (i.e., assimilative, accommodative and defensive), and these processes are largely influenced by personal and situational variables. It was emphasized that availability of coping reactions is largely dependent upon developmental stage. For example, attainment of complex problem solving skills requires reaching a specific developmental period. If assimilative regulatory coping process is activated when confronted with challenge or adversity, the person makes an intentional attempt to change the situation or his/her own reactions. When the person could not change the disadvantaged situation, but attempt to readjust his/her life goals, preferences or actions, it means that accommodative regulatory coping process is used. Defensive regulatory coping process refers that neither the problem is resolved nor personal adjustment is achieved. The use of three coping processes leads to different levels of change respectively; progressive changes (i.e., increased possibility of further development), stability (i.e., equal to prior state) and regressive change (i.e., decreased possibility of further development). If coping resulted in progressive change or stability of the stressful or challenging situation, then, resilience arises and successful development is achieved.

As discussed earlier, ecological system perspectives have been influential in development of transactional models especially in the second wave of resilience research. Ecological perspective has been mainly shaped by Bronfenbrenner's (1979) bio-social-ecological system model of human development. This theory examines development of the child within the social context or systems that form the child's environment. The theory takes into account simultaneous influences of individual, interpersonal, and contextual factors on human behavior. The context surrounding the human being consists of four systems; microsystem (family, school, peers, neighborhood), mesosystem (connections between structures of the individual's microsystem; e.g., connection between home and school, connection between home and peers), exosystem (larger social system individual experiencing indirectly but influenced directly- parents' workplace hours, parents' job stress etc.), macrosystem (cultural values, beliefs, norms, social rules, customs etc.). Those contexts have an influence on development of the person and also interact with other. Bronfenbrenner (1989), then, added chronosystem which includes dimension of time such as timing of a parent's death or timing of occurrence of some physiological changes.

Ecological system perspective also underlined that not only context influences human development, but also characteristics of the individual influence the context and interaction between systems. As Bronfenbrenner's (1979) human development theory was a shift from individual child to child-environment interaction, the study of resilience shifted its emphasis from invulnerable child to social-ecological system factors fostering positive outcomes under risky conditions (Ungar, 2005, 2011). From social-ecological system perspective in resilience, the individual factors are considered as one microsystem with cognitive and emotional subsystem as well as family processes, peer relations and religious institutions (Ungar, Ghazinour, & Richter, 2013). Mesosystemic processes related with resilience include connections between microsystems such as family, peers and schools. Unlike proximal processes in mesosystems, exosystemic processes are distal interactions influential in resilience of individual. The community support for families, participation in community social

activities, social cohesion in neighborhood are examples of exosystemic processes. Macrosystem refers to cultural values, beliefs or social norms contributing to resilience.

Ungar (2011), and Ungar et al. (2013) proposed that there are three basic principles of social ecological system perspective contributing to resilience. The first one is equifinality which refers that there could be multiple processes resulting in the different ends but equally desired positive outcomes. The second principle, differential impact, implies that protective factors may lead to differential impact depending on the context and time. The third one, cultural moderation, suggested that the cultural factors such as daily practices, beliefs or values influence the way individuals utilize and search for resources.

Masten (2001) categorized the designs of resilience studies into two major approaches; variable-focused and person-focused approach. Variable-focused approaches utilize multivariate statistics to assess the main and moderator effects and tested different relationships between predictors and outcomes which could have implications for prevention and interventions. Person-focused approaches use case studies, compare individuals from different levels of risk and protective factors to reveal what distinguishes people with good adaptation than those with impaired adaptation.

To summarize, many different model and theoretical perspective have been adopted in order to study resilience in adolescents from various adverse conditions. The resilience research has been started with investigating individual characteristics of people showing resilient responses. Then, resilience has been largely defined as a process and interactions among individual, familial and community level factors, and interaction between risk and protective factors have been considered. As resilience research expanded, transactional or social-ecological system model perspectives inspired by ecological system model of human development come into prominence,

because such perspectives take into consideration the multilevel, complex, bidirectional and contextual interactions among risk and protective factors.

Theoretical framework of this study is based on two approaches. The first one is the protective factors approach (Garmezy et al., 1984), more specifically, protective-protective model (Brook, Gordon, et al., 1986; Brook, Whiteman, et al., 1989). In line with this model, interaction between assets (individual promotive factors) and resources (environmental promotive factors) as well as mediating effect of assets will be examined. Bronfenbrenner's (1979) ecological system theory, which motivated social-ecological system perspective in resilience, is the second approach guiding this study. From ecological system theory perspective, resilience level of adolescents was examined considering the influence of microsystemic (individual, parental, and environmental) promotive factors.

2.1.2. Adolescent Resilience Studies

In relation to resilience framework, risk factors and protective factors in adolescent population will be summarized in this section.

First of all, three seminal studies that focused on children not experiencing negative developmental outcomes despite adverse conditions or risk factors set the stage for further research to investigate factors or processes allowing children and adolescents to survive and thrive in the face of adversity. The first one of these studies which was conducted by Garmezy (1971) included children of parents with schizophrenia. The results of this study showed that majority of children did not develop any disorder although having a parent with schizophrenia increase the probability of developing disorder. Garmezy (1971) underlined existence of "protective factors" decreasing negative impact of stressors and enabling children survive and adapt. This study set the foundation of Project Competence under which longitudinal studies were conducted (Garmezy et al., 1984; Garmezy & Masten, 1986). In addition,

compensatory, protective and challenge models of resilience were developed throughout these longitudinal studies and these models continue providing theoretical framework for current resilience studies (Zimmerman & Brenner, 2010). Results showed that disadvantaged children who had as positive outcomes as advantaged children had higher IQ, higher family socioeconomic status and higher positive family functioning. Protective factors were self-esteem, internal locus of control, sense of humor, problem solving skills, optimism, supportive family environment and supportive social systems (Garmezy et al., 1984).

The second seminal study by Rutter (1979) studied children of mentally ill parents on the Isle of Wight and revealed that nearly half of the children either experienced positive developmental outcomes or did not develop problem or disorder. In addition to Garmezy's (1971) emphasis on peer relations, academic achievement, commitment to education and life goals as protective factors, Rutter (1985) emphasized that school environments could be considered as protective factor alleviating adverse effects of stressors by fostering positive relationships with teachers and peers. Although early research (Garmzey, 1971) defined children who had positive outcomes in spite of risk factors as "invulnerable", Rutter (1993) replaced this term with "resilient".

The third influential study (Werner & Smith, 1982) was a forty-year longitudinal study which included children living in poverty on the Hawaiian island of Kauai. Study findings demonstrated that one third of children who were identified as under "high risk" became successful, functional adults in spite of various risk factors. Werner and Smith (1982) listed both internal and external protective factors (e.g., dispositional factors such as easy temperament, family support, family cohesion, peer relations, environmental support, family size, care received in infancy, consistent structure and rules in adolescence period) which contributed to resilience of high-risk children. Thus, successful development of resilient children was attributed to not only personal factors but also interaction among personal, family and environment factors in this study. In their adolescence period, children who have successful developmental

outcomes reported close relationship with their mothers, and with other family members or adult mentors such as teachers, neighbor, or church officials (Werner & Smith, 1992).

In the later years, various studies on resilience have contributed to understanding of what risk and protective factors are and through which processes or mechanisms they contribute to resilience or positive outcomes in youth. Especially, after 1990s, studies examining predictors, processes and outcomes of resilience in various populations have increased (Fergus & Zimmerman, 2005; Zimmerman & Brenner, 2010). Luthar (1991) conducted a study with 144 inner-city ninth grade adolescents by considering that much of previous research was carried out with preadolescents, children or young adults. The criteria of stress were negative life events and low socioeconomic status and outcome variable was social competence. Personal attributes including intelligence, internal locus of control, social skills, ego development and the frequency of positive life events were defined as moderators in the study.

Relying on the need to distinguish compensatory and protective factors (Garmezy et al., 1984; Rutter, 1987), Luthar (1991) identified compensatory factors having a direct effect on the social competence of adolescents and protective or vulnerability factors having indirect effect on social competence through moderating the effects of stress. The results showed that ego development was found to be compensatory factor; social skills and internal locus of control as protective factors; and positive life events and intelligence as vulnerability factors. An important finding of the study was that adolescents who showed higher level of social competence also had higher levels of internalization problems like anxiety and depression compared to those with low risk conditions. Luthar (1991) suggested that children and adolescents may not show resilient outcomes in all domains of development, therefore, studies should measure competence or functioning in various domains.

Masten et al. (1999) conducted a longitudinal study over ten years with a sample of 205 elementary school children experiencing adversities such as perinatal distress, loss and disadvantages in family environment. Three domains of competence (academic success, social competence in peer relations and behavioral attitudes) were investigated from childhood through adolescence period. The results of the study offered three categories of profiles for adolescents; resilient (those having high adversity and adequate competence), competent (those having low adversity and adequate competence) and maladaptive (those having high adversity and inadequate competence). The most determinant factors distinguishing these three profiles of adolescents were intellectual capacity and parenting quality.

In a qualitative study, Smokowski et al. (1999) investigated mechanisms and processes as well as protective and risk factors playing role in resilience of 86 high-school adolescents. Through the analysis of narrative essays of adolescents, potential protective and risk factors and processes were determined. According to adolescents' reports, the risk factors were growing up in a single-parent household, having unemployed parent, being a member of minority and economic adversity whereas personal protective factors were perceiving difficulties as a way of maturity, looking back previous experiencing of overcoming difficulty, persistence in dealing with adversity, belief in a better future, keeping dreams and goals, optimism, determination, not being easily affected by excitement of risk taking behaviors in peer groups. Adolescents reported that not only parental guidance but also parental monitoring contributed to resilience in the face of risky situations. Especially, resilient female adolescents welcomed overprotective monitoring of parents. Resilient male adolescents wanted protectiveness of parents but in subtler ways. In other words, female and male participants differed in perceiving parental attitudes- monitoring and protectiveness. Resilient adolescents also indicated that they receive motivational, emotional and informational support and guidance from their teachers. They had positive feeling towards their friends but also were cautious while choosing friends on whom they trust in. Resilience was described as academic adjustment in this study.

In another qualitative study, Ungar and Teram (2000) adopted a postmodernist perspective on adolescent resilience by studying how adolescents define their mental health and empowerment within social and political context. Based on ground theory approach, processes of empowerment were investigated through interviewing 41 adolescents under high risk factors such as poverty, parental mental disorder, violence, substance use, neglect, physical and sexual abuse etc. These adolescents received therapy within 12-month period before participating the study. The interviews covered themes related to adolescence period, mental health, relationships with others, power and control experiences, competences and skills, coping mechanisms. For adolescents, the meaning of mental health was related to need for personal control, power and social acceptance. They also indicated that social discourse which defines them as high-risk adolescents and makes generalizations about their mental health negatively affected their wellbeing. During therapy processes, they discovered that they could enhance their wellbeing, and form and maintain their identities by changing social discourses directed toward their high-risk situation. In sessions, they identified two kinds of power for enhanced mental health and empowerment; the first one was the power to control mental health resources and second one as the power to utilize these resources to show that they have competence, talents or skills. The authors have continued investigating adolescent resilience in the context of social, economic, political or cultural dynamics from a postmodernist and ecological system perspective.

In a cross-cultural study, Ungar and colleagues (2007) explored culturally embedded indicators of resilience in adolescents from 11 western and non-western countries. They hypothesized that resilience is not only individual's capacity to handle with difficulties, but also the capacity of the individual's environment to provide resources in culturally congruent ways. In this qualitative study, 89 adolescents who have been exposed to at least three of risk factors listed as war, poverty, violence, substance abuse, divorce of parents, adolescence pregnancy, social isolation, mental illness, genocide and marginalization were interviewed. Findings showed that resilient adolescents were those who find ways to resolve seven tensions by using their

individual, familial, social or cultural resources. These seven tensions were access to material resources, relationships, identity, power and control, social justice, cultural adherence and cohesion. It was underlined that these seven tensions are not independent from each other, instead, they interact.

Conger and Conger (2002) reported the findings of a longitudinal study of resilience of 558 adolescents and their families living under economic strains. The study began in 1980s at which economic crisis and its related consequences negatively affected families in rural Iowa families. The findings of this study revealed that economic problems increased harsh parenting practices and decreased nurturing parenting practices for families with poor socioeconomic conditions, in turn, resulted in increased risk of alcohol use and antisocial behaviors of adolescents. An important strength of this longitudinal study was examination of youth resilience during transition to adolescence and during transition to adulthood. The results demonstrated that behavior problems (e.g., substance use, conduct problems or delinquency) for both male and female adolescents, and depressive symptoms especially for female adolescents increased during adolescence period (from 8th through 12th grades in the study) but, parental warmth and support buffered the impact of these risk factors. During transition to adulthood, adolescents who received high nurturing parenting showed more positive behaviors towards their romantic partners and reported more satisfaction in their romantic relationships than those who received low nurturing parenting. Adolescents who received high harsh parenting indicated higher level of hostile and harsh parenting toward their own children in young adulthood compared to those received low harsh parenting.

Seidman and Peterson (2003) examined risk, protection and competence among adolescent from low income families from a holistic perspective. They summarized the findings of Adolescent Pathways Project (Seidman, 1991), a longitudinal study, following 1438 adolescents in two cohorts during 5 years. The first cohort was initially assessed at the end of fifth or sixth grade while the second cohort was initially assessed

at the end of eighth or ninth grade from urban public schools. They underlined that poverty-related proximal risk and protective factors in family, school, peer and neighborhood microsystems could be more influential on developmental outcomes rather than only poverty. The cascading nature of poverty, referring that poverty as a risk factor is associated other distal risk factors such as neighborhood dangers, low-resourced schools, large families and low parental education level, was also emphasized. In this study, participants' perceptions about their transactions with families and peers were examined in order to determine risk and protective functions of family and peer microsystems for low-income urban adolescents.

The positive outcomes or competence domains was identified as antisocial behavior, depression and self-esteem. To evaluate the impact of family transactions on these outcomes, the researchers used adolescents' self-reports about the intensity of daily hassles, perceived social support and perceived involvement with parents. Results revealed four profiles of perceived family transactions based on constellations of daily hassles, social support and involvement; (1) *Dysfunctional* families were perceived as hassles were high while social support and involvement were low, (2) *Functional-Involving* families were perceived as hassles were low while social support and involvement were high, (3) *Functional-Uninvolving* family profile indicated social support was high whereas hassles and involvement were low, (4) *Detaching* family profile was perceived as moderately low in hassles, perceived social support and perceived involvement, (5) *Hassling* family profile was perceived as low in involvement, but high in daily hassles and moderately high in social support, (6) *Enmeshing* families were low in social support while high in hassles and involvement. In terms of developmental outcomes, adolescents who perceived their family transactions as dysfunctional, hassling and enmeshing were under risk for showing antisocial behavior whereas those perceiving their families as functional-involving, functional-uninvolving and detaching were protective against engagement with antisocial behaviors.

For depression, adolescents reporting dysfunctional family profile were under risk while those experiencing functional-involving, functional-uninvolving and detaching family profiles had protective functions. For self-esteem, functional-involving, functional-uninvolving and detaching family profiles were protective for youth. The results were surprising in the sense that detaching family profile was protective for negative effects of adverse economic conditions in adolescents (Seidman & Peterson, 2003).

In identification of perceived peer transaction profiles, constellations of daily hassles, social support, social involvement, social acceptance and peer values (i.e., prosocial or antisocial values) were utilized. Six profiles were determined; (1) *Prosocial-Engaging* profile was low in hassles while high in social support by peers, social involvement with peers, social acceptance by peers and prosocial peer values, (2) *Antisocial-Engaging* profile was low in hassles and prosocial peer values; high in social support by peers, social involvement with peers, social acceptance by peers, (3) *Entangling* profile was high in social support by peers, social involvement with peers, but also very high in daily hassles, (4) *Disengaging-Accepting* profile was low in hassles, social support, social involvement; high in social acceptance and moderately high in prosocial peer values, (5) *Neglecting* profile was low in hassles, social support, social involvement, social acceptance, (6) *Rejecting* profile was low in social support, social involvement, social acceptance while high in daily hassles (Seidman & Peterson, 2003).

For antisocial behaviors, prosocial-engaging and disengaging-accepting profiles had protective while antisocial-engaging and entangling profiles had risk functions. For depression, prosocial-engaging, antisocial-engaging and disengaging-accepting profiles were protective whereas entangling and rejecting profiles were risky conditions. For self-esteem, adolescents reporting disengaging-accepting, prosocial-engaging and antisocial-engaging profiles had higher self-esteem than those with other profiles (Seidman & Peterson, 2003).

Fergusson and Horwood (2003) reported the findings of twenty-one-year longitudinal study in which 1,265 children born in an urban region of New Zealand were followed in order to find out how and to what extent exposure to family adversity lead to developmental problems in adolescence and young adulthood; and what factors or mechanisms protect individuals the negative impact of family adversity. The childhood adversity sources were classified into four groups; socioeconomic adversity, parental change and conflict, child abuse, parental alcohol, drug or criminal problems. The results showed that resilience factors showed their impact by compensating childhood adversity (main effect model). The resilience factors were identified for externalizing and internalizing problems. For gender factor, femaleness was associated with reduced risk of externalizing problems while maleness was related with reduced risk of internalizing problems. Among personality factors, low novelty seeking tendency, low neuroticism, and high self-esteem were associated with less externalizing and internalizing problems. For attachment factor, parental attachment reduced the negative effect of family adversity on internalizing problems whereas avoidance of engagement with delinquent peers decreased the negative effect of family adversity on externalizing problems.

Vanderbilt-Adriance and Shaw (2008) examined the role of personal and family protective factors on social competence in children from low income families. The longitudinal study followed 226 urban boys from infancy through early adolescence. As well as socioeconomic status, neighborhood disadvantage was considered as environmental risk factor in the study. The authors underlined that only low income level does not represent environmental risk condition, however, neighbor disadvantage including criteria of low income, unemployment level, received public assistance, single-parent percentage etc. provides a stronger measure for environmental risk. Resilience was conceptualized as an outcome: high social adjustment and low levels of antisocial behaviors. Results indicated that child's IQ, nurturing parenting of mother, the quality of relationship between child and parents were protective factors

predicting low levels of antisocial behavior and high levels of social adjustment in early adolescence.

Hopkins, Zubrick, and Taylor (2014) carried out a study in order to identify individual, peer, family, neighborhood and cultural protective factors on psychosocial development of 1021 Australian adolescents aged between 12 and 17, and living in low socioeconomic regions. In this study, the effect of protective factors on high-risk and low-risk exposure were also compared. The results showed that adolescents with higher self-esteem, less involvement in fights and having a prosocial friend had significantly higher resilience in high-risk condition. For low-risk condition, higher self-esteem, less involvement in fights and less exposure to racism had significantly higher resilience. The protective factor of having a prosocial friend was uniquely associated with adaptive psychosocial development for high-risk condition. The protective factors of self-esteem and self-regulation were found to be associated with adaptive psychosocial development for both low-risk and high-risk conditions.

Masten and Powell (2003) reviewed various studies and perspectives and summarized attributes of individuals and their protective contexts that are associated with resilience. Individual attributes included cognitive abilities, self-perceptions of competence, worth, confidence (self-efficacy, self-esteem), temperament and personality (adaptability, sociability), self-regulation skills (impulse control, emotion regulation), positive perspective on life (hopefulness, finding meaning, faith). Relationship contexts supporting resilience were parenting quality (warmth, structure and monitoring, expectations), positive relationships with competent adults, and relationship with peers having prosocial behaviors. Protective contexts related to community resources and opportunities contained good schools, engagement in prosocial organizations, quality of neighborhood, quality of social and health services.

Fergus and Zimmerman (2005) focused on promotive factors and assets in adolescents compensating for or protecting against risk factors such as substance use, violent

behavior and sexual behavior. For substance use risk factor, assets (i.e., individual promotive factors) were identified as self-esteem, self-control, social competence, academic success, internal locus of control, religiosity, positive affect; and resources (i.e., external promotive factors) as connectedness within family, parental involvement with school, parental monitoring, parental authority and open communication with parents. The review of compensatory and promotive factors for adolescent violent behavior showed that assets were anger control skills, religiosity and prosocial beliefs whereas parental support, parental monitoring, school connectedness and academic success were resources. For risky sexual behavior, assets such as academic success, self-esteem, participation in extracurricular activities, religiosity, health knowledge and resources such as parental monitoring, positive communication with parents, perceived support from teachers, socioeconomic status of family, school connectedness and father's education level operated as compensatory or protective factors for adolescents.

In another review study, Milkman and Wanberg (2012) summarized risk and protective factors playing role in adolescent delinquency and substance abuse. Based on findings of various studies, risk factors were categorized into individual, familial and psychosocial factors. Individual risk factors included sensation seeking, low self-esteem, negative self-concept, cognitive deficit such as self-defeating thinking patterns, low levels of assertiveness and refusal skills, low school connectedness and poor personal health behaviors. Familial risk factors consisted of insecure attachment in infancy, parental substance abuse, parental mental illness, low parental monitoring, corporal punishment toward the adolescent, and violence and abuse within family. Psychosocial risk factors were listed as school difficulties such as learning problems, discipline referrals or behavior problems, engagement with deviant peers, poverty, and exposure to neighborhood violence and crime.

Resiliency factors buffering against the adolescent behavior problems were also grouped into individual, familial and psychosocial factors. Individual protective

factors included engagement in personal health behaviors, personal competence skills such as refusal and assertiveness skills, boundary setting or self-efficacy, engagement in prosocial activities, cognitive focus (i.e., greater orientation to family than to friends, greater orientation to peers showing conventional behaviors than to peers showing deviant behaviors, recognizing the consequences of violation of rules), making decisions based on internalized ethical and moral principles, internal locus of control and empathy. Familial protective factors contained secure attachment in infancy and positive interaction within family while psychosocial protective factors were attachment to conventional adults outside family and improved community infrastructure (Milkman & Wanberg, 2012).

In sum, resilience studies started with the aim of investigating individual factors protecting children against adverse life conditions. As the resilience research has been expanded, both multiple factors and interactions among these factors have been considered. The examination of protective factors for adolescents under risky circumstances has provided a number of individual, familial or community level factors. Individual level protective factors included IQ, easy temperament in childhood, self-esteem, internal locus of control, sense of humor, cognitive skills such as decision making or problem solving skills, social skills, social competence, optimism, empathy, self-regulation, self-efficacy, impulse control, positive affect, academic achievement, persistence, determination, commitment to education and life goals, perceived power and control, hopefulness, finding meaning in life, religiosity and similar. Familial level protective factors included parenting quality, sibling relationship quality, family functioning, supportive family environment, family cohesion, parental warmth and support, consistent structure and rules in family, parental monitoring and similar. Supportive social systems, peer relations, positive relationships with teachers and peers, perceived social support and acceptance by peers, engagement with peers having prosocial behaviors or values, adult mentors outside the family, school connectedness and community health services were among environmental or community level protective factors.

2.1.3. Adolescent Resilience Studies in Turkey

Resilience research has been widely studied in Western literature and expanded throughout four waves of resilience literature. However, this concept has received attention in Turkey for nearly past fifteen years (Gizir, 2007; Işık, 2016). The recent studies investigating resilience factors and processes in our country have focused on different populations such as earthquake survivors (İkizer, 2014; Karairmak, 2007; Karairmak & Siviş-Çetinkaya, 2011), divorced women (Soylu, 2016), first year university students (Yalım, 2007), high school students (Arastaman & Balcı, 2011; Yılmaz & Sipahioğlu, 2012), eight grade students (Gizir & Aydın, 2009; Önder & Gülay, 2008), elementary school students in regional boarding schools (Kaya, 2007), adolescents with divorced parents (Altundağ, 2013), adolescents preparing for university entrance exam (Dayıoğlu, 2008), school administrators (Karabulut, 2015), mothers of children with mental retardation (Bayraklı, 2010), women exposed to violence (Sağlam, 2015).

The resilience of Turkish adolescents living under socioeconomically poor conditions has been investigated in relation to different internal or external protective factors. For instance, Esen-Aktay (2010) explored the resilience of ninth and tenth grade adolescents with low socioeconomic condition and also having at least one of other risk factors such as premature infant, repeating a grade level, having a mother or father committed an illegal act, having parent with disease, inaccessibility to health services, having a family member with special education need, having peers with alcohol or substance abuse, working as well as going to school, neighborhood adversities, absenteeism at school. The level of resilience was determined according to adolescents' possession of internal and external protective factors. The resilience of adolescents was examined in terms of having divorced or nondivorced parents, academic success, perceived social support, participation in school activities. The resilience level of adolescents was found to be higher in adolescents with nondivorced parents than those with divorced parents. It was also found that resilience level of

adolescents was significantly correlated to academic success, perceived social support and participation in school activities. Although female adolescents had higher scores on each factors of resilience, there was no significant difference between female and male adolescents in terms of resilience level.

Another study which included participants from a district considered as having socioeconomically adverse conditions investigated the effect of parental attitudes on resilience level of ninth grade adolescents (Onat, 2010). The level of resilience was determined according to adolescents' possession of internal and external protective factors. The findings indicated that adolescents perceiving their parents' attitudes as democratic had higher level of internal and external protective factors than those perceiving their parents' attitudes as authoritarian. The difference in resilience of participants in terms of gender and age factors was investigated. Results showed that resilience level of female adolescents was significantly higher than male adolescents. There was a significant difference between four age groups (aged 14, 15, 16, and 17) of adolescents, suggesting that as age increased the resilience level of participants decreased.

Yılmaz and Sipahioğlu (2012) investigated resilience of 9th, 10th and 11th grade adolescents with different risk factors such as living in poverty, having single parent, gender and type of the school. The level of resilience was determined in terms of internal and external protective factors adolescents have. The results of this study showed that caring relationships at home, high expectations at home and participation in home activities were protective factors which were higher in adolescents living with single parent than those living with both parents. Among adolescents living with single parent, female adolescents had higher level of empathy, caring relationships at home and caring relationships with peers than male adolescents. Protective factors of adolescents were also compared based on school type. Adolescents in Science and Anatolian Teacher High School students had higher levels of caring relationships at school, academic aspirations and problem solving skills than adolescents in Anatolian

High School students. In regard to poverty risk factor, protective factors such as caring relationships with peers, empathy, goals and academic aspirations were found to be higher in female adolescents than male adolescents while problem solving skill was found to be higher in male adolescents than female adolescents.

In another study taking economic strain as one of risk factors, Turgut (2015) investigated the resilience of 9th through 12th grade adolescents in regard to major life events such as death of parent, divorce of parents, having a chronic disease, adverse economic conditions in family or migration in terms of perceived social support, school engagement and gender. The resilience was conceptualized as an individual attribute in this study. It was found that both perceived social support by teachers, family and peers and school engagement (internal engagement, school environment engagement and engagement with teachers) significantly predicted resilience level of adolescents. However, experiencing major life event was not found to be significant predictors of resilience in adolescents. The female adolescents had significantly higher level of resilience than male adolescents. The resilience of participants significantly differed in terms of grade level. Results showed that 9th grade adolescents had significantly higher level of resilience than 11th and 12th grade adolescents. 10th adolescents had significantly higher level of resilience than 11th and 12th grade adolescents. In other words, resilience of adolescents decreased as the grade level increased.

Aydın-Sünbül (2016) investigated the mediating role of self-compassion and emotion regulation in the relationships between mindfulness and resilience of 9th, 10th and 11th grade adolescents from families with low socioeconomic status. In this study, resilience was conceptualized as individual characteristic. The results of path analysis indicated that mindfulness, self-compassion, and emotion regulation difficulties directly and significantly predicted resilience level of adolescents. In addition, mediating effect of self-compassion and emotion regulation was also found to be significant. There was no significant difference between boys and girls in regard to

resilience level. Bulut and colleagues (2018) investigated the resilience of 1008 adolescents in Muş, a city which includes various risk factors such as economic hardship, poor social or cultural opportunities, in order to reveal demographic characteristics and adverse life events associated with resilience. The results showed that adolescents' resilience was positively and significantly correlated with academic success, economic status of family, while negatively and significantly associated with criminal record. Also, girls had significantly higher resilience than boys. In terms of the effect of adverse life events, it was found that history of mental disorder in the family, alcohol or substance abuse in the family, frequent arguments with family members, monetary loss of family were negatively and significantly associated with resilience of adolescents. Aydın-Sünbül and Çekici (2018) examined the predictive role of hope in resilience of economically disadvantaged high school students. Resilience was conceptualized as individual characteristic in this study. The results of regression analysis showed that 48% of variance in resilience was explained by hope variable. Thus, hope was discussed to be a protective factor of great importance for adolescents from families with low socioeconomic status.

In a recent experimental study, Akar (2018) carried out a ten-session resilience program with high school students residing in high poverty regions. Firstly, participants with lowest resilience scores were determined. Then, 52 participants were randomly assigned to experimental and control groups. The sessions of the program addressed protective factors such as flexibility, empathy, problem solving, realistic thinking, optimism, pessimism, autonomy, stress management, humor and coping. The results showed that experimental group had significantly higher resilience score in post-test and follow-up assessment (four-week post-treatment) than resilience score in pre-test. The experimental group also had significantly higher resilience score than control group in post-test and follow-up assessment. In addition, parental reports yielded similar results in behalf of experimental group.

Specifically, resilience in academic life has been examined in some studies carried out with Turkish adolescents. In an earlier resilience study conducted in Turkey, Gizir (2004) investigated individual and environmental protective factors contributing to academic resilience of eight grade students living in low-socioeconomic inner cities. In this study, internal and external protective factors were regarded as predictors of academic resilience which was conceptualized as an outcome defined by academic achievement. The results revealed that high expectations at home and school, caring relationships at school and caring peer relationships were external protective factors while positive self-concept about academic competencies, high academic aspirations, empathic understanding, internal locus of control and hope for future were internal protective factors predicting academic resilience of the students living under economically adverse conditions. However, caring relationships at home and community, high expectations at community, peer high expectations and problem solving skills were negatively associated with academic resilience of adolescents.

The hypothesized model in this study was also tested for both boys and girls separately. Results showed that some external and internal protective factors operated differently for boys and girls. Among external protective factors, “caring relationships and high expectations at school” was found to be a significant protective factor for girls while “peer high expectations” was negatively associated with academic resilience for girls. “Caring relationships at home” was negatively associated with academic resilience for boys. Among internal protective factors, “hope for the future” was found to be a significant protective factor for girls. For boys, “problem solving” was negatively associated with academic resilience. It was the first study examining the impact of poverty on adolescents from risk and resilience perspective in Turkey (Gizir, 2004).

Yavuz (2015) also examined protective factors contributing to academic resilience of economically disadvantaged 12th grade adolescents. The cognitive flexibility and perceived social support, but not school attachment and gender, significantly predicted academic resilience of adolescents with economic adversity. The differences between

adolescents with low and those with high academic resilience in terms of protective factors were also compared. There was no significant difference between low and high academic resilient groups in terms of cognitive flexibility, perceived social support, and school attachment. Also, female adolescents had significantly higher level of academic resilience than male adolescents. The author discussed that female adolescents could be better utilizing the potentials of external protective factors compared to male adolescents. Lately, Yavuz and Kutlu (2016) investigated the relationship between academic resilience of economically disadvantaged adolescents and specific internal and external protective factors. It was found that adolescents' cognitive flexibility and perceived social support were positively moderately associated with academic resilience. But, there was no significant relationship between school attachment and academic resilience of high school adolescents. In terms of the effect of gender, girls had significantly higher resilience in academic life than boys.

Özcan (2005) compared protective factors and resilience characteristics of high school students in terms of gender and having divorced or nondivorced parents. The resilience characteristics were defined as internal protective factors such as empathy, self-awareness, self-efficacy, problem solving skill, goals and aspirations, and cooperation and communication. Results showed that adolescents with nondivorced parents had significantly higher levels of protective factors and resilience characteristics than adolescents with divorced parents. There was no significant difference between male and female adolescents in terms of the levels of protective factors and resilience characteristics except empathy. Female adolescents had higher level of empathy than male adolescents. Adolescents with nondivorced parents reported significantly higher caring relationships at home and community, higher expectations at home and community, higher opportunities for meaningful participation in family, goals and aspirations, and higher problem solving skills than those with divorced parents.

Another recent study on resilience of adolescents with divorced parents investigated the relationship between loneliness, life satisfaction and resilience (Altundağ & Bulut, 2014). Resilience level of adolescents were evaluated in terms of six dimensions; support from family, support from peers, determination for struggling, empathy and adaptation. It was found that there was a positive relationship between resilience and life satisfaction whereas a negative relationship between resilience and loneliness. In addition, loneliness, but not life satisfaction, significantly predicted the resilience level of adolescents whose parents were divorced.

Siyez and Aysan (2007) examined risk and protective factors predicting problem behaviors in 9th, 10th and 11th grade adolescents from the perspective of Problem Behavior Theory by Jessor and Jessor (1977). A significantly positive relationship between risk factors and problems behaviors, and a significantly negative relationship between protective factors and problems behaviors was found. In terms of resilience process, value on achievement, hope for future, positive attitude toward school and intolerance of deviance in Personality System; approval of problem behavior by parents, peers and environment, adult models for conventional behavior, perceived social support by parents, peers and teachers, parental monitoring, value on achievement by parents and teachers in Perceived Environment System; perceived academic success in Behavior System were found to be significant predictors in explaining problem behaviors such as alcohol use, smoking, substance abuse, risky sexual behavior or deviant behavior. Regarding risk context, intention of dropping out from school, depression, stress, alienation, risk taking propensity in Personality System; parent, peer and adults models for problem behaviors, accessibility of substances and gangs, peer pressure in Perceived Environment System were significant predictors in explaining problem behaviors.

This study also indicated that risk and protective factors in Personality System explained higher variance in problem behaviors than factors in Perceived Environment System and Behavior System. The results of regression analysis also revealed that

gender and age accounted for 9% of variance in problem behaviors of adolescents. Moreover, the interaction between gender and protective and risk factors explained 44% of variance in problem behaviors whereas the interaction between age and protective and risk factors explained 5% of variance in problem behaviors. The authors suggested the consideration of gender in investigating risk and protective factors contributing problem behaviors in youth (Siyez & Aysan, 2007).

The resilience of adolescents preparing for university entrance exam was also examined in Turkish resilience studies. Oktan (2008) investigated the role of some factors such as life satisfaction, problem solving abilities, gender, and how many university entrance exam is taken in resilience level of adolescents preparing for university entrance exam. In the study, resilience of adolescents was evaluated by an instrument determining internal and external protective factors. The results indicated that female adolescents had significantly higher level of resilience than male adolescents. Also, adolescents taking university entrance exam for the first time had significantly higher level of resilience than those taking university entrance exam for the second or the third time. It was found that life satisfaction and problem solving skills significantly predicted resilience level of adolescents.

Another study examined the resilience of adolescent preparing for university entrance exam in terms of gender, how many university entrance exam is taken, graduation area, type of school, perceived social support and learned resourcefulness (Dayıoğlu, 2008). Resilience was operationalized as self-esteem and risk factor as achievement related negative life events in this study. Results indicated that resilience level of adolescents did not differ according to how many university entrance exam is taken, graduation area or type of school. In terms of the role of gender, male adolescents had significantly higher level of resilience than female adolescents. In addition, perceived social support and learned resourcefulness were found to be significant predictors of resilience.

In a study considering substance use as a risk factor, the resilience and family functions of 9th grade adolescents using substance was compared to those not using substance (Çataloğlu, 2011). The resilience level was determined according to presence of internal and external protective factors. In terms of external protective factors, adolescents not using substance reported higher level of caring relations and higher expectations at school, higher level of caring relations and higher expectations at home, higher level of expectations by peers than adolescents using substance. In regard to internal protective factors, adolescents not using substance had higher level of empathy, higher level of self-awareness, higher level of educational expectations and goals than those using substance. The general family functioning (i.e., problems about communication, roles, emotional response, caring, problem solving, behavioral control and general functions) was negatively associated with external protective factors such as caring relations and high expectations at school, home and environment, caring relations and high expectations by peers, meaningful participation in school activities and participation in home activities. The general family functioning was also negatively related to some internal protective factors such as empathic understanding, problem solving skills, self-efficacy, having goals for future, communication and cooperation with others and self-awareness. The role of gender in protective factors was also examined. The results indicated that boys reported significantly higher level of meaningful participation in school activities and higher level of caring relations at home than girls. The girls reported significantly higher level of caring relations and high expectations by peers than boys. In regard to internal protective factors, girls reported significantly higher level of empathy, problem solving skills, communication and cooperation with others, educational expectations than boys.

Yılmaz-Irmak (2008) compared resilient and non-resilient adolescents (aged between 12 and 17) who exposed to physical abuse in terms of protective and risk factors. Two groups of adolescents were determined according to mental health problems and risk behaviors such as alcohol or drug use, smoking, involvement in fighting and similar.

Protective factors were defined as the level of attachment to mother, self-esteem, internal locus of control, perceived support from peers while risk factors were the severity, duration and number of physical abuse. The findings of study indicated that resilient adolescents who exposed to physical abuse had significantly higher level of attachment to mother, internal locus of control and self-esteem than non-resilient adolescents. The non-resilient adolescents reported more severe physical abuse compared to resilient adolescents whereas groups did not significantly differ according to duration or number of physical abuse. For both mental health problems and risk behaviors, there was no significant difference between the resilient and non-resilient groups in terms of gender.

At another study on resilience of adolescents (aged between 14 and 19) exposed to abuse, the mediating role of automatic thoughts and cognitive emotion regulation in the relationship between childhood abuse or neglect experiences and resilience was investigated (Kaya, 2015). The resilience was evaluated as individual characteristic referring to presence of protective factors (being investigator, being leader, reaching goals, foresight, communication, optimism, enterprising, being powerful). The results indicated that higher use of adaptive cognitive emotion regulation strategies (acceptance, positive reappraisal, positive refocusing, changing perspective and refocusing on plan) and lower level of automatic thoughts (physical threat, social threat, personal failure and hostility) fully mediated the relationship between childhood abuse experiences and resilience of adolescents. In other words, the level of resilience in adolescents who exposed to childhood maltreatment increased as adaptive cognitive emotion regulation strategies increased and automatic thoughts decreased. In this study, girls had significantly higher level of protective factors of being investigator, reaching goals, and communication than boys.

The resilience of adolescents who live in children's houses under the Provincial Directorate of Family and Social Policy in Kars was examined (Toraman, 2018). The association between resilience and self-efficacy, social-emotional learning skills of

adolescents aged between 12 and 17 was evaluated. It was found that psychological resilience of adolescents was positively and significantly correlated with self-efficacy and social-emotional learning skills. Among self-efficacy domains, the highest correlation was between emotional efficacy and resilience. Among social-emotional learning skills domain, the highest correlation was between problem solving skills and resilience of adolescents. Besides, there was no significant difference between girls and boys in terms of resilience scores. Adolescents having a close friend, having working mother, having working father had significantly higher resilience than those not having.

As well as studies investigating resilience of adolescents with risk factors, a variety of studies in Turkey conducted adolescent resilience studies without considering any risk factor. Karataş and Savi-Çakar (2011) examined the role of two internal protective factors, namely, self-esteem and hope in resilience of 9th through 12th grade adolescents. The resilience was assessed as the presence of protective factors and resiliency characteristics such as self-competence, self-awareness, empathy, problem solving. They found that self-esteem is positively and hopelessness as negatively associated with resilience of adolescents. Both self-esteem and hopelessness significantly predicted the level of resilience.

Arastaman and Balcı (2013) carried out a study to find out the relationship between resilience of adolescents in high schools and protective factors such as attitudes and behaviors of teachers, perceived support from family, perceived support from peers and school climate. The resilience of adolescents was assessed by an instrument developed by the researchers. This scale included four factors; determination, sociability and communication skills, self-efficacy and hope, and problem solving skill. The results showed that perceived support from family and perceived support from peers significantly predicted resilience of adolescents while attitudes and behaviors of teachers and school climate were not significant predictors. There was no significant effect of gender or grade level on resilience of participants. Çelik (2013)

investigated the resilience of 12th grade adolescents in terms of emotional expression. In this study, resilience was defined as characteristics such as optimism, developing relationships with others, foresight, reaching goals or being leader. A significant relationship between resilience of adolescents and all dimensions of emotional expression (i.e., positive expression, negative expression, strength of impulse) was found. There was no significant difference between boys and girls in terms of resilience level. Atik (2013) examined the mediating role of insight and self-reflection in the relationship between attachment to mother and psychological resilience in 10th and 11th grade high school adolescents. The resilience was conceptualized as an individual attribute. The results of this study did not support the mediating role of self-reflection and insight, but, it was found that the level of attachment to mother is positively correlated with the level of resilience in adolescents. The resilience level of adolescents did not differ according to gender. However, resilience was found to be significantly associated with age, referring that as age of participants increased, resilience level increased.

