

THE EFFECTS OF THE CHILD, MATERNAL AND ENVIRONMENTAL  
CHARACTERISTICS ON BEHAVIORAL PROBLEMS IN EARLY CHILDHOOD  
PERIOD

A THESIS SUBMITTED TO THE  
GRADUATE SCHOOL OF SOCIAL SCIENCES  
OF  
OZYEGIN UNIVERSITY

BY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR  
THE DEGREE OF MASTER OF ARTS  
IN  
THE DEPARTMENT OF PSYCHOLOGY

JANUARY 2018

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## ABSTRACT

The main aim of the present thesis study was to compare the mothers and children from low- and high-socioeconomic status (SES) in terms of the mothers' social support, stress, perception of the child intentionality, and the children's behavioral problems. In addition, the current study aimed to examine whether there is a difference in the relationship between perceived social support, maternal stress, mother's perception of child's intentionality and child internalizing and externalizing behavioral problems between mothers and children from different SES groups. The second aim was to examine whether the mothers' social support, stress, perception of the child intentionality and children's internalizing and externalizing problems showed a change or remained stable within 1 year, and to explore the influence of mothers' developmental expectations and child temperament on child behavioral problems in addition to perceived social support, maternal stress, mothers' perception of child's intentionality. The main study recruited 463 mothers with children aged 12-46 months and the follow-up study had 67 mothers with children aged 19-51 months. A series of structural equation models (SEM) were run in order to show the associations in total sample and in different SES groups (Low-SES vs. High-SES). For the follow-up, the Paired T-tests and a series of hierarchical regression analyses were conducted to see the differences in variables from first and second time points, and to examine how perceived social support, maternal stress, mother's perception of child's intentionality, in addition to influence of child temperament and mothers' developmental expectations predict internalizing and externalizing problems. In the main study, the maternal stress positively predicted both internalizing and externalizing problems, whereas the social support negatively

predicted only internalizing problems. The negative intentionality was both the predictor and the mediator for internalizing problems for the total sample. The maternal stress was found to predict internalizing and externalizing behavioral problems negatively and the negative intentionality predicted the internalizing problems and mediated the relationship between maternal stress and internalizing problems in the low-SES group. In the high-SES sample, maternal stress positively predicted internalizing and externalizing problems, and social support negatively predicted both internalizing and externalizing problems. In the follow-up, the emotionality and the maternal stress positively predicted internalizing problems, whereas the emotionality, activity, and maternal stress positively predicted externalizing problems. Moreover, maternal stress partially mediated the relationship between emotionality and internalizing problems, and fully mediated the relationship between emotionality and externalizing problems. The results indicated that mother's stress, social support, their attributions and expectations about their child's behaviors and state as well as child temperament can contribute to problem behaviors. However, these effects may vary in different SES groups in Turkey. The future studies and interventions should focus on underpinnings of maternal stress while addressing protective factors for different SES groups in order to prevent behavioral problems during early childhood.

**Keywords:** behavioral problems, early childhood, maternal factors, SES

## ÖZET

Bu tez çalışmasının ana amacı düşük ve yüksek sosyoekonomik düzeydeki (SED) anne ve çocukları annelerin sosyal desteği, stresi, çocuk niyetliliğine yönelik görüşleri, ve çocukların davranışsal problemleri çerçevesinde karşılaştırmaktır. Buna ek olarak, bu çalışma farklı sosyoekonomik düzeydeki (SED) annelerin algıladıkları sosyal destek, ebeveynlik stresi, çocuk niyetliliğine dair görüşleri ve çocuktaki içselleştirme ve dışsallaştırma davranış problemleri arasındaki ilişkilerde bir fark olup olmadığını araştırmayı hedeflemiştir. Çalışmanın ikinci amacı annelerin sosyal desteği, stresi, çocuk niyetliliğine dair görüşlerinin ve çocukların içselleştirici ve dışsallaştırıcı davranış problemlerinin 1 sene içerisinde değişiklik gösterip göstermediğini incelemek; ve annenin gelişimsel beklentisi ve çocuğunun mizacının annelerin algıladıkları sosyal destek, ebeveynlik stresi ve çocuk niyetliliğine dair görüşlerine ek olarak çocuktaki davranış problemlerine etkisini araştırmaktır. Ana çalışma 12-46 ay arası çocuğu olan 463 anneden, izleme çalışması 19-51 ay arası çocuğu olan 67 anneden oluşmuştur. Toplam örnekleme ve de farklı sosyoekonomik gruplarda (Düşük SED-Yüksek-SED) yapısal eşitlik modeli (SEM) serileri yürütülmüştür. İzleme çalışmasında ise değişkenlerin iki zaman aralığındaki farkını ölçmek için Eşleştirilmiş T-testi; annelerin algıladıkları sosyal destek, ebeveynlik stresi, çocuk niyetliliğine dair görüşleri, gelişimsel beklentisi ve çocuğun mizacının içselleştirme ve dışsallaştırma davranış problemlerine etkisini görmek için hiyerarşik regresyon analizi uygulanmıştır. Ana çalışmada anne stresi içselleştirme ve dışsallaştırma problemlerini pozitif olarak, sosyal destek sadece içselleştirme problemini negatif olarak yordamıştır. Toplam örnekleme olumsuz niyetlilik hem negatif yordayıcı hem de aracı değişken olarak içselleştirme problemlerini

etkilemiştir. Düşük sosyoekonomik gruptaki anne stresi hem içselleştirme hem dışsallaştırma problemlerini pozitif olarak yordamış ve olumsuz niyetlilik içselleştirme problemlerini negatif olarak yordamış ve anne stresi ile içselleştirme davranışı arasında ara değişken olmuştur. Yüksek sosyoekonomik grupta anne stresi her iki davranış problemini de pozitif olarak yordamış, annenin algıladığı sosyal destek ise her iki davranış problemini de negatif olarak yordamıştır. İzleme çalışması sonuçlarına göre çocuğun duygusal mizacı ve anne stresi içselleştirme davranış problemlerini pozitif olarak yordarken, çocuğun duygusal ve etkinlik mizacı, ve annenin stresi dışsallaştırma davranışını pozitif olarak yordamıştır. Ayrıca, anne stresi duygusal mizaç ile içselleştirme davranışı arasında kısmi aracılık yaparken, duygusal mizaç ile dışsallaştırma davranışını arasında temel aracılık yapmıştır. Bu çalışmanın sonuçları anne stresinin, sosyal desteğinin, annenin çocuğun niyetliliği hakkındaki görüşlerinin ve gelişimsel beklentisinin ve de çocuğun mizacının çocuktaki davranış problemlerini etkileyebileceğini göstermiştir. Ancak bu etkiler Türkiye'deki farklı sosyoekonomik düzeydeki annelerde değişkenlik gösterebilmektedir. Gelecekteki çalışmalar ve müdahale programları erken çocukluk dönemindeki davranışsal problemleri önlemek için anne stresine sebep olan etkenlere odaklanırken aynı zamanda farklı sosyoekonomik düzeydeki anneler için koruyucu faktörlere de vurgu yapılmalıdır.

**Anahtar kelimeler:** davranışsal problemler, erken çocukluk dönemi, SED

## ACKNOWLEDGEMENTS

Firstly, I would like to thank my supervisor Assist. Prof. Gizem Arıkan for her guidance and great help she provided to me, and the time she spent for me during my thesis process. She was always open to me and my questions. Her efforts and support contributed a lot both to me and my thesis. She always motivated me during this process and encouraged me with supportive talks. I am also very thankful to my co-advisor Assoc. Prof. Asiye Kumru for her support providing to me and her suggestions.

I feel gratitude to my thesis committee member Assist. Prof. Ayfer Dost Gözkan and Assist. Prof. Zeynep Ceren Acartürk for accepting to be in my thesis committee and their precious intimation on my thesis.

I also feel a deep gratitude for Assist. Prof. Ali İlhan. He was very generous in helping me. He was always very patient while explaining the one of the most important step of my thesis. He thought me a lot in this process.

I am very grateful to my husband Mehmet Fatih Korkut for his belief in me. He always supported, motivated and encouraged me anytime I needed. He made me believe that I am capable more than I thought. He wanted me to share every step of my thesis with him. He always tried to contribute via his ideas and suggestions.

Lastly, I am thankful to my little family, especially my mother, for the support they provided throughout my whole life, for their emotional support, and their unconditional love.

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## CHAPTER 1

### INTRODUCTION

The child behavioral problems consisted of two broad-band categories, namely, internalizing problems and externalizing problems. Internalizing problems refer to problems within the self, whereas externalizing problems refer to conflict with the outside (Achenbach, 1978-79). The behavioral problems may occur early in life (Bagner, Rodriguez, Blake, Linares, & Carter, 2012; Reid, Walter, & O'Leary, 1999; van Zeijl et al., 2006), and have long-lasting negative influences (Danese et al., 2009; Edwards, Holden, Felitti, & Anda, 2003). The child-, maternal-, and environmental factors may decrease and increase the intensity of the behavioral problems. The research found that high level social support of parents act as a protective factor against the child behavioral problems (Burlaka, Bermann, & Graham-Bermann, 2015; Weitzman, Edmonds, Davagnino, & Briggs-Gowan, 2014) whereas the difficult temperament (Buss, 1991; Sanson, Hemphill, Yağmurlu, & McClowry, 2011), the high level of maternal stress (Gourley, Wind, Henninher, & Chinitz, 2013; Haapsomo et al., 2013; Henninger & Luze, 2014), the negative perception toward the child intentionality (Burchinal, Skinner, & Reznick, 2010), earlier expectation for child to gain mastery in particular skills (Fox, Platz, & Bently, 1995; Stallman & Ohan, 2016), and coming from low-SES background (Anton, Jones, & Youngstrom, 2015; Letourneau, Duffett-Leger, Levac, Watson, & Young-Morris, 2011) can be the factors that increase the likelihood and intensity of the child behavioral problems.



The present research focuses on the early childhood period and examine the impact of the individual, maternal, and environmental factors on children's externalizing and internalizing behavioral problems based on the Ecological System Theory of Bronfenbrenner (Bronfenbrenner, 1981). According to the Ecological System Theory, the individual and the environmental factors play a critical role in children's psychological well-being (Bronfenbrenner, 1981). These factors such as the child temperament, the parental attitudes, and the quality of living conditions of the family act as a cumulative source and shape the child development (Bronfenbrenner, 1981). Therefore, a wider perspective is needed to understand the interactive nature of the child development and factors associated with child's psychological well-being (Bronfenbrenner, 1981).

In the literature, the prevalence rates of the behavioral difficulties for preschool children were 16% in a German sample (Fuchs, Klein, Otto, & von Klitzing, 2013), 25.1% in a Taiwanese sample (Wu et al., 2012), and 14% in a US sample (Montes, Lotyczewski, Halterman, & Hightower, 2012). The studies indicated that according to the parent reports, behavioral problems tend to remain unchanged from 3-4 years of age to 4-5 years of age (Eisenhower, Baker, & Blacher, 2009), and from preschool period to childhood and adolescence (Angold & Egger, 2007; Anselmi et al., 2008; Briggs-Gowan, Carter, Bosson-Heenan, Guyer, & Horwitz, 2006; Campbell, Shaw, & Gilliom, 2000). In addition to this continuity, both internalizing (i.e., being introverted and unwilling to be with other people) and externalizing (i.e., his/her needs have to be met immediately) behavioral problems in early childhood period are associated with experiencing physical abuse from parents (McElroy & Rodriguez, 2008), poorer cognitive development at the age of 5 (Turney

& McLanahan, 2015), low grades in math and reading at primary and middle school period (Kristoffersen & Smith, 2015); peer victimization, low attention level and high level of hyperactivity (Forns et al., 2012); being arrested, and engaging in activities that children will regret such as substance use or early sexual activity in adolescence (Racz, McMahon, & Luthar, 2011). The studies showed that children can exhibit internalizing and externalizing symptoms starting from 12 months (Carter, Briggs-Gowan, Jones, & Little, 2003; Tremblay et al., 1999; van Zeijl et al., 2006) which can allow investigating the related factors and taking actions to prevent the adverse long-term effects at the very early stages of the problem behaviors. In later years, the effects of the internalizing and externalizing behaviors continue (Danese et al., 2009; Edwards, Holden, Felitti, & Anda, 2003). Although the toddlerhood period was not extensively studied in Turkey, the research focusing on preschoolers stressed out the importance of early years for behavioral problems.