Another study considering the role of attachment in resilience investigated whether resilience level of 9th through 12th grade adolescents differentiate according to attachment style and self-construals (Gündaş, 2013). In this study, resilience level of adolescents was determined according to presence of internal and external protective factors. Results showed that relational self-construal and autonomous self-construal significantly predicted resilience level of adolescents while autonomous relational self-construal did not significantly predict. In contrast to findings of Atik's (2013) study, the resilience level of adolescents did not differ according to age or grade level while it significantly differed in terms of gender, referring that female adolescents had higher resilience than male adolescents.

Özden-Yıldırım and Ermiş (2017) also investigated the effect of self-construal of adolescents aged 14-18 on their resilience. The level of resilience was conceptualized as protective factors such as family support, peer support, school support,

determination of struggle, adaptation and empathy. They found that relational self-construal was positively associated with resilience of adolescents, more specifically, family support, peer support and school support dimensions of resilience. However, autonomous self-construal was only positively related with family support dimension of resilience. There was no significant relationship between autonomous-relational self-construal and resilience of adolescents. In addition, resilience level of adolescents did not significantly differ according to gender. Erdem (2017) examined the relationship between attachment to parents and resilience in high school students. The resilience was assessed by an instrument measuring resilience in terms of individual, relational, communal and cultural resources available for the individual. Both maternal and paternal secure attachment was significantly and positively associated with resilience in adolescents. The maternal attachment explained highest variance in resilience.

In a study examining the resilience of adolescents in relation to the childhood traumatic experiences and attachment styles, Bindal (2018) found that resilience was significantly and positively associated with attachment to parents, and significantly and negatively associated with childhood traumatic experiences. Also, attachment to parents and childhood traumatic experiences explained 43% of variance in resilience of adolescents. Emotional abuse subscale in childhood traumatic experiences measurement, and secure relationship with mother explained highest variance in resilience, respectively. There was no significant difference between girls and boys in terms of resilience scores. But, adolescents from families with low income had significantly less resilience than those from families with middle income and high income. The difference in resilience scores of adolescents from families with middle income and those from families with high income was not significant.

To sum up, resilience research in Turkey has accelerated after 2000s although it has been studied since 1970s in Western literature. Despite novelty of the resilience studies in our country, it has been investigated in various populations. Some of the studies

conducted with adolescents considered the risk factors such as economic strains, parental divorce, substance use, achievement related negative life events, abuse or neglect while a number of studies did not take into consideration any risk factor. The majority of studies have focused on determining protective factors in adolescents as in the first wave of resilience research. The resilience was mostly conceptualized as the presence of internal and external protective factors, which imply that individuals with more protective factors were considered as having higher levels of resilience.

2.2. Study Variables of Resilience in the Current Study

2.2.1. Parental Acceptance/Involvement

Parenting refers to the process of interactions between children and parents which are influenced by contextual variables such as culture, social values or beliefs (Brooks, 2004). In social sciences, parenting has been one of the most widely investigated phenomena to understand the development and socialization processes of children and adolescents (Bornstein, 2002). The remarkable influence of parenting related factors on resilience of children and adolescents have been revealed by various studies (Fergus & Zimmerman, 2005; Garnezy at al., 1984; Gizir, 2007; Karairmak, 2006; Kumpfer, 1999; Rutter, 1979; Werner & Smith, 1982, 1992; Zimmerman & Brenner, 2010; Zolkoski & Bullock; 2012).

Baumrind (1991), who was the one of the pioneer researchers in parenting literature, proposed a typology of parenting styles (i.e., authoritative, authoritarian, permissive, neglecting-rejecting). Then, various studies related to parenting and developmental outcomes have been conducted according to this typology. Two concepts, parental responsiveness and parental demandingness, have been the basis of this kind of parenting typology. Baumrind (1996) defined responsiveness as parents' attempts to support the child's individuality and self-assertion by being attuned and responsive to the child's needs. Demandingness referred to parents' attempts to make the child integrated into the family and society by providing supervision, control or discipline.

Taking into consideration that Baumrind's (1996) parenting framework was extensively used with children, Lamborn and colleagues (1991) applied this framework for examining the parenting in adolescence period. Based on two dimensions – parental acceptance/involvement and parental strictness/supervision – four parenting styles were reported in this study; authoritative (high acceptance/involvement, high strictness/supervision), neglectful (low acceptance/involvement, low strictness/supervision), authoritarian (low acceptance/involvement, high strictness/supervision), and indulgent (high acceptance/involvement, low strictness/supervision). The psychosocial development (social competence, work orientation, self-reliance), school achievement, internalized distress (somatic and psychological symptoms) and problem behaviors (drug and alcohol use, school misconduct, delinquency) of adolescents aged between 14 and 18 were assessed in terms of these four perceived parenting styles.

The results of this study showed that adolescents with perceived authoritative parenting had significantly higher academic competence, psychosocial development and lower problem behaviors than those with perceived authoritarian, indulgent or neglectful parenting. Adolescents with perceived neglectful parenting had poorest outcomes for all outcome variables. They did not significantly differ from those with authoritative or indulgent parenting. Adolescents with indulgent parenting attitudes reported significantly higher positive self-perception than those with authoritarian parenting attitudes. However, like their peers in neglectful parenting groups, they reported higher levels of drug and alcohol use, problem behaviors or school misconduct. Adolescents with authoritarian parenting had high school achievement and low problem behaviors, but had low self-confidence. Moreover, the findings of follow-up study showed that differences in competence and adjustment outcomes of adolescents in terms of parenting styles were maintained or increased over time (Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994).

In the current study, parental acceptance/involvement dimension of parental attitudes was included as the parental factor in the hypothesized resilience model. A few studies have investigated parental acceptance/involvement (parental level variable in the current study) dimension of parental attitudes separately. Instead, the effect of parental attitudes or parenting styles (including parental acceptance/involvement dimension) on development or resilience of adolescents have been mostly studied. Therefore, it is worth mention about how parental attitudes including parental acceptance/involvement relate to positive developmental outcomes or resilient outcomes in adolescents. In general, authoritative parenting style (high acceptance/involvement, high strictness/supervision) was found to be linked to positive developmental outcomes in adolescents such as higher academic success, more enhanced psychosocial adjustment (Steinberg et al., 1994), higher problem solving skills (Wolfradt, Hempel, & Miles, 2003) fewer emotional or behavioral problems (Finkenauer, Engels, & Baumeister, 2005) or fewer risky behaviors (Newman, Harrison, Dashiff, & Davies, 2008).

Slicker, Picklesimer, Guzak, and Fuller (2005) examined life skills development of first year university students in terms of perceived parenting behaviors. Life skills were composed of interpersonal communication/ relationship skills, decision making/ problem solving skills, maintenance of health or health behaviors, and identity development/ purpose in life in this study. Results showed that perceived parental responsiveness significantly predicted late adolescents' life skills whereas perceived parental demandingness did not after controlling the effect of age, gender, and socioeconomic status.

According to some studies, the attitudes of parents have been also associated with how adolescents deal with stressful experiences. Dusek and Danko (1994) found that adolescent perceiving their parents indulgent or authoritative engaged in more active problem oriented coping style while perceiving their parents indulgent or neglectful engaged in more cognitive oriented coping style. Perceived high parental

involvement/warmth and demandingness was found to be positively related to problem oriented coping, but negatively associated with emotion focused coping or cognitive coping in adolescents. Wagner and colleagues (1996) reported that adolescents perceiving maternal and paternal warmth and involvement had lower depressive symptoms in reaction to stressful life events than adolescents perceiving their parents harsh in discipline. Wolfradt and colleagues (2003) revealed that adolescents reporting authoritative or permissive parenting styles had higher active problem coping skills than adolescents reporting authoritarian or indifferent parenting styles. Also, perceived warmth and involvement from both mother and father was found to be associated with active problem-oriented coping strategies of adolescents.

Zakeri, Jowkar, and Razmjoe (2010) found that parental acceptance/involvement was a significant predictor of adolescent resilience. Briefly, positive parental relationship was considered as a protective factor for adolescents when faced with stressful events. Many studies carried out within resilience framework also supported that supportive relationship between parent and adolescent (Esen-Aktay, 2010; Masten, 2004; Seidman & Peterson, 2003; Siyez & Aysan, 2007; Smokowski et al., 1999; Vanderbilt-Adriance & Shaw, 2008; Werner & Smith, 1982, 1992), parenting quality (Masten et al., 1990), democratic parental attitudes (Onat, 2010), receiving monitoring from parents (Buckner et al., 2003; Fergus & Zimmerman, 2005; Siyez & Aysan, 2007; Masten & Powell, 2003; Smokowski et al., 1999) operate as a protective factor for adolescents.

Kumpfer and Summerhays (2006) underlined that as an external protective factor, perceived parental support, acceptance, or care have a vital impact on internal resources of children and adolescents. One of these valuable internal protective factors is undoubtedly self-esteem, which is very essential for resilience in adolescence (Haase, 2004). The positive effect of parent-adolescent relationship on self-esteem has been well-documented.

A number of studies have showed that adolescents' self-esteem was positively associated with perceived parental emotional support such warmth, attention, involvement, responsiveness, (Boudreault-Bouchard et al., 2013; Zakeri & Karimpour, 2011), parental acceptance/involvement (Zakeri et al., 2010), perceived parental nurturance (Buri, Murphy, Richtsmeier, & Komar, 1992), perceived closeness to parents (Birkeland, Breivik, & Wold, 2014), indulgent parenting style (Martinez & Garcia, 2007; Martinez, Garcia, & Yubero, 2007; Riquelme, Garcia, & Serra, 2018; Rogrigues, Veiga, Fuentes, & Garcia, 2013), authoritative parenting style (Martinez & Garcia, 2007; Martinez et al., 2007; Milevsky, Schlechter, Netter, & Keehn, 2007; Riquelme et al., 2018; Rogrigues et al., 2013), perceived parental protection (Herz & Gullone, 1999), parental autonomy support (Bush, Peterson, Cobas, & Supple, 2002; Zakeri & Karimpour, 2011), parental monitoring (Zakeri & Karimpour, 2011), and negatively related to overprotection or intrusion (Herz & Gullone, 1999), overcontrol (Barber & Harmon, 2002), coercive control (Boudreault-Bouchard et al., 2013), psychological control (Soenens, Vansteenkiste, Luyten, Duriez, & Goossens, 2005), and parental punitiveness (Zakeri & Karimpour, 2011).

The role of parental attitudes in relation to psychological adjustment or self-esteem in Turkish adolescent population has also been examined in various studies. For instance, Bostan (1993) found that authoritative parenting style was positively associated with psychological adjustment of high school adolescents while indifferent and authoritarian parenting style was negatively associated with adjustment of adolescents. Duru (1995) found that children perceiving their parents as authoritative had higher level of self-esteem than children perceiving their parents as authoritarian. Similarly, Tunç (2002) revealed that the self-esteem of adolescents perceiving their parents as authoritarian was significantly lower than those perceiving their parents as authoritative or indulgent.

In another study examining the effect of parental acceptance/involvement on self-esteem of university students, Demir-Solmaz (2002) also found that identity

achievement of adolescents was positively associated with authoritative parenting style while negatively associated with authoritarian or neglectful parenting styles. Erkman (as cited in Keskiner, 2012) conducted a study to examine the relationship between perceived parental acceptance-rejection and psychological adjustment of youth between age of ten to eighteen. The results of the study showed that both perceived paternal and maternal rejection was negatively associated with psychological adjustment of the youth. Çakır and Aydın (2005) investigated the identity formation of high school adolescents in terms of their perceived parental attitudes. Adolescent perceiving their parents as authoritative or permissive had higher identity foreclosure, which refers to commitment to an occupation, ideology or goal derived from parents or significant others not from self-exploration, than those perceiving their parents as neglectful. Cenkseven-Önder (2012) examined the relationship between high school adolescents' life satisfaction and perceived parenting styles. It was found that adolescents with authoritative parenting style reported higher life satisfaction than those with neglectful parenting style. In addition, adolescent who perceived their parents as indulgent had higher life satisfaction than adolescent perceiving their parents as neglectful. Aydın, Sarı, and Şahin (2014) found that perceived parental acceptance/involvement is significantly and directly related to self-esteem, and indirectly through hope in university students.

Parental attitudes, beliefs, behaviors or practices are influenced by various contextual variables such as socioeconomic status. Many studies showed that parents with high socioeconomic status tend to adopt authoritative parenting styles whereas parents with low socioeconomic status mostly engage in authoritarian or harsh parenting practices (Chen, Dong, & Zhou, 1997; Conger & Conger, 2002; Conger, Conger, & Elder, 1997; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; McLoyd, 1997; von der Lippe, 1999). Turkish studies examining the impact of socioeconomic status on parenting found that mother with low socioeconomic status emphasized the importance of obedience (Kağıtçıbaşı & Ataca, 2005), gratefulness (İmamoğlu, 1987), respectful behaviors toward others (Yağmurlu, Çıtlak, Dost, & Leyendecker, 2009)

whereas mother with high or middle socioeconomic status valued autonomous behaviors (Kağıtçıbaşı & Ataca, 2005; Yağmurlu et al., 2009), self-confidence (Yağmurlu et al., 2009) in their children.

2.2.2. Sense of School Belonging

The need to belong is accepted as basic human motivation and it refers that human beings have a drive to form and maintain significant, persistent, supportive, and stable interpersonal relationships in a context of concerning each other's wellbeing (Baumeister & Leary, 1995). Schools are considered as one of critical environments which could support youth's need for belong and so contribute mental health, because schools are filled with lots of opportunities (e.g., interactions with teachers, peers or administrators, participation in groups, participation in activities) to enhance children and adolescents' belonging needs (Benard, 2004; Eccles et al., 1993). Perhaps, schools could be identified as the most significant environment in which children and adolescents seek for belonging need (Berk & Meyer, 2015). Moreover, from resilience perspective, researchers asserted that school environment with satisfying relationships could exhibit essential protective effect for children and adolescents experiencing risky events or situations (Benard, 2004; Prince-Embury & Saklofske, 2014).

Goodenow (1993) asserted that children and adolescents having sense of belonging are more likely to have higher level of resilience, because they believe that they have necessary resources to deal with adversities. A variety of adolescence resilience studies have also revealed that resiliency in adolescents has been associated with many school belonging related factors such as school bonding (Masten, 2004), school connectedness (Milkman & Wanberg, 2012; Fergus & Zimmerman, 2005), school engagement (Turgut, 2015), positive relationships with teachers and peers in the school (Gizir, 2004; Rutter, 1984), effective schools (Masten & Powell, 2003; Masten, 2004), involvement in school activities (Çataloğlu, 2011; Esen-Aktay, 2010).

The sense of school belonging generally refers to the extent to which the students perceives personally valued, accepted, supported or included by others in school environment (Goodenow, 1993). The researchers have suggested that school belonging grows through the empathic, supportive, accepting interactions with adults (counselors, coaches, but especially teachers) and other students in the school (Anderman, 2002; Booker, 2006; Goodenow, 1993). It was also asserted that mutually beneficial relationships between the students and their peers or teachers culminate the sense of school belonging (Meloro, 2005).

Isakson and Jarvis (1999) found that students perceiving higher social support from their peers reported higher school belonging and lower stress in transition to high school. Similarly, Perdue, Manzeske & Estell (2009) revealed that the quality of peer relations and perceived support from peers played a significant role in school engagement of youth. Chiu, Chow, McBride, and Mol (2016) carried out a cross-cultural study with 193,073 adolescents from 41 countries. In this study, it was investigated what kind of factors contribute to students' sense of belonging at school. The quality of teacher-student relationship had the highest correlation with sense belonging at school. The second highest correlation was found between student-related factors (reading score and self-efficacy) and sense of belonging at school. The students from egalitarian cultures were more likely to have higher sense belonging at school than those from hierarchical cultures. Also, there was no significant relationship between collectivism and sense of belonging at school context.

As well as belonging hypothesis (Baumeister & Leary, 1995) mentioned above, the self-determination theory has been widely suggested as a conceptual framework in examining school belonging (Osterman, 2000). According to self-determination theory, the relatedness is one of three basic human needs and various social contexts provide environment to satisfy this need (Ryan & Deci, 2000). Gillen-O'Neel and Fuligni (2013) suggested that adolescence years in high school may be considered as a time when belonging need with others outside family context prevails. Because,

adolescents need relations with their peers and adults outside the family. In this regard, schools could provide valuable opportunities for fulfillment of belonging or connectedness need. However, the investigation of school belonging or connectedness in high school students have been still limited compared to the studies with children or early adolescents (Gillen-O'Neel & Flugni, 2013).

The interest and research about the sense of school belonging in the school context has been increased in recent years (Strudwicke, 2000). Likewise, the educational and social outcomes of school belonging have recently received attention from Turkish researchers (Uslu & Gizir, 2016). Many studies have supported that students with higher sense of school belonging had various educational benefits such as higher academic success (Anderman, 2002; Sánchez, Colón, & Esparza, 2005), higher motivation (Gillen-O'Neel & Flugni, 2013; Sánchez, Colón, & Esparza, 2005), higher academic effort (Sánchez, Colón, & Esparza, 2005), higher academic self-efficacy (Sahaghi, Birgani, Mohammadi, & Jelodari, 2015) and so on. However, studies examining the effect of school belonging on psychosocial outcomes have been still limited in comparison to research on the impact of school belonging on academic attainments (Brooker, 2006; Stalen, Ferguson, Allen, Brodrick, & Waters, 2016).

The research has been also limited in investigating sense of school belonging in risky groups such as youth under poverty, from minorities, or with disabilities (Stalen et al., 2016). Shochet, Dadds, Ham, and Montague (2006) examined the relationship between school connectedness, which refers to the feelings of being valued, accepted or respected in the school, and general mental health status of adolescents. The results of the study revealed that perceived school connectedness was significantly associated with mental health (low depression and anxiety, and high general functioning level) of adolescents. The one-year follow-up analysis of the study also showed that school connectedness is associated with depression, anxiety and general functioning symptoms even after controlling for prior mental health scores. Specifically, school connectedness was associated with depression symptoms for both male and female

adolescents; with anxiety symptoms for female adolescents; and with general functioning symptoms for male adolescents. van Ryzin, Gravely, and Roseth (2009) investigated the relationship between autonomy and belongingness in school context on psychological wellbeing of adolescents. The belongingness was measured through perceptions of personal and academic support from teachers and peers. The psychological wellbeing was evaluated measuring dispositional hope of adolescents. The results indicated that autonomy and belongingness directly and significantly predicted hope level, and also indirectly and significantly through engagement in classroom activities.

On the other hand, the lack of school belonging or sense of rejection by others in school environment have been associated with negative academic and socioemotional outcomes such as low academic success (Anderman, 2002; Arslan, 2016), low academic efficacy (Arslan, 2016), depression (Brooker, 2006), loneliness (Osterman, 2000), internalizing and externalizing problems (Pittman & Richmond, 2007) and similar. Shochet, Smith, Furlong, and Homel (2011) conducted a prospective study to investigate the effect of sense of school belonging on negative affect problems in 7th and 8th grade adolescents. Acceptance, rejection and caring relations dimensions of school belonging significantly predicted the negative affect of adolescents. The higher acceptance and higher caring relations was associated with lower negative affect while higher rejection was associated with higher negative affect for both boys and girls, controlling for prior negative affect experiences. The lower acceptance and higher rejection in school relationships were suggested as important risk factors for future negative affect levels of adolescents.

Gonzalez and Padilla (1997) investigated the sense of school belonging in relation to academic resilience of Mexican American high school students. Among predictors such as family, peer, teacher support, teacher feedback, sense of school belonging, and cultural loyalty, the only significant predictor of academic resilience was sense of school belonging. The sense of school belonging was also examined as a potential

protective factors buffering the adverse effects of risky life conditions. For instance, Kia-Keating and Ellis (2007) examined protective role of school belonging on psychological adjustment of refugee adolescents. A higher sense of school belonging was associated with lower depression level and higher self-efficacy in refugee adolescents. In addition, the sense of school belonging explained a vast amount of self-efficacy level of adolescents.

Napoli, Marsiglia, and Kulis (2011) examined the role of sense of school belonging on drug abuse in adolescents from different ethnic backgrounds. The results indicated that adolescents with high sense of school belonging reported lower lifetime use of drugs than those with low sense of school belonging. In addition, adolescents with high sense of school belonging started using drug at a later age than adolescents with low sense of school belonging. The authors underlined that enhancement of sense of school belonging could protect at-risk adolescents from drug abuse. Nuttman-Shwartz (2018) investigated the role of sense of school belonging and resilience in diminishing negative impacts of traumatic experiences with children and adolescents who live near war zone. The results supported that as the mediating role of sense of school belonging and resilience increased, adverse effect of traumatic events on psychological functioning of children and adolescents decreased. Based on the results of the study, the important role of sense of school belonging in preventing negative traumatic effects in children and adolescents was especially underlined.

Besides the sense of belonging in school context, the general sense of school belonging was found to be effective in psychological outcomes in adolescents. For instance, Bozak (2013) reported that sense of belonging and perceived social support were significantly related to resilience in university students. Also, the correlations between sense of belonging and resilience was strong while the association between perceived social support and resilience was moderate. In an experimental study (Scarf et al., 2017), the effect of sense of belonging (conceptualized and measured as feeling accepted by the group) and social support on resilience of adolescents was

investigated. The adolescents aged between 15-19 participated in a ten-day developmental voyage. In this voyage, the challenging tasks and conditions required the adolescents cooperate and work together. The participants' resilience was assessed on the first day and the last day of voyage. The results showed that sense of group belonging, but not social support, significantly predicted resilience. The resilience of adolescents at the last day of voyage was significantly higher than was on the first day for participants, but not for control group.

The sense of school belonging was also suggested to be significant for the way students perceive themselves and develop their self-esteem (Strudwicke, 2000). Although school environment is another important socialization context for adolescent identity formation, research about contribution of school environment or teachers on self-esteem is relatively limited compared to parental studies (Grolnick & Beiswenger, 2006). In adolescence period, individuals mostly engage in the question of "who I am?", and they try to define their "self" in the context of group relationships. At this point, their need for belonging comes into prominence, and school environment has a strong potential to satisfy this fundamental need in adolescents (Berk & Meyer, 2015). The young adolescents who lack sense of belonging have difficulty in developing healthy perceptions about their personal value such as self-esteem and self-fulfillment (McCullough, Huebner, & Laughlin, 2000). The satisfaction of this basic belonging need in school environment could help lowering the adverse effects of risky situations for children adolescents.

In relation to the role of school context in self-esteem, studies reported that perceived support and involvement from teachers, structure and organization in classrooms (Nelson, 1984; Ryan, Stiller, & Lynch, 1994), perceived school climate allowing students' autonomy by balancing order, structure and control with autonomy (Ryan & Grolnick, 1986; Roeser & Eccles, 1998), perceived support and regard from teachers (Reddy, Rhodes, & Mulhall, 2003; Roeser & Eccles, 1998), positive school climate, including commitment, satisfaction and teacher-student relationships factors, (Hoge,

Smit, & Hanson, 1990), school engagement (Markowitz, 2017), school connectedness (Millings, Buck, Montgomery, Spears, & Stallard, 2012; Watson, 2018) were positively associated with global self-esteem in children and adolescents. Strudwicke (2000) examined the effect of sense of school belonging on self-esteem of adolescents from socioeconomically disadvantaged Australian families. It was a comparative study in which the associations between sense of school belonging, self-esteem, and self-concept were investigated in three groups of students. The first group composed of students intending to leave the school before grade 12. The second group included those intending to enter a standard academic exam to complete 12-year education. The third one consisted of students who planned to go a technical school or find a job after leaving the school. The third group planned to take a performance exam which does not require high academic achievement. The first group had significantly higher sense of school belonging than other two groups. There was a significant and strong correlation between sense of school belonging and self-esteem for the second and third group while there was significant and weak correlation between sense of school belonging and self-esteem for the first group.

Şirin and Rogers-Şirin (2004) examined the effect of adolescents' school engagement, parental involvement, educational expectations, and self-esteem on academic performance. The school engagement was measured through constructed items reflecting adolescents' sense of school belonging. The results showed that school engagement was significantly and positively associated with self-esteem of adolescents. And, school engagement and parental involvement were significantly related to academic performance, but not self-esteem and educational expectations. Demirtaş, Yıldız, and Baytemir (2017) investigated the effect of general sense of belonging and basic psychological needs on self-esteem in high school students. Both general sense of belonging and basic psychological needs were significant predictors of self-esteem. But, basic psychological needs explained higher variance in self-esteem of adolescents than general sense of belonging.

The studies about the sense of school belonging conducted in our country have mostly focused on describing the school belonging of children or adolescents, examining predictors of school belonging or investigating association between school belonging and specific demographics. It stands out that the sense of school belonging has not been investigated as a possible protective factor from resilience framework in Turkey. In a study examining what kind of factors contribute to school belonging, Cemalcılar (2010) investigated the contribution of social context of schools in school belonging in middle school students. The researcher conceptualized the social context with two main aspects; social relations within the school and structural aspects of the school. In proposed model, the role of social aspects of school in sense of school belonging were examined based on social-ecological system model perspective. The findings of the study showed that both satisfaction with social relations in school and satisfaction with structural aspects of the school significantly predicted school belonging of students. The conceptual model was also tested according to socioeconomic status of schools by categorizing the schools as high and low socioeconomic status schools. The satisfaction with structural aspects of the school was not significantly associated with school belonging for high socioeconomic status schools whereas satisfaction with social relations in school was not significantly associated with school belonging for low socioeconomic status.

Uslu and Gizir (2016) examined how relationship with teachers and peers, and involvement of family in school and home contributes to school belonging of 8th and 9th grade students. The results indicated that relationship between teacher and students, relations with peers, family involvement in school and family involvement in home significantly predicted sense of school belonging in adolescent students. In the study, gender differences in terms of school belonging were also considered. For both boys and girls, relationship between teacher and students and peer relationships were significant predictors of school belonging. For only boys, family involvement in school significantly predicted school belonging while for only girls, family involvement in home significantly predicted school belonging. Altınsoy (2016)

investigated the predictive role of parental attachment, peer attachment, and life goals in sense of school belonging of 411 high school students. The results of regression analysis showed that peer attachment, paternal attachment, life goals, and maternal attachment, respectively in magnitude, significantly predicted sense of school belonging of adolescents. Besides, the sense of school belonging was not significantly differed in terms of gender or grade level of students.

Some of Turkish studies related to sense of school belonging have focused on describing the sense of school belonging in adolescents in relation to demographics such as gender, grade, school type etc. For instance, Sarı (2013) conducted a descriptive study investigating 9th, 10th and 11th grade high school students' sense of belonging. The students reported above average sense of school belonging in general. In terms of the role of gender, no significant difference was found between boys and girls although girls had slightly higher school belonging than boys. The 9th grade adolescents had significantly higher school belonging than both 10th graders and 11th graders. It was reported that as grade level increased, the sense of school belonging of students decreased. The difference in students' school belonging in terms of socioeconomic status was also examined. The results indicated that students from families with high or middle socioeconomic status had significantly higher school belonging than those from families with low socioeconomic status.

Arastaman (2011) studied the teachers' and administrators' opinions about 9th grade students' school belonging. The difference between views of teachers and administrators in terms of four main reasons (i.e., teacher-related reasons; school program-related reasons; student and school environment-related reasons; administration-related reasons) of low school belonging was examined. The teachers and administrators reported similar views about students' low sense of belonging. In addition, both teachers and administrators indicated that the most important reason of low school belonging was teacher-related while the less important reason of low school belonging was administration-related. The role of demographics in students'

school belonging was also examined. The results showed that girls had significantly higher sense of school belonging than boys. Students from families with low and middle socioeconomic status had significantly higher school belonging than those with high socioeconomic status.

Considering the limited literature on sense of school belonging and quality of life in school context in Turkey, Arıkan (2015) carried out a descriptive study with a sample of 923 high school students from South Eastern Anatolian region. Both Anatolian High Schools and Sport High Schools were included in this study. According to the results, sense of school belonging and quality of life in school scores were on average or above for two types of schools. The students from Sport High Schools had significantly higher sense of school belonging than those from Anatolian High Schools. The boys had significantly higher sense of school belonging than girls. Also, there was a significant and strong correlation between sense of school belonging and quality of life in school perceived by adolescents.

Günelan (2018) investigated the role of demographic variables in sense of school belonging as well as quality of school life and sense of school climate. The sample consisted of 1051 students from secondary schools. In terms of sense of school belonging results, as the grade level increased the sense of school belonging of students significantly decreased. The students from high socioeconomic status families reported significantly higher sense of school belonging than those from middle or low socioeconomic status families. In addition, students from middle socioeconomic status families reported significantly higher sense of school belonging than those from low socioeconomic status families. The girls had significantly higher sense of school belonging than boys. Also, more than half of the variance in sense of school belonging was significantly explained by quality of school life and sense of school climate variables.

Although limited, some studies have examined the effect of sense of school belonging on psychosocial outcomes in adolescents. Akman (2013) examined the relationship between the attitude towards violence and sense of school belonging in high school students was investigated. The sense of school belonging was evaluated in terms of five dimensions, namely, student's internal belonging, belonging to school environment, belonging to school program, belonging to school administration, belonging to teachers. The results of the study revealed that there is a significant negative relationship between adolescents' attitude toward violence and school belonging. In other words, as adolescents' positive attitudes towards violence increase, their sense of belonging decreases. Doğan (2015) investigated the role of self-esteem, sense of school belonging, and sense of futility in misbehaviors of 5856 high school students. The results showed that sense of futility, and secondly, sense of school belonging, but not self-esteem significantly predicted misbehaviors of adolescents. The bivariate correlation analysis results also indicated that there was a significant, positive, and small association between self-esteem and sense of school belonging.

As stated in Turkish studies above, disadvantaged socioeconomic status is one of the adverse contextual variables influencing adolescents' perceived sense of school belonging. For instance, Goodenow (1993) compared the sense of school belonging of early adolescents from urban and suburban cities. The suburban cities had the average per capita income in the lowest quartile of the state. The adolescents living in suburban cities with economically disadvantaged adversities had lower sense of school belonging than those from urban cities. The author suggested that sense of school belonging may be essential especially for students from socioeconomically less advantaged regions. Similarly, Smerdon (1999) found that high school students from socioeconomically advantaged families tended to have higher sense of school belonging and also they more likely participated in school activities. In Chiu et al.'s (2016) cross-cultural study, it was found that students from more wealthy families had higher sense of school belonging than students from economically disadvantaged

families. Besides, students with classmates with similar socioeconomic status had higher sense of school belonging.

2.2.3. Peer Social Support

In earlier definition, Cobb (1976) described the social support as information which lead people to perceive that they are valued, loved, cared as a member of social network. Later, Langford, Bowsher, Maloney and Lillis (1997) summarized the three antecedents of social support. The first one, social network, refers to the structure of in which social interactions among people take place. In order words, the microsystem of the child and adolescent becomes the field of social network. The second antecedent, social embeddedness, is defined as the connectedness the individual feels towards other in the social network. For social support to occur in social network, some degree of social embeddedness should be experienced. The third one, social climate, refers to quality of social climate which helps social support to develop. The protection, care or helpfulness are main characteristics of supportive social climate.

Four typology of social support has been largely utilized in conceptualization and measurement of the concept of social support (Langford et al., 1997). These four typologies are emotional (i.e., provision of care, esteem, love, trust and empathy to the individual in social network), instrumental (i.e., provision of tangible equipment, materials or financial aids to the individual), informational (i.e., provision of information which helps individual to solve problems in a stressful condition) and appraisal (i.e., provision of information or feedback which helps individual to appraise or evaluate himself/herself) support (Cohen & Wills, 1985; House, 1981; Langford et al., 1997). For all types of social support, reciprocity is required for the support to foster (Langford et al., 1997).

For the explanation of the mechanism through which social support enhance wellbeing of individuals, two main models were widely referred in the literature; main effect

model and buffering model (Cohen & Wills, 1985). According to main effect model, social support contributes to physical and mental health of individuals regardless of they are under stress or not. Because, social support promotes positive affect, self-value or trust in relationships, or helps people avoid negative health-threatening behaviors. The buffering model posits that social support moderates the negative effects of stress and could lead to positive outcomes.

Social support intervenes the individual's stress response and thereby decrease possible negative effects of risk factors or increase the possible positive effect of protective factors. For instance, emotional social support could enhance self-esteem or prevent the loss of self-esteem in the face of stressful life events. In this case, individuals may keep believing their ability to deal with stress. Informational social support could help individuals clarify problem-solving process. Instrumental support could provide the individuals with necessary financial resources. Appraisal support could help individuals avoid maladaptive stress responses (Cohen & Wills, 1985).

In addition to these two widely used models, House, Umberson, and Landis (1988) discussed the social support structures and processes from the perspective of benefits of social relationships. They stated three processes through which social relationships have impact on wellbeing. The first one is social support, indicating the supportive, stress buffering quality of relationships in the form of emotional, informational, instrumental or appraisal support. The second one, relational demands and conflicts, refer to undesired, conflictual or competitive nature of relationships which could affect the individual's wellbeing negatively. The third one, social regulation, means the controlling or regulating aspect of social relationships which could individuals enhance wellbeing. It is related with social prohibition or other people's restricting or inhibiting the behaviors of the individual. The authors suggested that social structures influence the wellbeing of individuals through these relational contents of social relationships within the social networks.

In regard to resources of social support, family members mostly become the basic social support providers of children. As they grow up, other social support resources such as school, adults outside the family and peers emerge. Especially, in adolescence, individuals largely rely on their peers for various types of social support (Berndt, 1989). Besides, the basic developmental task of the adolescence period is to leave the close ties with parents and form new relationships with peers or peer groups (Lerner & Steinberg, 2004). The peers or friends become crucial in this developmental period, because adolescents define themselves within a group and form a sense of self by comparing themselves to others (Erikson, 1959).

The features of peer relationships change as the individuals proceed from late childhood to middle adolescence period. The emphasis on sharing activities decreases, instead, peers begin sharing their worries, secrets or dreams with each other. Thus, the feelings of trust, intimacy or closeness within social network are more valued in peer groups throughout adolescence (Brown, 2004). Moreover, the peers become new attachment figures for adolescents (O’Koon, 1997; Sroufe & Waters, 1977). Although family still becomes the basic source of support, perceived social support received from friends increases whereas perceived social support from families decreases through the adolescence years (Helsen, Vollebergh, & Meeus, 2000).

Like the research on social support in adult populations, the studies on social support in children and adolescents showed that perceived social support has been more detrimental on psychological adjustment than actual social support (Gillespie, Heath, & Martin, 2004; Bost, Vaughn, Boston, Kazura, & O’Neal, 2004). Specifically, perceived social support in adolescents have been positively associated with hopefulness (Du, King, & Chu, 2015; Yarcheski, Mahon, & Yarcheski, 2001), psychological adjustment (Rueger, Malecki, & Demaray, 2010; Yarcheski et al., 2001), general mental health (Cheng et al., 2014), academic achievement (Ahmed, Minnaert, van der Werf, & Kuyper, 2010; Malecki & Demaray, 2006; Wentzel, 1998), academic adjustment (Rueger et al., 2010), school engagement (Ramos-Díaz,

Rodríguez-Fernández, Fernández-Zabala, Revuelta, & Zuazagoitia, 2016) and similar. Besides, a variety of studies have showed a negative relationship between perceived social support from peers and emotional problems (Garnefski & Diekstra, 1996), clinical problems and impaired confidence in interpersonal relations (Demaray & Malecki, 2002), depressive symptoms (Colarossi & Eccless, 2003; Dumont & Provost, 1999; Newcomb, 1990; Väänänen, Marttunen, Helminen, & Kaltiala-Heino, 2014), psychological distress (Wentzel, 1998), and anxiety (Rueger et al., 2010) in adolescents.

The perceived peer social support has also a potential for protecting adolescents from various adverse or risky life conditions. For instance, Licitra-Klecker and Waas (1993) investigated the buffering effect of perceived social support from families and peers on depression and delinquent behaviors of 11th and 12th grade students with high levels of stress. The results supported buffering role of perceived family social support against the effect of stress on both depression and delinquent behaviors of adolescents. In addition, buffering role of perceived peer social support against the effect of stress on depression was supported. The adolescents reporting high levels of stress who perceive their peers giving social support has lower levels of depression than those perceive low peer social support.

Huurre (2000) investigated psychosocial development and social support in adolescents with visual impairment. The results showed that perceived social support from their friends buffered the risk of low self-esteem and depression in adolescents with visual impairment. In a longitudinal study, Galaif et al. (2003) found that adolescents perceiving social support from their parents and peers experienced lower levels of stress and tension, and engaged less maladaptive anger coping strategies to deal with their problems. Kef and Dekovic (2004) found that both parent and peer social support were predictors of subjective wellbeing of adolescents with visual impairment. From resilience framework, perceived peer social support and other related concepts have been widely referred as a protective factor.

In a longitudinal study, Demaray, Malecki, Davidson, Hodgson, and Rebus (2005) examined the effect of perceived social support on adjustment of minority adolescents. The perceived social support from parents significantly predicted adolescents' personal adjustment (relationship with parents, interpersonal relations, self-esteem, self-reliance) six month later, and clinical adjustment (anxiety, locus of control, somatic problems, stress in social life) and emotional symptoms (anxiety, depression, social stress, interpersonal relationships, sense of inadequacy, self-esteem) one year later.

From resilience perspective, Rabotec-Saric, Brajsa-Zganec, and Sakic (2008) investigated predictive role of family economic status, self-esteem, perceived friend social support, and relations with parents on life satisfaction of high school students. The results indicated that personal and familial variables significantly predicted life satisfaction of adolescents. In addition, the interaction model of protective factors showed that self-esteem and perceived friend social support function as protective factors buffering the adverse effects of economic hardship on adolescents' life satisfaction. The perceived social support from classmates significantly predicted adolescents' emotional symptoms one year later. Banks and Weems (2014) investigated the buffering role of social support from family and peers in traumatic stress of 1098 children and adolescents aged between 7 and 18. This youth was exposed to a hurricane disaster. The results showed that both family and peer social support were significantly and negatively associated with post-traumatic stress symptoms, anxiety and depression. After controlling the time elapsed after hurricane, major life events, age, and gender, perceived peer social support significantly predicted post-traumatic stress symptoms, anxiety and depression. However, after controlling these variables, perceived family social support significantly predicted anxiety but not others.

The various studies with resilience perspective supported that engagement with prosocial peers (Masten, 2004; Masten & Powell, 2003; Seidman & Peterson, 2003;

Milkman & Wanberg, 2012), receiving support from peers (Garmezy, 1971; Masten, 2004; Rutter, 1979; Werner & Smith, 1982; van Harmelen et al., 2017), perceived acceptance by peers (Milkman & Wanberg, 2012; Seidman & Peterson, 2003) were considered as protective factors linked to positive developmental outcomes in youth under risky situations. In addition to Western literature, Turkish studies from resilience framework confirmed that perceived caring peer relationships (Çataloğlu, 2011; Gizir, 2004; Yılmaz & Sipahioğlu, 2012), perceived peer support (Arastaman & Balcı, 2013; Dayıoğlu, 2008; Özcan, 2005; Özden-Yıldırım & Ermiş, 2017; Turgut, 2015; Yılmaz-Irmak, 2008) were protective factors buffering the adverse effects of stressful life events whereas having peers with risky behaviors (Esen-Aktay, 2010; Siyez & Aysan, 2007) was a risk factor for adolescents.