The research with Turkish preschoolers demonstrated that children are likely to experience more behavioral problems than the Dutch (Bengi-Arslan, Verhulst, van der Ende, & Erol, 1997), and the European and the North American peers (Erol, Şimşek, Öner, & Münir, 2005). However, these studies did not fully show the potential factors that lead to more behavioral problems in Turkish sample compared to the Westerners (Yavuz, Selçuk, Çorapçı, & Aksan, 2017). Seven (2007) found that number of siblings, marital status, and gender of the child were the significant indicators of internalizing and externalizing problems, for 6-year-old Turkish preschoolers. The parental attitudes (Durmuşoğlu-Saltalı & Arslan, 2012), difficult temperament and parenting stress (Yavuz, Selçuk, Çorapçı, & Aksan, 2017) were also found as significant indicators of internalizing symptoms for 5-to-6 year-old and

2-to-6-year-old children, respectively. Furthermore, mothers who describe themselves as incompetent and dissatisfied with the parenting role, and have high level of anxiety in child rearing practices are more likely to have children with social, emotional and behavioral difficulties compared to mothers who do not have negative view and have lower level of anxiety for parenting practices (Yurdeşen, Erol, & Gençöz, 2013).

As both international literature and Turkish studies indicated above, behavioral problems among preschool children are common and predictors of these problems are related to both child and familial factors. However, there are not many research to understand the precursors of 1 to 4-year-old children's behavioral problems (Erol, Şimşek, Öner, & Münir, 2005; Yavuz, Selçuk, Çorapçı, & Aksan, 2017) and the studies are limited to mother-child relationship and parental attitudes (Bartan, 2010; Çakıcı, 2006; Dursun, 2010; Saygı & Balat, 2013). To detect early precursor for internalizing and externalizing behavior problems during toddlerhood can carry a critical importance to intervene and prevent the future adversities during childhood and adolescence. Therefore, the aim of the current thesis project is to fill that gap in the literature by examining relationship of socioeconomic status (SES), perceived social support, maternal stress, and mother's perception of child's intentionality with internalizing and externalizing behavioral problems of children, and the possible role of developmental expectations of mothers and temperament based on the Ecological System Theory Model (Bronfenbrenner, 1981).

## 1.1 Bronfenbrenner's Ecological System Theory

Bronfenbrenner (1981) criticizes theories of reinforcement (Skinner, 1938) and social learning (Bandura, 1977) in child development due to their weaknesses in establishing interactions between different settings and factors in these settings. Bronfenbrenner (1981) points out two disadvantages of these theories. Firstly, they are overly focusing on nonsocial aspects within the environment. Secondly, he (1981) states that these theories are reducing the environmental aspects to one immediate setting, which is actually the individual himself/herself without paying attention to inter-relations of the factors in different settings. Also, they tend to ignore the influence of historical period or cultural values. In order to adopt a wider perspective, Bronfenbrenner (1981) proposed the Ecological System Theory, which takes into account human development within the framework of active and reciprocal changing relations among various elements in different settings (See Figure 1).

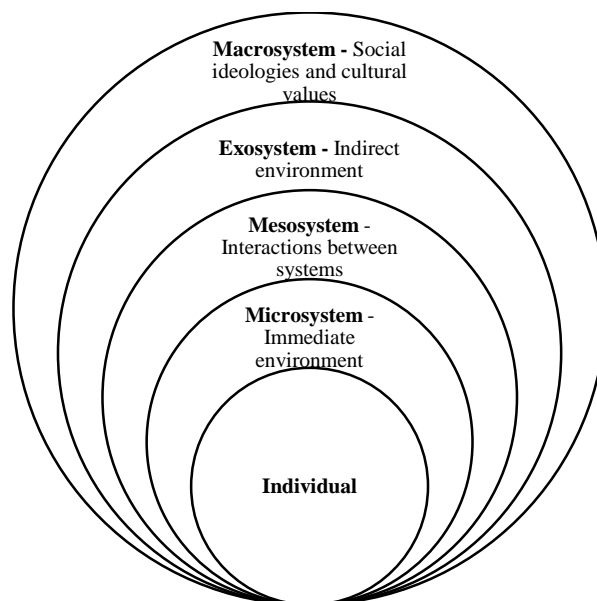


Figure 1. Bronfenbrenner's Ecological System Theory model.

The Ecological System Theory (Bronfenbrenner, 1981) consists of different layers from micro level to macro level and stresses the interrelation among different layers, namely, *the individual, microsystem, mesosystem, exosystem, and macrosystem*. The *individual characteristics* such as age, sex, or health should always be taken into consideration for child development. Bronfenbrenner (1981) gave importance on the concept of “experience”. He considered the individual as an active agent. “What matters for behavior and development is the environment as it is perceived” (p.4), not what it actually is. Bronfenbrenner (1981) defined parents, siblings, home structure, day care, or playground as some of the examples of *microsystem*, in which individual has a direct, immediate, and face-to-face interaction and experience shared activities, and relations. Moreover, these elements of the immediate environment (i.e., parents and siblings) are likely to influence child’s socioemotional (Atzaba-Poria, Pkie, & Deater-Deckard, 2004; Cruise & O’Reilly, 2014), cognitive and physical development (Cruise & O’Reilly, 2014).

The next setting is *the mesosystem*, which refers to the interrelations between elements of different systems (i.e., school, home, and peers), in which the individual participates in an active way (Bronfenbrenner, 1981). As the individual actively participate, the *mesosystem* also entails the new relationships established by the child. A child would have active participation only at home during infancy period, whereas new settings such as a kindergarten or a sport center, and new relationships such as friendships, would be included in his/her environment as he/she grows up. All these new settings bring new relations and interconnections of these elements. For example, as child establishes different friendships, parents also have connections with child’s teachers and other parents. The interrelations between settings may

occur in four types; *multisetting participation*, *indirect linkage*, *intersetting communications*, and *intersetting knowledge*. The *multisetting participation* is defined as simultaneous participation of the individual, such as spending time both at home and at day care. The home environment may influence the day care as well as the day care environment may influence the household (Ahnert & Lamb, 2003; Carcamo, Vermeer, van der Veer, & van IJzendoorn, 2016). Moreover, *indirect linkage* of the mesosystem refers to the influences of the third parties such as assistance of a parent while building a relationship with a friend. (Bronfenbrenner, 1981). The *intersetting communication* refers to the transmission of the information between people from different settings such as communication between teachers and parents. The *intersetting knowledge* refers to the experience that is about one setting but occurs in a different setting such as discussion about the friendship style of the child with one of his/her friends. So, Bronfenbrenner (1981) stresses the interaction between all unique elements of the environment with each other. In line with that, the research also supported that the chaos in the children's contexts, such as family life and parents' workplace, has reciprocal impact and child health may be influenced by this particular relationship (Dush, Schmeer, & Taylor, 2013). Therefore, various factors in different settings should be taken into consideration as a whole, not as independent parts from each other to understand the child.

The next system of the Ecological System Theory is *exosystem*, which refers to the setting where the individual does not actively participate but rather is influenced by the events occurring in that setting (i.e., the parents' workplace and siblings' schools) (Bronfenbrenner, 1981). Bronfenbrenner (1981) criticizes the studies investigating external influences such as parental social support or parents'

work places, because the child is the “forgotten figure” in those studies. Some researchers do not take into account the child’s active influence on different settings via affecting her/his parents. Those researchers tend to investigate either the effects of parents on children or the relation between parents and external elements (Bronfenbrenner, 1981). However, there is definitely an indirect influence of extra-familial structures on children and an indirect influence of the child on extra-familial structures (Bronfenbrenner, 1986; Payne, Cook, & Diaz, 2012). According to the longitudinal study of McDonald et al. (2016), maternal depression and low engagement with the community (i.e., attending a fitness center or a baby class) are risk factors that increase the possibility of developmental delay within one year of age whereas social support, health service utilization, positive child care environment, and attending community services for the mother or the child are the protective factors for children at risk of developmental delays. Moreover, work experience of parents has also significant impact on preschool children (Vieira, Matias, Ferreira, Lopez, & Matos, 2016). The study found a direct positive association between fathers’ perceived work-family conflict, and an indirect positive association between mothers’ perceived work-family conflict with children’s internalizing and externalizing behaviors (Vieira et al., 2016). This finding suggested that parents’ work place conflicts affect children even though the child him/herself does not have a direct and an active participation in parents’ work place. The more the parents experienced conflict and stress at work, the more the child experienced behavioral problems (Vieira et al., 2016).

Finally, the *macrosystem*, covers all the lower-level systems with a focus of the effects of society, culture, history, social conditions, believes, and economic

system (Bronfenbrenner, 1981). Bronfenbrenner (1981) proposed that social change has an important impact on child's well-being and psychological growth. In line with his view, the research showed that children and adolescents from ethnic minority groups and/or who experience racial and ethnic discrimination are more likely to develop behavioral and emotional problems (Belhadj Kouider & Koglin, 2014; Flink et al., 2013), socioemotional difficulties (Zilanawala, Sacker, Nazroo, & Kelly, 2015), have lower academic self-efficacy (Forrest-Bank & Jenson, 2015), lower access to receive health care for their behavioral and emotional problems (Bevaart et al., 2014) compared to their native peers. Another study conducted with minorities clearly depicted the effects of the *macrosystem* on the individual (Daga, Raval, & Raj, 2015). In that study, a comparison was made between Indian immigrants and white American school-age children in the US based on parental emotion socialization and children's social competence and behavioral problems. The results indicated that Indian immigrant mothers had lower awareness regarding their own and their children's emotions and reported less acceptance of emotions compared to white American mothers (Daga, Raval, & Raj, 2015). Hence, the effects of different cultural values, historical backgrounds, or ethnicities may result in different outcomes.

In the light of Bronfenbrenner's Ecological System Theory, the current study focuses on child temperament as the element of *individual level*. The mother's perception of child intentionality, developmental expectation of the mother and maternal stress are the elements of *microsystem* that are included in the present study. The elements of *exosystem* are perceived social support and socioeconomic status (See Figure 2). Additionally, the current thesis project investigates how these



elements separately and jointly influence child internalizing and externalizing behavioral problems during toddlerhood.

In the following sections, I will first focus on temperament with regard to *individual level*. Then, I will explore the relationship among factors of the maternal stress, the mothers' perception of child's intentionality, and the developmental expectations of mothers on internalizing and externalizing behaviors in the *microsystem*. Lastly, I will examine the perceived social support and the socioeconomic status of *exosystem* and their impact on the internalizing and externalizing problems.

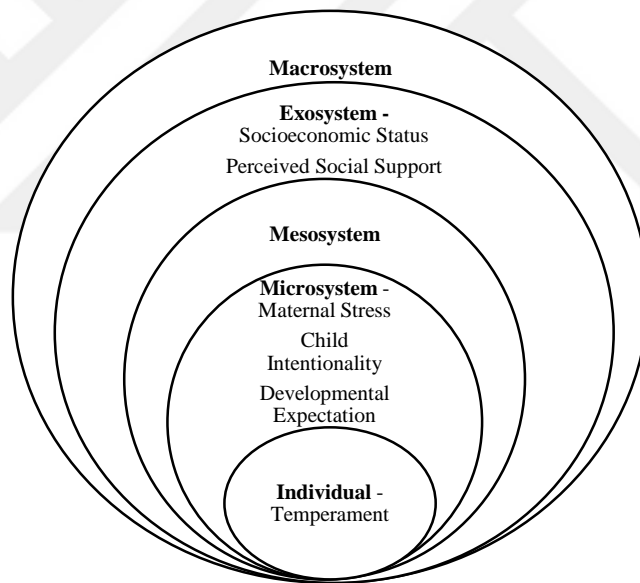


Figure 2. The factors explored in the thesis project with respect to Bronfenbrenner's Ecological System Theory (Bronfenbrenner, 1981).

## 1.2 Individual Level: The Child Temperament

The temperament refers to “individual differences in emotional, motor, and attentional reactivity to stimulation, and in patterns of behavioral and attentional self-

regulation” (Putnam, Sanson, & Rothbart, 2002, p. 255). One of the most widely cited model to examine temperamental differences of children divided temperament into three dimensions, namely *easy*, *slow-to-warm up*, and *difficult*, focusing on child’s level of negative mood, withdrawal behaviors, and their intensity (Thomas, Chess, Birch, Hertzig, & Korn, 1963). Another model of temperament suggested that two broader dimensions constitute the temperament, *negative emotionality* or *reactivity*, and *self-regulation* (Rothbart & Bates, 1998). The negative emotionality, or reactivity, refers reacting negatively to the any changes, novelty, or limitations within the environment (Rothbart & Bates, 1998). The self-regulation, on the other hand, refers to effortful control (Rothbart & Bates, 1998). Currently, one of the most cited view in temperament is the Buss and Plomin’s (1984) temperament dimensions, namely, *emotionality*, *activity*, and *sociability* and their view got several advantages over other temperament theories.

Compared to previous theories, they used broad traits, which are inclusive of different sub-dimensions of temperament such as *emotionality*, which indicates any kind of stress, rather than fearfulness, for instance, which is limited to social situations. Secondly, broad traits provide developmental consistency; the elements of the temperament dimension in infancy and early childhood would also be relevant in middle childhood and adulthood. According to Buss and Plomin (1984), temperament is an inherited personality trait that emerges during infancy and early childhood period, and persistent later in life. Buss and Plomin (1975) first concluded that there are four dimensions of temperament; *emotionality*, *activity*, *sociability*, and *impulsivity*.