In adolescence period, peer relationships could also be considered as an influential factor for self-esteem development as well as parents, because the opinions of peers become important in adolescence and so, peers provide a context in which adolescents develop appraisals about their self-value (Harter, 2006; Lerner & Steinberg, 2004). For instance, attachment to peers in the form of high trust, high communication, and low alienation (Hirsch & DuBois, 1991), perceived support from peers (Laible, Carlo, Roesch, 2004; Wilkinson, 2004) in adolescence was found to be positively associated with self-esteem. Hoffman, Ushpiz, and Levy-Shiff (1988) investigated the effect of perceived social support from parents and peers on the adolescents' self-esteem. The results showed that perceived social support from mothers had strongest effect on adolescents' self-esteem. But, perceived support from friends were the strongest one on self-esteem when perceived support from mothers was low. Newcomb (1990) conducted a one-year longitudinal study to find out the impact of perceived social support on adolescents' depression and self-esteem. The results indicated that girls had significantly higher perceived social support than boys. Perceived peer social support significantly predicted both self-esteem and depression in boys whereas only self-esteem in girls.

In a study examining relative effect of perceived social support from parents and peers in adolescents, Helsen et al. (2000) found that perceived social support from parents was a better predictor of self-esteem in adolescents although perceived social support from parents decreased while perceived social support from peers increased in parallel to the age. However, Colarossi and Eccless (2003) reported that perceived social support from peers had the largest positive effect on adolescents' self-esteem as well as perceived support from teachers while perceived social support from mothers was not significantly associated with adolescents' self-esteem. The examination of gender differences showed that girls reported higher perceived social support from peers than boys. Tam, Lee, Har, and Pook (2011) found a positive correlation between perceived social support and self-esteem in high school and university students. They also reported that perceived peer support had the highest correlation with self-esteem compared to perceived social support from family and significant others. Tahir, Inam, and Raana (2015) examined the role of social support in self-esteem of female adolescents. There was a strong correlation between social support received from both peers and parents and self-esteem of adolescents.

The studies conducted in Turkish high school adolescents supported that perceived social support from peers or friends have been positively associated with problem solving skills (Budak, 1999; Ünüvar, 2003), academic achievement (Baştürk, 2002; Yıldırım, 2006), and psychological wellbeing (Çevik, 2010) while it has been negatively related with hopelessness (Savi-Çakar & Karataş, 2012), psychological symptoms (Bayram, 1999), violence tendency (Haskan-Avcı & Yıldırım, 2014), depression (Siyez, 2008), problem behaviors (Siyez, 2008), loneliness (Köse, 2009), subjective psychosomatic symptoms (Zaimoğlu, 1991), and cyber bullying victimization (Eroğlu & Peker, 2011). Recently, Yalçın (2015) conducted a meta-analysis to examine the relationship between perceived social support and subjective wellbeing. The results showed a positive association between perceived social support and subjective wellbeing, and a negative association between perceived social support and depression and loneliness. In relation to social support sources, the effect of

perceived social support from family on subjective wellbeing was greatest while the role of perceived social support from peers and friends on depression and loneliness was more influential.

Kahriman (2002) found that self-esteem of high school adolescents was positively associated with perceived peer support from family members and peers. Ünüvar (2003) examined the effect of perceived social support from parents and peers on the self-esteem and problem solving skills of high school adolescents. The results of the study indicated that all dimensions of perceived social support from parents and peers were significantly and positively associated with self-esteem and problem solving skills of adolescents. İkiz and Savi (2010) investigated the relationship between perceived social support from parents, peers and teachers, self-esteem, anger expression and trait anger of high school adolescents. There was no significant relationship between perceived support from peers and anger expression or trait anger. They found that self-esteem of adolescents was positively and significantly correlated with perceived support from parents, peers and teachers, respectively. Kahyaoğlu (2010) examined the relative effects of perceived family and friend social support on self-esteem of early adolescents. The results showed that both family and friend social support significantly predicted self-esteem. The girls had significantly higher perceived social support from family and friends than boys. Also, as the age and grade level increase, perceived friend social support increases.

The environmental context could have a critical impact on the selection of specific peers or the dynamics of peer relationships. For instance, Seidman and Peterson (2003) argued that socioeconomic disadvantage, as an environmental risk factor, alleviates other risk behaviors such as involvement in delinquent peer groups. According to the studies examining the role of socioeconomic conditions on peer interactions, economic hardship in family has emerged as predictor of peer rejection in childhood (Patterson, Vaden, & Kupersmidt, 1991), involvement in deviant peer groups in preadolescence

(Eamon, 2002), gang membership in middle and late adolescence (Hill et al., 1999; Lahey, Gordon, Loeber, Stouthamer-Loeber, & Farrington, 1999).

In some studies conducted in our country, perceived social support from peers in relation to different socioeconomic status was explored. Zaimoğlu (1991) reported that adolescents with low socioeconomic status reported significantly lower peers social support than adolescents with high socioeconomic status whereas there was no significant difference between adolescents with low socioeconomic status and middle socioeconomic status or between adolescents with high socioeconomic status and middle socioeconomic status. Similarly, Ünlü (2001) demonstrated that adolescents with high socioeconomic status had significantly higher perceived social support from peers than those with low or middle socioeconomic status. Baştürk (2002) reported a significant and positive relationship between perceived peer social support and family income level. Dinçer (2008) compared adolescents from high and low socioeconomic status in terms of perceived peer relationship quality and parental attitudes. The results of this study indicated that the adolescents from high socioeconomic status families reported significantly higher quality of peer relationships and authoritative parenting attitudes than those from low socioeconomic status families.

2.2.4. Self-esteem

Self-esteem is generally conceptualized as one's judgements or perceptions about self-worth, self-regard, self-respect or self-acceptance (Rosenberg, 1965). This definition refers that self-esteem includes affective experiences (i.e., one's feeling about his/her worthiness) and evaluative cognitive processes (i.e., perceptions about one's worthiness) forming the one's attitudes about the self (Mruk, 2013). As this definition implies, global self-esteem is related to general attitude toward oneself as a whole while domain specific self-esteem is related to attitude toward one's facets such as academic self-esteem (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995).

The research on self-esteem concept has been concerned about finding out whether self-esteem is a trait or state characteristic. The recent findings have supported the relative stability of self-esteem and suggested that self-esteem is a personality variable which shows gradual, slow changes over time (Orth & Robins, 2014). However, it is also influenced by social and environmental context (Harter, 2006). Many researchers used the concept of state self-esteem to define emotions individuals have about their self-worth, and trait self-esteem to describe the way individuals usually feel about themselves (Brown & Marshall, 2006). Also, various different definitions of global self-esteem have been emerged in the literature. From a cognitive approach, some researchers defined global self-esteem as decision the person has about their general worth (Coopersmith, 1967; Crocker & Park, 2004) while others approached global self-esteem from emotional process and defined it as feeling of worth the person has about himself/herself (Brown, 1998; Brown & Marshall, 2001; Dweck, 1999).

A variety of theories and research examining origins and development of self-esteem has revealed that it develops through the person's reflective self-evaluations and the appraisal of others' opinions about the self (Harter, 2006). According to James (1984), who was the pioneer researcher in conceptualization of self-esteem, an individual's self-esteem was the result of reflections on competences or successes in domains of importance. Cooley (1902), who approached the concept of self-esteem from social-psychological perspective, claimed that significant others' opinions about us are critical for self-esteem development, because our perceptions about other's opinions about us are internalized and determine self-evaluations about ours' worth.

The self-esteem research also addressed how it changes in terms of developmental periods. In adolescence period, individuals begin reflecting on themselves and also consider others' perspectives about themselves due to increased cognitive development. However, their self-esteem may fluctuate in this period since adolescents do not yet have necessary cognitive skills to integrate contradictory parts of self (Harter, 2006). The global self-esteem decreases from early to middle

adolescence and then increases from middle to late adolescence (Harter, 2006, 2012). Research on self-esteem change through adolescence years have yielded contradictory findings. Some studies revealed that self-esteem increased in adolescence (Erol & Orth, 2011; McCarthy & Hoge, 1982; O'Malley & Bachman, 1983; Twenge & Campbell, 2001; Zakeri & Karimpour, 2011) while others reported that self-esteem declined in adolescence period (Keltikangas-Jarvinen, 1990; Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002; Zimmerman, Copeland, Shope, & Dielman, 1997).

As well as age, the gender differences in self-esteem have been widely considered in literature. In a meta-analysis study Kling, Hyde, Showers, and Buswell (1999) found that there is a significant difference between males and females in terms of global self-esteem, favoring the males, but this difference was small. They underlined that such a difference could be result of difference in socialization of boys and girls. In another meta-analysis, Gentile and colleagues (2009) examined gender differences in domain specific self-esteem in adolescents and adults. The gender difference in self-esteem for high school population was medium whereas it was small for college population. Males had significantly higher physical appearance self-esteem, self-satisfaction self-esteem and athletic self-esteem than females while females had significantly higher behavioral conduct self-esteem and moral-ethic self-esteem than males. In adolescent population, the highest difference between males and females in physical appearance self-esteem was in early adolescence period. While some studies found that boys had significantly higher self-esteem than girls (Boudreault-Bouchard et al., 2013; Polce-Lynch, Myers, Kliwer, & Kilmartin, 2001; Soenens et al., 2005) some studies reported no significant difference (Laible et al., 2004).

In addition to age and gender, socioeconomic status has also effect on self-esteem of adolescents. For instance, Wiltfang and Scarbeccz (1990) examined the effect of parental social class, including socioeconomic variables, on self-esteem of 4077 adolescents living in California and aged between 12 and 19. For determination of parental social class, father's occupation, father's education level, father's

employment status, whether the family receive social aid, adolescents' perception related to neighborhood unemployment status, adolescents' perception about condition of neighborhood were used as criteria. Neither father's occupation nor father's education level had a significant effect on adolescents' self-esteem. However, father's unemployment status, receiving social aid, neighborhood unemployment was significantly and negatively associated with self-esteem of adolescents. Veselska et al. (2010) investigated the impact of socioeconomic status on resilience of 3694 adolescents living in Slovakia and aged between 13 and 16. The results indicated that there was a significant and positive relationship between parental socioeconomic status and self-esteem of adolescents. Besides, the relationship between parental socioeconomic status and self-esteem was mediated by personality and mental health (depression and anxiety levels) of adolescents.

In relation to Turkish adolescents, Çuhadaroğlu-Çetin and Tuna-Ulay (2011) examined the effects of self-image and sense of identity on high school students from different socioeconomic status. According to the results of this study, adolescents with low socioeconomic status had more negative self-image than those with middle or upper socioeconomic status. Besides, many studies found a positive relationship between socioeconomic status and self-esteem (Cerit-Aksoy, 1992; Koçak-Torucu, 1990; Suner-İkiz, 2000; Tunca, A., 2016; Seyhan-Maşrabacı, 1994) while some studies reported no significant relationship (Balat-Uyanık & Akman, 2004) in Turkish adolescents.

The self-esteem plays an important role in the way the person responds or handle with obstacles or difficulties in adolescence period (Harter, 1990). As indicated in previous sections, from resilience perspective, self-esteem is also considered as individual protective factor buffering adverse impact of stressful life conditions in both international (Kumpfer, 1999; Zimmerman & Brenner, 2010; Zolkoski & Bullock, 2012) and national research (Gizir, 2007; Karairmak, 2006) findings. Baumeister and colleagues (2003) reviewed research and theories on self-esteem and summarized that

self-esteem may operate as a resource or buffer against the negative influences of life stressors. Kidd and Davidson (2007) conducted a qualitative study to understand stories of resilience of homeless youth. It was seen that homeless youth, due to unstable social environment, put great emphasis on the “self” as a way of surviving and resilience. The resources related to the “self” included efficacy, personal resourcefulness, strengths and similar.

Sharaf, Thompson, and Walsh (2009) examined the protective role of self-esteem for adolescents under the risk of suicide. The results indicated that self-esteem, family and peer support negatively associated with suicidal risk in adolescents. In addition, the buffering effect of self-esteem against suicidal risk was higher for adolescents with low family support. Dang (2014) examined the predictive role of self-esteem and social connectedness (school connectedness, peer connectedness, and family connectedness) in resilience of homeless adolescents. Results indicated that self-esteem, school connectedness, peer connectedness, and family connectedness were significantly predicted psychological distress, which was operationalized as resilience in the study, after controlling parental maltreatment. Besides, only self-esteem independently and significantly predicted psychological distress in homeless adolescents.

Self-esteem in adolescence may also have a protective effect on later adulthood period. Studies have showed that low self-esteem in adolescence predicted mental health problems such as depression (Orth et al., 2008; Steiger, Alleman, Robins, & Fend, 2014; Trzesniewski et al., 2006), eating problems (McGee & Williams, 2000), antisocial behaviors and aggressive behaviors (Donnellan, Trzesniewski, Robins, Moffitt, & Caspi, 2005; Trzesniewski et al., 2006), physical health problems and low economic status (Trzesniewski et al., 2006) in adulthood.

A variety of social contexts contributes to development and enhancement of self-esteem in youth. Undoubtedly, one of these social contexts is family environment

which is the closest one to the child or adolescent. The family environment might influence resilience of the individual directly or indirectly through self-esteem. For instance, the mediator role of self-esteem on the relationship between supportive parenting attitudes (measured as maternal involvement and maternal monitoring) and perceived efficacy (defined as one's ability to cope with problematic situations) in adolescents was examined (Swenson & Prelow, 2005). The self-esteem fully mediated the relationship between supportive parenting and perceived efficacy for European American adolescents. Also, indirect effect of supportive parenting on depressive symptoms through self-esteem and perceived efficacy was partially supported. Barber, Ball, and Armistead (2003) examined the effect of parent-adolescent relationship quality on psychological functioning of African-American female adolescents living high-risk urban areas. The sample consisted of 608 female adolescents aged between 12 and 19. The parent-adolescent relationship quality was measured as the frequency of positive parent-adolescent communication. The results indicated that self-esteem partially mediated the association between parent-adolescent relationship quality and psychological functioning of participants.

Tian, Liu, and Shan (2018) carried out a study to examine mediating role of self-esteem in the relationship between parent-adolescent relationship and resilience of 10th, 11th, and 12th grade adolescents. The parent-adolescent relationship was composed of parental support and parent-adolescent conflict. Structural equation modeling analysis was used to test hypothesized model. The results indicated that self-esteem significantly mediated the relationship between parental support and resilience of adolescents. In addition, the relationship between parent-adolescent conflict and resilience was also significantly mediated by self-esteem, but, parental support was more strongly associated with resilience than parent-adolescent conflict. O'Neill et al. (2018) examined the mediating role of self-esteem on the association between the quality of parent-adolescent relationship and psychosomatic problems of individuals in early and middle adolescence period. From a resilience framework, the researchers addressed supportive parenting and self-esteem as protective factors decreasing the

risk of internalizing problems such as psychosomatization in adolescence. The results indicated that self-esteem was a significant mediator on the relationship between the quality of parent-adolescent relationship and resilience of adolescents.

The impact of school environment, specifically, sense of belonging, on resilience or overall wellbeing of adolescents could be through indirect effect on self-esteem of adolescents. Begen and Turner-Cobb (2011) investigated the effect of social belonging (including school, home, and community belonging) on physical health and (positive and negative) mood of adolescents aged between 11 and 14. The school belonging was assessed by Goodenow's (1993) Psychological Sense of School Membership scale. The results indicated that self-esteem mediated the relationship between social belonging and physical health of adolescents. The regression analysis was run to reveal association between domain specific belonging physical health. The higher home and community belonging were associated with lower physical health symptoms. The self-esteem mediated the association between and social belonging and negative affect of adolescents. For domain specific results, the higher home belonging was associated with the lower negative mood. The relationship between social belonging and positive affect was also significantly mediated by self-esteem. Specifically, the higher school belonging was associated with the higher positive affect in adolescents. Sun and Hui (2007) investigated the role of school belonging on suicidal ideation of adolescents. The results showed that sense of school belonging and cohesion in family were main predictors of self-esteem and depression. The mediation analysis revealed that both depression and self-esteem mediated the relationship between school belonging and suicidal ideation, but depression had a full mediation effect.

Based on social ecological system perspective, DeWit et al. (2000) investigated the effect of school culture on behavior problems of adolescents through mediator role of self-esteem, attachment to learning, and peer deviance approval. The sample consisted of 1100 high school students. School culture was assessed through dimensions of participants' perceptions about the clarity and fairness of the rules at school, effective

and consistent disciplinary practices at school, involvement of students in school decision-making process, school spirit, attitudes of classmates, support from classmates, support from teachers. The results of structural equation modeling analysis showed that negative school culture was positively associated with disciplinary problems at school, behavior problems, clinical problems (oppositional-defiant disorder, attention-deficit hyperactivity disorder, substance use) through mediating effects of low self-esteem, and high peer deviance approval. Moreover, low self-esteem emerged as a significant and strong mediator in the model.

The effect of peer relationships on resilience or wellbeing on individuals indirectly through self-esteem has been investigated in different adolescent populations. For instance, Birkeland et al. (2014) found that perceived peer acceptance was both a significant protective factor for global self-esteem and also buffered the negative effects of low closeness with parents in middle and late adolescents. In a study investigating the role of social support in adolescents with visual impairment, Huurre (2000) found that self-esteem mediated the effect of perceived peer social support on depression level of adolescents. Bum and Jeon (2016) examined the structural relationships between adolescents' perceived social support from parents, faculty members, and peers, social self-esteem, depressive symptoms and happiness. The result demonstrated that perceived social support from all resources were positively associated with social self-esteem, and in turn, it was related with lower depressive symptoms and higher happiness level. The mediating role of self-esteem on the relationship between peer relations and internalizing, externalizing, and delinquent behaviors was examined in a sample of adolescents in foster care (Thompson, Wojciak, & Cooley, 2016). The results of the study confirmed significant mediating effect of self-esteem and underlined that peers play an important role in adolescents' internal perceptions about themselves.

Based on resilience framework, Gaylord-Harden, Ragsdale, Mandara, Richards, and Petersen (2007) assessed the effect of peer and family social support together on

internalizing symptoms of African American adolescents through mediating effect of self-esteem. The another mediator was ethnic identity in this study. The perceived family and peer social support were measured with Dubow and Ullman's (1989) social support appraisals scale for children. The results of structural equation modeling analysis showed that self-esteem and ethnic identity significantly and partially mediated the relationship between perceived social support from family and peers and depression and anxiety of adolescents.

In a national study, Siyez (2008) examined the mediating role of self-esteem and depression on the association between contextual variables (perceived parent social support, perceived peer social support, family conflict) and adolescent problem behaviors within problem behavior theory framework. The results of the study supported mediator role of self-esteem and depression, showing that higher perceived parent social support, perceived peer social support, and lower family conflict were significantly related to higher self-esteem, lower depression, and in turn, lower adolescent problem behavior. This study also addressed gender differences. Although there was no significant difference between boys and girls in terms of perceive peer social support and self-esteem, girls reported higher level of peer social support and self-esteem than boys.

Overall, self-esteem, which is considered as a personal variable changing slowly through life span, reflects the person's perceptions about self-worth, and it is open to influences coming from significant others such as parents, peers or teachers. Adolescence, a developmental period characterized by engagement with how others perceive the self, is a crucial period in self-esteem development. The self-esteem also influences how adolescents cope with challenges in this period. Resilience framework have underlined that self-esteem is one of the prominent individual factors contributing to adaptive coping with adverse life events or situations such as low socioeconomic status. Based on the studies indicating that self-esteem is shaped through interaction within social contexts such as family, school, peer network and it is an essential

individual resource related with resilience of at-risk adolescents, self-esteem was hypothesized to mediate the relation between parental, environmental factors and resilience in the current study.

2.3. Summary of the Review of Literature

In this chapter, definition and conceptualization of resilience, theories and models of resilience, international and national literature on resilience in adolescent population, and major study findings related to study variables (perceived parental acceptance/involvement, sense of school belonging, perceived peer social support, self-esteem) were reported.

The review of literature revealed that second wave of resilience field suggested examining protective mechanisms or processes instead of identifying protective factors as in the first wave. In addition, it has been accepted that resilience is a multifactorial concept enhancing through interaction between external and internal resources. However, majority of resilience studies in our country has focused on identifying protective factors. Therefore, studies examining the interactions among different protective contexts and possible pathways among these contexts are needed.

In line with the resilience literature and further research need in Turkey, it was aimed to investigate simultaneous effect of external and internal resources and thus understand protective pathways in resilience of at-risk adolescents. Considering its focus on relative influence of different domains in positive development or resilience, ecological system theory perspective was selected as one of the guiding theoretical framework of this study. The second framework was protective-protective model, because it was aimed to examine how different promotive factors interact with each other, and in turn, increase the probability of resilient outcome. The promotive factors were selected based on the literature on resilience of at-risk adolescent population. Specifically, perceived parental acceptance/involvement (parental level factor),

perceived peer social support and sense of school belonging (environmental level factors), and self-esteem (individual level factor) were included in hypothesized structural model of resilience in the present study.

CHAPTER 3

METHOD

This chapter included methodological procedures for the present study. Firstly, the research design of the study was explained. Secondly, information about the characteristics of the participants were addressed. Thirdly, information about data collection instruments as well as their validity and reliability findings for the current study were presented. Then, data collection process and data analysis technique with its basic concepts were explained. Lastly, limitations of the study were discussed.

3.1. Research Design

The aim of this study was to test a proposed model of the relationships among parental factors, environmental factors and resilience in adolescents as mediated by individual factors. In accordance with this aim, quantitative research methodology and correlational research method was designed (Fraenkel, Wallen, & Hyun, 2011). Since the direct and indirect complex relationships among several variables were the focus of the study, structural equation modeling, which is a multivariate statistical analysis technique to assess direct, indirect and correlated effects of several variables in a hypothesized model, was used as statistical technique (Kline, 2016).

3.2. Participants

The sample of this study composed of 1312 Anatolian high school students from low SES districts in İstanbul. In line with the purpose of the study, purposive sampling method was utilized (Fraenkel et al., 2011). Many studies have emphasized that resilience is linked to academic success in children and adolescents (Kumpfer, 1999). In order to obtain a homogenous sample in regard to academic success criterion,

Anatolian high school students were included in the study. The students who attained a certain academic success in national entrance to high school exam were considered as eligible to attend to Anatolian high schools. The low SES districts in İstanbul were identified according to the data of Turkish Statistical Institute (2013). In deciding low-socioeconomic status districts, the criteria such as income level, education level of parents, population density, unemployment rate, the number students in schools, migration rate, access to health services and level of life quality were considered (Stepleman, Wright, & Bottonari, 2009). Based on those criteria, two districts, Ümraniye and Sultangazi, were selected as study regions.

The data of the study was collected in fall semester of 2017-2018 academic year. Firstly, the required approval from Middle East Technical University Human Subjects Ethics Committee (*see* Appendix A) and legal permission for data collection from İstanbul Provincial Directorate of National Education (*see* Appendix B) were obtained. A total of eight high schools from two districts were included in the study. Those schools were visited by the researcher and the aim of the study was explained. One of the schools refused to give permission for data collection because of the exam and seminar programs. The classes from seven schools available for data collection were determined according to schedule of the school and teachers. Data were collected from volunteer participants.

1500 questionnaires were given to 9th, 10th, 11th, and 12th grade students and 1408 of them returned. After data cleaning and screening procedure, missing data analysis and outlier check which were explained in results section, a total of 96 cases were excluded. As a result, a total of 1312 high school students composed the sample of study. Of them, 673 were female and 639 were male students. The age of students ranged from 13 to 19 with a mean age of 15.67 ($SD = 1.18$). The frequencies of demographic information of participants were presented in Table 3.1.

Table 3.1

Demographic Characteristics of the Participants (N = 1312)

Variable	<i>f</i>	%
Gender		
Female	673	51.3
Male	639	48.7
Grade		
9	373	28.4
10	313	23.9
11	324	24.7
12	302	23
District of Residence		
Sultangazi	452	34.5
Ümraniye	431	32.9
Other		
Gaziosmanpaşa	144	11
Üsküdar	52	4
Sancaktepe	51	3.9
Bayrampaşa	48	3.7
Çekmeköy	32	2.4
Arnavutköy	25	1.9
Ataşehir	15	1.1
Beykoz	21	1.6
Eyüp	9	0.7
Sultanbeyli	9	0.7
Başakşehir	6	0.5
Esenler	5	0.4
Fatih	3	0.2
Kadıköy	2	0.2
Bağcılar	2	0.2
Şişli	2	0.2
Beylikdüzü	1	0.1
Kağıthane	1	0.1
Göztepe	1	0.1

The information about district of residence was obtained since students may not reside in low socioeconomic districts although they attend schools located in low socioeconomic districts. The results of descriptive statistics showed that 429

participants reside in other districts while 883 participants reside in low socio-economic status districts selected for the study, Ümraniye and Sultangazi. 344 out of 429 participants also reside in low socioeconomic districts (Gaziosmanpaşa, Sancaktepe, Bayrampaşa, Çekmeköy, Arnavutköy, Beykoz, Sultanbeyli, Başakşehir, Esenler, Bağcılar, and Kağıthane) according to low socio-economic status indicators such as income level, education level of parents, population density, unemployment rate, the number students in schools, migration rate, access to health services and level of life quality (Şeker, 2011; TÜİK, 2013). Thus, it can be concluded that almost 95% of participants in the sample reside in districts with low socio-economic status.

3.3. Data Collection Instruments

In this study, demographic information form, 14-Item Resilience Scale (RS-14) (Wagnild, 2010), Parental Acceptance Involvement Subscale (PAIS) subscale of Parental Attitude Scale (PAS) (Lamborn et al., 1991), Sense of School Belonging Subscale (SSBS) subscale of Psychological Sense of School Membership Scale (PSSMS) (Goodenow, 1993), Peer Social Support Subscale (PSSS) subscale of Social Support Appraisals Scale for Children (SSASC) (Dubow & Ullman, 1989), and Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965) were used as data collection instruments.

3.3.1. Demographic Information Form

Demographic Information Form was developed in order to obtain information about participants' characteristics. The form included questions about participants' demographic characteristics such as grade, gender and the district the student resides in (*see Appendix C for demographic information form*).

3.3.2. 14-Item Resilience Scale (RS-14)

RS-14 is a 14-item inventory assessing the degree of resilience in adolescents which was developed by Wagnild (2010) as an alternative to 25-item Resilience Scale (Wagnild & Young, 1993). The original 25-item form was scored on a seven point Likert type scale ranging from 1 (strongly disagree) and 7 (strongly agree). Higher scores are indicative of higher level of resilience. The validity and reliability of the scale were carried out with an adult sample. The results showed that the scale had Cronbach alpha value of .91. As evidence for construct validity, the score on the scale is associated with measures of life satisfaction, depression and stress (Wagnild & Young, 1993).

The 14-item Resilience Scale adolescent form was developed by omitting eleven items from the 25-item Resilience Scale adult form (Wagnild, 2010) (*see* Appendix D). RS-14 is scored on a seven point Likert type scale ranging from “strongly disagree” and “strongly agree”, higher scores indicating higher level of resilience. The possible score of the total scale ranges from 14 to 98. In order to examine factor structure of RS-14, principal component analysis with oblimin rotation was conducted with a sample of 690 middle aged and older adults. The results supported one-factor structure of the scale. Cronbach alpha value was .93 for the scale (Wagnild, 2010).

The adaptation of 25-item form was carried out with a sample of undergraduate students (Terzi, 2006). The principal components exploratory factor analysis resulted in 23 items, and seven-factor structure. The Cronbach alpha coefficient was found to be .82. Two-week interval test-retest reliability yielded correlation coefficient value of .84. The significant correlation between RS and Generalized Self-Efficacy Scale was considered as an evidence for concurrent validity of the scale.

The validity and reliability of the RS-14 was conducted by Aydın-Sünbül (2016). The translated items in 25-item RS Turkish version (Terzi, 2006) was included with minor

changes in translation. In order to evaluate construct validity of RS-14, CFA with a sample of 752 high school students was conducted. The results supported one-factor structure of the scale. The model fit indices indicated good fit of the hypothesized model ($\chi^2/df = 4.4$, $GFI = .94$, $RMSEA = .07$, $CFI = .93$, $TLI = .91$). The factor loadings of the items were in the range of .38 and .75. The amount of explained variance in latent factor by items ranged between 15% and 56%. The Cronbach alpha coefficient value of .81 for overall scale, indicative of internal consistency of the RS-14.

3.3.2.1. Reliability and Validity of Turkish Version of 14-Item Resilience Scale (RS-14) for the Present Study

In order to test one-factor structure of RS-14, a confirmatory factor analysis for RS-14 with 1312 adolescents was conducted. Instead of maximum likelihood estimation, bootstrapping was used. Because, Mardia's (1975) test was significant, $p < .001$, indicating that multivariate normality was not ensured. In the case of multivariate non-normal continuous data, instead of default Maximum Likelihood estimation, other estimation methods such as robust Maximum Likelihood (ML) (Satorra & Bentler, 1994) or Weighted Least Squares (WLS) (Browne & Cudeck, 1984) are suggested. However, WLS which is available in AMOS 22 software program (Arbuckle, 2013) requires extremely large sample size (Brown, 2015). It could lead to poor results with sample size under 2.500 (Ullman & Bentler, 2003). As an alternative remedial strategy for non-normality in the current data, bootstrapping was used in AMOS program and Bollen-Stine corrected p value was used instead of Maximum Likelihood (ML) based p value to assess model fit (Brown, 2015; Byrne, 2010). Bootstrapping is a resampling procedure in which several samples are drawn from the original sample with replacement procedure. Then, the model is estimated for each of these drawn samples, and the average of the results is presented (Brown, 2015; Kline, 2016). The advantage of bootstrapping is that it does not require multivariate normality or very large sample size (Yung & Bentler, 1996). It also yields more accurate Type I error rate and

statistical power compared to sample method which assumes multivariate normality (Cheung & Lau, 2008).

A confirmatory factor analysis with Bootstrapping was conducted via AMOS 22 software program (Arbuckle, 2013). In evaluation of goodness of fit of the model of the scale, fit indices of Chi-square value, normed Chi-square value, Goodness of fit index (GFI), Comparative fit index (CFI), Tucker-Lewis index (TLI), Root mean square error of approximation (RMSEA), and Standardized root mean square residual (SRMR) were interpreted as criterion indices for model fit. For criterion of normed Chi-square value, χ^2/df ratio, Kline (2016)'s suggestion ($\chi^2/df < 3$) was accepted. GFI value was evaluated according to Jöreskog & Sörbom's (1993) guideline ($> .90$ for good fit). CFI and TLI values greater than .90 and close to 1 were considered as good fit (Bentler, 1990; Schumacker & Lomax, 1996). RMSEA values less than .05 were accepted as close fit, values between .05 and .10 as mediocre fit (Browne & Cudeck, 1993), values between .08 and .10 as mediocre fit (MacCallum, Browne, & Sugawara, 1996) values greater than .10 as poor fit (Browne & Cudeck, 1993). SRMR values less than .08 were considered as good fit (Hu & Bentler, 1999) and values close to 0 as perfect fit (Brown, 2015). Those criteria were also applied in evaluation of model fit and estimates of other scales in this study.

The results of CFA for RS-14 showed that Chi-square statistic was statistically significant ($\chi^2 (77) = 447.59$, Bollen-Stine corrected $p = .001$), indicating poor fit of the model. The normed Chi-square value (χ^2/df) of 5.81 was also above cutoff value of 3 (Kline, 2016). Brown (2015) warned that χ^2 value is easily inflated by large sample size, thus yield significant results even if the differences between measurement model and sample model is indeed negligible. As seen in Table 3.2, model fit indices indicated acceptable model fit between target model and the observed data ($\chi^2 (77) = 447.59$, Bollen-Stine corrected $p = .001$, $\chi^2/df = 5.81$, $GFI = .95$, $SRMR = .04$, $RMSEA = .06$ [90% CI = .06, .07], $CFI = .95$, $TLI = .94$).

Table 3.2

Goodness-of-Fit Indicators of CFA for RS-14

	χ^2	<i>df</i>	χ^2/df	<i>GFI</i>	<i>SRMR</i>	<i>RMSEA</i>	<i>CFI</i>	<i>TLI</i>
Model	447.59	77	5.81	.95	.04	.06	.95	.94

Standardized factor loadings ranged between .42 and .80, above the cut-off value of .30 (Hair, Black, Babin, & Anderson, 2014). R^2 values ranged from 18% to 63% with significant t-values for all items. After all, it could be concluded that majority of model fit indices, parameter estimates supported one-factor model solution of RS-14 for the current data. In Table 3.3, unstandardized and standardized regression weights, standard error values, squared multiple correlations, and t-values were presented.

Table 3.3

Unstandardized and Standardized Parameter Estimates for RS-14

Construct	Item	Unstandardized factor loadings	Standardized factor loadings	<i>SE</i>	<i>t</i>	R^2
Resilience	RS-14-1	1.00	.80	.02		.63
	RS-14-2	.98	.75	.02	29.26	.56
	RS-14-3	.83	.64	.02	24.31	.41
	RS-14-4	1.03	.71	.02	27.25	.50
	RS-14-5	.96	.73	.02	28.31	.53
	RS-14-6	.84	.59	.02	22.17	.35
	RS-14-7	.80	.61	.02	22.89	.37
	RS-14-8	.61	.42	.03	15.20	.18
	RS-14-9	.76	.55	.02	20.21	.30
	RS-14-10	.70	.52	.03	18.91	.27
	RS-14-11	.97	.69	.02	26.43	.48
	RS-14-12	.79	.63	.03	23.52	.39
	RS-14-13	.92	.61	.02	22.74	.37
	RS-14-14	.91	.76	.02	29.71	.57

In order to obtain internal consistency coefficient of RS-14, reliability analysis was conducted. Cronbach's alpha coefficient, indicating the correlations between items of the scale, was calculated. As a rule of thumb, Cronbach's alpha coefficient values above .70 are accepted as satisfactory for reliability (Nunnally, 1978). Cronbach's alpha value was .90 for the total scale. Deletion of any item did not increase reliability of SCS.

3.3.3. Parental Attitude Scale (PAS)

Parental Attitude Scale was originally developed by Lamborn et al. (1991) to assess perceived parental attitudes based on the Baumrind's (1991) and Maccoby and Martin's (1983) framework of parenting styles. The scale is composed of three subscales; acceptance/involvement (9 items), strictness/ supervision (8 items), and psychological autonomy (9 items). The first 18 items of the scale are scored on four-point Likert type scale ranging from 1 (not alike at all) to 4 (very much like). The item 19 and 20 are scored on seven-point rating scale. And the items between 21 and 26 are scored on three-point rating scale. The acceptance/involvement subscale score is obtained by the sum of the items 1, 3, 5, 7, 9, 11, 13, 15, 17, and the total score ranges from 9 to 36. The strictness/ supervision subscale score is obtained by the sum of the items between 19 and 26, and the total score ranges from 8 to 32. For 19th and 20th items, the score ranges from 1 (for "until whatever hour I want" answer) and 7 (for "No" answer). The psychological autonomy subscale score is obtained by the sum of the items 2, 4, 6, 8, 10, 12, 14, 16, 18, and the total score ranges from 9 to 36. In psychological autonomy, except item 12, all items are reverse coded. Higher scores in each subscale indicate the higher level of acceptance/involvement, strictness/ supervision or psychological autonomy. In this study, parental Acceptance Involvement Subscale (PAIS) of PAS was used.

The exploratory factor analysis conducted by Lamborn and colleagues (1991), Steinberg Steinberg, Lamborn, Dornbusch, and Darling (1992), Steinberg and

colleagues (1994) indicated that Cronbach alpha coefficients were .72, .76, .82 for acceptance/involvement, strictness/ supervision or psychological autonomy, respectively.

Yılmaz (2000) adapted the scale to Turkish with three groups of participants; 319 secondary school students, 299 high school students, and 303 university students (*see* Appendix E). The factorial structure of the scale was tested by running principal component analysis with varimax rotation. The results revealed three factorial structure with eigenvalues over 1 for Turkish version of the scale. Explained variance was 31.1% for the group of high school students. In the sample of high school students, Cronbach alpha coefficients were reported as .70 for acceptance/involvement, .69 for strictness/supervision, .66 for psychological autonomy subscales. Test-retest reliability coefficients with two-week time interval were .82 for acceptance/involvement, .88 for strictness/supervision, .76 for psychological autonomy subscales. For the criterion-related validity of the scale, the association between academic success of students and parental attitudes was examined. The higher level of perceived authoritative attitudes of parents was linked to higher level of academic success.

3.3.3.1. Reliability and Validity of Turkish Version of Parental Acceptance Involvement Subscale for the Present Study

In order to test the single-factor structure of Parental Acceptance Involvement Subscale (PAIS) based on the original structure of the scale of Parental Attitude Scale (PAS), confirmatory factor analysis with Bootstrapping was run.

The results of CFA showed that GFI (.99), SRMR (.03), RMSEA (.04), CFI (.95), and TLI (.94) values refer to good or close model fit of single-factor structure of PAIS to the current data. Normed Chi-square value ($\chi^2/df = 2.61$) was also less than 3, an acceptable model fit value (Kline, 2016). Chi-square value was significant (Bollen-

Stine corrected $p = .001$). However, an overly high χ^2 value is mostly a result of large sample size (Brown, 2015) (Table 3.4).

Although the good model fit was obtained, item2 (-.10) had item-factor loading below cut-off value of .30 (Hair et al., 2014). Other items' t-values were significant, indicating that they were indicators of parental acceptance/involvement latent factor. In addition, the only According to Hair et al. (2014), .30 and higher factor loading is needed for the minimal level of interpretation of factor structure and practical significance. In this case, a new CFA was conducted excluding item2. The model fit indices improved ($\chi^2(20) = 46.35$, Bollen-Stine corrected $p = .001$, $\chi^2/df = 3.32$, $GFI = .98$, $SRMR = .02$, $RMSEA = .03$ [90% CI = .02, .04], $CFI = .98$, $TLI = .97$).

Table 3.4

Goodness-of-Fit Indicators of CFA for PAIS

	χ^2	df	χ^2/df	GFI	$SRMR$	$RMSEA$	CFI	TLI
Model1	70.59	27	2.61	.97	.03	.04	.97	.96
Model2	46.35	20	2.32	.98	.02	.03	.98	.97

Then, unstandardized and standardized parameter estimates of regression weights, standardized error values, squared multiple correlations and t-values of all indicators were checked for single-factor structure of PAIS. Standardized factor loadings of items ranged from .31 and .64, above the cut-off value of .30 (Hair et al., 2014). R^2 (explained variance by each item) values were between .09 and .41. All t-values were statistically significant, referring that all items loaded on the relevant construct well. In short, most of model fit indices and parameter estimates values confirmed single-factor structure of PAIS for the data of present study. The results are presented in Table 3.5.

Table 3.5

Unstandardized and Standardized Parameter Estimates for PAIS

Construct	Item	Unstandardized factor loadings	Standardized factor loadings	SE	<i>t</i>	<i>R</i> ²
Parental acceptance/ involvement	PA/IS-1	1.00	.64	.03		.41
	PA/IS-3	.60	.35	.03	10.12	.12
	PA/IS-4	1.04	.45	.03	12.71	.20
	PA/IS-5	1.01	.52	.03	14.22	.27
	PA/IS-6	1.09	.59	.03	15.47	.35
	PA/IS-7	.54	.31	.03	9.05	.09
	PA/IS-8	.67	.32	.03	9.46	.10
	PA/IS-9	1.07	.59	.03	15.50	.35

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

In order to check internal consistency of PAIS, Cronbach alpha coefficient was calculated. It was found to be .69 for overall scale, slightly lower than suggested value of .70 (Nunnally, 1978). Although the value of .70 was accepted as rule of thumb, Nunnally and Bernstein (1994) suggested that values between .60 and .70 might be satisfactory. Considering that the number of items has an effect on the size of Cronbach alpha value, George and Mallery (2003) suggested rules of thumb, and asserted that Cronbach alpha values between .60 and .70 were acceptable. Item-total statistics indicated that the deletion of any item did not increase the Cronbach alpha value.

3.3.4. Psychological Sense of School Membership Scale (PSSMS)

Sense of School Belonging Subscale (SSBS), which was used in the current study, is one of the subscales of Psychological Sense of School Membership Scale (PSSMS) which was developed by (Goodenow, 1993) to measure the students' perceived sense of belonging or psychological membership in school environment. Specifically, the students' sense of being accepted, valued or included by school, teachers and peers is

evaluated based on the subjective perceptions of the students. The PSSM consists of 18 items and two factors. It is a five-point rating scale ranging from 1 (not all true) to 5 (absolutely true) for each item. The first factor, sense of school belonging, consists of 13 items measuring students' perception about being accepted or valued in school environment. The sense of school belonging subscale is obtained by the average of the sum of items 1, 2, 4, 5, 7, 8, 10, 11, 13, 14, 15, 17 and 18. The higher scores indicate higher sense of school belonging. The second factor evaluates students' perceptions about being rejected or unaccepted in school environment. The sense of rejection subscale is composed of items 3, 6, 9, 12 and 16 which include negative statements. These items are reverse scored. The higher scores indicate higher sense of school belonging. In order to obtain the score of psychological school membership, as well as the average of total score of all items, the average of each of two subscales could be used. In accordance with the aim of the current study, only the "sense of school belonging" subscale was used.