The emotionality refers to the stress of the child as an autonomic response, fear, and anger; such as immediately going back to mother in any dangerous situation, or the cringing response due to fearful stimuli (Buss, 1991). The activity, on the other hand, refers to “the expenditure of physical energy”; such that infant’s amount and speed of movements, or intensity of the behaviors (Buss, 1991). The sociability refers to tendency to prefer spending time with others rather than staying alone; such as seeking for the company of others, or seeking to have the full attention of others while talking (Buss, 1991). Lastly, impulsivity involves having trouble with impulse control, resisting, and making quick decisions (Plomin, 1976). However, they later dropped the impulsivity due to lack of research that measuring impulsivity as a temperament dimension and mixed results of these studies regarding whether impulsivity is inherited or not (Buss & Plomin, 1984). They also suggested that only *emotionality*, *activity*, and *sociability* meet the features of temperament (inheritance, early emergence, and persistence) (Buss & Plomin, 1984).

These three dimensions of temperament are related to behavioral problems of children (Buss, 1991). Buss (1991) claimed that children low in sociability, for example, may feel fear in novel situations, which might be related to anxiety. Moreover, children high in activity may be restless and might be labeled as hyperactive (Buss, 1991). Also, children high in emotionality might have temper tantrums or might have higher level of anger (Buss, 1991). The studies on internalizing behavioral problems focused on the relationship between inhibition, emotionality, reactivity, and fearfulness, while the research on externalizing behaviors examine the associations between reactivity, emotion regulation, sociability, and effortful control during toddlerhood and childhood (Sanson,

Hemphill, Yağmurlu, & McClowry, 2011). A longitudinal study also found supportive results indicating that irritability and acceptance predict internalizing problems of children, whereas externalizing problems of children were predicted by fearfulness and irritability during childhood period (Lengua & Kovacs, 2005). Also, the negative emotionality and emotional dysregulation are predictors of externalizing behaviors, whereas high inhibition and negative reactivity are risk factors for internalizing behaviors (Sanson, Hemphill, Yağmurlu, & McClowry, 2011). The children with difficult temperament, exhibiting more reactivity, experience internalizing or externalizing difficulties (Carrasco, Holgado-Tello, Delgado, & Gonzalez-Pena, 2016; Kochanska & Kim, 2013; Lawson & Ruff, 2004) during toddlerhood. Another study done by Mills et al. (2012) with 2-to-6-year-old children revealed that child inhibition is directly and positively related to internalizing problems. Moreover, the longitudinal studies showed that temperamental characteristics at the first years of life is a significant predictor for behavioral problems during toddlerhood (Abulizi, Pryor, Michel, Melchior, & van der Waerden, 2017; Guedeney, Pingault, Thorr, & Larroque, 2014; Sidor, Fischer, & Cierpka, 2017) and adolescence (Fanti & Henrich, 2010). So, temperamental characteristics are one of the strongest predictors of developmental problems for toddlerhood and childhood period.

The long-term effect of temperament carries great importance especially as a predictor of child's internalizing and externalizing behaviors (Fanti & Henrich, 2010). Also, the patterns and the association between temperamental characteristics and internalizing and externalizing behavioral problems are stable over time (Janson & Mathiesen, 2008). Still there is evidence indicating certain parental factors such as

parental stressors (Stifter & Wiggins, 2004) or social support (Belsky, 1990) can interact with the effect of temperament and predict behavioral problems.

In the study of McBride, Schoppe, and Rane (2002), mothers who perceive their children as more intense in emotionality were more likely to report maternal stress, whereas having less active children linked with less maternal stress. In addition, mothers who perceive their infants and toddlers as “difficult”, in other words children high in stress, withdrawal, and activity (Bates, 1983), were more likely to experience maternal stress (Coplan, Bowker, & Cooper, 2003; Molfese et al., 2010). On the other hand, social support of parents was found to protect the parent-child relationship even the child was high in irritability (Belsky, 1990).

In Turkey, Yoleri (2014) examined the relation between temperament and behavioral problems among children at 5-6 years of age and showed a significant positive association between reactivity and externalizing behaviors. Moreover, Yavuz, Selçuk, Çorapçı, and Aksan (2017) found that Turkish preschool children between the ages of 2 to 6 with fearful temperament are more likely to experience internalizing symptoms, whereas positive affectivity is related to lower internalizing problems. Although the research in Turkey demonstrated the relationship of child temperament with prosocial behavior (Yağmurlu & Sanson, 2009; Yağmurlu, Sanson, & Köymen, 2005), and school adjustment (Yoleri, 2014), the findings regarding the joint-influence of the temperament and parental characteristics on behavioral problems of toddlers are limited. Therefore, in the present study I wanted to explore the association of temperament dimensions, namely emotionality, activity, and sociability (Buss & Plomin, 1984), and parental factors of social support,

maternal stress, mothers' perception of intentionality, developmental expectation, and internalizing and externalizing behaviors.

### **1.3 Microsystem**

#### **1.3.1 The Maternal Stress**

The parental stress involves stress due to parents' interaction with their children, their insufficient coping strategies, their lack of competence, and their negative feelings about parenting role (Anthony et al., 2005; Deater-Deckard, 1998; Leigh & Milgrom, 2008). There are various studies and reviews demonstrating the effects of prenatal maternal stress on child outcomes such as behavioral and emotional problems (Betts, Williams, Najman, & Alati, 2015; Glover, 2014; Leis, Heron, Stuart, & Mendelson, 2014; Park et al., 2014). Similarly, after birth, the more maternal stress, the more behavioral and emotional problems children exhibited during early childhood (de Cock et al., 2017). The maternal stress at the early stages is linked with maternal bonding and may contribute to functioning problems during toddlerhood (de Cock et al., 2017). Later, the children with parents, who experience maternal stress, are more likely to display aggression at middle childhood period (Krahe, Bondü, Höse, & Esser, 2014), internalizing problems at early childhood period (Haapsamo et al., 2013) and externalizing behaviors at toddlerhood and early childhood period (Gourley, Wind, Henninger, & Chinitz, 2013; Henninger & Luze, 2014). The adverse effect of maternal stress was also demonstrated in longitudinal studies.

Haapsamo et al. (2013) showed that maternal stress when child is 8 months of age was highly related to children's behavioral problems at 18 and 36 months of age.

Internalizing problems at 5 was predicted by maternal stress at the age of 2 (Mantymaa, Puura, Luoma, Latva, Salmelin, & Tamminen, 2012). Another longitudinal study, which consist of 2-to-11-year-old children and their mothers indicated a strong positive association between maternal stress in infancy and toddlerhood, and externalizing problems in childhood and preadolescence period (Henninger & Luze, 2014). Moreover, this study demonstrated that there was a significant effect of poverty on children's behavioral problems, only when parental stress of mothers was high. Woodman, Mawdsley, and Hauser-Cram (2015) also showed that the maternal stress at the age of 3 predicted later child behavioral problems at the age of 18. The findings depicted maternal stress affects child well-being both directly and indirectly.

Although the maternal stress remains mostly stable across time (Crnic, Gaze, & Hoffman, 2005; Hankin, Fraley, & Abela, 2005; Pesonen et al., 2008) and is a promising preventive element for the future interventions (Haapsamo et al., 2013), the studies in Turkey investigated the role of maternal stress in pregnant women (Dağlar & Nur, 2014; Sayil, Güre, & Uçanok, 2007), or mothers of children with special needs (Topuz, Ülger, Elbasan, Yakut, & Ayhan, 2014; Yağmurlu, Yavuz, & Sen, 2015), or mothers with preterm babies (Uludağ & Ünlüoğlu, 2012; Yaman & Altay, 2015). The research examining the effects of maternal stress of mothers on children's behavioral problems are limited (Yavuz, Selçuk, Çorapçı, & Aksan, 2017). Yavuz et al., (2017) found that parental stress of mothers has a weak direct and indirect effect on internalizing problems of preschool children aged 2 to 6. Therefore, the present study has a goal to explore the level of parental stress in Turkish mothers

of toddlers and the relationship between maternal stress and child behavioral problems.

### **1.3.2 Mediation of the Maternal Stress between the Temperament and Behavioral Problems**

The maternal stress was found as related with child temperament in various studies. Mothers of infants with high in emotionality, were more likely to experience maternal stress (Yu & Kim, 2016). Another study investigating the role of temperament on the maternal stress found that negative emotionality of the child was positively associated with the maternal stress (McBride, Schoppe, & Rane, 2002). Nevertheless, the studies focusing on the mediational role of the maternal stress mostly focused on its influence on the relationship between traumatic life events and behavioral problems (Whitson & Kaufman, 2017), maternal mental health and child behavioral problems (Sales, Greeno, Shear, & Anderson, 2004), adverse life events and anxiety the child experience (Platt, Williams, & Ginsburg, 2016). Even though the maternal stress was found associated with child temperament and child behavioral problems, there was no study examining the role of maternal stress as a mediator in the relationship between child temperament and child behavioral problems. Thus, in the follow-up study, I aimed to examine the role of maternal stress as a mediator.

### **1.3.3 The Mother's Perception of the Child Intentionality**

Feldman and Reznick (1996) defines intention as “doing something on purpose” (p. 483). When using this term for an infant, it refers that people consider an infant's action as purposely and with an assumption that the infant is aware of



what she/he is doing (Feldman & Reznick, 1996). The parents' perceptions regarding to the infant intentionality influences the parenting strategy, and parents' ability to recognize their children's beliefs, goals, and states (Feldman & Reznick, 1996). Furthermore, parents' perception about their infants' behaviors affect the quality of parent-child interaction, parental sensitivity, and the parental interpretation of child's behavior (Feldman & Reznick, 1996), the use of physical punishment (Burchinal, Skinner, & Reznick, 2010), and the child-rearing environment (Daggett, O'Brien, Zanolli, & Peyton, 2000).

Feldman and Reznick (1996) investigated the association between parents' perception of infant intentionality and parental knowledge, emotional adjustment, and sensitivity of mothers longitudinally, when the children were at 4 and 8 months old. The results revealed that parental negative perception regarding infant intentionality at the age of 4 months was highly and negatively associated with parent-infant interaction when infants were 8 months. When parents consider their infants' negative actions, such as crying, as intentional, they are less likely to be sensitive towards their children. Later, Burchinal, Skinner, and Reznick (2010) examined whether there is a cultural difference in parenting and what promotes different types of parenting in European and African American mothers, living in the US, by using both qualitative and quantitative methods. The result revealed that the most of the mothers believe that when their children are about 10 months of age, they are capable of understanding and learning everything. Moreover, mothers who report that their infants misbehave intentionally, were more likely to use physical punishment to stop and fix that negative behavior at the age of 12 months in order to prevent the child from being spoiled and developing behavioral problems (Burchinal,

Skinner, & Reznick, 2010). Also, mothers who believe in the importance of harsh discipline to avoid their children being spoiled, were less responsive and stimulating toward their infants during free play activities. As a result of this perceived negative intentionality and physical punishment, those mothers' interaction with their infants were less sensitive (Burchinal, Skinner, & Reznick, 2010). These findings do not only emphasize the universality and importance of mothers' attributions about their children's behaviors, but they also pinpoint the underlying reasoning behind harsh discipline.

There are studies examining the role of the maternal insightfulness, which has similar components with mother's perception of child intentionality (Koren-Karie, Oppenheim, Dolev, Sher, & Etzion-Carasso, 2002; Meins, Fernyhough, Fradley & Tuckey, 2001; Oppenheim, Goldsmith, & Koren-Karie, 2004). The maternal insightfulness refers to how much parents are able to understand the underlying reasons behind the child's behaviors by considering perspective of the child (Koren-Karie et al., 2002). So, mothers who have high or positive insightfulness may demonstrate a better and more accurate understanding about their children's intentions. The research showed that mothers with positive insightfulness were high in maternal sensitivity and their children were more likely to have secure attachment (Koren-Karie et al., 2002; Meins et al., 2001). Moreover, the study of Oppenheim et al. (2004) found that positive insightfulness of mothers was associated with low level internalizing and externalizing problems.

In Turkey, Bayram Özdemir and Cheah (2015) examined the parenting beliefs (locus of cause, stability, and intentionality) of mothers of children aged 3-to-

6-years. They focused on whether there is a difference in parenting beliefs regarding the child aggressive and socially withdrawn behaviors, and whether the mother perceive aggressive and withdrawal behaviors of their children as intentional or not. According to the study results, mothers have a tendency to consider their children's aggressive behaviors as intentional, but not socially withdrawn behaviors. However, this study only examined whether mothers perceive their children's particular behaviors as intentional or not, without pointing out the effect of mothers' perception on child behaviors. Therefore, the present study aims to explore the influence of mothers' perception toward their children's intentions on the child behavioral problems.