The validation study of the scale was conducted with one suburban middle school and two urban high schools (Goodenow, 1993). The internal consistency (Cronbach alpha) coefficient was .80 for the overall scale.

Turkish adaptation of the scale for high school population was carried out with 274 students from 9th, 10th, and 11th grades (Sari, 2013) (*see* Appendix F). In order to examine construct validity and factor structure of the scale, a principal component analysis with orthogonal (varimax) rotation was conducted. The factor analysis revealed that the scale had four components with eigenvalues over 1. However, the scree plot suggested that the first sudden change occurred after two factors. In order to decide the number of meaningful components to retain, two-factor factor analysis was carried out. Two factors explained 46.13% of the total variance of the scale. The first factor included 13 items with eigenvalue of 6.84 assessing the sense of school belonging. The second factor included 5 items with eigenvalue of 1.45 evaluating sense of rejection. For first and second factor, factors loadings of items ranged from

.41- .76, and .47- .73, respectively. For internal reliability, Cronbach alpha coefficient was .88 for the first factor, .70 for the second factor, and .89 for the total scale.

3.3.4.1. Reliability and Validity of Turkish Version of Sense of School Belonging Subscale for the Present Study

In order to test single-factor structure of Sense of School Belonging Subscale (SSBS) based on the original structure of the scale, confirmatory factor analysis with Bootstrapping was run. The results of CFA for SSBS showed that Chi-square statistic was statistically significant ($\chi^2 (65) = 761.65$, Bollen-Stine corrected $p = .001$), and normed Chi-square value ($\chi^2/df = 11.72$) was less than suggested criterion of 3 for acceptable model fit (Kline, 2016). As suggested by Brown (2015), large sample size could cause an inflated χ^2 value. Model fit indices of GFI (.91) and SRMR (.05) values indicated good model fit, but RMSEA (.09), CFI (.87), and TLI (.85) values did not meet the criteria for acceptable model fit (Table 3.6).

In this case, necessary revisions were considered to improve goodness of fit of SSBB. Brown (2015) stated that correlated errors could be one of sources of poor model fit. It occurs when the relationships among indicator error variances are not appropriate. The correlated errors (error covariances) between indicators in based on the premise that some portion of covariance in the indicator is not explained by latent factor. In order words, some portion of covariance in the indicator comes from latent factor while some portion comes from any outside cause. These kind of unwanted correlated errors may be due to similarly worded items, similar word structures, reverse-worded items, social desirability or use of different measurement tools while collecting items (Brown, 2015). In addition, Green and Hershberger (2000) suggested that the magnitude of error variance may be higher for adjacent items, because individuals tend to retrieve their answer to previous item while answering the next item.

Modification indices in CFA were utilized in order to check error covariances between indicators of SSBS. The inspection of modification indices revealed that there were high modification indices between item2 (Buradaki öğretmenler bir şeyi iyi yaptığımda bunu fark etmektedirler) and item4 (Okulumdaki öğretmenlerin çoğu benimle ilgilenmektedirler) (maximum modification index = 118.80, expected parameter change = .28), item6 (Bu okuldaki insanlar bana arkadaşça davranmaktadırlar) and item8 (Bu okulda bana da diğer öğrenciler kadar saygıyla davranılmaktadır) (maximum modification index = 80.45, expected parameter change = .16), item4 (Okulumdaki öğretmenlerin çoğu benimle ilgilenmektedirler) and item5 (Bir problemim olduğunda bu okulda konuşabileceğim en az bir öğretmen ya da başka bir yetişkin vardır) (maximum modification index = 55.40, expected parameter change = .23). Both item2 and item4 share the same words (“öğretmenler”, “öğretmenlerin”) and also have similar meaning in the sense that they refer to the perceived care by teachers in the school. Item6 and item8 both share similar words (“bu okulda”, “bu okuldaki”, “davranmaktadırlar”, “davranılmaktadır”), and they both refer to the individual’s perception about how others in the school approach to himself/herself. Also, they are adjacent items. Both of item4 and item5 are sequential items in the scale. They also share similar meaning which is about perception of being cared or supported by teachers in the school. Considering that having items with similar word structures (Brown, 2015), or having adjacent items which could be responded similarly could result in high error variances between items of the scale (Green & Hershberger, 2000), the correlations between error variances of these items were allowed and second CFA was run.

After the adjustment of error variances, the second CFA results showed that model fit indices increased to more acceptable values, ($\chi^2(62) = 521.32$, Bollen-Stine corrected $p = .001$, $\chi^2/df = 8.41$, $GFI = .94$, $SRMR = .05$, $RMSEA = .08$ [90% CI = .07, .08], $CFI = .92$, $TLI = .90$). All model fit indices, except Chi-square and normed Chi-square, indicated acceptable model fit of the measurement model of SSBS to the current data (Table 3.6).

Table 3.6

Goodness-of-Fit Indicators of CFA for SSBS

	χ^2	<i>df</i>	χ^2/df	<i>GFI</i>	<i>SRMR</i>	<i>RMSEA</i>	<i>CFI</i>	<i>TLI</i>
Model1	761.65	65	11.72	.91	.05	.09	.87	.85
Model2	521.32	62	8.41	.94	.05	.08	.92	.90

As seen in Table 3.7, standardized factor loadings for all items were above cut-off value of .30 (Hair et al., 2014) and values ranged from .47 to .65. The explained variance (R^2 values) by items was between 22% and 44% with significant t-values for all items in the scale. In short, model fit indices values and parameter estimates confirmed single-structure of SBB for the present data.

Table 3.7

Unstandardized and Standardized Parameter Estimates for SSBS

Construct	Item	Unstandardized factor loadings	Standardized factor loadings	<i>SE</i>	<i>t</i>	R^2
Sense of school belonging	SSBS-1	1.00	.65	.02		.43
	SSBS-2	.82	.56	.03	17.76	.32
	SSBS-3	.83	.59	.02	18.62	.35
	SSBS-4	.81	.58	.02	18.27	.34
	SSBS-5	.80	.48	.03	15.50	.23
	SSBS-6	.75	.64	.02	19.66	.40
	SSBS-7	.74	.47	.03	15.16	.22
	SSBS-8	.81	.64	.02	19.89	.41
	SSBS-9	.99	.65	.02	20.19	.43
	SSBS-10	.72	.57	.03	17.91	.32
	SSBS-11	.91	.66	.02	20.41	.44
	SSBS-12	.91	.60	.02	18.84	.36
	SSBS-13	.78	.58	.03	18.39	.34

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

For reliability of the scale, internal consistency indicator of Cronbach alpha value was found to be .88 for the scale. It was above cut-off value of .70 for acceptable reliability (Nunnally, 1978). Deletion of any item did not improve the Cronbach alpha value.

3.3.5. Social Support Appraisals Scale for Children (SSASC)

Peer Social Support Subscale (PSSS), which was used in the current study in accordance with the aim of the study, is one of the subscales of Social Support Appraisals Scale for Children (SSASC). The scale was developed by Dubow and Ullman (1989) to assess perceived social support of children aged between 9 and 17. It evaluates the children's appraisals about their sense of being valued, accepted, cared by their family, teachers and peers. The scale is composed of 41 items and three factors. The respondents are asked to rate the items on five-point rating scale ranging from 1 (never) to 5 (always) for each item. The first factor, Peer Social Support (PSS), includes 19 items. The score of Peer Social Support subscale is obtained by the sum of the items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 23, 24, 25, 26, 27, 28, 29, 30, and 31, and the score ranges from 19 to 95. The items 1, 3, 4, 10, 24, 25, 28, 30, 31 are reverse coded. The second factor, Teacher Social Support (TSS), includes 10 items. The score of Teacher Social Support subscale is obtained by the sum of the items between 32 and 41, and the score ranges from 10 to 50. The items 33, 34, 37, 39, and 41 are reverse coded. The third factor, Family Social Support, includes 12 items. The score of Family Social Support (FSS) subscale is obtained by the sum of the items between 11 and 22, and the score ranges from 12 to 60. The items 13, 15, 17, 18, 22 are reverse coded. The higher scores indicate higher perceived social support for each subscale. The score for the total scale ranges from 41 to 205.

The factor analysis conducted with 361 preadolescents revealed three factors for the scale (Dubow & Ullman, 1989). The reliability analysis for internal consistency for original scale showed that Cronbach alpha coefficient value was .93 for the total scale. For PSS (Factor1), FSS (Factor2), and TSS (Factor3), Cronbach alpha values were

found to be .88, .92, .86, respectively. Test-retest reliability for four-week interval was .75 for overall scale.

Turkish adaptation of the scale was conducted by Gökler (2007) with 358 children and adolescents and clinical sample consisting of 57 children and adolescents (*see* Appendix G). The age of participants ranged between 9 and 17. The principal component analysis with varimax rotation suggested three factors, explaining 40.22% variance of total scale. PSS factor, FSS factor, TSS factor explained 14.83%, 13.45%, and 11.94% of variance, respectively. The criterion validity of the scale was assessed by examining the correlation between SSASC and Depression Scale for Children. There was a significant and negative relationship between social support and depression of participants. For internal consistency of the scale, Cronbach alfa coefficient was .93 for total scale, .89 for PSS factor, .86 for FSS factor, and .88 for TSS factor. Two-week test-retest reliability coefficient was .49 with a sample of 68 children and adolescents. The split-half reliability coefficient was .82 for the first 21 items, and .90 for the remaining 20 items. The item-total correlation coefficients ranged from .34 to .64.

3.3.5.1. Reliability and Validity of Turkish Version of Peer Social Support Subscale (PSSS) for the Present Study

Confirmatory factor analysis with Bootstrapping was run in order to confirm single-factor model of Peer Social Support Subscale (PSSS) for the current data. The results of CFA showed that acceptable model fit was not obtained ($\chi^2(152) = 3733.65$, Bollen-Stine corrected $p = .001$, $\chi^2/df = 24.56$, $GFI = .71$, $SRMR = .11$, $RMSEA = .13$, $CFI = .63$, $TLI = .59$).

The inspection of parameter estimates showed that item3 (.24) and item18 (.27) had item-factor loading below cut-off value of .30 (Hair et al., 2014) although t-values, indicating that the items were indicators of the latent variable, were significant for all

items. Hair et al. (2014) suggested that .30 and higher factor loading is needed for the minimal level of interpretation of factor structure and practical significance. The item3 (Bazı çocukların arkadaşları onlara sataşır ya da takılır, ama bazı çocukların arkadaşları böyle yapmaz. Senin arkadaşların sana sataşır ya da takılırlar mı?) and item18 (Bazı çocukların sınıf arkadaşları, onlara sataşır ya da takılır; ama bazı çocukların sınıf arkadaşları böyle yapmaz. Senin sınıf arkadaşların sana sataşır ya da takılırlar mı?) include statements which could have lead participants perceive referred peer behaviors as bullying behaviors. This could be possible reason of low factor loadings. It was decided to exclude item3 and item18 from the scale.

Besides, modification indices of errors were checked in order to improve goodness of fit indices of PSSS. It was seen that four item sets had highly correlated errors, item4 (Bazı çocukların arkadaşları, onlarla alay eder, ama bazı çocukların arkadaşları böyle yapmaz. Senin arkadaşların, seninle alay ederler mi?) and item16 (Bazı çocukların sınıf arkadaşları onlarla alay eder; ama bazı çocukların sınıf arkadaşları böyle yapmaz. Senin sınıf arkadaşların, seninle alay ederler mi?) (maximum modification index = 470.44, expected parameter change = .46), item15 (Bazı sınıflarda, çocuklar, birbirleri için pek çok şey yaparlar; ama bazı sınıflarda böyle olmaz. Senin sınıfında, çocuklar birbirleri için çok şey yaparlar mı?) and item17 (Bazı çocukların sınıf arkadaşları, sorunları olduğunda onlara yardım ederler; ama bazı çocukların sınıf arkadaşları etmez. Senin sınıf arkadaşların, sorunların olduğunda sana yardım ederler mi?) (maximum modification index = 221.58, expected parameter change = .39), item7 (Bazı çocuklar kendilerini arkadaşlarına çok yakın hissederek; ama bazı çocuklar böyle hissetmez. Sen kendini arkadaşlarına çok yakın hissedersin mi?) and item8 (Bazı çocuklar, sorunları olduğunda yardım ya da öneri almak için arkadaşlarına güvenebilir; ama bazı çocuklar arkadaşlarına güvenemez. Sen, sorunların olduğunda yardım ya da öneri almak arkadaşlarına güvenebilir misin?) (maximum modification index = 182.76, expected parameter change = .30), item6 (Bazı çocuklar ve arkadaşları, birbirleri için pek çok şey yaparlar; ama bazı çocuklar ve arkadaşları bunu yapmazlar. Sen ve arkadaşların birbiriniz için çok şey yapar mısınız?) and item7 (Bazı çocuklar

kendilerini arkadaşlarına çok yakın hissederler; ama bazı çocuklar böyle hissetmez. Sen kendini arkadaşlarına çok yakın hisseder misin?) (maximum modification index = 145.26, expected parameter change = .23).

Item4 and item16 share the same word structure (“bazı çocukların”, “onlarla alay eder; ama bazı çocukların”, “böyle yapmaz”, “seninle alay ederler mi?”), and they are reverse worded items. Item15 and item17 share the same words (“bazı”, “sınıf”, “çocuklar”, “arkadaşlar”, “ama bazı”). Item7 and item8 also include the same words (“bazı”, “çocuklar”, “arkadaşlar”, “ama bazı”, “misin”) and they are adjacent items. Item6 and item7 also share the same words (“bazı”, “çocuklar”, “arkadaşlar”, “ama bazı”, “misin”) and they are adjacent items.

Taking into account that the scale has items sharing the similar word structures, or reverse worded and adjacent items which could result in high correlations between errors of the items (Brown, 2015; Green & Hershberger, 2000), the second CFA was run by freely estimating these correlated errors. Shown in Table 3.8, new CFA resulted in improved model fit indices ($\chi^2(105) = 885.78$, Bollen-Stine corrected $p = .001$, $\chi^2/df = 8.44$, $GFI = .91$, $SRMR = .06$, $RMSEA = .075$ [90% CI = .07, .08], $CFI = .91$, $TLI = .88$).

Table 3.8

Goodness-of-Fit Indicators of CFA for PSSS

	χ^2	df	χ^2/df	GFI	$SRMR$	$RMSEA$	CFI	TLI
Model1	3733.65	152	24.56	.71	.11	.13	.63	.59
Model2	885.78	105	8.44	.91	.06	.075	.91	.88

Standardized item-factor loadings ranged between .36 and .69, above the cut-off value of .30 (Hair et al., 2014). The variance in the factor explained by the specific item ranged from 13% to 48% with significant t-values for all items. After all, it could be concluded that model fit indices and parameter estimates supported single-factor structure of PSSS for the current data. Unstandardized regression weights, standardized regression weights, standard error values, squared multiple correlations and t-values of all items were presented in Table 3.9.

Table 3.9

Unstandardized and Standardized Parameter Estimates for PSSS

Construct	Item	Unstandardized factor loadings	Standardized factor loadings	SE	t	R ²
Peer social support	PSSS-1	1.00	.65	.02		.43
	PSSS-2	.77	.62	.03	19.23	.38
	PSSS-4	.63	.40	.03	12.89	.16
	PSSS-5	.68	.46	.03	14.71	.21
	PSSS-6	.66	.48	.03	15.42	.23
	PSSS-7	.87	.58	.03	17.92	.33
	PSSS-8	.76	.46	.03	14.80	.22
	PSSS-9	.97	.69	.02	21.05	.48
	PSSS-10	.91	.61	.03	18.90	.37
	PSSS-11	1.04	.55	.02	17.36	.31
	PSSS-12	1.02	.64	.03	19.57	.40
	PSSS-13	.95	.60	.03	18.69	.36
	PSSS-14	.90	.62	.02	19.14	.38
	PSSS-15	.58	.36	.03	11.63	.13
	PSSS-16	.73	.53	.03	16.72	.28
	PSSS-17	.87	.54	.03	16.97	.29
	PSSS-19	.94	.62	.02	19.23	.38

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

For reliability of PSSS, internal consistency coefficient was calculated. Cronbach's alpha value was found to be .89 for overall scale, above the criterion of .70 (Nunnally, 1978). The deletion of any item did not improve reliability of the scale.

3.3.6. Rosenberg Self-Esteem Scale (RSES)

Rosenberg Self-Esteem Scale was originally developed to measure to what extent the adolescent perceives him/herself worthy, satisfied with his/her life in general, has a global positive attitude toward him/herself (Rosenberg, 1965). It is composed of ten items scored on a four-point rating scale ranging from 1 (totally right) and 4 (totally wrong) for each item. The five items are positively phrased, and the other five items are negatively phrased. The higher scores indicate the higher self-esteem reported by the person. The items 1, 2, 4, 6, and 7 are reverse coded. The scores range between 10 and 40 and the total of items indicate the respondent's self-esteem score.

Rosenberg (1965) reported Cronbach alpha coefficient as .80 for the scale. Test-retest reliability with two-week interval was .85 for the scale. Ferrari (1994) reported high convergent validity based on the .60 correlation coefficient with Coppersmith Self-Esteem Inventory and .83 correlation coefficient with Health Self Image Questionnaire.

Çuhadaroglu (1985) carried out translation and adaptation of Turkish version of RSES (*see Appendix H*). The Cronbach alpha coefficient was found as .87 with a sample of high school students. The test-retest reliability coefficient was found to be .75 for the scale. To assess criterion-related validity, psychiatric interviews were conducted with high school students. The correlation between the scale and the interviews was reported to be .71, indicating evidence for criterion-related validity of RSES.

3.3.6.1. Reliability and Validity of Turkish Version of Rosenberg Self-Esteem Scale for the Present Study

A confirmatory factor analysis with Bootstrapping was conducted in order to confirm one factor structure of RSES. According to the results of CFA, GFI (.91) and SRMR (.05) values indicated good model fit while RMSEA (.11), CFI (.89), and TLI (.86) values did not meet the acceptable criterion for model fit indices. Normed Chi-square value ($\chi^2/df = 16.39$) was higher than 3, criterion for an acceptable model fit value (Kline, 2016). Chi-square value was significant (Bollen-Stine corrected $p = .001$). As underlined by Brown (2015), an inflated χ^2 value is usually due to large sample size (Table 3.10).

In order to improve goodness of fit of RSES, necessary adjustments were considered and modification indices were screened in order to detect high error correlations between indicators. It was seen that there was high correlation between error variances of item9 (Bazen, kesinlikle kendimin bir işe yaramadığımı düşünüyorum) and item10 (Bazen kendimin hiç de yeterli bir insan olmadığımı düşünüyorum) (maximum modification index = 242.46, expected parameter change = .23), item6 (Kendime karşı olumlu bir tutum içindeyim) and item7 (Genel olarak kendimden memnunum) (maximum modification index = 68.89, expected parameter change = .09), item1 (Kendimi en az diğer insanlar kadar değerli buluyorum) and item2 (Bazı olumlu özelliklerimin olduğunu düşünüyorum) (maximum modification index = 75.24, expected parameter change = .08). As suggested by Brown (2015), the reason of high modification indices may be due to similar word structures these items. For instance, item9 and item10 include similar word (“bazen, “kendimin”, “düşünüyorum”) and both refer to displeasure about being oneself. Item6 and item7; item1 and item2 both are about being satisfied with oneself. These three pairs of items are also adjacent to each other, the other possible cause of high error covariance (Green & Hershberger, 2000). By considering such possible method effects, the second CFA was run by letting the error variances between these items to correlate.

The results of the second analysis after the adjustment of connection of errors showed that model fit indices increased to more satisfying levels ($\chi^2 (32) = 145.02$, Bollen-Stine corrected $p = .001$, $\chi^2/df = 4.44$, $GFI = .98$, $SRMR = .04$, $RMSEA = .05$ [90% CI = .04, .06], $CFI = .96$, $TLI = .96$). The majority of model fit indices pointed out good fit of the hypothesized measurement model of RSES to the data (Table 3.10).

Table 3.10

Goodness-of-Fit Indicators of CFA for RSES

	χ^2	df	χ^2/df	GFI	$SRMR$	$RMSEA$	CFI	TLI
Model	573.76	35	16.39	.91	.05	.11	.89	.86
Model2	145.02	32	4.44	.98	.04	.05	.96	.96

Then, unstandardized and standardized regression weights, standard error values, squared multiple correlations and t values of indicators were checked (Table 3.11). Standardized factor loadings ranged from .47 to .69, and all values were above the cut-off value of .30 (Hair et al., 2014). R^2 values ranged from 23% to 47% with significant t-values for all items. These parameter estimates and model fit indices supported one-factor factor structure of RSES.

Table 3.11

Unstandardized and Standardized Parameter Estimates for RSES

Construct	Item	Unstandardized factor loadings	Standardized factor loadings	SE	t	R^2
Self-esteem	RSES-1	1.00	.55	.03		.30
	RSES-2	.68	.47	.03	15.56	.23
	RSES-3	1.34	.65	.02	16.81	.42

Table 3.12 (cont'd)

RSES-4	.85	.49	.03	14.03	.24
RSES-5	1.55	.71	.02	17.24	.50
RSES-6	1.35	.68	.03	17.17	.46
RSES-7	1.31	.68	.02	17.24	.47
RSES-8	1.07	.45	.03	13.02	.20
RSES-9	1.66	.69	.02	17.02	.45
RSES-10	1.66	.69	.02	17.39	.47

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

Reliability analysis was conducted to obtain internal consistency coefficient of RSES. Cronbach's alpha coefficient value was .86 for overall scale. It was above .70, indicating satisfactory reliability value for the scale (Nunnally, 1978). The deletion of any item did not increase Cronbach alpha level.

3.4. Data Collection Procedure

Before collecting data of the study, required approval from Middle East Technical University Human Subjects Ethics Committee (*see* Appendix A for approval letter) and legal permission for data collection from İstanbul Provincial Directorate of National Education (*see* Appendix B for permission letter) were obtained. After that, the researcher contacted psychological counselors, school principals, school assistant principals of eight high schools from two districts. They were informed about the aim of the study and procedure of data collection. One of the schools refused to give permission for data collection because of the exam and seminar programs. The classes from seven schools available for data collection were determined according to schedule of the school and teachers. Before administration of data collection instruments, school counselors or available teachers were asked to give parent consent forms (*see* Appendix I for parent consent form) to the students. These forms were returned to the researcher in the day instruments were administered to the students.

The researcher administered the instruments to the students in class or guidance hours in each school. Firstly, students were informed about the researcher, the purpose of the study, and it was explained that they were expected to fill in the scales by following instructions in each scale. Also, the voluntary participation forms were given to the students (*see* Appendix J for voluntary participation form). They were reminded not to write their names or any personal information on measures for confidentiality of participants of the study. Students were informed about they are free not to fill in the measures even if their parents gave permission. In such a case, they were asked to give blank scales to the researcher. A total of 92 blank questionnaires were returned to the researcher. It took approximately 50 minutes (one class hour) to fill in the instruments. The data of the study was collected in fall semester of 2017-2018 academic year.

3.5. Data Analyses

In order to analyze data gathered, the following steps were taken. Firstly, data screening and cleaning procedures were followed through SPSS 23 statistical package program (IBM, 2015). The accuracy of data entry was controlled by examining frequency tables, minimum and maximum scores. Missing value analysis was conducted to detect cases with missing values, and normality of distribution was checked. Both univariate and multivariate outliers were screened. Also, the basic assumptions of structural equation modeling were checked and necessary adjustment were done. Secondly, descriptive statistics were used in order to identify features of study variables. Any possible gender differences in terms of study variables were examined through various independent t-tests. Then, bivariate correlations among study variables were investigated. In the third step, structural equation modeling (SEM) was conducted to test hypothesized structural model of resilience and evaluate direct and indirect associations among study variables through AMOS 22 software program (Arbuckle, 2013).

3.5.1. Structural Equation Modeling

Structural Equation Modeling (SEM) is a statistical technique used primarily to test structural models and to define and estimate relationships between constructs (independent and dependent variables) which are unobservable or latent (Hair et al., 2014; Kline, 2016). SEM allows the researchers to evaluate associations among a variety of variables simultaneously by specifying the structural model. SEM also incorporates latent variables into the analysis instead of observed variables. Therefore, SEM analysis improves the estimation of associations among variables by accounting for measurement error (Hair et al., 2014). The specification and identification of measurement model is a required phase prior to estimation and evaluation of structural model. In this phase, measurement model including observed variables (indicators) and latent variables (constructs) is evaluated (Kline, 2016). SEM analysis could be described as a synthesis of path and confirmatory factor analysis. SEM is utilized to determine causal effects of variables like in path analysis, and it includes observed variables which are called as indicators of underlying latent factors like in confirmatory factor analysis (Kline, 2016). Specifically, SEM steps for model testing are (1) model specification (developing a model by specifying the structural relationships between constructs based on a theory), (2) model identification (comparing the number of observations and number of parameter estimates), (3) model estimation (comparing specified model and observed model represented by the data in a statistical program), (4) model evaluation (evaluating how well data explains or fits to overall model according to criteria of model fit indices) (Hair et al., 2014; Kline, 2016). The variables of the current study and some terms in SEM analysis were explained below.

Exogenous variable refers to latent variable or construct in the specified model. It acts as independent variable and not caused by another variable in the model. It is assumed that they are determined by factors outside the model. No path (one-headed arrow) go into them in visual representation of the model (Hair et al., 2014; Kline, 2016). The

exogenous variables in the hypothesized structural model of the current study are parental acceptance/involvement, sense of school belonging and peer social support.

Endogenous variable, known as dependent variable, may contain mediating and dependent variables in the model. It has path (one-headed arrows) drawn to them from other variables. They are explained by other variables in the model (Hair et al., 2014; Kline, 2016). The endogenous variable in the hypothesized structural model of the current study is resilience.

Mediator refers to intervening endogenous variables which are involved in the interaction effect between exogenous and endogenous variables. They account for the relationship between exogenous and endogenous variables (Baron & Kelly, 1986; Kline, 2016). The mediator variable in the hypothesized structural model of the current study is self-esteem.

Path coefficient, which is also interpreted as standardized beta weights, indicates the direct effect of an exogenous variable on endogenous variable in the model (Kline, 2016; Schumacker & Lomax, 1996).

Direct effect of an exogenous variable on endogenous variable is represented by an arrow drawn from exogenous variable towards endogenous variable. Direct effect represents the effect of one variable on endogenous variable by controlling for other prior variables of intervening variables.

Indirect effect refers to the effect of an exogenous variable on endogenous variable through its effects on other endogenous variable (Kline, 2016).

Model fit indices are used to evaluate the fitness of sample variance-covariance matrix in the observed data to the predicted variance-covariance matrix in the hypothesized model (Kline, 2016). The following model fit indices and their cut-off values are

utilized as criterion to evaluate goodness of fit indices of the hypothesized model to the data.

Chi-square (χ^2) test is the classic goodness-of-fit index which indicates the degree of difference between hypothesized parameters in the model and observed variance-covariance values in the data. A non-significant chi-square value refers that sample variance-covariance matrix is similar to the hypothesized variance-covariance matrix in the model (Schumacker & Lomax, 1996). A model chi-square value of 0 and nonsignificant p value indicate a perfect fit. However, chi-square value is sensitive to sample size, so, it tends to yield statistically significant results with large sample size (Brown, 2015). In order to handle with this disadvantage, normed chi-square value, which is obtained by dividing chi-square value by degree of freedom, is used. For criterion of χ^2/df , the threshold values of 3 suggest by Kline (2016) is used in the present study.

As well as chi-square value, other fit indices are used in evaluation of model fit. Brown (2015) categorized alternative fit indices under three categories: absolute fit, parsimony correction and comparative fit. Absolute fit indices evaluate model fit according to an absolute level without taking into consideration other evaluations of fit of the model. The fit indices under the category of parsimony correction includes a penalty function for poor model parsimony. Comparative fit indices make comparison between baseline model and target model.

Goodness of fit index (GFI), which is one of the absolute fit indices, represents difference between observed and estimated covariance matrix. It is based on the ratio of sum of squared differences between observed matrix and reproduced matrix (Schumacker & Lomax, 1996). The value for GFI ranges between 0.00 and 1.00. The value of 1.00 indicates a perfect fit. As a cut off value, GFI value higher than .90 means a good fit (Jöreskog & Sörbom, 1993).

Standardized root mean square residual (SRMR), which is another absolute fit index, represents difference between observed and predicted correlation matrix. The value for SRMR ranges between 0.00 and 1.00. The value of 0.00 indicates a perfect fit. The smaller the SRMR, the better fit model which is obtained (Brown, 2015). As a cut off value, SRMR value lower than .08 means a good fit (Hu & Bentler, 1999).

Root mean square error of approximation (RMSEA) is another widely used and suggested fit index which considers error of approximation and evaluates to what extent the model fits reasonably, not exactly, well (Brown, 2015). It is under the category of parsimony correction fit indices. It is based on the analysis of residuals. According to Browne and Cudeck (1993), RMSEA close fit values are below .05; mediocre fit values between .05 and .08; poor fit values above .10. MacCallum et al. (1996) suggested that the values between .08 and .10 indicate mediocre fit.

Comparative fit index (CFI) compares the proposed (target) model and baseline (null or independence) model and indicates to what extent the proposed model is better than baseline model (Kline, 2016). CFI values range between 0.0 and 1.0, and the closer the values to 1.0, the better fit model is (Brown, 2015). The values above cut off value of .90 was considered as good model fit (Bentler, 1990; Schumacker & Lomax, 1996).

Tucker-Lewis index (TLI), which is another comparative fit index and also called as non-normed fit index (NNFI) in some programs, is interpreted like CFI. It compares target model and null model, but also has a penalty function allowing to add parameters which do not result in marked change in fit of the model (Brown, 2015). Like CFI values, the approximation to value of 1.0 indicates good model fit. TLI values above the cut off value of .90 are indicative of good model fit (Bentler, 1990; Schumacker & Lomax, 1996).

3.6. Limitations

This study has some limitations which should be considered in evaluating findings and suggestions of the study. The first limitation of the current study is related to the sample selection method. In this study, convenience sampling procedure was followed and a total of seven Anatolian high schools from two low socioeconomic districts in İstanbul were selected. Although the sample was selected according to the aim of the study, random sampling was not used, thus generalizability of study findings is limited. In other words, the participants of this study might be considered as a homogenous sample group with certain characteristics, therefore, the application of the same procedures with different groups might yield different results.

The second limitation is related to the nature of data collection instruments. In this study, self-report measures are administered. The self-report measures are limited in terms of obtaining honest and reliable responses. The participants' responses in self-report measures cannot be controlled. Thus, these kind of assessment technique brings about the risk of obtaining socially desirable responses rather than genuine responses.

Thirdly, the correlational research methodology was used. Such a design has weaknesses in eliciting and cause and effect relationship. Therefore, causality cannot be inferred from the findings of the current study.

Lastly, based on socio-ecological system perspective and protective-protective approach to resilience, specific variables (perceived parental acceptance/involvement, sense of school belonging, perceived peer social support, self-esteem) were included in this study in order to predict resilience of at-risk adolescents. However, there are numerous individual, parental, or environmental variables, and theories or models relevant to adolescent resilience.

CHAPTER 4

RESULTS

This chapter includes the results of the study. Firstly, preliminary analysis of data screening and cleaning, missing value analysis, and outlier analysis were carried out. Then, assumptions of SEM analysis were checked. Secondly, descriptive statistics related to variables of the study, and interrelations among variables were summarized. Also, gender differences in regard to study variables were presented. Thirdly, measurement model was estimated following item parceling procedure. Then, hypothesized structural model was tested, and direct and indirect associations among variables were provided.

4.1. Preliminary Analyses

4.1.1. Data Screening

Firstly, data screening and cleaning was conducted in order to check any error in data set. In data cleaning step, 82 cases with incomplete measures or patterned markings were eliminated. The frequency analysis and descriptive statistics were used to detect any misentry of data. The errors due to entry of data for few cases were corrected.

4.1.2. Missing Value Analysis

The missing value analysis (MVA) was carried out for each item in the scales. The univariate statistics showed missing data points of all cells were below 5% of the total cells for each variable (Tabachnick & Fidell, 2013). The result of Little MCAR Test (Little & Rubin, 1987) was significant, indicating that there was a nonrandom pattern

in missing values in the present data. In this case, the researchers are suggested to compare cases with missing data and cases with complete data in order to examine characteristics of missing cases and patterns of missing values (Allison, 2002; Hair et al., 2014). The chi-square results showed that there was no significant association between missingness (missing data or complete data) of data and gender, age, school, grade, or residency.

After examining the extent and randomness of missing data and applying Little MCAR to find out patterns of missing data, imputation method was considered. The contemporary methods such as expectation maximization and multiple imputation rather than classical methods such as listwise deletion, pairwise deletion, mean substitution, and regression substitution were suggested for handling nonrandomly missing data, because, contemporary methods yield less biased estimates (Hair et al., 2014; Kline, 2016). Since MVA results showed that missing data included a nonrandom pattern, and considering that missing values were less than 5% for each case, and there was no significant difference between cases with complete data and cases with missing data in terms of study variables, Expectation-Maximization (EM) algorithm was applied as missing data imputation method. EM is a two-stage process in which E step performs best possible estimations for missing values through a series of regressions and M step performs maximum likelihood estimations for parameters for imputed data. This two-step process continues until the changes in imputed values are negligible. EM approach was suggested as a missing data imputation method which works effectively in the case of nonrandom missing data process (Hair et al., 2014). Through applying EM method, missing data was completed.

4.1.3. Outlier Analysis

In order to detect univariate outliers, standardized z scores for each case in the data were calculated. The standardized z scores out of the range of -3.29 and +3.29 were accepted as outliers (Tabachnick & Fidell, 2013). According to the result of univariate

outlier analysis, 11 cases with standardized z scores exceeding the range of -3.29 and +3.29 were removed from the data set. Then, to detect the multivariate outliers, Mahalanobis distance values were calculated (Tabachnick & Fidell, 2013). 3 cases above the critical value $\chi^2(5) = 20.01$, ($p < .001$) were excluded from the data set. As a result, 1312 cases were kept for further analysis.

4.1.4. Assumptions of Structural Equation Modeling

Prior to SEM analysis, sample size, normality, linearity, homoscedasticity, and multicollinearity assumptions were checked through SPSS 23 statistical package program (Kline, 2016).

For adequate sample size for SEM analysis, different criteria are suggested by researchers. Bentler and Chou (1987) suggested 5 cases per each variable when latent variables have multiple indicators, 10 cases per each variable when conducting model testing study. Kline (2016) indicated that 200 cases are adequate to carry out structural equation modeling with model testing. Consequently, the sample size of the current study ($N = 1312$) are sufficient to conduct SEM analysis.

Univariate normality assumption was checked through Skewness and Kurtosis values for each variable in the study. The values between -3 and +3 were acceptable to satisfy univariate normality assumptions (Stevens, 2009; Tabachnick & Fidell, 2013). The Skewness values ranged from -1.12 and -.28 while Kurtosis values were between -.37 and 1.14.

Standard maximum likelihood estimation method assumes multivariate normality for continuous endogenous variables, and this means that (a) all univariate distributions are normal, (b) the joint distribution of any pair of variables is bivariate normal, indicating bivariate scatterplots are linear, (c) the distribution of residuals are homoscedastic (Kline, 2016). Mardia's (1975) test was run to detect multivariate

normality and it was significant, $p < .001$, indicating that multivariate normality was not ensured. West, Finch, and Curran (1995) underlined that most data, in practice, fail to satisfy multivariate normality assumption. As a remedy, item parceling was applied (Brown, 2015; Kline, 2016).

Normality of residuals were checked through histogram and normal probability plot (P-P plot). The shape histogram approximately followed the shape of normal curve, and there was slight deviation of plotted residuals from the normality line on P-P plot, referring no violation of normality of residuals (Tabachnick & Fidell, 2013) (Figure 4.1).

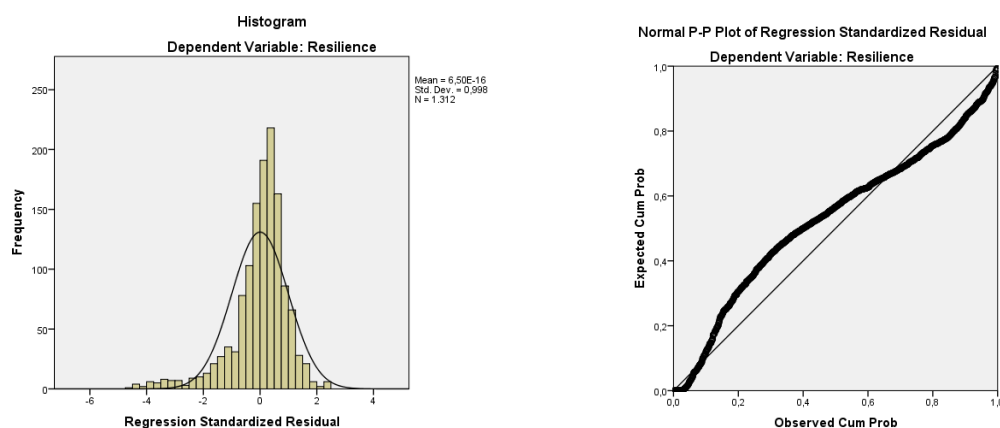


Figure 4.1. Normal P-P plot of residuals.

For linearity of residuals, partial regression residual plots of all study variables were used. The plots of study variables displayed relatively elliptic shapes (Figure 4.2), indicating no violation of linearity assumption (Tabachnick & Fidell, 2013).

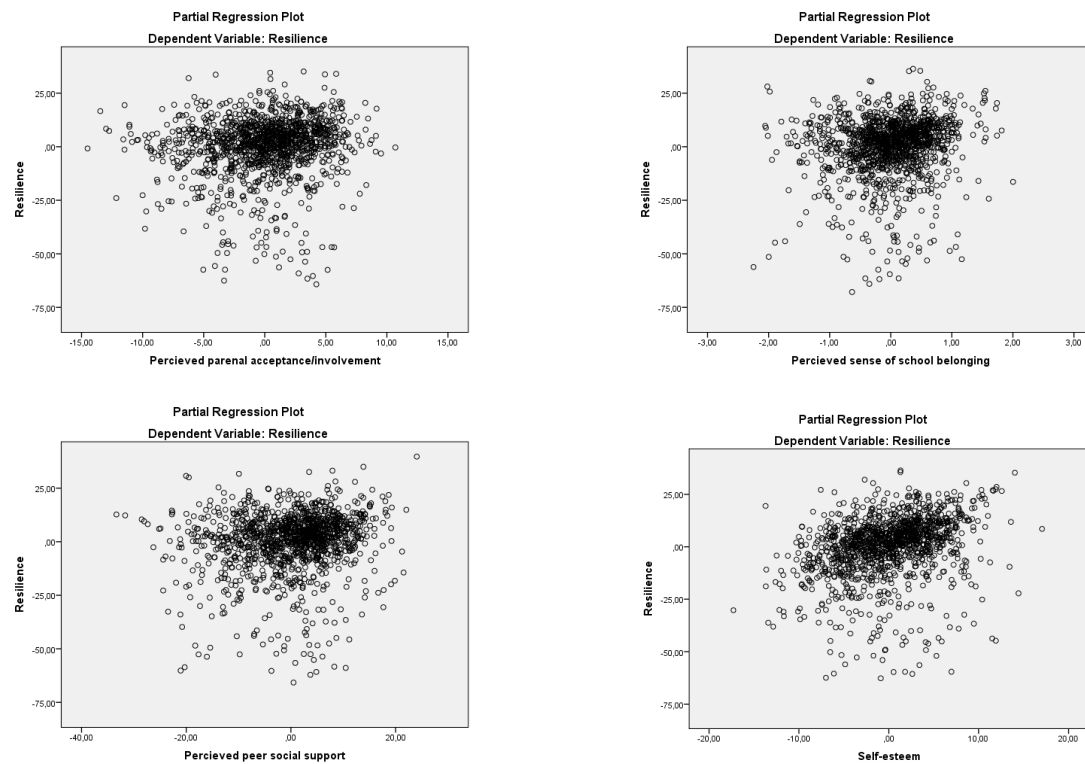


Figure 4.2. Partial regression residual plots for study variables.