#### **1.3.4 Mediation of the Mothers' Perception of Child Intentionality between the Maternal Stress and Behavioral Problems**

The research indicated that mothers' positive perception toward their children increase their sensitivity and also facilitates child's secure attachment (Koren-Karie et al., 2002; Meins et al., 2001). Moreover, when mothers accurately and positively identify the underlying reasons behind their children's behaviors, the children are less likely to experience internalizing and externalizing problems (Oppenheim et al., 2004). The studies also suggested a positive relationship between negative perception of mothers toward their children and internalizing (Chorpita & Barlow, 1998) and externalizing problems (Crittenden, 1988). Therefore, to understand the factors, which are associated with how mothers' perceive their children's behaviors and feelings, such as parents' experience with children (Morey & Gentzler, 2017), the child's temperament (Kochanska, 1993; Parke & Buriel, 1998; Putnam, Sanson, &

Rothbart, 2002), and parental and child characteristics, and stress and support of the parents (Belsky, 1984) is critical.

Hildingsson and Thomas (2014) suggested that when mothers have high level of stress due to their parenting role, they are more likely to use attitudes in favor of corporal punishment and blaming the child as a reason for this punishment style. They also pointed out that not the child's age or sex but the maternal stress increases the mothers' attitudes to use punishment (Hildingsson & Thomas, 2014). Therefore, I aimed to investigate the mediational role of mothers' perception toward their children's intentions on the relationship between the maternal stress and behavioral problems. Also, I explored whether mothers' perception of child intentionality do change in time.

### **1.3.5 Mediation of the Mothers' Perception of Child Intentionality between the Perceived Social Support and Behavioral Problems**

Even though the research showed that mothers' perceptions and attitudes toward their children's behaviors and intentions are important factors influencing parent-child relationship (Koren-Karie et al., 2002; Meins et al., 2001) and child behavioral problems (Oppenheim et al., 2004), there is no study, to my knowledge, investigating mother's perception of child intentionality as a mediator between the social support of parents and child behavioral problems. However, some findings in the literature emphasizes the important role of maternal perceptions and attributions (Chorpita & Barlow, 1998; Crittenden, 1988; Oppenheim et al., 2004).

A positive association was found in the relationship between the negative perception of mothers and child behavioral problems (Chorpita & Barlow, 1998;

Crittenden, 1988; Oppenheim et al., 2004). Moreover, Belsky (1984) demonstrated that when mothers receive support from their environment, they are more likely to have positive attitudes toward their children and less likely to favor physical punishment.

Since the maternal perception, social support and child behavioral problems have associations between each other in the literature, I aimed to extend the literature regarding the mothers's perception toward child by examining the role of mothers' perception as a mediator in the relationship between the perceived social support and child behavioral problems. I expected that the positive intentionality would increase the positive influence of social support, whereas the negative intentionality would decrease the positive influence of social support on behavioral problems.

### **1.3.6 The Developmental Expectations of the Mothers**

The developmental expectation refers to the mother's belief about at which age her child would have competence and mastery in a particular developmental skill (Hess, Kashiwagi, Azuma, Price, & Dickson, 1980). The studies regarding developmental expectation of mothers generally examined the maternal knowledge about child development as a precursor for expectation; less knowledge were associated with both overestimation and underestimation of development (Kliman & Vukelich, 1985; Reis, 1988). The developmental expectation is one of the determinants for parenting practices and therefore plays a predictive role in children's externalizing problems and prosocial behaviors (Stallman & Ohan, 2016), behavioral problems (Fox, Platz, & Bently, 1995), and children's academic success (Kan & Tsai, 2005). Fox et al. (1995) investigated the relationship between parenting

practices (i.e., perceived behavioral problems of child, disciplining or nurturing behaviors of mothers) and the factors predicting these parenting practices (i.e., age of the mother, maternal expectation, income, education) with mothers who have children between 1 and 5 years of age in a questionnaire study. The results showed that high maternal developmental expectation about the child development is associated with more parenting discipline (i.e., yelling) and less nurturing behaviors (i.e., reading child during the bed time), which predicted more child behavioral problems (Fox et al., 1995). In addition, Daggett, O'Brien, Zanolli, and Peyton (2000) found that mothers who have unrealistic and inappropriate expectations about their children's development, were more likely to perceive their children's behavior as problematic and their misbehaviors as intentional. Moreover, socioeconomic status was also found to be associated with the mothers' developmental expectations (Hess, Kashiwagi, Azuma, Price, & Dickson, 1980). The higher level of socioeconomic status was associated with earlier expectation of child's mastery in skills related to school success (Hess et al., 1980). In addition, mothers with higher level education expected their children to reach the developmental milestones earlier (Davis-Kean, 2005; Halle, Kurtz-Costes, & Mahoney, 1997; Williams & Williams, 2000; Williams, Williams, Lopez, & Tayko, 2000).

In Turkey, Nacak, Yağmurlu, Durgel, and van de Vijyer (2011) compared metropolitan and rural city mothers' parenting behaviors and child rearing environment. They found that mothers with higher education degrees were more likely to have earlier expectation for the child development in all domains except for moral development. As studies indicated, mothers' developmental expectations influence child rearing practices and mothers' perceptions. Therefore, identifying the

influence of expectations of mothers is important to alter their thinking with interventions and prevent the children from harmful parenting practices. Thus, in the current paper, I will focus on the perceived social support, maternal stress and the mother's perception of child intentionality as the factors associated with the developmental expectation and examine whether expectation of mothers are associated with child behavioral problems.

## **1.4 Exosystem**

### **1.4.1 The Perceived Social Support**

The social support refers to the variety of available support sources such as family or friend and the feeling of satisfaction from these sources (Sarason, Sarason, Shearin, & Pierce, 1987). Turnbull, Turnbull, Erwin, and Soodak (2006) also defined social support as a feeling of comfort that the individual feels in relationships with others such as family, friend, neighbor, work-partner, or special others. The sources of social support can be one's spouse, friends or family, leisure time activities, and accessing to community services or programs (Siklos & Kerns, 2006). The perceived social support emphasizes the "perceived" element refers to person's feeling of whether his/her needs were met by someone else (Siklos & Kerns, 2006). What matters in perceived support is not the number of supportive sources (i.e.; family, friend, or community services) but the individual's thoughts and feelings about this support. The studies also indicated that when mothers felt that their needs are really met by a supportive intervention program, they are more likely to report benefits regarding the support they received (Donovan, 1988; Konstantareas & Homatidis, 1989; Konstantareas, 1991). Therefore, the "perceived" social support carries a

personal importance since it directly refers to what parents' feelings about how their needs are met (Siklos & Kerns, 2006).