The assumption of homoscedasticity of residuals was checked through scatterplots of predicted value and residuals. The absence of pattern in distribution of plots points out that homoscedasticity assumption was not violated (Tabachnick & Fidell, 2013). There was no apparent pattern of dots in scatterplot, showing that homoscedasticity assumption was not violated (Figure 4.3).

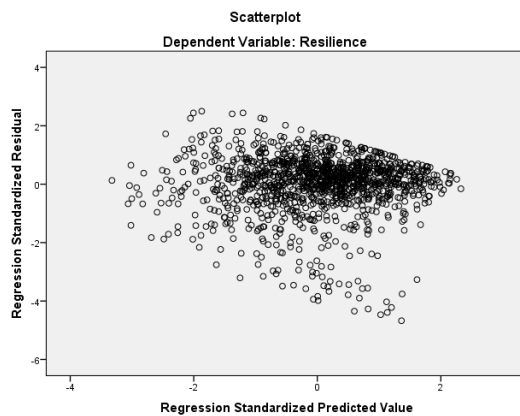


Figure 4.3. The scatterplot for resilience variable.

Lastly, multicollinearity assumption was checked through bivariate correlations among variables. All of the correlations between variables was lower than .90, ranging from .30 to .49 (Table 4.2), referring that there is no unacceptable high multicollinearity between variables (Tabachnick & Fidell, 2013). In addition, Tolerance values were higher than .10, between the range of .68 and .81; and VIF values were lower than 10, ranging between 1.24 and 1.46, showing that multicollinearity assumption was not violated (Kline, 2016).

4.2. Descriptive Statistics, Gender Differences, Correlations

4.2.1. Descriptive Statistics

The means and standard deviations of all study variables were computed. The results of the descriptive statistics are presented in Table 4.1.

Table 4.1

Means and Standard Deviations for Study Variables

Variable	<i>M</i>	<i>SD</i>	Range of possible scores
Parental acceptance/involvement	24.12	4.26	9-36
Sense of school belonging	3.47	.74	1-5
Peer social support	65.86	10.46	19-95
Self-esteem	29.72	5.64	10-40
Resilience	74.04	16.53	14-98

As seen in Table 4.1, the mean of perceived parental acceptance/involvement of participants was 24.12 with a standard deviation of 4.26. The scores ranged from 9 to 32. The lowest and highest scores which can be obtained from perceived parental acceptance/involvement measurement are 9 and 36, respectively. The higher scores indicate higher perceived parental acceptance/involvement. For sense of school belonging variable, the mean was 3.47 with a standard deviation of .74. The minimum and maximum scores of participants were 1 and 5, respectively. The mean score obtained from sense of school belonging measurement could be between 1 and 5, higher scores referring higher sense of school belonging. The mean and standard deviation values for perceived social support from peers were 65.86 and 10.46, respectively. The scores were between 30 and 85. The higher scores in peer social support measurement indicate higher perceived social support from peers, and possible score range from 19 to 95. For self-esteem variable, the mean score was 29.72 with a standard deviation of 5.64. The scores ranged between 13 and 40. The score which can be obtained from self-esteem measurement change between 10 and 40, higher scores point out higher self-esteem. For resilience variable, participants' mean score was 74.04 with a standard deviation of 16.53. The scores ranged from 18 to 98. The score which can be obtained from resilience measurement is between 14 and 98, higher scores referring higher level of resilience.

4.2.2. Gender Differences

For conducting structural equation model studies, it is suggested to find out whether the endogenous variable differs in terms of gender. If there is no difference between males and females in terms of the endogenous or dependent variable, then the researcher could carry out the analysis with the whole sample. Otherwise, the analysis should be run for males and females separately (Schumacker & Lomax, 2004).

In order to examine whether there is any significant difference between female and male students in terms of resilience variable of the current study, independent t-test was conducted. The results showed that there was no significant difference between females ($M = 73.60$, $SD = 16.13$) and males ($M = 74.51$, $SD = 16.94$) in terms of resilience, $t(1310) = -.99$, $p = .32$. Since the dependent variable of the study does not significantly differ on gender, structural equation modeling was conducted with the whole sample, without taking into account gender effect in the model.

4.2.3. Correlations

In order to understand the relationships between the endogenous variable of resilience; mediator variable of self-esteem; and exogenous variables of parental acceptance/ involvement, peer social support, and sense of school belonging, the bivariate correlations among the variables of the study were examined through Pearson product-moment correlations coefficients. For interpretation of correlations, Cohen's (1988) guideline was used. Thus, the correlations between .10 and .29, .30 and .49, .50 and 1.00 are considered as small (weak), medium (moderate) and large (strong), respectively. The results are presented in Table 4.2.

Table 4.2

Bivariate Correlations Among Study Variables

Variable	Parental acceptance/ involvement	Sense of school belonging	Peer social support	Self-esteem	Resilience
Parental acceptance/involvement	-				
Sense of school belonging	.37**	-			
Peer social support	.32**	.49**	-		
Self-esteem	.35**	.41**	.44**	-	
Resilience	.30**	.37**	.37**	.46**	-

Note. * $p < .05$, ** $p < .01$.

In regard to association between endogenous and exogenous variables of the study, all the correlations were positive moderate. The highest correlation was between resilience and perceived social support from peers ($r = .374, p < .01$), followed by the correlation between resilience and perceived sense of school belonging ($r = .370, p < .01$). The resilience of participants was significantly correlated with perceived parental acceptance/involvement ($r = .30, p < .01$). The students receiving higher acceptance/involvement from their parents, social support from their peers, and having a sense of school belonging were prone to have higher resilience.

The correlation between endogenous variable and mediator variable was positive and moderate. The participants' resilience was significantly and positively correlated with mediator variable, self-esteem ($r = .46, p < .01$).

The correlations between exogenous variables and mediator variable were positive and moderate. The self-esteem (mediator variable) was significantly and positively

correlated with perceived social support from peers ($r = .44, p < .01$), perceived sense of school belonging ($r = .41, p < .01$), and perceived parental acceptance/involvement ($r = .35, p < .01$). The participants receiving higher acceptance/involvement from their parents, social support from their peers, and having a sense of school belonging tended to have higher level of self-esteem.

4.3. Model Testing

In this study, SEM analysis, which allows investigating both direct and indirect relationships among a set of variables simultaneously, was used to test the hypothesized structural model seen in Figure 1.1. The direct effects of parental acceptance/involvement, sense of school belonging, peer social support, and self-esteem on resilience; the direct effects of parental acceptance/involvement, sense of school belonging, and peer social support on self-esteem were examined. In SEM analysis, self-esteem was considered as mediator between parental acceptance/involvement, sense of school belonging, peer social support and resilience. Therefore, indirect effect of parental acceptance/involvement, sense of school belonging, and peer social support on resilience through self-esteem was also tested.

4.3.1. Measurement Model

Measurement model is basically confirmatory factor analysis conducted in order to examine the relations among latent variables and indicators and assess constructs validity of measurements used in SEM analysis (Kline, 2016). The reliability of observed variables is also assessed through CFA in measurement model. It is the first step of structural model analysis. In this stage, latent variables included in the study are identified and observed variables are assigned to each latent variable (Hair et al., 2014). In this study, confirmatory factor analysis was carried out to test measurement model.

4.3.1.1. Item Parceling

Before CFA of measurement model, item parceling was used to identify latent constructs and indicators. Item parceling allows researchers to obtain more normally distributed data and more stable estimates (Bandalos, 2002; Bandalos & Finney, 2001; Little, Cunningham, Shahar, & Widaman, 2002). In order to create parcels, two or more items are summed or averaged. This technique was utilized as a remedy for nonnormal distributed data (Hair et al., 2014; Kline, 2016). In addition, the aim was to decrease the number of model parameters lengthy scales, thus attaining better model fit (Bandalos, 2002; Bandalos & Finney, 2001; Little et al., 2002).

The unidimensionality of the scale is prerequisite for item parceling in order to avoid misspecifying or obscuring the factorial structure of the scale (Bandalos, 2002; Matsugana, 2008; Little et al., 2002). Based on the suggestion by Little et al. (2002), exploratory factor analysis with oblique rotation was conducted to detect unidimensionality of constructs in the current study. Since Mardia's (1975) test was significant ($p < .001$), referring that multivariate normality of the data was violated, principal axis factoring was used as estimation method instead of maximum likelihood. In order to decide the number of factors to be retained, eigenvalue over 1 criterion was used (Hair et al., 2014).

Exploratory factor analysis (EFA) for parental acceptance/involvement construct (PAIS scale) revealed that one factor had eigenvalue over Kaiser's (1970) criterion of 1. In other words, it was a unidimensional construct.

EFA for sense of school belonging construct (SSBS scale) resulted in two factors with eigenvalues over 1. The four items including statements about perceived relations with teachers composed the second factor. In order to find out one-dimension structure of the construct, a new EFA was conducted by fixing the number of factors to one. The results showed that all items loaded well on single factor with factor loadings between

.47 and .66. For reliability, Cronbach alpha value was .88. According to Little et al. (2002), item parceling could be problematic when the unidimensionality could not be assumed based on the priori research on measure. However, the single factor structure of sense of school belonging construct was well established in original and Turkish version of the scale (Goodenow, 1993; Sarı, 2013). Hair et al. (2014) suggested that one of criteria for number of factors to be retained is the pre-determined number of factors based on prior research. Besides, Abubakar and colleagues (2016) examined the factorial structure of Psychological Sense of School Membership Scale with 1928 adolescents from different non-Western cultural contexts in order to clarify controversial factorial structure of PSSM scale and contribute to cross cultural use of the scale. The results of multigroup confirmatory factor analysis resulted in poor fit of two-factor and three-factor model. However, excellent model fit values were obtained when parcels were created according to the targets (e.g., teachers, peers, institution etc.) of belongingness. This finding revealed a previously unconsidered point about factorial structure of PSSM scale; differences in targets may result in shared error variance among the items referring the same target of school belongingness. Thus, it was suggested that PSSM scale is best used as one-dimensional measure across different cultural settings, but has questionable structure in terms of item targets. Based on these suggestions, the satisfying results of one-factor solution was accepted as sufficient for assuming unidimensionality of the construct.

For perceived peer social support construct (PSSS scale), EFA revealed that three factors had eigenvalues over 1. When items in three factors were screened, it was seen that the first factor included all positively worded items about peer (friends) social support in the scale. The second factor included all negatively worded items about peer (friends and classmates) social support in the scale. The third factor included all positively worded items about peer (classmates) social support in the scale. Some of items loaded on two factors with .30 and above factor loading, the criterion for including items in a factor (Hair et al., 2014). One of the important criteria for number of factors to be retained is the interpretability of final solution (Hair et al., 2014). It

could be concluded that three-factor structure of the scale was mostly based on negatively or positively worded items rather than content of the items. This makes the meaningful interpretation of factors unlikely. The factorial structure of a measurement due to negatively and positively worded items rather than existence of independent factors is interpreted as method effect (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Besides, the single factor perceived peer social support construct was well established in original and Turkish version of the scale (Dubow & Ulman, 1989; Gökler, 2007). In order to evaluate one factor structure of the construct, a new EFA was conducted by fixing the number of factors to one. The results showed that all items loaded well on single factor with factor loadings between .43 and .74. For reliability, Cronbach alpha value was .89. This finding was accepted as sufficient to assume unidimensionality of the construct.

The results of EFA for self-esteem construct (Rosenberg Self-esteem Scale) indicated that two factors were obtained with eigenvalues over 1. The first factor was composed of positively worded items while the second factor was composed of negatively worded items. This kind of two-factor structure of RSES with positively worded items in one factor and negatively worded items with another factor was found and discussed in many studies, and one-factor structure was interpreted by considering the method effect (Corwyn, 2000; Gnambs et al., 2018; Greenberger et al., 2003; Huang & Dong, 2012; Marsh, 1996; Thomas & Oliver, 1999; Shahani et al., 1990; Wang et al., 2001). By fixing the number of factors to one, the second EFA was run. It was found that factor loadings ranged from .44 and .73. For reliability, Cronbach alpha value was .86. Based on this finding, the unidimensionality of the self-esteem construct was assumed.

For resilience construct (RS-14 scale), EFA showed that one factor had eigenvalues over 1, indicating unidimensionality of the construct. The dimensionality and Cronbach's alpha values of each construct obtained from exploratory factor analyses were presented in Table 4.3.

Table 4.3

Dimensionality and Cronbach's Alphas of Scales for Item Parceling

Construct	Number of items	Component	Eigenvalue	Variance %	Factor Loadings		α
					Min.	Max.	
Parental acceptance/ involvement	8	1	2.61	32.65	.31	.64	.69
Sense of school belonging	13	1	5.29	40.72	.35	.74	.84
		2	1.26	8.92	.45	.80	.74
Peer social support	17	1	6.21	36.51	-.42	.78	.82
		2	1.76	10.36	-.86	-.38	.83
		3	1.34	7.86	.43	.65	.74
Self-esteem	10	1	4.44	44.41	-.47	.65	.80
		2	1.10	10.97	-.84	-.38	.77
Resilience	14	1	6.46	46.16	.43	.79	.91

Following determination of unidimensionality of constructs, the number of indicators and item parceling technique were considered. In regard to the number of parcels, three parcels per factor are recommended, because three indicators for a construct make the model just-identified, thereby minimizing the number of parameters to be estimated and decreasing estimation bias (Little et al., 2002; Matsugana, 2008). While building parcels, factorial algorithm (item-to-construct balance) technique was used. This technique allows the researcher obtain balanced parcels rather than leaving the distribution of items to parcels to chance (Little et al., 2002; Matsugana, 2008). The factor loadings were used as a guide to assign items to the parcels. The first three items with the highest factor loadings were assigned to the three parcels sequentially, then, the next three items with the highest factor loadings were assigned to three parcels in a reverse order. This step was followed until all items were assigned to the parcels.

After distributing items into three parcels with factorial algorithm technique for each construct, the average of items in the parcels were used as alternative for individual items. The means of items were used to assign items to the constructs. The names of parcels and aggregated items for the parcels were presented in Table 4.4.

Table 4.4

Name of Parcels and Aggregated Items for Parcels

Construct	Parcels	Item numbers
Parental acceptance/involvement	Parent1	1, 5, 15
	Parent2	7, 13, 17
	Parent3	9, 11
Sense of school belonging	School1	2, 4, 5, 7, 11
	School2	8, 9, 12, 13
	School3	1, 3, 6, 10
Peer social support	Peer1	8, 9, 12, 16, 19
	Peer2	2, 6, 7, 11, 14, 15
	Peer3	1, 4, 5, 10, 13, 17
Self-esteem	Se1	1, 3, 10
	Se2	2, 5, 9
	Se3	4, 6, 7, 8
Resilience	Res1	1, 3, 9, 10, 11
	Res2	2, 4, 6, 12, 14
	Res3	2, 5, 7, 13

For parcels, the means, standard deviations, kurtosis and skewness values, and Cronbach alpha values for reliability were also checked (Table 4.5). Mahalanobis distance value indicated that there were 2 cases above the critical value, $\chi^2 (15) = 37.70, p < .001$ (Tabachnick & Fidell, 2013). They were kept in the data.

Table 4.5

Means, Standard Deviations, Skewness and Kurtosis Values of Parcels

Parcels	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>	<i>Cronbach α</i>
Parent1	3.03	.60	-.67	.39	.68
Parent2	2.89	.68	-.34	-.47	
Parent3	3.19	.78	-1.02	.60	
School1	3.29	.86	-.39	-.18	.86
School2	3.60	.86	-.53	.09	
School3	3.56	.80	-.57	.19	
Peer1	3.97	.70	-.77	.19	.88
Peer2	3.79	.69	-.56	-.03	
Peer3	3.88	.68	-.64	.06	
Se1	2.97	.67	-.37	-.30	.88
Se2	3.03	.65	-.28	-.60	
Se3	2.93	.58	-.21	-.20	
Res1	5.33	1.26	-1.10	1.10	.91
Res2	5.15	1.25	-.86	.40	
Res3	5.41	1.34	-1.16	1.06	

Note. Parent = Parental acceptance/involvement; School = Sense of school belonging; Peer = Peer social support; Se = Self-esteem; Res = Resilience.

4.3.1.2. Measurement Model Testing

The measurement model was tested to see whether the parcels were built properly and to examine the relations among latent variables of perceived parental acceptance/involvement, perceived sense of school belonging, perceived peer social support, self-esteem, and resilience. The results of confirmatory factor analysis indicated that Chi-square statistic was statistically significant ($\chi^2 (80) = 278.82, p = .000$). Brown (2015) asserted that χ^2 value is easily inflated due to large sample size, so significant results are expected. The normed Chi-square value (χ^2/df) of 3.49 was slightly above cutoff value of 3 (Kline, 2016). $GFI = .97$, $SRMR = .03$, $RMSEA = .044$ (90% CI = .038, .049), $CFI = .98$ and $TLI = .98$ values indicated close or good fit of measurement model to the data (Table 4.6).

Table 4.6

Goodness-of-Fit Indicators of Measurement Model

	χ^2	df	χ^2/df	GFI	$SRMR$	$RMSEA$	CFI	TLI
Model	278.82	80	3.49	.97	.03	.04	.98	.98

All regression weights were significant, indicating that all of the indicators significantly loaded on corresponding latent variables. The standardized factor loadings ranged between .64 and .91. According to Kline (2016), standardized factor loadings which are less than .10, around .30, greater than .50 indicate small, medium, and large effect, respectively. All indicators had large effect size in measurement model. Hence, it could be concluded that items parcels were identified appropriately. Correspondingly, the squared multiple correlation values (explained variance by each variable) ranged from 41% to 83%. The standardized estimates of measurement model were displayed in Figure 4.4. Unstandardized and unstandardized parameter estimates of measurement model were presented in Table 4.7.

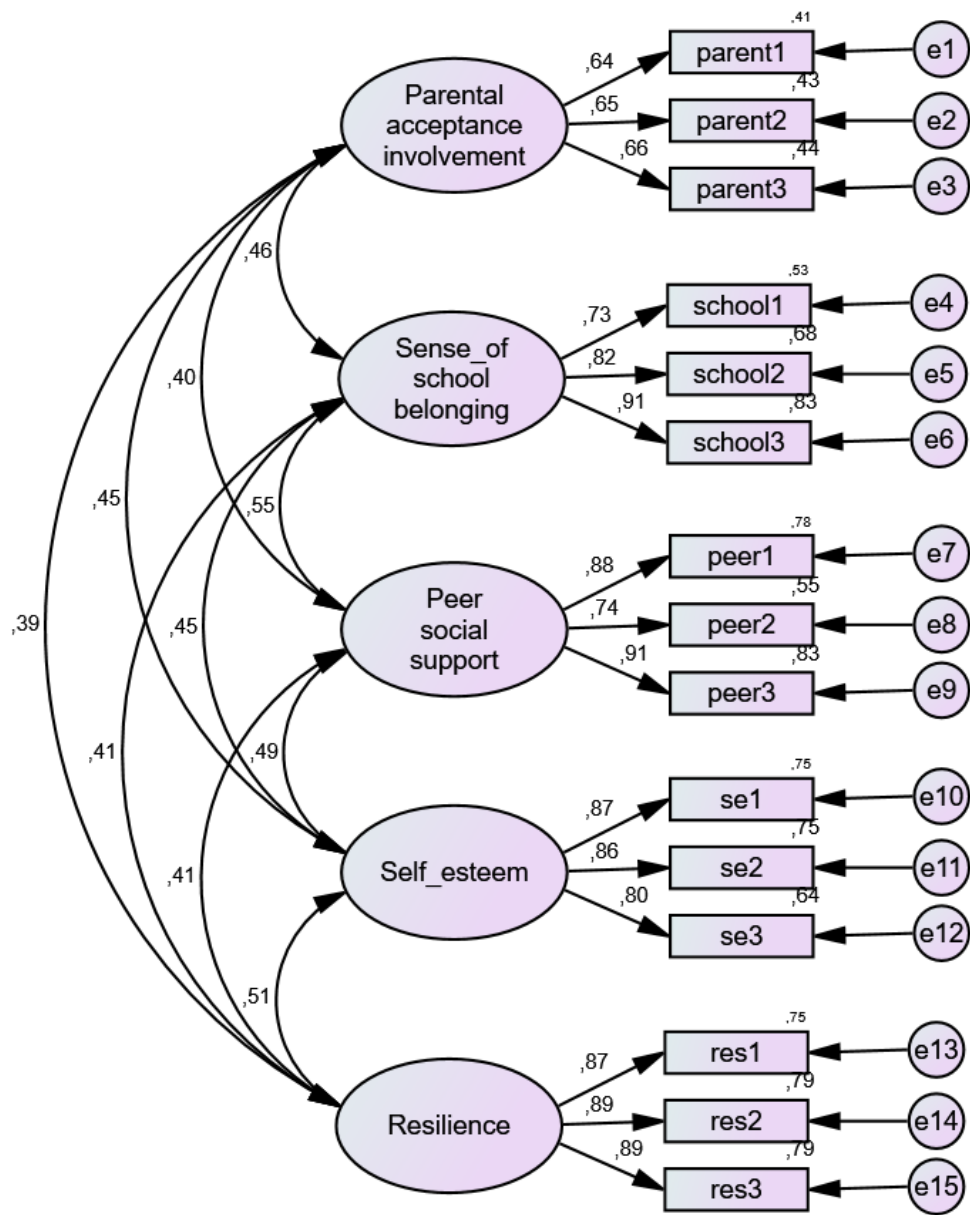


Figure 4.4. Standardized estimates of measurement model.

Table 4.7

Unstandardized and Standardized Parameter Estimates for the Measurement Model

Latent Variables and Indicators	Unstandardized factor loadings	Standardized factor loadings	SE	<i>t</i>	<i>R</i> ²
Parental acceptance/involvement					
Parent1	1.00	.64			.41
Parent2	1.61	.65	.07	15.95	.43
Parent3	1.33	.66	.08	16.00	.44
Sense of school belonging					
School1	1.00	.73			.53
School2	1.13	.82	.04	28.60	.68
School3	1.16	.91	.04	30.11	.83
Peer social support					
Peer1	1.00	.88			.78
Peer2	.82	.74	.03	31.84	.55
Peer3	.98	.91	.02	41.47	.83
Self-esteem					
Se1	1.00	.87			.75
Se2	.97	.86	.03	37.15	.75
Se3	.80	.80	.02	33.86	.64
Resilience					
Res1	1.00	.87			.75
Res2	1.02	.89	.02	42.18	.79
Res3	1.09	.89	.03	41.86	.79

Note. All *t*-values are significant at $p < .001$.

For measurement model, correlations among latent variables were also estimated. All correlations were significant. As seen in Table 4.8, correlations ranged from .38 to .54.

Table 4.8

Correlations among Latent Variables in the Measurement Model

Variable	Parental acceptance/ involvement	Sense of school belonging	Peer social support	Self-esteem	Resilience
Parental acceptance/involvement	-				
Sense of school belonging	.46***	-			
Peer social support	.40***	.55***	-		
Self-esteem	.45***	.45***	.50***	-	
Resilience	.39***	.41***	.41***	.51***	-

Note. *** $p < .001$

4.3.2. Structural Model

Following the estimation of measurement model, structural model was tested with AMOS 22 software program. The results showed that Chi-square statistic was statistically significant ($\chi^2 (80) = 278.82, p = .000$). However, χ^2 value is easily boosted by large sample size (Brown, 2015). The normed Chi-square value (χ^2/df) of 3.49 was slightly above cutoff value of 3 (Kline, 2016). $GFI = .97$, $SRMR = .03$, $RMSEA = .044$ (90% CI = .038, .049), $CFI = .98$ and $TLI = .98$ values indicated close or good fit of measurement model to the data (Table 4.9).

Table 4.9

Goodness-of-Fit Indicators of Structural Model

	χ^2	<i>df</i>	χ^2/df	<i>GFI</i>	<i>SRMR</i>	<i>RMSEA</i>	<i>CFI</i>	<i>TLI</i>
Model	278.82	80	3.49	.97	.03	.04	.98	.98

In structural model, all of the seven paths were statistically significant, referring that all the direct effects from exogenous variables to mediator variable, from exogenous variables to endogenous variable, and from mediator variable to endogenous variable were significant. The regression coefficients ranged between .13 and .33, with small or medium effect size. The standardized estimates and significant paths in the structural model were presented in Figure 4.5.

The sample of current study included 85 participants (5% of all sample) from districts which do not meet low socioeconomic status criteria. In order to find out SEM analysis with these participants would yield similar model fit indices to the analysis with 1227 participants (95% of all sample) from low socioeconomic districts, multiple group SEM analysis was also conducted. This analysis is utilized to determine whether values of model parameters significantly differ across groups (Kline, 2016). If the structural invariance is obtained, the researcher can conclude that values for paths and variances among latent variables in the specified model do not significantly differ across the groups (Byrne, 2009; Kline, 2016). The steps for the test of structural invariance included invariance of factor covariance, invariance of factor variance, and invariance of error terms as optional (Byrne, Shavelson, & Muthen, 1989; Byrne, 2009).

For testing factor variance covariance invariance, multiple group SEM analysis was carried out via AMOS 22 software program which calculates invariance of factor covariance and invariance of factor variance simultaneously. The results indicated

good fit of the model ($\chi^2 (160) = 370.87$, Bollen-Stine corrected $p = .000$, $\chi^2/df = 2.32$, $GFI = .97$, $SRMR = .06$, $RMSEA = .03$, $CFI = .98$, $TLI = .98$). In other words, the factor covariance and factor invariances among latent variables in the hypothesized model is equivalent across “low SES” and “not low SES” groups. In addition, model comparison result based on chi-square difference supported that the model of this study did not significantly vary across “low SES” and “not low SES” groups, $\Delta\chi^2 (\Delta df = 17) = 21.59$, $p = .201$.

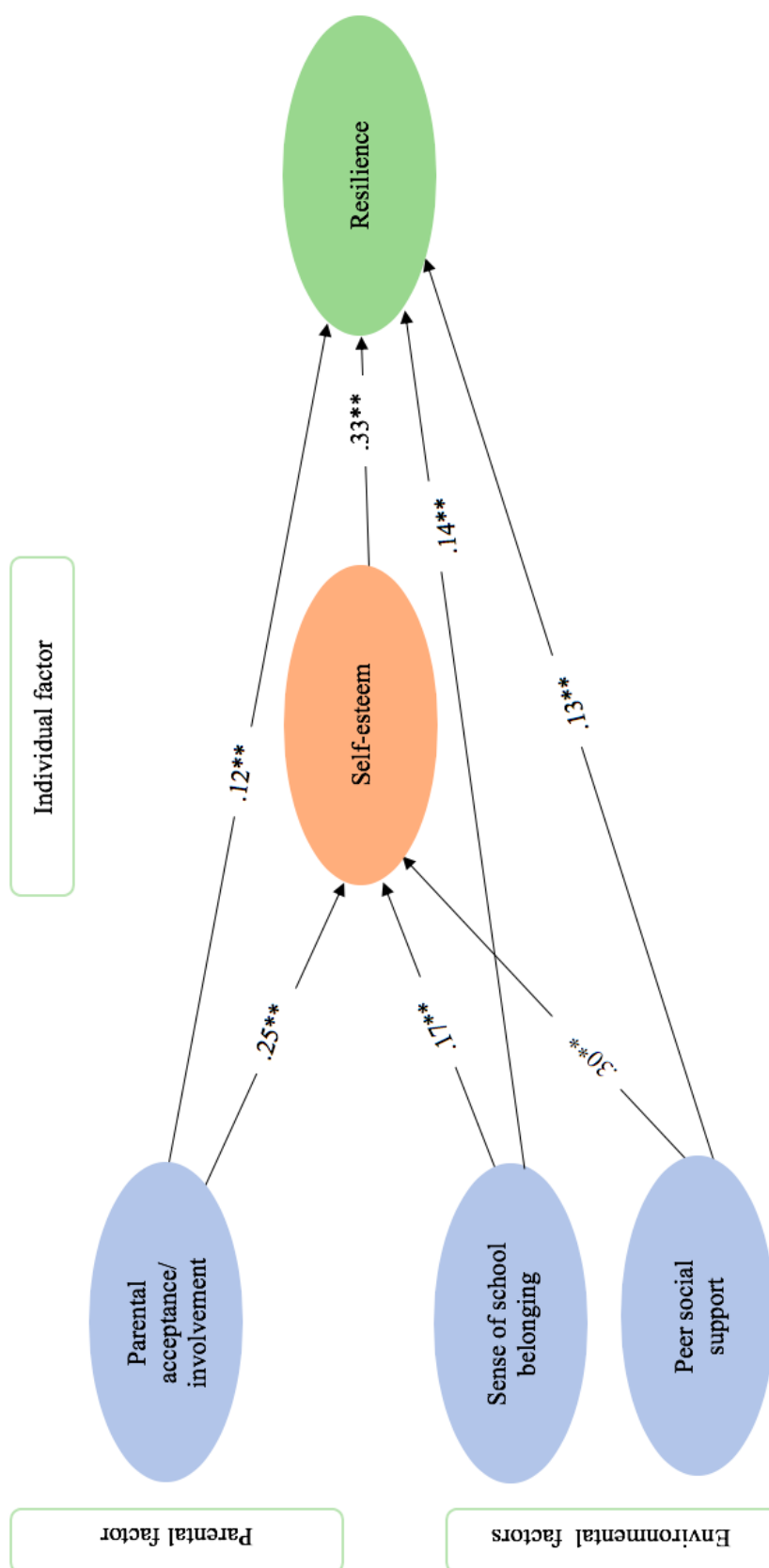


Figure 4.5. The hypothesized structural model with standardized estimates and significant paths.
 $^{**}p < .01$.

4.3.2.1. Direct and Indirect Relationships

The direct and indirect relationships among exogenous, mediator, and endogenous variables were examined. In assessing statistical significance of direct and indirect estimates, bootstrapping method with 2000 bootstrapped samples was used as remedy for multivariate nonnormal data (Brown, 2015; Byrne, 2010). In addition, bias corrected (BC) percentile intervals with 95% confidence were reported (Bollen & Stine, 1990).

The standardized path coefficients in hypothesized structural model ranged between .12 and .33. According to Kline's (2016) criterion, which suggested that standardized path coefficient (β) values less than .10, around .30, and over .50 refer to small, medium, and large effect size, respectively, direct and indirect relationships among study variables had small or medium effect size in magnitude. The results of direct, indirect, and total estimates were presented in Table 4.10.

According to bootstrapped results, all direct effects of exogenous variables on endogenous variable were statistically significant. Specifically, the direct effect from parental acceptance/involvement ($\beta = .12, p < .01$), sense of school belonging ($\beta = .14, p < .01$), and peer social support ($\beta = .13, p < .01$) on resilience were statistically significant and positive, with small effect size. This result refers that adolescents who had higher perceived parental acceptance/involvement, sense of school belonging and peer social support reported higher level of resilience.

All direct effects of exogenous variables on mediator variable were also statistically significant. The direct effect from parental acceptance/involvement ($\beta = .25, p < .01$), sense of school belonging ($\beta = .17, p < .01$), and peer social support ($\beta = .30, p < .01$) on self-esteem were statistically significant and positive, with small to moderate effect size. In other words, adolescents with higher perceived parental

acceptance/involvement, sense of school belonging and peer social support were more likely to have higher self-esteem.

The direct effect of mediator variable on endogenous variable was statistically significant. The direct effect from self-esteem ($\beta = .33, p < .01$) to resilience was statistically significant and positive, with moderate effect size. This result indicated that as the self-esteem of adolescents increased, their resilience increased.

All indirect effects from exogenous variables on the endogenous variable through mediator variable were significant. The indirect effect of parental acceptance/involvement on resilience via self-esteem was statistically significant and positive ($\beta = .08, p < .01$). That is, self-esteem mediated the relationship between parental acceptance/involvement and resilience. The mediation was partial. The adolescents with higher perceived parental acceptance/involvement had higher self-esteem and in turn, higher resilience. The indirect effect of sense of school belonging on resilience via self-esteem was statistically significant and positive ($\beta = .06, p < .01$). The relationship between sense of school belonging and resilience was mediated by self-esteem. This mediation was partial. As the adolescents had higher sense of school belonging, they were more likely to have higher self-esteem and thus higher resilience. Similarly, indirect effect of peer social support on resilience via self-esteem was statistically significant and positive ($\beta = .10, p < .01$). Self-esteem mediated the relationship between peer social support and resilience, and this mediation was partial. In another saying, adolescents with increased peer social support had increased self-esteem, and thus higher resilience.

Table 4.10

Bootstrapped Results of Standardized Total, Direct, and Indirect Effects

Paths	β	p	BC Interval
Direct Effects			
Parental acceptance/involvement → Resilience	.124	.001	(.055, .200)
Parental acceptance/involvement → Self-esteem	.246	.001	(.162, .326)
Sense of school belonging → Resilience	.135	.002	(.055, .218)
Sense of school belonging → Self-esteem	.173	.001	(.092, .251)
Peer social support → Resilience	.125	.002	(.048, .203)
Peer social support → Self-esteem	.301	.001	(.226, .370)
Self-esteem → Resilience	.334	.001	(.254, .408)
Indirect Effects			
Parental acceptance/involvement → Self-esteem → Resilience	.082	.001	(.052, .118)
Sense of school belonging → Self-esteem → Resilience	.058	.001	(.031, .089)
Peer social support → Self-esteem → Resilience	.101	.001	(.068, .138)
Total Effects			
Parental acceptance/involvement → Resilience	.206	.001	(.134, .286)
Sense of school belonging → Resilience	.193	.001	(.106, .275)
Peer social support → Resilience	.23	.001	(.151, .301)

Note. Reported BC intervals are the bias corrected 95% confidence interval of estimates resulting from bootstrap analysis.

4.3.2.2. Squared Multiple Correlations (R^2) for the Structural Model

In order to find out how much variance in resilience was explained by latent variables in structural model, R^2 values were evaluated. The exogenous variables in the model (parental acceptance/involvement, sense of school belonging, and peer social support) explained 34% of variance in mediator variable (self-esteem). The overall model with exogenous variables (parental acceptance/involvement, sense of school belonging, peer social support) and mediator variable (self-esteem) explained 33% of variance in resilience.

4.3.2.3. Hypothesis Testing

Hypotheses stated in introduction section were evaluated. All of the hypotheses for direct and indirect effects in the hypothesized structural model were supported.

4.3.2.3.1. Hypotheses for the Direct Effects in the Structural Model

Hypothesis 1a: (Parental acceptance/involvement to Resilience) Perceived parental acceptance/involvement will be related to resilience directly (*Path 1*). The hypothesis was supported. There was a significant and positive relationship between parental acceptance/involvement and resilience, $\beta = .12$, $p < .01$, 95% CI [.134, .286]. The effect was small.

Hypothesis 1b: (Parental acceptance/involvement to Self-esteem) Perceived parental acceptance/involvement will be related to self-esteem directly (*Path 2*). The hypothesis was accepted. There was a significant and positive relationship between parental acceptance/involvement and self-esteem, $\beta = .25$, $p < .01$, 95% CI [.162, .326]. The effect was small.

Hypothesis 2a: (Sense of school belonging to Resilience) The sense of school belonging will be related to resilience directly (*Path 3*). The hypothesis was supported. There was a significant and positive relationship between sense of school belonging and resilience, $\beta = .14$, $p < .01$, 95% CI [.055, .218]. The effect was small.

Hypothesis 2b: (Sense of school belonging to Self-esteem) The sense of school belonging will be related to self-esteem directly (*Path 4*). The hypothesis was supported. There was a significant and positive relationship between sense of school belonging and self-esteem, $\beta = .17$, $p < .01$, 95% CI [.092, .251]. The effect was small.

Hypothesis 3a: (Peer social support to Resilience) Perceived peer social support will be related to resilience directly (*Path 5*). The hypothesis was supported. There was a

significant and positive relationship between peer social support and resilience, $\beta = .13$, $p < .01$, 95% CI [.048, .203]. The effect was small.

Hypothesis 3b: (Peer social support to Self-esteem) Perceived peer social support will be related to self-esteem directly (*Path 6*). The hypothesis was justified. There was a significant and positive relationship between peer social support and self-esteem, $\beta = .30$, $p < .01$, 95% CI [.226, .370]. The effect was medium.

Hypothesis 4: (Self-esteem to Resilience) Self-esteem will be related to resilience directly (*Path 7*). The hypothesis was confirmed. There was a significant and positive relationship between self-esteem and resilience, $\beta = .33$, $p < .01$, 95% CI [.254, .408]. The effect was medium.

4.3.2.3.2. Hypotheses for the Indirect Effects in the Structural Model

Hypothesis 5: (Parental acceptance/involvement to Self-esteem to Resilience). Parental acceptance/involvement will be related to self-esteem, which in turn, related to resilience (*Path 2 & Path 7*). The hypothesis was confirmed. There was a significant, positive and partial mediation effect, $\beta = .08$, $p < .01$, 95% CI [.052, .118]. The effect was small.

Hypothesis 6: (Sense of school belonging to Self-esteem to Resilience). The sense of school belonging will be related to self-esteem, which in turn, related to resilience (*Path 4 & Path 7*). The hypothesis was accepted. There was a significant, positive and partial mediation effect, $\beta = .06$, $p < .01$, 95% CI [.031, .089]. The effect was small.

Hypothesis 7: (Peer social support belonging to Self-esteem to Resilience). Peer social support will be related to self-esteem, which in turn, related to resilience (*Path 6 & Path 7*). The hypothesis was justified. There was a significant, positive and partial mediation effect, $\beta = .10$, $p < .01$, 95% CI [.068, .138]. The effect was small.

4.4. Summary of Results

The results of descriptive statistics showed that majority of adolescents reported above average level of resilience in measurement. Similarly, adolescents' scores for other study variables (i.e., perceived parental acceptance/involvement, sense of school belonging, peer social support, and self-esteem) were higher than average. There was no gender difference between male and female adolescents in terms of resilience. Hence, SEM analysis was carried out with the whole sample. The bivariate correlations among study variables showed that as adolescents' perceived parental acceptance/involvement, sense of school belonging, peer social support, and self-esteem increased, their resilience increased as well.

The SEM analysis was conducted in order to test hypothesized structural model of resilience. According to criteria of model fit indices, good model fit of the hypothesized structural model to the data was concluded. All of the path coefficients were statistically significant. Total, direct, indirect, and specific indirect effects were also examined. Perceived parental acceptance/involvement, sense of school belonging, peer social support, and self-esteem were positively and significantly related to resilience. Also, indirect effects of parental acceptance/involvement, sense of school belonging, and peer social support on resilience through self-esteem were statistically significant.

CHAPTER 5

DISCUSSION

In this chapter, an overall discussion about findings and gender differences was presented firstly. Secondly, the findings of direct and indirect effects and hypotheses were discussed in relation to literature. Thirdly, implications for practice were considered. And lastly, recommendations for further studies were highlighted.

5.1. General Discussion

The aim of this study was to investigate the predictors of resilience in Turkish adolescents from low socioeconomic districts within a proposed model including parental, environmental, and individual factors. In particular, it was aimed to explore to what extent resilience of adolescents was predicted by parental, environmental, and individual factors; and how the interactions among these variables lead to resilience. Based on the ecological system theory perspective, which suggests considering the influence of interaction of protective individual and environmental systems and context in resilience; and protective-protective model which suggested that one protective factor enhances the impact of another protective factor, and so increases possibility of positive outcome, a hypothesized model was developed. Considering the literature on resilience of at-risk adolescents, the prominent parental, environmental, and individual factors were determined. More specifically, a mediational model was tested in which parental acceptance/involvement, sense of school belonging, and peer social support were proposed to predict resilience through self-esteem. Structural equation modeling was run to test the proposed model seen in Figure 1.1.

Many parental, environmental, or individual factors were determined to be associated with resilience in adolescents. In recent years, the focus of resilience research has

changed from identifying protective or risk factors to examining processes and mechanisms through which these protective factors enhance resilience. However, adolescent resilience studies conducted in Turkey have mostly aimed at determining predictive role of protective factors. There has been no study assessing simultaneous multiple associations among those parental, environmental, and individual protective factors in a conceptual model of adolescent resilience in our country. Therefore, especially mediation effect findings of this study were compared with previous studies conducted in western countries.

Gender differences on the proposed model of resilience was examined prior to structural equation modeling analysis. The results indicated that there was no significant difference between female and male adolescents in terms of resilience scores. In this case, the proposed model was tested through structural equation modeling analysis with the whole sample. The finding of this study concerning gender differences is in line with national resilience studies conducted with socioeconomically disadvantaged adolescents (Aydın-Sünbül, 2016; Esen-Aktay, 2010; Yavuz, 2015; Yavuz & Kutlu, 2016) and with adolescents (Arastaman & Balci, 2013; Atik, 2013; Bindal, 2018; Özcan, 2005; Özden-Yıldırım & Ermiş, 2017; Toraman, 2018).

However, it was inconsistent with results of Onat's (2010) study which showed that girls living in socioeconomically disadvantaged district reported significantly higher resilience than boys. Similarly, some national studies found that girls had significantly higher resilience than boys (Bulut et al., 2018; Gündaş, 2013; Oktan, 2008; Turgut, 2015). On the other hand, Dayıoğlu (2008) found significant gender difference in favor of male adolescents.

Based on these conflicting findings, it could be stated that research findings regarding the effect of gender on adolescent resilience have been inconclusive. The very similar inconsistent findings about gender difference on adolescent resilience have been

reported in international research. While child and adolescent resilience research mostly emphasized that female gender was a protective factor in resilience (Dias & Cadime, 2017; Fergusson & Horwood, 2003; Kumpfer, 1999; Rutter, 1987; Werner, 1989), some studies found no gender difference (Rew, Taylor-Seehafer, Thomas, Yockey, 2001; Sagone & De Caroli, 2014) or a difference in favor of male adolescents (Scoloveno, 2013; Yu, Lau, Mak, Zhang, & Lui, 2011).

The results of structural equation modeling showed that all hypothesized relationships were well supported by the data. The model fit indices indicated that the proposed structural model fitted the data in this study well. The results of the analysis suggested no modification in the proposed model such as adding or removing any path. The hypothesized model accounted 33% and 34% of variance in resilience and self-esteem, respectively.

The findings of the current study supported the significance of parental, environmental, and individual factors in resilience of adolescents from low socioeconomic districts. From the perspective of ecological system theory, parental factor (parental acceptance/involvement), and environmental factors (sense of school belonging, perceived peer social support) both directly and indirectly through personal factor (self-esteem) contributed to the resilience of adolescents. Not only the microsystem –parents, peers, school – of adolescents affected resilience directly, but also affected resilience via interaction with the individual variable, like assumed in ecological system perspective (Bronfenbrenner, 1979; Lerner, 2006).

From protective-protective model, the protective parental and environmental factors (parental acceptance/involvement, sense of school belonging, perceived peer social support) were linked with another protective factor (self-esteem), and in turn, related to resilience in adolescents. The protective factors enhanced another protective factor, and in so, led to increased positive outcome (Brook, Gordon, et al., 1986; Brook Whiteman, et al., 1989; Garmezy et al., 1984). In a broad sense, parental factor and

environmental factors seemed to have similar explanatory power in resilience, and self-esteem had a mediating role as an individual protective factor.

This study was based on the suggestion that protective factors contribute to resilience or positive outcomes not only independently, but also through interaction with each other (Luthar et al., 2000; Ungar, 2012). Therefore, a model examining relative contribution of different promotive systems was developed. The results supported this premise. Briefly, different promotive factor systems – parental, peer, school contexts – affected adolescents’ resilience both independently and through mediating effect of individual promotive factor.

According to the preliminary findings, there were moderate relationships among exogenous, mediator, and endogenous variables in the present study. Specifically, the highest association was between self-esteem and resilience while the weakest association was between parental acceptance/involvement and resilience. In terms of direct effects in proposed model, the best predictor of resilience was self-esteem, followed by perceived peer social support. Regarding indirect effects in the model, resilience was best predicted by perceived peer social support via self-esteem, followed by parental acceptance/involvement through self-esteem, and sense of school belonging via self-esteem.

5.2. Discussion of the Direct Effects

The results of this study supported Hypothesis 1a assuming that parental acceptance/involvement would be related to resilience directly. That is, as perceived parental acceptance/involvement increases, resilience of adolescents from low socioeconomic districts increases. It can be stated that socioeconomically disadvantaged adolescents perceiving their parents accepting or involving have higher resilience in the face of stressful or adverse life experiences. This result is congruent with majority of previous studies investigating the predictive role of accepting,

involved, supportive or caring parental attitudes in resilience of adolescents (Conger & Conger, 2002; Masten et al., 1990; Masten et al., 1999; Masten, 2004; Seidman & Peterson, 2003; Vanderbilt-Adriance & Shaw, 2008; Zakeri et al., 2010). Besides, this finding is in line with previous national studies revealing positive association between parental acceptance, involvement or caring attitudes and resilience in adolescents (Esen-Aktay, 2010; Onat, 2010; Siyez & Aysan, 2007). In addition, this result is congruent with resilience literature which has widely highlighted the protective role of relationships with parents in resilient tendencies of children and adolescents under risky conditions (Fergus & Zimmerman, 2005; Masten et al., 1999; Kumpfer, 1999; Zimmerman & Brenner, 2010).

Based on theories of socialization in family, on which Baumrind's (1991) parental attitudes conceptualization was also built on, parents conveying acceptance, care, autonomy, control to their children contribute to adolescents' competence and coping mechanisms, and so resilience when faced with stress or difficulties. In a study with a sample of late adolescents, Zakeri et al. (2010) examined the effect of parental attitudes from the perspective of Lamborn et al.'s (1991) parenting framework in adolescence resilience. The findings showed that perceived parental acceptance/involvement significantly predicted resilience of adolescents whereas neither perceived parental autonomy nor perceived parental strictness/supervision dimensions of parental attitudes had a significant effect on resilience of adolescents. In another study examining the effect of parenting styles from Lamborn et al.'s (1991) parenting framework on adolescent resilience, Firoze and Sathar (2018) investigated predictor role of parenting styles on high school students. The results of this study indicated that authoritative parenting style, in which perceived parental control and perceived parental responsiveness are reported high, was significantly associated with resilience in adolescents.

Parenting practices are not independent of the context. As a contextual variable, the socioeconomic status is one of the factors influencing the way of one's parenting

(Chen et al., 1997; Dornbusch et al., 1987; Kağıtçıbaşı & Ataca, 2005; von der Lippe, 1999). The low socioeconomic status results in harsh or negative parental attitudes, decreases parental competence or leads to adjustment problems in youth (Conger et al., 1997; McLoyd, 1997). For instance, in a longitudinal resilience study with adolescents under economic hardship, Conger and Conger (2002) found that socioeconomic strains contributed to increase in harsh parenting attitudes and decrease in accepting parenting attitudes. It could be stated that parental acceptance/involvement could be especially critical for resilience of adolescents living under socioeconomically stressful conditions as in the current study. In this regard, the finding of this study indicates that adolescents perceiving their parents accepting, responsive, involved, loving and caring could be predisposed to respond in resilient ways while experiencing stressful life conditions such as socioeconomic hardship or challenging transitions in adolescence period.

As expected, a significantly positive and direct relationship between parental acceptance/involvement and self-esteem was found, supporting Hypothesis 1b. In other words, adolescents from low socioeconomic districts who have higher perceived parental acceptance/involvement tend to have higher self-esteem. This finding is similar to both previous numerous international studies (Birkeland et al., 2014; Boudreault-Bouchard et al., 2013; Buri et al., 1992; Herz & Gullone, 1999; Martinez & Garcia, 2007; Martinez et al., 2007; Milevsky et al., 2007; Riquelme et al., 2018; Rodrigues et al., 2013; Zakeri & Karimpour, 2011) and national studies (Aydın et al., 2014; Duru, 1995; Tunç, 2002). The theories related to formation of self-esteem asserted that the child internalizes the others', especially parents' opinions about himself/herself and such an internalization mostly determines self-evaluations about the child's own value or worth (Cooley, 1902; Harter, 2006; James, 1984). In particular, the family provides an important basis for development of the sense of self-worth. The parents who embrace an accepting, caring, responsive or warm stance toward their children and give positive appraisal to their children support positive self-esteem development (Zakeri & Karimpour, 2011). Thus, depending on the findings of

the current study, it could be stated that adolescents perceiving their parents accepting, responsive, or involved tend to have enhanced self-esteem while experiencing numerous developmental changes or struggling stressful life conditions such as deprived socioeconomic status.

The sense of school belonging was one of the environmental level factors included in this study. In Hypothesis 2a, it was assumed that sense of school belonging would be related to resilience directly. This hypothesis was confirmed by the results showing that sense of school belonging was significantly and directly related to resilience of adolescents. In other words, adolescents from low socioeconomic districts who experience higher sense of school belonging are more likely to have more improved resilience. This result is consistent with earlier studies (Gonzalez & Padilla, 1997; Napoli et al., 2011; Nowicki, 2008; Nuttman-Shwartz, 2018). Also, a variety of national and international studies have supported noticeable effect of school belonging related factors (e.g., school involvement, school bonding, school connectedness, school engagement etc.) on resilience of adolescents (Çataloğlu, 2011; Esen-Aktay, 2010; Gizir, 2004; Masten, 2004; Milkman & Wanberg, 2012; Fergus & Zimmerman, 2005; Turgut, 2015). The sense of school belonging has been received attention in recent years, so much more research is still needed (Stalen et al., 2016, Uslu & Gizir, 2016). Correspondingly, there have been limited studies examining the effect of sense of school belonging on adolescents from a resilience perspective. Or, majority of studies been focused on academic outcomes of sense of school belonging (Brooker, 2006; Stalen et al., 2016). In a study based on resilience framework, Kia-Keating and Ellis (2007) found that psychological adjustment of adolescents under risky conditions were significantly predicted by sense of school belonging. Similarly, Napoli et al. (2011) showed that sense of school belonging significantly decreased the engagement with risky behaviors in adolescents.

Especially, in adolescence years, development of sense of belonging is essential, because adolescents are sensitive to be accepted, recognized or approved by a group

(Brooker, 2006). Theoretically, individuals who have opportunity to satisfy basic belonging need in a social system could develop a sense of psychological wellbeing and cultivate inner resources leading to resilience (Baumeister & Leary, 1995; Osterman, 2000). And, school environment is a rich context to satisfy this belonging need (Berk & Meyer, 2015; Sanders & Munford, 2016). That is, the school system fostering adolescents' sense of school belonging in this critical developmental stage have a potential to contribute to the enhancement of protective resources and resilience of adolescents. This contribution may be especially critical for socioeconomically less advantaged adolescents, because they have been under the risk of perceiving lower sense of school belonging (Chiu et al., 2016; Goodenow, 1993; Günelan, 2018; Sarı, 2013; Smerdon, 1999). In this sense, this finding of the current study indicates that the school social environment in which the adolescents perceive that they are accepted, valued, or supported may be essential in providing sense of belonging and thus leading to resilient outcomes in adolescents experiencing the need for belonging as developmentally and also under the risk of disadvantaged socioeconomic conditions. In addition, this finding could be assumed to expand the limited literature about the effect of sense of school belonging in resilience of at-risk adolescents.

Another hypothesis related to association between sense of school belonging and self-esteem was also supported. In Hypothesis 2b, it was proposed that perceived sense of school belonging would be related to self-esteem directly. The results revealed that there was a significantly positive and direct relationship between perceived sense of school belonging and self-esteem in adolescents with low socioeconomic status. That is, adolescents who perceive higher sense of school belonging are more likely to have higher self-esteem. Likewise, previous studies have reported the significant effect of perceived sense of school belonging on self-esteem in adolescents (Strudwicke, 2000; Şirin & Şirin-Rogers, 2004; Demirtaş et al., 2017). Frankly speaking, even though adolescents' self-esteem has been found to be associated with school related factors such as school climate (Hoge et al., 1990; Ryan & Grolnick, 1986; Roeser & Eccles, 1998), school engagement (Markowitz, 2017) or school connectedness (Millings et al.,

2012; Watson, 2018), national or international research in relation to the effect of sense of school belonging on self-esteem has been limited. In a study examining the relationship between school belonging and self-esteem in living under socioeconomically adverse conditions, Strudwicke (2000) found a significant, positive and strong association between sense of school belonging and self-esteem for adolescents intending to complete high school education. Doğan (2015) studied predictive role of sense of futility, self-esteem, and sense of school belonging in high school students' misbehaviors requiring disciplinary punishment. In the same study, the associations between variables were also analyzed, and there was significant, positive, and small correlation between self-esteem and sense of school belonging, as in the current study.

In the light of extensive literature on self-esteem stating that adolescents begin also relying on accepting, supportive, caring relationships outside the family members to build their perceptions about the self, the school context providing opportunity for sense of belonging from different sources such as teachers, friends, or school administrators could be considered as a resource to foster adolescents' self-esteem (Berk & Meyer, 2015; Grolnick & Beiswenger, 2006; Harter, 2006; Strudwicke, 2000). In this respect, the findings of this study point out that the school social environment conveying accepting, including, supportive and caring approach allows adolescents, who undergo vulnerable developmental period in terms of transformation of self-esteem or experience disadvantageous life conditions such as low socioeconomic status, perceive themselves loved, worthy or valuable. Besides, this finding could be considered as a contribution to the limited literature on how sense of school belonging is related to self-esteem.

Another environmental level promotive factor included in the hypothesized model was perceived peer social support. In relation to the effect of perceived peer social support on resilience of adolescents, Hypothesis 3a claimed that perceived peer social support would be related to resilience directly. The results confirmed this hypothesis by

showing that there was a significant, positive, and direct association between perceived peer social support and resilience of high school students. In other words, adolescents from low socioeconomic districts who perceive that they receive higher acceptance, respect or support from their peers in social context are more likely have more enhanced resilience. This result is congruent with broad national (Arastaman & Balci, 2013; Dayioğlu, 2008; Özcan, 2005; Özden-Yıldırım & Ermiş, 2017; Siyez & Aysan, 2007; Turgut, 2015; Yılmaz-Irmak, 2008) and international research findings (Banks & Weems, 2014; Galaif et al., 2003; Garnezy, 1971; Huurre, 2000; Kef & Dekovic, 2004; Masten, 2004; Licitra-Kleckner & Waas, 1993; Rutter, 1979; Werner & Smith, 1982; van Harmelen et al., 2017) supporting promoting effect of perceived social support from peers on adolescents' coping with adverse life conditions and resilience.

In a study carried out with adolescents from low-income families, it was found that adolescents perceiving higher social support from their families and peers, and engaging in more adaptive coping styles reported higher resilience (Markstrom, Marshall, & Tyron, 2000). In addition, Demaray and Malecki (2002) examined the relationship between perceived social support and adjustment of adolescents from minority and low-income families. The results showed that perceived social support from parents and classmates significantly predicted clinical adjustment (anxiety, external locus of control, stress in social relationships, somatization) and emotional problems (depression, sense of inadequacy). Moreover, social support from parents and classmates predicted clinical and personal outcomes more strongly compared to social support from teachers and school. These findings support the premise that social support has a direct effect in helping individuals promote or maintain psychological wellbeing, adjustment or resilience in the face of stressful experiences (Cohen & Wills, 1985; House et al., 1988).

The adolescence period is considered as a stress inducing stage since various physical, emotional, cognitive and interpersonal rapid changes are encountered (Erikson, 1959). In addition, adolescents need social support from their peers as well as their family in

order to handle with their problems and develop a sense of wellbeing (Berndt, 1989). Social support received from peers facilitate adolescents' passing through these challenging years with ease. The enhancing role of peer social support is also valid for adolescents experiencing additional stress factors such as low socioeconomic status, as participants in the current study experience. Because, adolescents from socioeconomic status families have been found to be under the risk of developing unsafe peer interactions (Eamon, 2002; Hill et al., 1999; Lahey et al., 1999; Seidman & Peterson, 2003), experiencing higher peer rejection (Patterson et al., 1991), and lower peer social support (Baştürk, 2002; Dumont & Provost, 1999; Ünlü, 2001; Zaimoğlu, 1991). On the other hand, for adolescents, socially supportive peer relations have a potential protective effect against risky conditions such as low socioeconomic status (Rabotec-Saric et al., 2008; Seidman & Peterson, 2003). Thus, the findings of the current study refer that perception of being accepted, valued, loved, supported in a peer social network could lead improved resilience or successful adaptation in adolescents experiencing stressful pathways of adolescence years as well as other risk factors related to disadvantaged socioeconomic conditions.

The sixth hypothesis (Hypothesis 3b) asserting that there would be a direct relationship between perceived peer social support and self-esteem was confirmed by the findings of the current study. It was found that there is a significant, positive and direct relationship between perceived peer social support and self-esteem of adolescents from low socioeconomic districts. In other words, as perceived peer social support increases in adolescents, their self-esteem increases, likewise supported by previous numerous national (İkiz-Savi, 2010; Kahriman, 2002; Kahyaoğlu, 2010; Tahir et al., 2015; Ünüvar, 2003) and international research (Colarossi & Eccless, 2003; Helsen et al., 2000; Hoffman et al., 1988; Newcomb, 1990; Seidman & Peterson, 2003; Tam et al., 2011) findings.

In a longitudinal study, Seidman and Peterson (2003) examined the protective factors against the adverse effects of low socioeconomic status on adolescents. The results

about the effect of peer relationship on disadvantaged adolescents indicated that perceived social support and social acceptance by peers were protective against the risk of antisocial behaviors, depression and low self-esteem. Colarossi and Eccless (2003) investigated relative contribution of social support from different sources on self-esteem of middle adolescents. The perceived social support from friends and secondly teachers were found to have higher effect than perceived social support from parents on self-esteem of adolescents. In a similar study, Kahyaoğlu (2010) examined the relative effects of perceived family and friend social support on self-esteem of adolescents. It was found that perceived social support from family and perceived social support from friends significantly predicted adolescents' self-esteem in similar levels.

In adolescence, although family members continue influencing self-esteem, adolescents mostly rely on their peer groups to believe in their sense of value or worth, because separation and individuation processes make adolescents turn away from their parents and turn more toward their peers (Harter, 2006; Lerner & Steinberg, 2004). Therefore, peer relations through which adolescents perceive that they are accepted, valued, esteemed or cared influence sense of worthiness of adolescents in identity formation process (Colarossi & Eccless, 2003). In this regard, this finding of current study indicates that adolescents perceiving that they are accepted, valued, love, supported by peers may have improved sense of value, worth and esteem while passing through developmental challenges of adolescence period or experiencing stressful life conditions such as living in low socioeconomic districts.

In order to examine the direct effect of mediator variable on outcome variable of the study, a hypothesis was formed and tested. In Hypothesis 4, it was asserted that self-esteem would be related to resilience directly. The results showed that there was a significant, positive and direct relationship between self-esteem and resilience. That is, adolescents from low socioeconomic districts who have higher self-esteem tend to have higher resilience level. According to Baumeister et al. (2003), self-esteem

operates as a resource that allows individuals handle with stressful, traumatic, adverse or difficult conditions or events in adaptive ways. It either buffers the negative influence of risk factors or enhances the psychological adaptation, wellbeing, coping or resilience regardless of stress. A variety of resilience theories or models included self-esteem as one of the crucial individual level protective factors (Garmzey et al., 1984; Haase, 2004; Jessor & Jessor, 1977; Kumpfer, 1999; Rutter, 1987).

In resilience literature, this theoretical premise has been also supported by national (Gizir, 2004; Savi-Çakar, 2011; Yılmaz-Irmak, 2008) and international studies (Buckner et al., 2003; Dumont & Provost, 1999; Fergusson & Horwood, 2003; Kidd & Davidson, 2007; Kidd & Shahar, 2008) showing that self-esteem has a significant effect on resilient tendencies of at-risk adolescents. Specifically, Hopkins et al. (2014) investigated the effect of protective internal and external factors on resilience of adolescents living in low socioeconomic regions. The effects of these protective factors were also compared between high-risk and low-risk exposure groups. The results showed that self-esteem as well as self-regulation were promotive factors in the sense that they were significantly related to resilience in adolescents under both low-risk and high-risk conditions. Similarly, Buckner et al. (2003) compared resilient and non-resilient youth living in low income regions. The focus of the study was the impact of internal protective factors on resilience. The results indicated that self-esteem and self-regulation were significant and independent predictors of resilience in disadvantaged children and adolescents, after controlling negative life events and chronic strains.

The adolescence period is critical in the sense that judgements about one's worth and social comparisons with others increase, leading to fluctuations in self-esteem (Harter, 2006). In addition to stressful developmental changes and transitions in adolescence, other negative environmental conditions such as low socioeconomic status also put a risk on self-esteem of adolescents (Veselska et al., 2010; Wiltfang & Scarbecz, 1990). Therefore, promotive role of self-esteem on resilience of adolescents experiencing

stressful developmental changes and tasks, or environmental stress factors such as low socioeconomic status could be especially critical. In this sense, based on the findings of the current study, it could be claimed that enhanced sense of worth, value, or esteem may have significant role in resilience processes for socioeconomically at-risk adolescents.

5.3. Discussion of the Indirect Effects

Concerning the indirect effects of parental and environmental level factors on resilience, three hypotheses were formed and tested. In Hypothesis 5, it was specified that parental acceptance/involvement would be related to resilience through self-esteem. The results of analyses of indirect effects in the hypothesized model showed that self-esteem had a significant and positive, but partial mediating effect in the relationship between parental acceptance/involvement and resilience of adolescents. In other words, adolescents who have higher perceived parental acceptance/involvement have higher self-esteem, which in turn, report higher resilience. This finding is in agreement with previous studies which showed that parental acceptance, support, nurturance, or involvement have had a significant effect on resilience of adolescents through self-esteem (Barber et al., 2003; O'Neill et al., 2018; Swenson & Prelow, 2005; Tian et al., 2018). According to recent advances in resilience literature, the investigation of relative contributions of external and internal factors as well as interactions among these factors have been mostly needed (Luthar et al., 2000; Masten & Barnes, 2018; Masten & Wright, 2010; Ungar, 2012). For instance, Tian et al. (2018) stated that supportive parent-adolescent relationship and self-esteem are valuable resources for development of adolescent resilience, and also, positive relationship with parents is one of the most crucial factors laying the foundation of adolescents' views about themselves and fostering self-esteem.

Based on these theoretical premises, they carried out a study to investigate mediator role of self-esteem in the relationship between parent-adolescent relationship and

resilience of adolescents through structural equation modeling analyses. In this study, parental support – parental companionship, instrumental help, intimacy, and affection dimensions – had a significant direct and indirect effect on resilience via self-esteem. Moreover, indirect effect of parent-adolescent relationship on resilience of adolescents through self-esteem was greater than direct effect. The mediating role of self-esteem on the relationship between parent-adolescent relationship quality and psychological functioning in a sample of female adolescents living under high-risk conditions including poverty was examined (Barber et al., 2003). In this study, self-esteem was found to be a significant and partial mediator, like in the current study. Regarding the findings of these studies in the literature and the results of the current study, self-esteem could be accepted as an important individual level promotive factor transmitting positive effects of accepting, supportive, responsive, caring, and involved perceived parental attitudes on resilient responses of adolescents encountering socioeconomically disadvantaged conditions.

The second hypothesis about the indirect effect of exogenous variables on outcome of study asserted that perceived sense of school belonging would be related to self-esteem, which in turn, related to resilience (Hypothesis 6). According to the results, the mediation effect of self-esteem on the relationship between sense of school belonging and resilience of adolescents was statistically significant and positive, but partial. That is, adolescents from low socioeconomic districts who perceive higher sense of school belonging in their school environment have higher self-esteem, which in turn, higher resilience in the face of negative life conditions. Likewise stated previously, the associations among sense of school belonging, self-esteem and resilience have been narrowly investigated. Indeed, to the researcher's knowledge, there is not any specific research examining mediating effect of self-esteem in the relationship between sense of school belonging and resilience, or examining mediating effect of self-esteem in the relationship between sense of school belonging and positive outcomes from resilience framework.

Begen and Turner-Cobb (2011) investigated the role of sense of belonging in social environment on physical and psychological health of adolescents through the mediating role of self-esteem. The sense of belonging in school, community, and family was assessed separately. The results revealed that self-esteem significantly mediated the relationship between sense of belonging (school, community, and family) and physical health of, and also, positive affect and negative affect of adolescents. Specifically, sense of belonging significantly predicted positive affect while home and community belonging were significantly associated with physical health, and, home belonging was significantly associated with negative affect of adolescents.

Although narrowly investigated, theoretical background suggested that school environment, in which students spend a considerable time, has a valuable potential to satisfy adolescents' basic fundamental human need – sense of belonging, and thus, contribute to resilient stress reactions (Baumeister & Leary, 1995; Berk & Meyer, 2015; Kia-Keating & Ellis, 2007). Such a school environment is also a potential resource to support adolescents' self-esteem, because self-esteem in adolescence period is shaped by peers, school context as well as family in adolescence period (Berk & Meyer, 2015). In this sense, the findings of the current study, which indicate that self-esteem is a significant mechanism of the relationship between sense of belonging in school environment and resilience of adolescents living in low socioeconomic districts, could extend the literature on the mediating role of self-esteem on the association between sense of school belonging and resilience.

The third hypothesis in relation to the mediating role of self-esteem, Hypothesis 7, claimed that perceived peer social support would have an indirect effect on resilience through self-esteem. The results showed that self-esteem has a positive mediating, but partial effect between perceived peer social support and resilience of adolescents. This finding implies that adolescents from low socioeconomic districts who perceive higher peer social support are prone to have higher self-esteem, and thus, higher resilience. In spite of theoretical premises and a number of studies supporting the association

between peer social support and self-esteem, and between resilience and self-esteem as stated above, there have been limited research on the mediating role of self-esteem on the relationship between perceived peer social support and resilience. Therefore, there has been a lack of previous research findings to compare the results of the current study.

Huurre's (2000) study about the mediating effect of self-esteem between perceived peer social support and depression in visually impaired adolescents supported that self-esteem was a significant mediator. In addition, self-esteem was a more salient mediator between perceived peer social support and depression than between perceived family social support and depression. In some studies, not perceived peer social support specifically, but related concepts such as perceived peer acceptance (Birkeland et al., 2014), satisfaction in peer relationships (Thompson et al., 2016), or perceived general social support (including assessment of perceived peer social support) (Gaylord-Harden et al., 2007) were found to be related to resilience or positive adjustment in adolescents via mediating role of self-esteem.

The perceived social support and self-esteem have been found to be significant predictors of resilience of at-risk adolescents, as mentioned in previous sections. Besides, social support from peers allowing adolescents perceiving themselves as cared, loved, or valued has been considered as an important factor for development or enhancement of self-esteem in adolescents (Hoffman et al., 1988). Because, in adolescence, peers become an important source of development of sense of identity, sense of worth or esteem. Taking into consideration finding of the current study as well as related studies and theoretical suggestions, improved self-esteem could be assumed as an important individual level factor mediating the relationship between perceived social support and resilient tendencies of adolescents living in low socioeconomic districts. In addition, it could be said that this finding extends the limited literature on the role of self-esteem as a mechanism between social support from peer groups and resilient outcomes.

5.4. Implications for Practice

Several implications could be drawn from the findings of the current study for professionals, especially for psychological counselors. The present study explored the relationships between external promotive factors including parental and environmental level factors and resilience through mediating self-esteem as an internal promotive factor among a sample of high school students living in low socioeconomic districts. Therefore, this study has a potential to provide meaningful information to understand adolescent resilience associated with parental, environmental, and individual level promotive factors. Firstly, the results of the present study showed that resilience of adolescents did not differ significantly according to the gender. This result points out that professionals designing intervention programs with adolescents may take into consideration that girls and boys who reside in low socioeconomic districts could have similar resilient tendencies.

The findings of this study may give cues for practitioners who develop programs to enhance resilience in adolescents. As a result of advances in resilience research, three ways of developing intervention programs were suggested (Masten & Reed, 2002; Masten & Barnes, 2018). The first one is risk-focused interventions which aim to prevent or lessen the exposure of youth to adverse experiences. The second one is asset-focused interventions which focus on increasing assets and resources or allowing the access to those promotive factors. The third one is protection-focused interventions which serve to support, develop, cultivate or restore adaptive human system by influencing the processes.

Counselors and practitioners may consider all of the variables included in this study – perceived parental acceptance/involvement, perceived school belonging, perceived peer social support, and self-esteem – while designing these three types of interventions. More specifically, program developers may keep in mind the negative effects of socioeconomically disadvantaged conditions on adolescent development.

They may consider enhancement of environmental resources such as creating a school environment conveying sense of belonging to adolescents, or encouraging school or classroom programs, activities facilitating peers to give social support to each other, especially in similar districts. Most particularly, protection-focused intervention programs may utilize findings of this study by regarding perceived parental acceptance/involvement, perceived school belonging, and perceived peer social support as external promotive resources which enhance internal asset of self-esteem in adolescents with risky life experiences. The findings of this study in relation to indirect effects may also provide information for protection-focused intervention programs which aim to influence resilience processes and mechanisms.

Both direct and indirect relationships among study variables were explored to predict unique and interactive effects of parental, environmental, and individual level factors in resilience of adolescents. The significant direct and indirect relationship among variables of the study supported ecological system perspective which emphasizes that simultaneous interplay between individual and the context contribute to development of resilience (Ungar, 2011). In this respect, practitioners might notice that resilient outcomes require addressing different factors in the microsystem of adolescents. In planning interventions, practitioners especially working in low socioeconomic-status districts may consider parental acceptance/involvement, perceived school belonging, perceived peer social support, and self-esteem as microsystemic promotive factors in at-risk adolescents.

Specifically, interventions may target parents to strengthen the accepting, supportive, and involved parental attitudes toward their children. Practitioners or counselors may carry out guidance activities or seminars in order to inform parents about importance of acceptive attitudes as well as involvement with their children's life. Or, counselors may design group counseling programs to support parenting skills including conveying acceptive attitude and monitoring and being involved with the adolescent. Counselors, school administrators or educators may plan interventions or programs to

enhance sense of belonging of disadvantaged adolescents in school context. School-wide policies may take into account the contribution of sense of school belonging in adolescents with low socioeconomic status, and may adopt procedures or implications to boost resilience via sense of school belonging. In these interventions, the relations among peers may be also considered to cultivate sense of support, acceptance, or care. Based on the findings of this study, indirect effect of parental and environmental factors with moderate direct effect of self-esteem in resilience of adolescents from low socioeconomic districts may be kept in mind in working with adolescents with similar profiles. For individual or group based interventions, attempts to cultivate sense of worth, value, and esteem in adolescents might consolidate the positive effects of parental and environmental promotive factors for resilient responses.

The relative contribution of parental, environmental, and individual level factors was also revealed in this study. When designing interventions or programs for at-risk adolescents, practitioners or counselors may consider the relative importance of external and internal factors in determining priorities or steps of interventions. For instance, among all study variables, the strongest predictor of resilience was self-esteem. It could be a good start to enhance positive self-image of adolescents in order to support internal resources. Also, among all external promotive factors, the strongest predictor of resilience was sense of school belonging. In collaboration with school administrators, teachers, or school staff, school counselors may plan interventions to raise sense of belonging of at-risk adolescents in school environment.

Lastly, it has been underlined that resilience framework shifted its attention from deficit-based approaches to strength-based approaches in both theoretical or practical areas (Masten & Barnes, 2018). In addition, resilience has been conceptualized as a dynamic process among various internal and external protective factors (Luthar et al., 2000). In this sense, the findings of this study may guide the professionals to embrace the recent perspective shift in resilience framework in organizing interventions or programs for similar populations. Because, the interplay of a number of external

(parental acceptance/involvement, perceived school belonging, perceived peer social support) and internal (self-esteem) promotive factors were included in this study to predict resilience and possible protective mechanisms in adolescents. Thus, professionals may consider these factors and mechanisms with an interaction and strength-focused philosophy in planning interventions or programs for such vulnerable groups.

5.5. Recommendations for Further Research

This study attempted to go beyond identifying significant protective factors in resilience, and to examine possible pathways between external and internal promotive factors within a model of resilience. In this sense, this study could be considered as an example of the second wave of resilience research, which have been limited in Turkey (Arat, 2014). Based on ecological system theory perspective and protective-protective approach, a model in which the associations among perceived parental (parental acceptance/involvement), environmental (perceived school belonging, perceived peer social support), and personal (self-esteem) factors and resilience of adolescents from low socioeconomic districts were explored.

These promotive factors in the proposed model explained a certain percentage of variance in at-risk adolescents. Undoubtedly, other parental, environmental, and individual level factors may contribute to resilience in adolescents. For instance, self-regulation has received attention as a valuable individual protective factor in adolescent resilience research recently (Dias & Cadime, 2017). Or, attachment to parents and peers was recently suggested to be an important external protective factor which deserves more consideration (Erdem, 2017). Besides, understanding of multi-level protective factors in resilient adaptation or outcome has been concern of resilience research in recent years (Masten & Barnes, 2018). Considering ecological system theory, factors in wider systems of individuals (i.e., microsystem, mesosystem, exosystem, macrosystem, and chronosystem) such as the relationship between peer

and school, parents' stress about socioeconomic hardship, school policies, cultural values etc. Thus, it is suggested that much more research is needed in order to understand complex interactions among various proximal and distal promotive factors and to reveal possible pathways in resilience.

This study was conducted with a sample of adolescents from Anatolian High Schools in two low SES districts of İstanbul. In order to understand the role of similar promotive factors in resilience of similar adolescent groups, larger and more diverse samples from different regions, cities or different type of schools may be included in further studies. A similar study could be carried out with early or late adolescents in order to find out how such a resilience model differ according to developmental stages of adolescence. In addition, studies including adolescents living in low SES districts in İstanbul or other cities may contribute to reveal confounding demographics in similar resilience research.

In this study, only one risk factor, low socioeconomic status, was included. However, in today's world, adolescents encounter with a number of risk factors (e.g., neighborhood danger or poverty, chronic physical or mental health disorder, parental problems, delinquent peer groups, bullying, violence, access to substances, low interest in school etc.) which interrupt healthy psychosocial development process (Seidman & Peterson, 2003). These kind of risk factors also have a potential to obstruct healthy adolescent development in our country (Gizir, 2007; Siyez & Aysan, 2007). Thus, future resilience studies considering the effect of these risk factors may be carried out with adolescent population in order to clearly understand how mechanisms of resilient outcomes could be improved under different risky conditions. The comparison of resilience of adolescents from different level socioeconomic districts may also help understanding the effect of different risk levels.

In regard to method of the current study, self-report data were used to evaluate resilience of adolescents. Also, adolescents' perceptions were asked to assess the role

of external promotive factors (i.e., perceived parental acceptance/involvement, sense of school belonging, perceived peer social support). Therefore, social desirability may have influenced the responses of participants. In future studies, data from multiple informants such as parents and teachers as well as self-report could be gathered in order to increase validity of assessment of resilience. The second consideration related to method is that correlational research design was utilized in the current study. Therefore, inference about causality is very limited. For further studies, the use of experimental research design such as examination of effectiveness of a resilience building program is recommended in order to reveal possible causal links between promotive factors and resilience in adolescents.

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APPENDICES

A. APPROVAL OF MIDDLE EAST TECHNICAL UNIVERSITY HUMAN SUBJECTS ETHICS COMMITTEE

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER



ORTA DOĞU TEKNİK ÜNİVERSİTESİ
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06 Eylül 2017

Konu: Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEX)

İlgili: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Prof. Dr. Ayhan DEMİR ;

Danışmanlığını yaptığınız Özden Sevil GÜLEN'in "Dezavantajlı Sosyo-Ekonomik Statüdeki Ergenlerin Dayanıklılıklarında Ebeveyne İlişkin, Çevresel ve Bireysel Faktörlerin Etkileşimi" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülerek gerekli onay 2017-EGT-149 protokol numarası ile 02.10.2017 – 30.12.2017 tarihleri arasında geçerli olmak üzere verilmiştir.

Bilgilerinize saygılarımla sunarım.

Prof. Dr. Ayhan SOL

Üye

Prof. Dr. Ş. Halil TURAN

Başkan V

Prof. Dr. Ayhan Gürbüz DEMİR

Üye

Doç. Dr. Yaşar KONDAKÇI

Üye

Doç. Dr. Zana ÇITAK

Üye

Yrd. Doç. Dr. Pınar KAYGAN

Üye

Yrd. Doç. Dr. Emre SELÇUK

Üye

**B. APPROVAL OF İSTANBUL PROVINCE DIRECTORATE OF
NATIONAL EDUCATION LETTER**



T.C.
İSTANBUL VALİLİĞİ
İl Millî Eğitim Müdürlüğü

Sayı : 59090411-44-E.18446641
Konu: Anket Araştırma İzni

03.11.2017

ORTA DOĞU TEKNİK ÜNİVERSİTESİ REKTÖRLÜĞÜ'NE
(Öğrenci İşleri Daire Başkanlığı)

İlgi: a) 09.10.2017 tarih ve 4758 sayılı yazınız.
b) Valilik Makamı'nın 03.11.2017 tarih ve 18403876 Sayılı Oluru.

Üniversiteniz Sosyal Bilimler Enstitüsü doktora öğrencisi Özden Sevil GÜLEN'in "Dezavantajlı Sosyo-Ekonomik Statüdeki Ergenlerin Dayanıklılıklarında Ebeveyne İlişkin, Çevresel ve Bireysel Faktörlerin Etkileşimi" konulu tezi hakkındaki ilgi (a) yazınız, ilgi (b) Valilik Onayı ile uygun görülmüştür.

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

M. Nurettin ARAS
Müdür a.
Müdür Yardımcısı

EK:1- Valilik Onayı
2- Ölçekler

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C. DEMOGRAPHIC INFORMATION FORM

Sevgili Öğrenciler,

Lise öğrencilerinin psikolojik dayanıklılıklarını anlamaya yönelik olarak yürütülen bu çalışma kapsamında sizden istenilen, verilen yönergeleri okuyarak tüm soruları yanıtlamanızdır. Toplanan bilgiler gruplar halinde değerlendirileceğinden ve vereceğiniz bilgiler gizli tutulacağından isminizi yazmanıza gerek yoktur. Aşağıdaki ölçeklerde sizlere sorulan sorulara içtenlikle cevap vermeniz, çalışmanın amacına ulaşması ve geçerli sonuçlar elde edilmesi açısından büyük önem taşımaktadır. Lütfen her maddeyi dikkatlice okuyup, size en uygun olan seçeneği işaretleyiniz. Bu çalışmaya verdiğiniz katkılardan dolayı teşekkür ederim.

Özden SEVİL GÜLEN

Ortadoğu Teknik Üniversitesi

Psikolojik Danışmanlık ve Rehberlik Bölümü,

Doktora Öğrencisi

1. Kaç yaşındasınız?:

2. Cinsiyetiniz (İşaretleyiniz): () Kız () Erkek

3. Kaçınıcı sınıfa devam ediyorsunuz? (İşaretleyiniz):

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

4. Şu anda yaşadığınız/ ikamet ettiğiniz ilçenin adını yazınız:.....

D. SAMPLE ITEMS OF THE 14-ITEM RESILIENCE SCALE

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 işaretleyiniz. 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	Katılmıyorum	Kısmen Katılmıyorum	Kararsızım	Kısmen Katılıyorum	Katılıyorum	Kesinlikle Katılıyorum
1. İşlerin bir şekilde üstesinden gelirim.	①	②	③	④	⑤	⑥	⑦
2. Hayatta başardıklarımla gurur duyarım.	①	②	③	④	⑤	⑥	⑦
3. Genellikle ileriye dönük düşünürüm.	①	②	③	④	⑤	⑥	⑦
4. Kendimle barışık biriyim.	①	②	③	④	⑤	⑥	⑦
5. Zaman içinde birçok şeyi yapabileceğimi düşünürüm.	①	②	③	④	⑤	⑥	⑦

E. SAMPLE ITEMS OF PARENTAL ATTITUDES SCALE

Aşağıda anne ve babanızın sizinle ilgili olarak sergilemiş olduğu bazı davranışlara ait ifadeler yer almaktadır. Lütfen anne ve babanızı düşünerek, bu davranışların, ailenizin size karşı olan davranışlarını ne derece yansıttığını verilen derecelendirme sistemine göre belirtiniz.

	Hiç Benzemiyor	Benzemiyor	Biraz Benziyor	Tamamen Benziyor
1. Herhangi bir sorunum olduğunda, eminim annem ve babam bana yardım ederler.	①	②	③	④
2. Annem ve babam yaptığım her şeyin en iyisini yapmam için beni zorlarlar.	①	②	③	④
3. Annem ve babam bazı konularda “sen kendin karar ver” derler.	①	②	③	④
4. Ders çalışırken anlayamadığım bir şey olduğunda, annem ve babam bana yardım ederler.	①	②	③	④
5. Annem ve babam benden bir şey yapmamı istediklerinde, niçin bunu yapmam gerektiğini de açıklarlar.	①	②	③	④

**F. SAMPLE ITEMS OF PSYCHOLOGICAL SENSE OF SCHOOL
MEMBERSHIP SCALE**

Aşağıdaki ifadeler, okulunuz ve öğretmenleriniz hakkındaki duygu ve düşüncelerinizle ilgilidir. Lütfen ifadeleri dikkatle okuduktan sonra, (1) Hiç doğru değil, (2) Doğru değil, (3) Kararsızım, (4) Doğru ve (5) Tamamen doğru seçeneklerinden size en uygun olanı işaretleyiniz.

		Hiç doğru değil	Doğru değil	Kararsızım	Doğru	Tamamen doğru
1	Kendimi okulumun gerçek bir parçası olarak hissediyorum.	①	②	③	④	⑤
2	Buradaki öğretmenler bir şeyi iyi yaptığımda bunu fark etmektedirler.	①	②	③	④	⑤
3	Okulumdaki öğrenciler, benim fikirlerimi önemsemektedirler.	①	②	③	④	⑤
4	Okulumdaki öğretmenlerin çoğu benimle ilgilenmektedirler.	①	②	③	④	⑤
5	Bir problemim olduğunda bu okulda konuşabileceğim en az bir öğretmen ya da başka bir yetişkin vardır.	①	②	③	④	⑤

G. SAMPLE ITEMS OF SOCIAL SUPPORT APPRAISAL SCALE FOR CHILDREN

Aşağıda çocuk ve gençlerin arkadaşları, aileleri ve öğretmenleriyle ilişkileri hakkında sorular bulunmaktadır. Aşağıdaki soruları dikkatlice okuyup, her bir soru için “her zaman”, “çoğu zaman”, “bazen”, “nadiren”, “hiçbir zaman” seçeneklerinden hangisi sizin için doğruysa, o seçeneği işaretleyin. Lütfen hiçbir soruyu boş bırakmayınız.

1. Bazı çocuklar arkadaşları tarafından dışlandıklarını hissederler, ama bazı çocuklar böyle hissetmezler. Sen, arkadaşların tarafından dışlandığını hisseder misin?

Her zaman	Çoğu zaman	Bazen	Nadiren	Hiçbir Zaman
()	()	()	()	()

2. Bazı çocuklar arkadaşları tarafından çok sevilir, ama bazı çocuklar o kadar sevilmezler. Sen, arkadaşların tarafından sevilir misin?

Her zaman	Çoğu zaman	Bazen	Nadiren	Hiçbir Zaman
()	()	()	()	()

3. Bazı çocukların arkadaşları onlara sataşır ya da takılır, ama bazı çocukların arkadaşları böyle yapmaz. Senin arkadaşların sana sataşır ya da takılırlar mı?

Her zaman	Çoğu zaman	Bazen	Nadiren	Hiçbir Zaman
()	()	()	()	()

4. Bazı çocukların arkadaşları, onlarla alay eder, ama bazı çocukların arkadaşları böyle yapmaz. Senin arkadaşların, seninle alay ederler mi?

Her zaman	Çoğu zaman	Bazen	Nadiren	Hiçbir Zaman
()	()	()	()	()

5. Bazı çocukların arkadaşları, onların düşüncelerini dinlemekten hoşlanırlar; ama bazı çocukların arkadaşları bundan hoşlanmaz. Arkadaşların, senin düşüncelerini dinlemekten hoşlanırlar mı?

Her zaman	Çoğu zaman	Bazen	Nadiren	Hiçbir Zaman
()	()	()	()	()

H. SAMPLE ITEMS OF ROSENBERG SELF-ESTEEM SCALE

Aşağıda, genel olarak kendinizle ilgili duygu ve düşüncelerinize yönelik ifadeler verilmiştir. Lütfen her bir maddeyi dikkatlice okuyarak, sizin için ifadelerin doğruluk derecesini verilen derecelendirme ölçeğinde “X” işareti koyarak yanıtlayınız.

	Çok doğru	Doğru	Yanlış	Çok yanlış
1. Kendimi en az diğer insanlar kadar değerli buluyorum.	()	()	()	()
2. Bazı olumlu özelliklerimin olduğunu düşünüyorum.	()	()	()	()
3. Genelde kendimi başarısız bir kişi olarak görme eğilimindeyim.	()	()	()	()
4. Ben de diğer insanların birçoğunun yapabildiği kadar bir şeyler yapabilirim.	()	()	()	()
5. Kendimde gurur duyacak fazla bir şey bulamıyorum.	()	()	()	()

I. PARENT CONSENT FORM

Sevgili Anne/Baba,

Bu çalışma, Prof. Dr. Ayhan Demir danışmanlığında, Orta Doğu Teknik Üniversitesi Psikolojik Danışmanlık ve Rehberlik Doktora Programı öğrencisi Özden Sevil Gülen tarafından doktora tezi kapsamında yürütülmektedir.

Çalışmanın Amacı Nedir?

Bu çalışmanın amacı, dezavantajlı sosyoekonomik statüdeki ergenlerde, bireysel faktörlerin (öz-saygı ve öğrenilmiş güçlülük), ebeveyne ilişkin faktörler (algılanan ebeveyn tutumları) ve çevresel faktörler (algılanan akran desteği, okula aidiyet) ile dayanıklılık arasındaki ilişkiye aracılık etme rolünü araştırmaktır.

Çocuğunuzun katılımcı olarak ne yapmasını istiyoruz?

Çalışmanın amacı doğrultusunda, çocuğunuzdan, Anne-Baba Tutum Ölçeği, Okula Aidiyet Duygusu Ölçeği, Çocuklar için Sosyal Destek Değerlendirme Ölçeği, Öz-Saygı Ölçeği, Öz-Kontrol Ölçeği ve 14-Madde Kendini Toparlama Gücü Ölçeği'ni cevaplamasını isteyeceğiz ve cevapları 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?

Çocuğunuzun dolduracağı anketlerdeki cevapları kesinlikle gizli tutulacak ve bu cevaplar sadece bilimsel araştırma amacıyla kullanılacaktır. Çocuğunuzun ismi ve kimlik bilgileri, hiçbir şekilde kimseyle paylaşılmayacaktır.

Çocuğunuz çalışmayı yarıda kesmek isterseniz ne yapılacaktır?

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.

Araştırmayla ilgili daha fazla bilgi almak isterseniz:

Bu çalışma hakkında daha fazla bilgi almak isterseniz Orta Doğu Teknik Üniversitesi Psikolojik Danışmanlık ve Rehberlik Doktora Programı öğrencisi Özden Sevil Gülen'e e-posta (ozdensevil@gmail.com) ile ulaşabilirsiniz. Desteğiniz için teşekkür ederim.

Özden Sevil Gülen

Çocuğumun bu çalışmaya katılmasına izin veriyorum. Çalışmayı istediğim zaman yarıda kesip bırakabileceğimi biliyorum ve verdiği bilgilerin bilimsel amaçlı olarak kullanılmasını kabul ediyorum.

Evet onaylıyorum_____ ***Hayır, onaylamıyorum***_____

Velinin Adı-Soyadı: _____

Tarih: ---/---/----

İmza: _____

(Formu doldurup imzaladıktan sonra araştırmacıya ulaştırınız)

J. VOLUNTARY PARTICIPATION FORM

Değerli Katılımcı,

Bu çalışma, Prof. Dr. Ayhan Demir danışmanlığında, Orta Doğu Teknik Üniversitesi Psikolojik Danışmanlık ve Rehberlik Doktora Programı öğrencisi Özden Sevil Gülen tarafından doktora tezi kapsamında yürütülmektedir.

Çalışmanın Amacı Nedir?

Bu çalışmanın amacı, dezavantajlı sosyo-ekonomik statüdeki ergenlerde, bireysel faktörlerin (öz-saygı ve öğrenilmiş güçlülük), ebeveyne ilişkin faktörler (algılanan ebeveyn tutumları) ve çevresel faktörler (algılanan akran desteği, okula aidiyet) ile dayanıklılık arasındaki ilişkiye aracılık etme rolünü araştırmaktır.

Sizin Nasıl Yardımcı Olmanızı İsteyeceğiz?

Bu çalışma için sizden anketteki psikolojik testleri doldurmanız beklenmektedir. Tüm soruları yanıtlamanız yaklaşık 30 dakika sürmektedir. Soruların doğru ya da yanlış bir yanıtı yoktur. Sizlere sorulan sorulara içtenlikle cevap vermeniz, çalışmanın amacına ulaşması ve geçerli sonuçlar elde edilmesi bakımından büyük önem taşımaktadır. Lütfen her maddeyi dikkatlice okuyup, size en uygun olan seçeneği işaretleyiniz.

Sizden Topladığımız Bilgileri Nasıl Kullanacağız?

Çalışmaya katılımınız tamamen gönüllülük esasına dayanmaktadır. Toplanan bilgiler gruplar halinde değerlendirileceğinden ve vereceğiniz bilgiler gizli tutulacağından isminizi yazmanıza gerek yoktur. Vereceğiniz bilgiler yalnızca bilimsel araştırma amacıyla kullanılacaktır.

Katılımınızla ilgili bilmeniz gerekenler:

Ankette, genel olarak kişisel bir rahatsızlık verecek özellikte sorular bulunmamaktadır. . Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden dolayı kendinizi rahatsız hissederseniz cevaplamayı istediğiniz zaman bırakabilirsiniz. Böyle bir durumda çalışmayı uygulayan kişiye, çalışmadan çıkmak istediğinizi söylemek yeterli olacaktır. Çalışmayı yarıda bırakmak size herhangi bir sorumluluk getirmeyecektir.

Araştırmayla ilgili daha fazla bilgi almak isterseniz:

Bu çalışma hakkında daha fazla bilgi almak isterseniz Orta Doğu Teknik Üniversitesi Psikolojik Danışmanlık ve Rehberlik Doktora Programı öğrencisi Özden Sevil Gülen'e e-posta (ozdensevil@gmail.com) ile ulaşabilirsiniz. Katılımınız ve katkılarınız için teşekkür ederim.

Özden Sevil Gülen

Yukarıdaki bilgileri okudum ve bu çalışmaya tamamen gönüllü olarak katılıyorum. Verdiğim bilgilerin bilimsel amaçlı kullanılmasını kabul ediyorum (Formu doldurup imzaladıktan sonra uygulayıcıya geri veriniz).

Tarih

İmza

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K. CURRICULUM VITAE

PERSONAL INFORMATION

Surname, Name: Sevil Gülen, Özden
Nationality: Turkish (TC)
Date and Place of Birth: 27 September 1986, Ödemiş / İZMİR
Marital Status: Married
email: ozdensevil@gmail.com

EDUCATION

Degree	Institution	Year of Graduation
MS	Doğuş University Clinical Psychology	2012
BS	Boğaziçi University Educational Sciences	2009
High School	Ödemiş Yabancı Dil Ağırlıklı Lisesi	2004

WORK EXPERIENCE

Year	Place	Enrollment
2018-Present	Child and Youth Psychological Counseling Center	Clinical Psychologist
2016-2018	Pios Psychological Counseling Center	Clinical Psychologist
2012-2017	İnda Psychological Counseling Center	Clinical Psychologist
2011-2012	Intern	Doğuş University Psychological Counseling and Education Center
2010-2011	Hürriyet Dailynews Domestic Violence Hotline	Psychological Counselor
2009-2010	İzmir Yüksek Teknoloji Enstitüsü Primary School	Psychological Counselor

FOREIGN LANGUAGES

English (Advanced)

PUBLICATIONS

1. Aydın, Z., Hazlıpınar, O. F., & Sevil, Ö., Yorohan, R., (2009). Ergenlerin sigara, alkol ve madde kullanımı ile aile ve arkadaş ilişkilerinin genel sağlık durumlarını algılayışları ile ilişkisi. XIV. Psikoloji Öğrencileri Kongresi, 21-24 Temmuz, İstanbul Üniversitesi.
2. Sevil, Ö., & Aydın, Z. (2009). Depresyonun 14-16 Yaş aralığındaki ergenlerin cinsellik, sigara, alkol ve madde kullanımı ve aile ilişkileri konusundaki tutumları üzerine etkisi. XIV. Psikoloji Öğrencileri Kongresi, 21-24 Temmuz, İstanbul Üniversitesi.
3. Sevil, Ö. (2012). A comprehensive literature review of obsessive compulsive disorder and a treatment plan of a hypothetical case (Unpublished master project). Doğu University İstanbul.
4. Demirli-Yıldız, A., & Sevil-Gülen, Ö., & Erdur-Baker, Ö. (2016). Kriz, kriz tepkileri ve kriz danışmanlığı. Ö. Erdur- Baker ve T. Doğan (Ed.), Kriz Danışmanlığı içinde (s. 3-27). Ankara: Pegem Akademi.

L. TURKISH SUMMARY / TRKE ZET

DK SOSYO-EKONOMİK SEMTLERDEKİ ERGENLERİN YILMAZLIKLARINDA AİLE KATILIMI, OKUL AİDİYETİ, AKRAN SOSYAL DESTEĞİ, VE Z-SAYGININ ETKİLEİMİ

GİRİ

Ergenlik, bireylerin birok deęiiklikler, zorluklar ve fiziksel geliimin ve beyin geliiminin hızlanması, yeni rollerle tanışma gibi dnmler yaadığı geliimsel bir gei dnemdir (Erikson, 1959; Steinberg, Vandell ve Bornstein, 2011). Bu dnemde ergenler akranlarıyla karılıklı iliki kurmak, ebeveynlerinden duygusal olarak bağımsızlık kazanmak, bir kimlik oluturmak, yetikin rollerine hazırlanmak ya da kariyer hedefleri zerine dnmek gibi eitli geliimsel grevlerle karılaırlar ve bu grevleri ele alma ekli hayatlarında uzun sren bir etki bırakır (Lerner ve Steinberg, 2004).

Bu dnemdeki stres ykl birok deęiikliklere raęmen ergenlerin oęu bu dnemi nemli bir sorun yaamadan atlatırlar (Eccles ve ark., 1993). Ancak, kronik bir hastalıęa sahip olmak, ruhsal bozukluęu olan bir ebeveyne sahip olmak, tehlikeli bir blgede ya da olumsuz yaam koullarında yaamak gibi risk faktrlerinin etkisi altındaki ergenlerin olumsuz fiziksel ya da ruhsal saęlık problemleri yaama olasılıęı yksektir (Zimmerman ve Brenner, 2010). Bu geliim dneminin risk faktrlerine raęmen baarılı bir ekilde geen ergenlerin zelliklerini ortaya ıkarmak psikolojik problemlerin nlenmesi ve saęlıklı geliimin desteklenmesi iin kritiktir (Compas, 2004). Bu noktada, zorluklara uyum saęlayabilen ya da stesinden gelebilen bireylerin sahip olduęu bireysel, aileye ilikin ya da evresel zellikleri aıęa ıkarmaya odaklanan yılmazlık kavramının, ergenlik dnemindeki adaptasyonu kolaylatırıcı

faktörleri anlamaya yardımcı olacağı düşünülmektedir (Luthar, 2006; Prince-Embury ve Saklofske, 2014).

Yılmazlık kavramına dair alanyazındaki ilk çalışmalarda çoğunlukla dayanıklı çocukların bireysel özellikleri ele alınmıştır (Masten, 2014). Ancak sonraki pek çok çalışmada, yılmazlığın bireysel özelliklerin ve çevresel faktörlerin etkileşimini içeren dinamik bir süreç olduğunun altı çizilmiştir (Luthar, Cicchetti ve Becker, 2000; Masten ve Wright, 2010). Yılmazlık araştırmaları da koruyucu faktörleri tespit etmekten bireysel, aileye ilişkin, biyolojik, sosyal ya da kültürel sistemlerin karmaşık etkileşimini incelemeye yönelmiştir. Bu araştırmalarda, çok aşamalı etkileşimleri dikkate alan ekolojik sistem bakış açısı son yıllarda ön plana çıkmaktadır (Ungar, 2012; Wright, Masten ve Narayan, 2013).

Farklı gruplardaki yılmazlık süreçlerini ve mekanizmalarını açıklamaya yönelik birçok teori ve model, yılmazlığı araştırırken riskli koşulların ve koruyucu faktörlerin arasındaki etkileşimin de göz önünde bulundurulmasını önermiştir (Fletcher ve Sarkar, 2013). Bu riskli koşullardan biri de ergenlerin sağlıklı gelişimini olumsuz şekilde etkileyebilen düşük sosyo-ekonomik düzeydir (Garmezy, 1993; Masten ve Reed, 2002; Werner, 1989). Birçok araştırma dezavantajlı sosyo-ekonomik düzeye sahip ergenlerin, gelişmiş sosyo-ekonomik düzeye sahip ergenlere kıyasla daha fazla ruh sağlığı problemleri (Chen ve Paterson, 2006), daha fazla duygusal ve davranış problemleri (Schneiders ve ark., 2003) yaşadığını, daha fazla riskli davranışları (Newacheck, Hung, Park, Brindis ve Irwin, 2003) ve şiddet içeren davranışları (Dornbusch, Erickson, Laird ve Wrong, 2011; Edari ve McManus, 1998) sergilediğini desteklemiştir.

Yılmazlık araştırmaları, dezavantajlı sosyo-ekonomik düzeye sahip ergenlerdeki koruyucu faktörlerin ve risk faktörlerinin; yılmazlığa etki eden süreç ve mekanizmaların; koruyucu faktörlerle riskli koşullar arasındaki etkileşimin ortaya konmasına katkıda bulunmuştur. Yapılan çalışmaların bulguları düşük sosyo-

ekonomik düzeye sahip ergenlerde zeka (Luthar, 1991; Masten ve ark., 1999; Vanderbilt-Adriançe ve Shaw, 2008), problem çözme becerleri ve sosyal beceriler (Luthar, 1991), kendini düzenleme becerileri (Buckner, Mezzacappa ve Beardslee, 2003; Conger ve Conger, 2002), öz-saygı (Buckner ve ark., 2003), öz-yeterlilik (Smokowski ve ark., 1999; Wyman ve ark., 1999), iyimserlik, umut (Smokowski ve ark., 1999), empati (Wyman ve ark., 1999) gibi özelliklerin *içsel* koruyucu faktörler olduğunu göstermiştir. *Ebeveyne ilişkin* koruyucu faktörler ise en az bir ebeveyn ya da aile üyesi ile destekleyici bir ilişkiye sahip olmak (Conger ve Conger, 2002; Masten ve ark., 1999; Seidman ve Peterson, 2003; Smokowski ve ark., 1999; Vanderbilt-Adriançe ve Shaw, 2008; Werner ve Smith, 1982, 1992), aile bütünlüğünün olması (Werner ve Smith, 1982, 1992), ev ortamında tutarlı kuralların, yapının ve beklentilerin olması (Buckner ve ark., 2003; Werner ve Smith, 1982, 1992), ebeveyn ilgisi (Buckner ve ark., 2003; Smokowski ve ark., 1999) olarak bulunmuştur. Okulda öğretmenlerle bağ kurmanın (Smokowski ve ark., 1999; Werner ve Smith, 1982, 1992), akran kabul ve desteğinin (Seidman ve Peterson, 2003; Smokowski ve ark., 1999) ve olumlu okul deneyimlerinin ise (Werner & Smith, 1982, 1992) *çevreye ilişkin* koruyucu faktörler olduğu tespit edilmiştir. Bu bulgulara dayanarak, bireysel, aileye ilişkin, çevreye ilişkin pek çok faktörün olumsuz yaşam koşulları altındaki ergenlerin olumlu uyumunu etkilediği sonucu çıkarılabilir.

Zolkoski ve Bullock'un (2012) belirttiği gibi, koruyucu faktörleri listelemek ile bu koruyucu faktörlerin nasıl bir etkileşime geçerek yılmazlığı etkilediğini ortaya çıkarmak farklı olgulardır. Ekolojik sistem kuramından esinlenen Lerner (2006) de yılmazlığın ne sadece bireysel özellik ne de sadece bireyin çevresindeki kaynaklar olduğunu; bunun yerine, birey ve çevresinin etkileşimi aracılığı ile gelişen olumlu bir gelişimsel nitelik olduğunu belirtmiştir. Ergenlik dönemindeki hızlı değişimler de yılmazlığa dair bireysel koruyucu faktörlerle çevresel kaynakların etkileşimini göz önünde bulundurmayı gerektirir (O'Neill, Kuhlmeier ve Craig, 2018; Steinberg ve ark., 2011). Başka bir deyişle, bireysel, aileye ilişkin ve çevresel koruyucu faktörlerin etkisini ve etkileşimlerini incelemek düşük sosyo-ekonomik semtlerdeki ergenlerin

yılmazlığını anlamaya önemli bir katkı sağlayabilir. Buna paralel olarak, risk altındaki ergenlere yönelik bireysel, aileye ilişkin ve çevresel koruyucu faktörlerin etkileşimini inceleyen bir model oluşturma bu çalışmanın odak noktası olmuştur.

Bu çalışmanın kuramsal çerçevesini oluşturan ekolojik sistemler kuramına (Bronfenbrenner, 1979) göre insan davranışı ve gelişimi bireysel, kişilerarası ve bağlamsal faktörlerin etkileriyle şekillenir. Ekolojik sistemler kuramı dört sistemin- mikrosistem, mezosistem, ekzosistem ve makrosistem- etkisini ele alsa da, bireye yakın olan sistemin (örn., mikrosistemdeki bireyin kendi özellikleri, aile, arkadaşlar) etkisinin daha güçlü olduğu belirtilmiştir (Bronfenbrenner, 1979). Bu kuramın önermesine dayanarak, aile sisteminin olumsuz yaşam koşulları altındaki ergenler için en önemli faktörlerden birisi olduğu söylenebilir. Dezavantajlı sosyo-ekonomik koşullarda yaşayan ergenlerle ilgili yılmazlık çalışmalarının bulgularında ebeveyn desteği, ebeveyn sıcaklığı, ebeveynlerle olumlu ilişkiye sahip olma ve ebeveynin ilgisi (Cauce, Stewart, Rodriguez, Cochran ve Ginzler, 2013; Conger ve Conger, 2002; Masten ve ark., 1999; Seidman ve Peterson, 2003) koruyucu faktörler olarak öne çıkmaktadır. Algılanan ebeveyn tutumlarının da ergenlerin stresli yaşam deneyimleriyle baş etmeleri için önemli bir yordayıcı olduğu bulunmuştur (Dusek ve Danko, 1994; Wagner, Cohen ve Brook, 1996). Yaklaşık yirmi yıl süren boylamsal bir araştırmada, Conger ve Conger (2002) destekleyici, bakım veren ebeveyn yaklaşımının ve düşük çatışmalı ebeveyn yaklaşımının düşük sosyo-ekonomik düzeye sahip ergenlerin yılmazlığında doğrudan ya da telafi edici anlamlı bir etkisi olduğunu rapor etmişlerdir.

Ergenler için mikrosistemlerindeki diğer önemli bir faktör de okul ortamı ve akranlarla ilişkilerdir. Çocuk ve ergenlerin okul ortamında ne kadar çok zaman geçirdikleri düşünülürse, okul bağlamındaki birçok koruyucu faktör ve mekanizmalar yılmazlığı geliştirmek için kullanılabilir. Alanyazında ebeveynlerin yılmazlık üzerindeki rolünün önemi oldukça vurgulandığı halde, okula ve okuldaki ilişkilere dair faktörleri ele alan araştırma sınırlıdır (Prince-Embury ve Saklofske, 2014). Henderson (2012), ekolojik

sistem bakış açısıyla, okulların çocuk ve ergenlerin yılmazlığını güçlendirebilecek çok sayıda çevresel koruyucu faktörlerle dolu olduğunu belirtmiştir. Bu faktörlerden birisi de okula aidiyet duygusunun karşılanmasıdır (Berk ve Meyer, 2015; Sanders ve Munford, 2016). Aidiyet hipotezi (Baumeister ve Leary, 1995) ve öz-belirleme kuramına (Osterman, 2000) göre, aidiyet duygusu ve ilişkili olma bireylerin psikolojik iyi oluşlarına katkıda bulunan temel psikolojik ihtiyaçlardır. Yılmazlık kuramı da ilişki ihtiyacını tatmin eden okul atmosferinin riskli koşullar altındaki gençler için değerli koruyucu etkiler sağlayabileceğini desteklemektedir (Benard, 2004). Örneğin, Nowicki (2008) öz-yeterlilik, okula aidiyet duygusu ve aileden, arkadaşlardan ve diğer önemli kişilerden algılanan sosyal desteğin 9. ve 10. sınıf öğrencilerinin yılmazlığını yordayıcı rolünü araştırmıştır. Bulgular, öz-yeterlilik, okula aidiyet duygusu ve algılanan sosyal desteğin ergenlerin yılmazlıklarının üçte birini anlamlı bir şekilde açıkladığını göstermiştir.

Akran ilişkileri de ergenlerin mikrosisteminde yer alan ve yılmazlık üzerinde önemli rol oynayan diğer önemli faktördür. Ergenlikle birlikte, sadece ebeveynler değil akranlar da önemli sosyal ve duygusal destek kaynakları olurlar (Steinberg ve ark., 2011) ve destekleyici akran ilişkileri ergenlerin yılmazlığında etkili olan sosyal düzey faktörlerden birisi haline gelir (Olsson, Bond, Burns, Vella-Brodrick ve Sawyer, 2003). Özellikle, bazı çalışmalarda sosyo-ekonomik bakımdan dezavantajlı şartlarda yaşayan ergenlerde akranlardan algılanan sosyal desteğin tampon etkisi görüldüğü bulunmuştur. Örneğin, Harmelen ve ark. (2017), 14 ve 24 yaşları arasındaki ergenlerde aileden ve akranlardan algılanan desteğin sonraki yılmazlığa etkisini incelemiştir. Araştırma sonuçlarına göre, aileden ve akranlardan algılanan destek ergenlerin şimdiki yılmazlığı ile anlamlı bir şekilde ilişkilidir. Ancak, akranlardan algılanan destek ile ergenlerin yılmazlığı arasındaki ilişki bir yıl sonra da anlamlı iken, aileden algılanan destek ile ergenlerin yılmazlığı arasındaki ilişki bir yıl sonra anlamlı bulunmamıştır.

Riskli koşullar altındaki ergenlerin yılmazlığını etkileyen çevresel koruyucu faktörlerin doğrudan etkisi kadar, bireysel koruyucu faktörler aracılığı ile etkisini ele

almak, benzer çevresel faktörlerin niçin farklı düzeyde yılmazlığa katkıda bulunduğunu anlamak, ve bireysel ve çevresel faktörlerin karmaşık etkileşimini ortaya çıkarmak için gereklidir. Yılmazlık araştırmaları ergenlerde yılmazlığı geliştiren birçok bireysel özellik ortaya koymuştur. Kumpfer (1999) yılmazlığı yordayan bireysel niteliklerin belirlenmesinin ve desteklenmesinin riskli koşullardaki gençler için kritik olduğunu altını çizmiştir. Bu çalışmada ele alınan bireysel faktör olan öz-saygı, ergenlik dönemindeki riskli durumların üstesinden gelmede etkili olan, yılmazlığı destekleyen en önemli içsel koruyucu faktörlerden birisidir (Haase, 2004). Ayrıca, yüksek öz-saygı stresli yaşam koşulları ile karşı karşıya kalan çocuk ve ergenlerin olumlu adaptasyon olasılığını arttırmaktadır (Dumont ve Provost, 1999; Ziegler-Hill, 2011) ve yılmazlık için koruyucu faktör işlevi görmektedir (Baumeister, Campell, Krueger ve Vohs, 2003).

Öz-saygının gelişmesi ve güçlenmesi için, ebeveynlerle, akranlarla ya da arkadaşlarla kurulan destekleyici ilişkiler oldukça kritiktir. Başka bir deyişle, öz-saygı destekleyici sosyal ilişki ağları içerisinde gelişir ve bireysel bir nitelik olarak içselleştirilir ve sonucunda kişinin ruhsal sağlığını etkiler (Huurre, 2000). Öz-saygının risk altındaki gençlerde yılmazlığı, baş etme mekanizmalarını ya da iyi oluş halini etkileyen bireysel koruyucu faktör olduğunu belirten kuram ve araştırma bulgularına (Gizir, 2007; Kararımak, 2006; Zimmerman ve Brenner, 2010; Zolkoski ve Bullock, 2012), ve öz-saygının gelişimi için kişinin çevresindeki önemli kişilerle (örn., ergenlerin mikrosistemlerindeki ebeveyn ve akranlar) kabul edici, destekleyici ilişkiler içinde olmasının önemine (Cooley, 1902; Harter, 2006) dayanarak, kişisel düzey faktör olan öz-saygı bu çalışmada aracı değişken olarak ele alınmıştır.

Özetle, yılmazlığın bireyi çevreleyen farklı sistemlerden etkilenen çok faktörlü bir kavram olduğunu vurgulayan yılmazlık kuram ve araştırma sonuçlarına dayanarak, bireysel koruyucu faktörlerin ebeveyne ilişkin ve çevresel koruyucu faktörler ile yılmazlık arasındaki ilişkide aracı olarak incelenmesinin riskli yaşam koşullarındaki ergenlerin yılmazlığını etkileyen olası yolları anlamaya katkıda bulunabileceği

söylenbilir. Ergenleri etkileyen koruyucu faktörlere dair mevcut alanyazınını göz önünde bulundurarak ve ekolojik sistem kuramını ve yılmazlık kuramını birleştirerek, bu çalışmada, ebeveynlerden algılanan kabul/ilgi, akranlardan algılanan sosyal destek ve okula aidiyet hissi ergenlerin mikrosistemindeki çevresel düzey koruyucu faktörler olarak kabul edilmiştir. Olası mekanizmaları ortaya çıkarmak için, aileye ilişkin ve çevresel faktörler tarafından şekillenen öz-saygının aracı rolü de bireysel düzey koruyucu faktör olarak ele alınmıştır.

Araştırmanın Amacı

Bu çalışmanın amacı, düşük sosyo-ekonomik düzeye sahip semtlerde yaşayan ergenlerde, öz-saygının, ebeveynlerden algılanan kabul/ilgi ve çevresel faktörler (akranlardan algılanan sosyal destek ve okula aidiyet hissi) ile yılmazlık arasındaki ilişkiye aracılık etme rolünü araştırmaktır.

Bu çalışmada şu araştırma sorusuna yanıt aranmıştır: “Bireysel (öz-saygı), ebeveyne ilişkin (ebeveynlerden algılanan kabul/ilgi) ve çevresel faktörlerden (akranlardan algılanan sosyal destek ve okula aidiyet hissi) oluşturulmuş yapısal model, düşük sosyo-ekonomik semtlerde yaşayan ergenlerin yılmazlığını ne ölçüde açıklamaktadır?”.

Önerilen Yapısal Model

Yılmazlığa yönelik önerilen yapısal modelde, ebeveyne ilişkin, çevresel ve bireysel faktörlerin arasındaki ilişki test edilmiş ve bu faktörlerin düşük sosyo-ekonomik semtlerde yaşayan ergenlerdeki yılmazlığı ne derece yordadığı araştırılmıştır. Önerilen yapısal modelde, ebeveynlerden algılanan kabul/ilgi, akranlardan algılanan sosyal destek, ve okula aidiyet hissi dışsal değişkenler; öz-saygı ve yılmazlık içsel değişkenlerdir. Buna ek olarak, öz-saygının yılmazlık üzerindeki doğrudan etkisi kadar öz-saygının ebeveynlerden algılanan kabul/ilgi, akranlardan algılanan sosyal

destek, okula aidiyet hissi ve yılmazlık arasındaki ilişkide dolaylı aracı etkisi de test edilmiştir.

Araştırmanın Önemi

Ergenlik dönemindeki değişimler ve zorluklar büyümek için yeni fırsatlar getirdiği kadar olası birçok problemi de beraberinde getirir. Düşük sosyo-ekonomik düzeye sahip olmak gibi risk faktörleri altındaki ergenler, bu dönemde, ek olarak koruyucu faktörlere ihtiyaç duyabilir. Bu çalışmanın temelini oluşturan yılmazlık kuramı riskli koşullar altındaki ergenlerin sağlıklı gelişimine katkıda bulunabilecek yöntemleri ve mekanizmaları ele alır. Yılmazlık alanındaki ilk araştırmalar bireylerdeki kırılganlığa ve olumsuz gelişimsel sonuçları olan risk faktörlerine odaklanmıştı. Ancak, pozitif psikoloji hareketiyle de birlikte, olumlu adaptasyonu sağlayan faktörlerin araştırılması ön plana çıktı ve yılmazlık araştırmaları zorlayıcı yaşam koşullarını deneyimleyen bireyler için koruyucu işlevi olabilecek faktörleri ve mekanizmaları incelemeye yöneldi (Rutter, 2012).

Son yıllarda, yılmazlık konusunu ele alan araştırmacılar da koruyucu faktörleri ortaya çıkarmaktan koruyucu süreçleri ve mekanizmaları ele almaya ve bireysel, aileye ilişkin, ve çevresel faktörlerin yılmazlığa birlikte *nasıl* katkıda bulunabileceğini araştırmaya yöneldiler (Luthar ve ark., 2000). Araştırmacılar, yılmazlığı böyle bir süreç ve mekanizma odaklı bakış açısıyla ele almanın, yılmazlık kuramının geliştirilmesi ve uygun önleme ve müdahale programlarının tasarlanması için gerekli olduğunu belirtmişlerdir (Fergus ve Zimmerman, 2005; Luthar ve ark., 2000; Luthar, Crossman ve Small, 2015; Masten, 2014). Bu noktada, ekolojik sistem bakış açısı farklı faktörlerin yılmazlığa göreli katkısını incelemek için önerilmiştir (Ungar, 2012). Çünkü bu bakış açısı yılmazlığı ele alırken kritik olan farklı sistemlerin ve bağlamların etkileşimini göz önünde bulundurur. Fakat Türkiye’deki yılmazlık araştırmaları büyük oranda bireysel risk ve koruyucu faktörleri tespit etmeye odaklanmıştır (Arat, 2014). Bu çalışmanın amacı, dışsal ve içsel faktörler arasındaki olası yolları araştırmak ve

böylece risk altındaki ergenlerin yılmazlığına dair mekanizmaları kapsamlı bir şekilde anlamaktır.

Bu çalışmada, daha önceki araştırmalarda tespit edilmiş ebeveyne ilişkin, bireysel, çevresel koruyucu faktörlerle yılmazlık arasında ilişkinin ötesine geçmek ve önerilen yapısal modelin test edilmesiyle bu ilişkinin altındaki mekanizmaları araştırmak hedeflenmiştir. Başka bir deyişle, bu araştırma hem ebeveyne ilişkin hem çevresel faktörlerin eşzamanlı etkisini bireysel faktörlerin aracı etkisiyle değerlendirerek psikolojik danışma alanına katkıda bulunabilir. Böyle kapsamlı bir bakış açısı ergenlik dönemindeki yılmazlığa dair karmaşık mekanizmaları anlamaya yardımcı olabilir. Birinci kuşak yılmazlık araştırmaları koruyucu ve risk faktörlerin tespit edilmesine odaklanmışken, ikinci kuşak yılmazlık araştırmaları dışsal ve içsel koruyucu faktörlerin karmaşık etkileşimiyle bireylerin kendini toparlama gücünü etkileyen süreçleri ve mekanizmaları ortaya çıkarmaya odaklanmıştır. Bu çalışmanın ülkemizde kısıtlı olan (Arat, 2014) ikinci kuşak yılmazlık araştırmalarından biri olması beklenmektedir.

Prince-Embury ve Saklofske'nin (2014) belirttiği gibi, okulların ve aile dışındaki sosyal ilişkilerin yılmazlık üzerindeki etkisine dair daha fazla araştırmaya ihtiyaç vardır. Bu nedenle, ebeveyne ilişkin faktörler kadar çevresel faktörlerin de bu araştırmaya dahil edilmesi risk altındaki ergenlerin yılmazlığını daha kapsamlı değerlendirmeye katkıda bulunabilir. Buna ek olarak, bireysel faktörün aracı değişken olarak ele alınması, hangi bireysel özelliklerin ergenlerin mikrosistemlerindeki faktörlerin etkisine aracılık ettiğini anlamaya yardımcı olabilir ve böylece bu ergen gruplarına yönelik düzenlenen önleme ve müdahale programlarının tasarlanmasına katkı sağlayabilir. Son olarak, yılmazlık kavramı çoğunlukla Batılı ülkelerde araştırılmıştır, ama ülkemizde neredeyse son on beş yılda araştırmacıların dikkatini çekmiştir ve bu alandaki çalışmaların genişletilmesine ihtiyaç devam etmektedir (Arat, 2014; Gizir, 2007; Işık, 2016; Kararımak, 2006). Bu çalışmanın sonuçlarının

ülkemizdeki yılmazlık arařtırmalarının artmasına katkıda bulunacađı ve özellikle, risk altındaki ergenlerin yılmazlıđını kapsamlı bir řekilde ortaya ıkaracađı varsayılmıřtır.

YÖNTEM

Örneklem

Bu arařtırmaya, 2017-2018 eđitim öđretim yılı birinci döneminde İstanbul'un Sultangazi ve Ümraniye ilçelerinde bulunan 7 Anadolu Lisesi'nde eđitimlerine devam eden, 13-19 yař aralıđındaki 1312 (673 kız, 639 erkek) öđrenci katılmıřtır. Öđrencilerin yař ortalaması 15.67'dir ($SS = 1.18$). Katılımcıların 373'ü 9. sınıf (%28.4), 313'ü 10. sınıf (%23.9), 324'ü (%24.7) 11. sınıf, 302'si (%23'ü) 12. sınıf öđrencisidir.

Veri Toplama Araları

Arařtırmada veri toplama araları olarak Kiřisel Bilgi Formu, 14-Madde Kendini Toparlama Gücü Öleđi, Anne Baba Tutum Öleđi, Okula Aidiyet Duygusu Öleđi, ocuk ve Ergenler İin Sosyal Destek Deđerlendirme Öleđi ve Rosenberg Öz-saygı Öleđi kullanılmıřtır.

Kiřisel Bilgi Formu arařtırmacı tarafından oluřturulmuřtur ve formda katılımcıların sosyo-demografik nitelikleri hakkında bilgi edinmek amacıyla sınıf düzeyleri, cinsiyet ve ikamet ettikleri ilçelere dair sorular yer almıřtır.

14-Madde Kendini Toparlama Gücü Öleđi (Wagnild, 2010), 25 maddelik Kendini Toparlama Gücü Öleđi'ne (Wagnild & Young, 1993) alternatif olarak, ergenlerde yılmazlıđı ölçmek amacıyla geliřtirilmiřtir. Ölekteki maddeler 1'den (kesinlikle katılmıyorum) 7'ye (kesinlikle katılıyorum) dođru derecelendirilir ve yedili likert tipi ölek üzerinden puanlanır. Yüksek puan, kiřinin yılmazlıđını yüksek olduđunu

gösterir. Ölçeğin faktör yapısını incelemek için, 690 yetişkinle temel bileşen analizi çalışması yapılmış ve sonuçlar ölçeğin tek faktörlü yapısını desteklemiştir. Cronbach's alpha iç tutarlık katsayısı .93 olarak bulunmuştur (Wagnild, 2010).

Ölçeğin Türkçe uyarlaması Aydın-Sünbül (2016) tarafından gerçekleştirilmiştir. Ölçeğin yapı geçerliğini test etmek için 752 lise öğrencisi ile gerçekleştirilen doğrulayıcı faktör analizi yapılmıştır. Analiz sonuçları ölçeğin tek faktörlü yapısının desteklendiğini göstermektedir ($\chi^2/df = 4.4$, $GFI = .94$, $RMSEA = .07$, $CFI = .93$, $TLI = .91$). Ölçeğin Cronbach's alpha iç tutarlık katsayısı .81 olarak bulunmuştur.

Bu çalışmada yapılan doğrulayıcı faktör analizi sonuçları da ölçeğin tek faktörlü yapısını desteklemiş ($\chi^2/df = 5.81$, $GFI = .94$, $RMSEA = .07$, $CFI = .94$, $TLI = .92$), ve Cronbach's alpha iç tutarlık katsayısı .90 olarak hesaplanmıştır.

Anne Baba Tutum Ölçeği, algılanan ebeveynlik tutumlarını ölçmek için, Lamborn ve ark. (1991) tarafından, Baumrind (1991), Maccoby ve Martin'in (1983) geliştirdiği ebeveynlik stilleri çerçevesine dayanarak geliştirilmiştir. Ölçek, ebeveynden algılanan kabul/ilgi (9 madde), kontrol/denetim (8 madde) ve psikolojik özerklik (9 madde) olmak üzere üç alt ölçekten oluşmaktadır. İlk 18 madde, 1'den (hiç benzemiyor) 4'e (kesinlikle benziyor) doğru derecelendirilir ve dörtlü derecelendirme tipi ölçek üzerinden puanlanırken, 19. ve 20. maddeler yedili derecelendirme tipi ölçek üzerinden; 21. – 26. Maddeler üçlü derecelendirme tipi ölçek üzerinden puanlanır. Yüksek puanlar, ebeveynden algılanan kabul/ilgi, kontrol/denetim ve psikolojik özerkliğin yüksek düzeyde olduğunu gösterir. Ölçeğin Cronbach's alpha iç tutarlık katsayısı ebeveynden algılanan kabul/ilgi için .72, kontrol/denetim için .76, psikolojik özerklik için .82 olarak bulunmuştur (Lamborn ve ark., 1991; Steinberg, Lamborn, Dornbusch ve ark., 1992; Steinberg, Lamborn, Darling ve ark., 1994). Bu çalışmada, ebeveynden algılanan ölçeğin kabul/ilgi alt ölçeği kullanılmıştır.

Ölçeğin Türkçe'ye uyarlama çalışması Yılmaz (2000) tarafından, 319 ortaokul, 299 lise ve 303 üniversite öğrencisi ile yapılmıştır. Temel bileşen analizi sonuçları ölçeğin üç faktörlü yapısını desteklemiştir. Cronbach's alpha iç tutarlık katsayısı ebeveynden algılanan kabul/ilgi için .70, kontrol/denetim için .69, psikolojik özerklik için .66 olarak rapor edilmiştir. Ölçek iki hafta arayla katılımcılara tekrar uygulanmış ve test-tekrar test güvenirliği ebeveynden algılanan kabul/ilgi için .82, kontrol/denetim için .88, psikolojik özerklik için .76 olarak bulunmuştur. Ölçeğin kriter geçerliğini değerlendirmek için öğrencilerin akademik başarıları ile algılanan ebeveyn tutumları arasındaki ilişki incelenmiş ve açıklayıcı/otoriter ebeveyn tutumu ile öğrencilerin akademik başarıları arasında istatistiksel olarak anlamlı ve pozitif yönde bir ilişki bulunmuştur.

Bu çalışmada kapsamında ebeveynden algılanan ölçeğin kabul/ilgi alt ölçeğinin doğrulayıcı faktör analizi yapılmış ve sonuçlar alt ölçeğin tek faktörlü yapısını desteklemiştir ($\chi^2/df = 2.32$, $GFI = .98$, $SRMR = .02$, $RMSEA = .03$, $CFI = .98$, $TLI = .97$). Cronbach's alpha iç tutarlık katsayısı da .69 olarak hesaplanmıştır.

Okula Aidiyet Duygusu Ölçeği, öğrencilerin okul ortamında algıladıkları aidiyet hissi ya da psikolojik olarak okulun bir parçası hissetme düzeylerini ölçmek için geliştirilmiş 18 maddelik bir ölçektir (Goodenow, 1993). Ölçek okula aidiyet hiss (13 madde) ve reddedilmişlik duygusu (5 madde) alt ölçeklerinden oluşmaktadır. Ölçek maddelerine verilen cevaplar 1'den (hiç doğru değil) 5'e (tamamen doğru) doğru derecelendirilir ve beşli derecelendirme tipi ölçek üzerinden puanlanır. Yüksek puanlar, okula aidiyet hissini yüksek olduğunu gösterir. Lise öğrencileri ile yapılan geçerlik çalışmasında ölçeğin Cronbach's alpha iç tutarlık katsayısı .80 olarak hesaplanmıştır. Bu çalışmada okula aidiyet hissi alt ölçeği kullanılmıştır.

Sarı (2013) tarafından 274 lise öğrencisi ile yapılan uyarlama çalışmasında, temel bileşen analizi sonuçları iki faktörlü ölçeğin yapısını ortaya çıkarmıştır. Cronbach's

alpha iç tutarlık katsayıları okula aidiyet hissi alt ölçeği için .70, reddedilmişlik duygusu alt ölçeği için .80'dir.

Bu araştırmada yapılan okula aidiyet hissi alt ölçeğinin doğrulayıcı faktör analizi yapılmış ve sonuçlar alt ölçeğin tek faktörlü yapısını desteklemiştir ($\chi^2/df = 8.41$, $GFI = .94$, $SRMR = .05$, $RMSEA = .08$, $CFI = .92$, $TLI = .90$). Ölçeğin Cronbach's alpha iç tutarlık katsayısı .88 olarak bulunmuştur.

Çocuk ve Ergenler İçin Sosyal Destek Değerlendirme Ölçeği (Dubow ve Ullman, 1989), 9 – 17 yaşları arasındaki çocuk ve ergenlerin algıladıkları sosyal desteği ölçmek amacıyla geliştirilmiştir. Çocuk ve ergenlerin sosyal çevrede kabul edilme, önemsene, değer vermeye yönelik değerlendirmelerini ölçmektedir. 41 maddeden ve arkadaşlardan algılanan sosyal destek (19 madde), öğretmenlerden algılanan sosyal destek (10 madde), aileden algılanan sosyal destek (12 madde) olmak üzere üç alt ölçekten oluşmaktadır. Ölçek maddeleri 1'den (hiçbir zaman) 5'e (her zaman) doğru derecelendirilir ve beşli derecelendirme tipi ölçek üzerinden puanlanır. Yüksek puanlar, algılanan sosyal desteğin yüksek olduğunu gösterir. Ölçeğin üçlü faktör yapısı 361 ergenle yapılan faktör analizi ile desteklenmiştir (Dubow ve Ullman, 1989). Ayrıca, Cronbach's alpha iç tutarlık katsayısı tüm ölçek için .93, arkadaşlardan algılanan sosyal destek için .88, öğretmenlerden algılanan sosyal destek için .92, aileden algılanan sosyal destek için .86 olarak hesaplanmıştır. Ölçek dört hafta aralıklarla ergenlere tekrar uygulanmış ve test-tekrar test güvenirliği tüm ölçek için .75 olarak bulunmuştur. Bu araştırmada, ölçeğin arkadaşlardan algılanan sosyal destek alt ölçeği kullanılmıştır.

Gökler (2007) tarafından 358 çocuk ve ergenle yapılan Türkçe'ye uyarlama çalışmasında, temel bileşen analizi sonuçları ölçeğin üç faktörlü yapısının desteklendiğini göstermiştir. Cronbach's alpha iç tutarlık katsayısı kat sayısı tüm ölçek için .93, arkadaşlardan algılanan sosyal destek için .89, öğretmenlerden algılanan sosyal destek için .88, aileden algılanan sosyal destek için .86 olarak rapor edilmiştir.

Ölçeğin kriter geçerliğini değerlendirmek için katılımcıların algılanan sosyal destek ve depresyon puanları arasındaki ilişki incelenmiş ve aralarında istatistiksel olarak anlamlı ve negatif yönde bir ilişki bulunmuştur. Test-tekrar test güvenirliği için ölçek katılımcılara iki hafta arayla yeniden uygulanmış ve test-tekrar test güvenirlik kat sayısı .49 olarak tespit edilmiştir. Ölçeğin iki-yarım güvenirliği ilk 21 madde için .82, sonraki 20 madde için .90'dır. Madde-toplam puan korelasyon kat sayısı .34 ile .64 arasında değişmiştir.

Bu çalışma kapsamında, arkadaşlardan algılanan sosyal destek alt ölçeğinin geçerliliği doğrulayıcı faktör analizi ile test edilmiş ve sonuçlar bu alt ölçeğin tek faktörlü yapısını desteklemiştir ($\chi^2/df = 8.44$, $GFI = .91$, $SRMR = .06$, $RMSEA = .075$, $CFI = .91$, $TLI = .88$). Ölçeğin Cronbach's alpha iç tutarlık kat sayısı .89'dur.

Rosenberg Öz-saygı Ölçeği (Rosenberg, 1965), bireylerin öz-saygılarını ölçmek için geliştirilmiş 10 maddelik bir ölçektir. Maddeler 1'den (çok doğru) 4'e (çok yanlış) doğru derecelendirilir ve dörtlü derecelendirme tipi ölçek üzerinden puanlanır. Ölçekten alınan yüksek puanlar, kişinin öz-saygısının yüksek olduğunu gösterir. Ölçeğin iki haftalık aralıklarla uygulanmasıyla elde edilen test-tekrar test güvenirliği .80 olarak bulunmuştur (Rosenberg, 1965). Ölçeğin yapı geçerliği (örtüşürücü geçerliği) Coppersmith Öz-Saygı Enveneteri ile arasındaki .60 korelasyon kat sayısı ve Sağlık Öz-İmaj Ölçeği ile arasındaki .83 korelasyon kat sayısı ile desteklenmiştir (Ferrari, 1994).

Ölçeğin lise öğrencileriyle yapılan Türkçe'ye uyarlama çalışmasında Cronbach's alpha iç tutarlık katsayısı .87, test-tekrar test güvenirlik kat sayısı .75 olarak bulunmuştur. Ölçeğin ölçüt-bağımlı geçerliğini değerlendirmek için katılımcılarla psikiyatrik görüşmeler yapılmıştır. Bu görüşmelerle ölçekten elde edilen puanlar arasında bulunan .71 korelasyon kat sayısının, ölçeğin ölçüt-bağımlı geçerliğini desteklediği belirtilmiştir.

Bu araştırma kapsamında yapılan doğrulayıcı faktör analizi sonuçları ölçeğin tek faktörlü yapısını desteklemiştir ($\chi^2/df = 4.44$, $GFI = .98$, $SRMR = .04$, $RMSEA = .05$, $CFI = .96$, $TLI = .96$). Ölçeğin Cronbach's alpha iç tutarlık kat sayısı .86 olarak hesaplanmıştır.

Veri Toplama Süreci

Orta Doğu Teknik Üniversitesi Uygulamalı Etik Araştırma Merkezi'nden ve İstanbul İl Milli Eğitim Müdürlüğü'nden gerekli izinler alındıktan sonra belirlenen liselerle iletişime geçilmiştir. Belirlenen sekiz okuldan biri sınav ve ders programı nedeniyle veri toplanmasına izin vermemiştir. Okulların yöneticileri ya da psikolojik danışmanları ile uygun ders saatleri belirlenmiş ve ölçekler bir ders saatinde uygulanmıştır. Ölçeklerin uygulanmasından önce Veli Onay Formu öğrencilere verilmiş ve uygulama sırasında toplanmıştır. Öğrenciler çalışmanın amacı hakkında bilgilendirilmiştir ve uygulamaya yönelik açıklama yapılmıştır. Tüm öğrenciler çalışmaya gönüllü olarak katılmıştır. Araştırmanın verileri 2017-2018 eğitim öğretim yılının birinci döneminde toplanmıştır.

Veri Analizi

Veri analizi sürecinde ilk olarak veri tarama ve temizleme, veri girişinin doğruluğunu kontrol etme, kayıp veri analizi, uç değer analizi, normal dağılım değerlendirmesi, betimsel istatistik ve korelasyon değerleri için SPSS 23 paket programı kullanılmıştır (IBM, 2015). Daha sonra, önerilen yılmazlık modelini test etmek için, AMOS 22 programı (Arbuckle, 2013) ile Yapısal Eşitlik Modellemesi (YEM) yapılmıştır.

Çalışmanın Sınırlılıkları

Bu çalışma bazı sınırlılıklar bulundurmaktadır. İlk olarak, katılımcıları belirlemek için uygun örnekleme yöntemi kullanılmıştır ve bu nedenle çalışmanın sonuçlarının

genellenebilirliđi sınırlılık taşımaktadır. İkinci olarak, öz bildirim ölçekleri uygulanmıştır. Katılımcıların cevaplarının içtenliđi ve nesnelliđi kontrol edilemediğinden verilen cevapların sosyal olarak kabul gören cevaplar olma riski bulunmaktadır. Üçüncü olarak, bu araştırma ilişkisel bir araştırma olduğundan dolayı neden sonuç ilişkisi elde edilememektedir. Son olarak da, bu araştırmada yılmazlık ile ilişkili olabilecek bazı deđişkenler incelenmiştir, ancak ergenlerin yılmazlık ile ilişkili olabilecek daha birçok deđişken bulunmaktadır.

BULGULAR

Araştırmada yapısal eşitlik modeli analizi yapılmadan önce, gerekli ön analizler yapılmıştır. İlk aşamada veri tarama ve temizleme sürecinde, 82 katılımcıya ait tamamlanmamış ya da belirli bir örüntüyle tamamlanmış veriler çıkarılmıştır. Kayıp veri analizi her bir madde için kayıp verinin toplam hücre sayısının %5'inden daha az olduğunu göstermiştir (Tabachnick ve Fidell, 2013). Ancak, kayıp verilerin tamamen rastlantısal olup olmadığını gösteren Little MCAR testi (Little ve Rubin, 1987) istatistiksel olarak anlamlı çıktığından, Beklenti Maksimizasyonu Algoritması yöntemiyle kayıp veriler tamamlanmıştır (Hair ve ark., 2014). Araştırma verisindeki tek deđişkenli uç deđerler z puanları (± 3.29), çok deđişkenli uç deđerler Mahalanobis uzaklık deđerleri kullanılarak tespit edilmiştir (Tabachnick ve Fidell, 2013). Toplam 13 katılımcıya ait veriler analizden çıkarılmıştır.

Daha sonra yapısal eşitlik modeli analizine ilişkin sayıltılar test edilmiştir. Örneklem büyüklüğü 200 katılımcıdan fazla olduğu için analizi yapmaya uygundur (Kline, 2016). Tek deđişkenli normallik sayıltısını incelemek için çarpıklık ve basıklık deđerleri ± 3 kriterine göre deđerlendirilmiştir ve tüm ölçeklerden elde edilen verilerin normal dağıldığı görülmüştür (Stevens, 2009; Tabachnick ve Fidell, 2013). Çok deđişkenli normallik sayıltısı için Mardia testi (Mardia, 1975) kullanılmış ve istatistiksel olarak anlamlı çıktığı için, bu sayıltının sağlanmadığı görülmüştür. Bu nedenle, madde parselleme yöntemi kullanılmıştır (Brown, 2015; Kline, 2016).

Ayrıca, atık değerler üzerinden test edilen normallik, doğrusallık, sabit varyanslık sayıtlarının sağlandığı görülmüştür. Yordayan değişkenler arasında çoklu doğrusallık olup olmadığını değerlendirmek için korelasyon değerleri hesaplanmış ve yordayan değişkenler arasındaki korelasyon değerlerinin .90 altında olduğu bulunmuştur (Tabachnick ve Fidell, 2013).

Katılımcıların yılmazlığının cinsiyete bağlı olarak anlamlı bir şekilde değişkenlik gösterip göstermediğini tespit etmek için t-testi uygulanmış ve kız ve erkek öğrenciler arasında yılmazlık puanları bakımından anlamlı bir fark olmadığını görülmüştür ($t = -99; p = .32$). Araştırmadaki değişkenler arasındaki korelasyon değerlerine bakıldığında ise, ebeveynden algılanan kabul/ilgi, akranlardan algılanan sosyal destek ve okula aidiyet hissi ile öz-saygı arasında anlamlı ve pozitif yönde bir ilişki bulunmaktadır. Ebeveynden algılanan kabul/ilgi, akranlardan algılanan sosyal destek ve okula aidiyet hissi ile yılmazlık arasındaki ilişki de anlamlı ve pozitif yöndedir. Ayrıca, öz-saygı ve yılmazlık arasında da anlamlı ve pozitif yönde bir ilişki olduğu görülmüştür.

Yapısal eşitlik modeli analizi öncesinde, gözlenen değişkenler ve gizil değişkenler arasındaki ilişkiyi incelemek için ölçüm modeli test edilmiştir. Ortaya çıkan değerlerin, alanyazında kabul edilen uyum indekslerine uygun olduğu görülmüştür ($\chi^2/df = 278.82/80 = 3.49$, $GFI = .97$, $SRMR = .03$, $RMSEA = .04$, $CFI = .98$, $TLI = .98$). Diğer bir deyişle, bu sonuçlar gizil değişkenlerin gözlenen değişkenler tarafından uygun bir şekilde ölçüldüğüne işaret etmektedir. Ölçüm modelinin test edilmesinin ardından, yapısal eşitlik modeli test edilmiştir. Sonuçlar, önerilen modelin araştırma verisine iyi uyum sağladığını ve uyum indekslerine uygun olduğu göstermektedir ($\chi^2/df = 278.82/80 = 3.49$, $GFI = .97$, $SRMR = .03$, $RMSEA = .04$, $CFI = .98$, $TLI = .98$).

Değişkenler arasındaki doğrudan etkiler incelendiğinde, ebeveynden algılanan kabul/ilginin ($\beta = .12, p < .01$), akranlardan algılanan sosyal desteğin ($\beta = .13, p < .01$) ve okula aidiyet hissinin ($\beta = .14, p < .01$) yılmazlık üzerindeki doğrudan etkisinin

istatistiksel olarak anlamlı, pozitif yönde, küçük düzeyde olduğu bulunmuştur. Ebeveynden algılanan kabul/ilginin ($\beta = .25, p < .01$) ve okula aidiyet hissinin ($\beta = .17, p < .01$) öz-saygı üzerindeki doğrudan etkisi istatistiksel olarak anlamlı, pozitif yönde ve küçük düzeyde iken, akranlardan algılanan sosyal desteğin ($\beta = .30, p < .01$) öz-saygı üzerindeki doğrudan etkisi istatistiksel olarak anlamlı, pozitif yönde ve orta düzeydedir. Aynı zamanda, öz-saygının ($\beta = .33, p < .01$) yılmazlık üzerindeki doğrudan etkisi de istatistiksel olarak anlamlı, pozitif yönde ve orta düzeyde olarak bulunmuştur.

Değişkenler arasındaki dolaylı etkilere bakıldığında, hem ebeveynden algılanan kabul/ilginin ($\beta = .08, p < .01$), hem akranlardan algılanan sosyal desteğin ($\beta = .10, p < .01$), hem okula aidiyet hissinin ($\beta = .06, p < .01$) yılmazlığı öz-saygının aracı etkisi ile istatistiksel olarak anlamlı ve dolaylı bir şekilde yordadığı görülmüştür. Ayrıca, ebeveynden algılanan kabul/ilgi, akranlardan algılanan sosyal destek ve okula aidiyet hissi öz-saygıdaki varyansın %34'ünü açıklarken, ebeveynden algılanan kabul/ilgi, akranlardan algılanan sosyal destek, okula aidiyet hissi ve öz-saygının aracı rolü ile oluşturulan modeldeki değişkenler hep birlikte yılmazlıktaki varyansın %33'ünü açıklamaktadır.

TARTIŞMA

Ekolojik sistem teorisi ve koruyucu-koruyucu model çerçevesini temel alarak önerilen modelin amacı, düşük sosyo-ekonomik semtlerde yaşayan ergenlerin yılmazlığın ebeveynden algılanan kabul/ilgi, akranlardan algılanan sosyal destek, okula aidiyet hissi ve öz-saygı değişkenleri tarafından ne ölçüde yordandığını araştırmaktır. Ayrıca, ebeveynden algılanan kabul/ilgi, akranlardan algılanan sosyal destek ve okula aidiyet hissinin öz-saygının aracı rolü ile ergenlerin yılmazlık üzerindeki etkisi de test edilmiştir. Ülkemizde yapılmış olan ergen yılmazlık araştırmalarında ebeveyene ilişkin, çevresel ve bireysel faktörlerin eş zamanlı ve çoklu etkileşimini değerlendiren

bir çalışmaya rastlanmamıştır. Bu nedenle, özellikle bireysel değişkenin aracı etkisine yönelik bulgular Batılı ülkelerdeki çalışmalarla kıyaslanmıştır.

YEM analizinden önce, önerilen yılmazlık modelinin cinsiyete bağlı olarak değişkenlik gösterip göstermediği araştırılmıştır. Sonuçlar, kız ve erkek öğrenciler arasında yılmazlık puanları bakımından anlamlı bir fark olmadığını gösterdiği için, YEM analizi tek bir örneklemeyle yapılmıştır. Cinsiyet farkına dair elde edilen sonuç, önceki araştırmalardan bazıları ile tutarlı iken (Arastaman ve Balcı, 2013; Atik, 2013; Aydın-Sünbül, 2016; Bindal, 2018; Esen-Aktay, 2010; Özcan, 2005; Özden-Yıldırım ve Ermiş, 2017; Toraman, 2018; Yavuz, 2015), bazıları ile tutarlı değildir (Bulut ve ark., 2018; Dayıoğlu, 2008; Gündaş, 2013; Onat, 2010; Oktan, 2008; Turgut, 2015; Yavuz ve Kutlu, 2016). Bu konuda farklı bulguların olması, ergenlerin yılmazlığında cinsiyetin etkisine dair araştırmaların henüz ortak bir sonuca ulaşmadığını göstermektedir.

YEM analizi sonuçları önerilen modelin veriye uyum değerlerinin kriter değerlere iyi bir şekilde uyum sağladığını göstermiştir ve önerilen tüm hipotezler veriler tarafından desteklenmiştir. Analiz sonuçları modele herhangi yeni bir yol eklemeyi ya da çıkarmayı önermemiştir. Önerilen model yılmazlıktaki varyansın %33'ünü, aracı değişken olan öz-saygıdaki varyansın %34'ünü açıklamaktadır. Yani, sonuçlar ekolojik sistem teorisinin ve koruyucu-koruyucu modelin önerilerine paralel olarak, ebeveyne ilişkin ve çevresel faktörlerin risk altındaki ergenlerin yılmazlığı üzerinde hem doğrudan, hem de bireysel faktörün aracı etkisi ile dolaylı bir etkisi olduğunu desteklemektedir.

Modeldeki doğrudan etkilere dair hipotezler test edilmiştir. İlk olarak, ebeveynden algılanan kabul/ilgi ile yılmazlık arasında istatistiksel olarak anlamlı ve doğrudan bir ilişki olduğu bulunmuştur. Bu bulgu, genel olarak uluslararası alanyazınla (Conger ve Conger, 2002; Masten ve ark., 1990; Masten ve ark., 1999; Masten, 2004; Seidman ve Peterson, 2003; Vanderbilt-Adrianne ve Shaw, 2008; Zakeri ve ark., 2010) ve ulusal

alanyazınla (Esen-Aktay, 2010; Onat, 2010; Siyez ve Aysan, 2007) tutarlıdır. Bu sonuç, ebeveynleri tarafından kabul edildiğini, desteklendiğini, ilgilenildiğini algılayan ergenlerin stresli yaşam deneyimleri karşısında daha yüksek yılmazlık sergilediğini göstermektedir. Ebeveynden algılanan kabul/ilgi ile öz-saygı arasında anlamlı ve doğrudan ilişki olduğuna dair önerilen hipotez de bu araştırmadaki bulgularla desteklenmiştir. Ayrıca bu bulgu birçok uluslararası (Birkeland ve ark., 2014; Boudreault-Bouchard ve ark., 2013; Buri ve ark., 1992; Herz ve Gullone, 1999; Martinez ve Garcia, 2007; Martinez ve ark., 2007; Milevsky ve ark., 2007; Riquelme ve ark., 2018; Rodrigues ve ark., 2013; Zakeri ve Karimpour, 2011) ve ulusal (Aydın ve ark., 2014; Duru, 1995; Tunç, 2002) alanyazındaki araştırmaya verileriyle benzerlik göstermektedir. Başka bir deyişle, ebeveynleri tarafından kabul edildiğini, değer verildiğini, ilgi gördüğünü algılayan ergenler ebeveynlerinin bu bakış açısını içselleştirerek (Cooley, 1902; Harter, 2006; James, 1984) daha yüksek düzeyde öz-saygıya sahip olmaktadır.

Araştırmada ele alınan çevresel faktörlerden biri olan okula aidiyet hissi ile ergenlerin yılmazlık arasında istatistiksel olarak anlamlı ve doğrudan bir ilişki bulunduğu tespit edilmiştir. Yani, bağlılık hissi okul ortamında karşılanan risk altındaki ergenlerin yüksek yılmazlığa sahip olma olasılıkları da yüksektir. Okula aidiyet hissini ergenlerin yılmazlığına olan etkisine dair ulusal ve uluslararası araştırmalar sınırlı olsa da (Stalen ve ark., 2016, Uslu ve Gizir, 2016), bu bulgu önceki çalışmaların sonuçlarıyla tutarlıdır (Gonzalez ve Padilla, 1997; Napoli ve ark., 2011; Nowicki, 2008; Nuttman-Shwartz, 2018). Ayrıca bu bulgunun okula aidiyet hissini risk altındaki ergenlerin yılmazlığına etkisine dair sınırlı alanyazının genişlemesine katkıda bulunduğu söylenebilir. Okula aidiyet hissi ile ergenlerin öz-saygısı arasında da istatistiksel olarak anlamlı ve doğrudan bir ilişki bulunmuştur. Ergenlik döneminde oldukça artan bağlılık ihtiyacının karşılandığı okul ortamları ergenlerin öz-saygılarına önemli bir katkı sağlama potansiyeline sahiptir. Açıkça ifade etmek gerekirse, okul ortamına dair birçok kavram ile ergenlerin öz-saygısı arasındaki ilişkiyi inceleyen birçok çalışma bulunmasına rağmen, okula aidiyet hissini ergenlerin öz-saygısına

etkisini inceleyen alıřmaların sayısı olduka azdır (Doęan, 2015; Strudwicke, 2000). Bu bulgunun, bu bakımdan kısıtlı olan alanyazına katkıda bulunduęu düşnlmektedir.

Önerilen modeldeki ikinci çevresel faktör olan akranlardan algılanan sosyal desteęin ergenlerin yılmazlıęı üzerinde arasında istatistiksel olarak anlamlı ve doğrudan bir etkisi olduęu bulunmuřtur. Başka bir deyiřle, akranları tarafından sosyal ortamda kabul edildięini, saygı duyulduęunu, desteklendięini algılayan sosyo-ekonomik bakımdan dezavantajlı ergenlerin yılmazlıęı daha yüksektir. Bu bulgu önceki birçok uluslararası (Banks ve Weems, 2014; Galaif ve ark., 2003; Garmezy, 1971; Huurre, 2000; Kef ve Dekovic, 2004; Licitra-Kleckner ve Waas, 1993; Masten, 2004; Rutter, 1979; Werner ve Smith, 1982; van Harmelen ve ark., 2017) ve ulusal (Arastaman ve Balcı, 2013; Dayıoęlu, 2008; Özcan, 2005; Özden-Yıldırım ve Ermiř, 2017; Siyez ve Aysan, 2007; Turgut, 2015; Yılmaz-Irmak, 2008) alıřmanın sonuçları ile benzerlik göstermektedir. Akranlardan algılanan sosyal desteęin ergenlerin öz-saygısı üzerinde istatistiksel olarak anlamlı ve doğrudan bir etkisi olduęunu belirten hipotez de araştırma bulguları tarafından desteklenmiřtir. Bu bulgu da önceki birçok uluslararası (Colarossi ve Eccless, 2003; Helsen ve ark., 2000; Hoffman ve ark., 1988; Newcomb, 1990; Seidman ve Peterson, 2003; Tam ve ark., 2011) ve ulusal (İkiz-Savi, 2010; Kahrıman, 2002; Kahyaoęlu, 2010; Ünüvar, 2003; Tahir ve ark., 2015) araştırma verileriyle tutarlıdır.

Ergenlik döneminde bireylerin öz-saygılarının gelişiminde artık aile çevresi olduęu kadar akranların rolü de önem kazanmaktadır (Colarossi ve Eccless, 2003). Bu bulgunun da gösterdięi üzere, kendilerini akranları tarafından sosyal anlamda desteklenmiř, kabul edilmiř risk altındaki ergenlerin kendilerine dair olumlu bir öz-saygı geliştirme olasılıkları artmaktadır. Arařtırmadaki modelde yer alan aracı deęiřken ile sosyo-ekonomik bakımdan dezavantajlı ergenlerin yılmazlıęı arasında anlamlı ve doğrudan bir iliřki olduęuna dair varsayılan hipotez de araştırma sonuçları ile desteklenmiřtir. Yani, öz-saygısı yüksek olan sosyo-ekonomik bakımdan

dezavantajlı ergenlerin yılmazlığı daha yüksek olmaktadır. Bu bulgu, risk altındaki ergenlerin öz-saygısının yılmazlık üzerinde kritik etkisi olduğunu gösteren önceki uluslararası (Buckner ve ark., 2003; Dumont ve Provost, 1999; Fergusson ve Horwood, 2003; Kidd ve Davidson, 2007; Kidd ve Shahr, 2008) ve ulusal Gizir, 2004; Savi-Çakar, 2011; Yılmaz-Irmak, 2008) çalışmaları ile benzerlik göstermektedir. Yılmazlık alanyazınında da öz-saygının önemli bireysel düzey koruyucu faktörlerden biri olduğu belirtilmektedir (Baumeister ve ark., 2003; Garmze ve ark., 1984; Haase, 2004; Jessor ve Jessor, 1977; Kumpfer, 1999; Rutter, 1987).

Yapısal modeldeki dolaylı etkilere dair üç hipotez de test edilmiştir. Birinci olarak, öz-saygının ebeveynden algılanan kabul/ilgi ile yılmazlık arasındaki ilişkide istatistiksel olarak anlamlı, pozitif yönde aracı etkisi olduğuna dair hipotez bulgularla desteklenmiştir. Öz-saygının bu ilişkideki aracı etkisi kısmidir. Bu sonuca göre, ebeveynleri tarafından kabul edildiğini, desteklendiğini, ilgilenildiğini algılayan sosyo-ekonomik bakımdan dezavantajlı ergenlerin öz-saygısı daha yüksektir, dolayısıyla, daha yüksek düzeyde yılmazlığa sahiptirler. Elde edilen bu bulgu, ebeveynden algılanan kabul, destek, bakım ve dahil olmanın öz-saygının aracı etkisi ile yılmazlığı yordadığını gösteren önceki araştırmaların sonuçları ile tutarlıdır (Barber ve ark., 2003; O'Neill ve ark., 2018; Swenson ve Prelow, 2005; Tian ve ark., 2018).

İkinci olarak, öz-saygının okula aidiyet hissi ile yılmazlık arasındaki ilişkide istatistiksel olarak anlamlı, pozitif yönde kısmi aracı etkisi olduğuna dair hipotez de doğrulanmıştır. Başka bir deyişle, okul ortamında bağlılık hissi yüksek olan öğrencilerin öz-saygısı yüksektir, ve buna karşılık olarak, yılmazlık düzeyleri de yüksektir. Yukarıda belirtildiği gibi, okula aidiyet hissi, öz-saygı ve yılmazlık arasındaki ilişkileri inceleyen araştırmalar oldukça kısıtlıdır. Ancak, kuramlar okul ortamının öğrencilerin ergenlik döneminde artan bağlılık hissini (Baumeister ve Leary, 1995; Berk ve Meyer, 2015; Kia-Keating ve Ellis, 2007) ve öz-saygı (Berk ve Meyer, 2015) desteğini karşılamak üzere birçok kaynak içerdiğini, ve böylece

ergenlerin stres faktörleri karşısında baş etme mekanizmalarına önemli katkılar sağlayabileceğini öne sürmektedir.

Üçüncü olarak, öz-saygının akranlardan algılanan sosyal destek ile yılmazlık arasındaki ilişkide istatistiksel olarak anlamlı, pozitif yönde aracı etkisi olduğuna dair hipotez bulgularla desteklenmiştir. Öz-saygının bu ilişkideki aracı etkisi kısmidir. Kuramsal önermeler ve önceki çalışmalar akranlardan algılanan sosyal destek ve öz-saygı arasında, yılmazlık ve öz-saygı arasında anlamlı ilişki olduğunu işaret etmesine rağmen, öz-saygının akranlardan algılanan sosyal destek ile yılmazlık arasındaki ilişkide nasıl bir aracı rol oynadığını inceleyen çalışma oldukça sınırlıdır. Ancak, akranlardan algılanan kabul (Birkeland ve ark., 2014), akran ilişkilerinde hissedilen tatmin (Thompson ve ark., 2016), (akranları da içeren) algılanan genel sosyal destek (Gaylord-Harden ve ark., 2007) gibi kavramlarla ergenlerin yılmazlık ya da pozitif adaptasyonu arasındaki ilişkide öz-saygının anlamlı bir aracı etkisi olduğunu gösteren araştırma bulguları bulunmaktadır.

Uygulamaya Yönelik Çıkarımlar

Bu araştırmanın bulgularına dayanarak, özellikle psikolojik danışmanların uygulamalarına yönelik çıkarımlar yapılabilir. Öncelikle, bu araştırmanın sonuçları Türkiye’deki risk altındaki ergenlerin yılmazlık üzerinde ebeveyne ilişkin, çevresel ve bireysel faktörlerin bir arada etkisine ve etkileşimine dair kapsamlı bir veri sunmaktadır. Yılmazlığın cinsiyete dair farklılık göstermediği bulunmuştur. Bu nedenle, düşük sosyo-ekonomik semtlerdeki ergenlere yönelik önleme ya da müdahale çalışmalarında, kız ve erkek öğrencilerin benzer düzeyde yılmazlığa sahip olabileceği göz önünde bulundurulabilir.

Bu çalışmada risk altındaki ergenlerin yılmazlığı üzerinde anlamlı etkisi olduğu bulunan ebeveyn kabul/ilgisini, okula aidiyet hissini, akranlardan algılanan sosyal desteği arttırmaya yönelik önleme ya da müdahale çalışmaları planlanabilir. Öz-

saygının aracı etkisi olduđu sonucundan yola çıkarak, ergenlerde yılmazlıđa etki eden süreçler ve mekanizmaları deęerlendirirken öz-saygı önemli bir bireysel faktör olarak ele alınabilir.

Bu çalışmada, ekolojik sistem teorisinin bakış açısını destekler nitelikte, ebeveyne ilişkin ve çevresel faktörlerin risk altındaki ergenlerin yılmazlıđı üzerinde hem doğrudan hem de bireysel deęişken aracılığı ile dolaylı etkisi olduđu bulunmuştur. Uygulamacılar, özellikle düşük sosyo-ekonomik semtlerdeki ergenleri destekleyici çalışmalarda, yılmazlıđın ergenlerin mikrosistemlerinde birçok faktörün etkisinin bir sonucu olduğunu göz önünde bulundurabilir. Önleme ve müdahale çalışmalarında da ergenlerin mikrosistemlerinde önemli rol oynayan ve bu araştırmada ele alınan destekleyici faktörlere (ebeveynden algılanan kabul/ilgi, akranlardan algılanan sosyal destek, okula aidiyet hissi, öz-saygı) yönelik uygulamalar hedeflenebilir.

Araştırmanın bulgularına dayanarak, ebeveyne ilişkin, çevresel, bireysel destekleyici faktörlerin görece etkisine göre uygulamalar düzenlenebilir. Örneğin, tüm deęişkenler arasında düşük sosyo-ekonomik semtlerdeki ergenlerin yılmazlıđını en iyi yordayan faktörün öz-saygı olduđu bulunmuştur. Dışsal destekleyici faktörler arasında da yılmazlıđı en iyi yordayan faktör okula aidiyet hissi olmuştur. Bu veriler göz önünde tutularak, uygulamalarda ergenlerin öz-saygısını ya da okula aidiyet hissini destekleyici çalışmalarla başlanabilir.

Son olarak, yılmazlık kuramı son yıllarda odađını eksiklik-odaklı yaklaşımdan dayanıklılık-odaklı yaklaşıma doğru deęiştirmiştir (Masten ve Barnes, 2018). Ayrıca, yılmazlık da içsel ve dışsal faktörlerin dinamik bir etkileşiminin sonucu olarak kavramsallaştırılmaya başlanmıştır (Luthar ve ark., 2000). Bu bakımdan, bu araştırmanın bulguları uygulamacıların önleme ve müdahale çalışmalarına yılmazlık kuramının deęişen bakış açısıyla yaklaşmasına yardımcı olabilir. Böylece, düşük sosyo-ekonomik semtlerdeki ergenler gibi risk altındaki gruplara yönelik çalışmalarda bu araştırmada yılmazlık üzerinde anlamlı etkisi olduđu bulunan destekleyici içsel ve

dışsal faktörleri ve bu faktörler arasındaki etkileşimi dayanıklılık-odaklı bir yaklaşımla ele alınabilir.

Gelecekteki Araştırmalar için Öneriler

Bu araştırmada, ergenlerin yılmazlığına katkısı olan faktörleri belirlemenin ötesine geçip, bu faktörler arasındaki olası yolları ortaya çıkarmak hedeflenmiştir. Bu anlamda, bu araştırma ülkemizde sınırlı olan (Arat, 2014), ikinci kuşak yılmazlık araştırmalarından biri olarak düşünülebilir. Önerilen modeldeki destekleyici faktörler düşük sosyo-ekonomik semtlerdeki ergenlerin yılmazlığındaki varyansın belirli bir kısmını açıklamaktadır. Ebeveyne ilişkin, çevresel ya da bireysel diğer faktörlerin riskli ergen gruplarındaki yılmazlığa katkısı araştırılabilir.

Bu çalışmanın örneklemini İstanbul'un iki ilçesindeki Anadolu Lisesi öğrencileri oluşturmuştur. Benzer destekleyici faktörlerin benzer ergen gruplarındaki etkisini daha iyi anlayabilmek için sonraki çalışmalar daha geniş ve çeşitli, farklı bölgelerden ya da farklı okul türlerinden örneklemelerle yapılabilir. Benzer bir çalışma erken ya da geç ergenlik dönemindeki ergenlerle yapılabilir, ve yılmazlığın ergenliğin gelişim dönemlerine göre nasıl farklılaştığı anlaşılabilir. Başka ilçelerden ya da başka şehirlerden ergenlerle yapılacak benzer bir çalışma yılmazlığa etki eden demografik özellikleri incelemeye yardımcı olabilir.

Bu araştırmada risk faktörü olarak sadece düşük sosyo-ekonomik düzey göz önünde bulundurulmuştur. Ancak günümüzde ergenler yoksulluk, kronik fiziksel ya da ruhsal hastalık, ailevi problemler, suç davranışları gösterme, madde kullanımı ya da okul terki gibi gelişimlerini olumsuz yönde etkileyecek daha pek çok risk faktörüyle karşı karşıya kalmaktadır (Gizir, 2007; Siyez ve Aysan, 2007). Farklı risk türlerine maruz kalan ergenlerle yapılacak araştırmalar, yılmazlığa dair mekanizmaların farklı risk gruplarında nasıl aktif hale getirebileceğine dair bilgiye katkıda bulunabilir.

Kullanılan veri toplama yöntemine gelince, arařtırma verileri katılımcıların kendi bildirimlerine dayalı veri toplama araçları ile toplanmıřtır. Bu nedenle, verilen cevapların sosyal olarak uygun olduđu düşünölen cevaplar olma olasılıđı vardır. Sonraki çalışmalarda ebeveynler, öğretmenler gibi farklı kaynaklardan bilgiler de edinilerek yılmazlıđın değerdendirilmesine dair geçerlilik arttırılabilir. Ayrıca, bu arařtırmada ilişkisel arařtırma deseni kullanılmıřtır. Yani, neden sonuç ilişkisine dair bir çıkarımda bulunma bakımından sınırlılıklar içermektedir. Destekleyici faktörler ile risk altındaki ergenlerin yılmazlıđı arasındaki olası neden sonuç ilişkisini daha iyi anlayabilmek için sonraki çalışmalarda deneysel arařtırma deseni kullanılabilir.

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