During toddlerhood, parents undergo stress due to issues about development of their children, concerns about how to communicate with them, problems with time management among various responsibilities (i.e., caring with the child, managing the job and caring with the home), or trying to keep the balance in closeness among siblings (Kwon, Han, Jeon, & Bingham, 2013). Abidin's stress model (1992) also indicated that the most common parenting challenges can be listed as difficult characteristics of the child, parent's feeling of incompetency, and lack of supportive resources. The research exploring the link between social support and child development suggested that social support can act as a protective factor against the child's behavioral problems, living in low-SES environment, and parenting challenges such as time management (Hsiao, 2016; McDonald, Kehler, Bayrampour, Fraser-Lee, & Tough, 2016; Kwon, Han, Jeon, & Bingham, 2013; Peer & Hillman, 2014), undergoing financial problems (Lee, Lee, & August, 2011), and parental mental health problems (Feldman, McConnel, & Aunos, 2012; Khan, Hanif, & Tariq, 2014).

Breevaart and Bakker (2011) found that social support buffers the adverse effects of the child behavioral problems and enhances the quality of family life of parents. In other words, parents of children with behavioral problems benefit from the support they gained from colleagues, family, and spouse. The low level of perceived social support of parents was a risk factor to develop socio-emotional and behavioral problems for children between 12-to-48 months and coming from low



income background (Weitzman, Edmonds, Davagnino, & Briggs-Gowan, 2014). Moreover, Burlaka, Bermann, and Graham-Bermann (2015) showed that preschoolers of mothers with low level social support were more likely to develop internalizing problems at 3 to 5 years of age compared to mothers who receive high social support from family, friend, colleagues or a religious leader. So, high level of social support increases the chances of healthy development of the child whereas low level of social support increases the likelihood of various problems during toddlerhood and childhood.

The Turkish studies with mothers who have preschool-age children, generally focused on the support of mothers received from family, friend and a special someone (Bayraklı & Kaner, 2012; Özbey, 2012; Sivrikaya & Çiftçi Tekinarslan, 2013; Yıldırım Sarı et al., 2012). Özbey (2012) investigated the relationship between behavioral problems of preschool children, marital adjustment and perceived social support of parents. The results indicated that there was a negative relationship between child behavioral problems and parental social support. Akçınar and Baydar (2016) investigated the relationships between harsh discipline from mothers, support from the spouse, family and neighbors, and externalizing problems of children at the age of 36-47 months in a 4-years longitudinal study. The results showed that when support from the father to mother increased, the harsh discipline of the mother and externalizing behaviors of the child decreased. The weak negative association was also found between support from family and neighbors, and child externalizing problems. Moreover, the high quality of social support enhanced the problem-focused coping strategies and resiliency in mothers (Bayraklı & Kaner, 2012). The previous research demonstrated that social support plays a critical role for mothers

who undergo stress due to their children's conditions (i.e., behavioral problems). Therefore, I aim to explore the association between perceived social support with mothers' perceptions of children and children's behavioral problems during toddlerhood in order to understand the impact of social support in different SES groups.

#### **1.4.2 The Socioeconomic Status**

Even though there is no single description for socioeconomic status (SES), in general, high SES refers to accessibility to more resources that promote positive development such as high level of income, high parental education, or a wealthy neighborhood that has opportunities for community connections or social activities (Ensminger & Fotherill, 2003). There are studies focusing on effects of poverty itself, effects of education level itself, or effects of SES as a composite component including both income and maternal education (Ensminger & Fotherill, 2003). In the review paper of Ensminger and Fotherill (2003), examining 80 journal issues in the last decade (from 1991 to 2000), maternal education and income were found as the major components of (SES) among studies focusing on child development, health and behavioral problems, parenting, family background, and poverty. The poverty was considered as one of the risk factors for physical, cognitive, and socioemotional development of children (Gershoff, Aber, & Raver, 2005; Yoshikawa, Aber, & Beardslee, 2012). Furthermore, the research and the reviews showed that children born and grow-up in poverty are more likely to experience physical deficits (Cushon, Vu, Janzen, & Muhajarine, 2011; Miller & Chen, 2013) and deficits in physical growth in infancy, childhood and adolescence (Krishna et al., 2015). Moreover, the

children, who live in poverty have lower cognitive test scores at the ages of 3, 5, and 7 (Dickerson & Popli, 2016), have developmental delay in cognitive and communication domains (Reyes-Aragon et al., 2016), and experience behavioral problems (Ackerman, Brown, & Izard, 2004; Flouri, Midouhas, & Joshi, 2014) compared to children who do not live in a poor environment. In their longitudinal study, Henninger and Luze (2014) found a strong positive association between poverty and child externalizing problems, which remains stable from the age of 2 to 11. In addition, the longer time the children spend in poverty, the intensity of externalizing problems becomes higher (Henninger & Luze, 2014).

The other critical social factor associated with child behavioral problems is the maternal education (Carneiro, Meghir, & Parey, 2013; Graves Jr., Blake, & Kim, 2012; Harding, 2015; Kalil, Ryan, & Corey, 2012). The toddlers whose mothers have lower education were more likely to exhibit internalizing behavior problems at the age of 3 to 5 compared to children whose mothers with high level education (Burlaka, Bermann, & Graham-Bermann, 2015). Also, the mothers who have high school or lower level of education spend less time with their children (Kalil, Ryan, & Corey, 2012), and their children are more likely to exhibit behavioral problems, experience class repetition, and have less investment from their parents (Carneiro, Meghir, & Parey, 2013) compared to mothers who have at least a college degree. On the other hand, high level of maternal education may have a positive role on mothers' perception about their children's development. Graves Jr., Blake, and Kim (2012) investigated the prevalence of behavioral problems among 2 to 5-year-old children by collecting data from both mothers and teachers. The results showed that mothers, who have high school or below education were more likely to perceive their children

as having aggression problems and social skill deficits unlike mothers, who have college or above education degrees. The study focusing on high maternal education as a protective factor demonstrated that maternal education influences child's cognitive and behavioral development positively in 3 and 4-year-olds in low-income groups (Harding, 2015). Moreover, in the second phase of the same study, increase in maternal education was measured by asking mothers' education level at the second time point of the study and whether they attended any additional courses at school, college, or university between the two time points was noted (Harding, 2015). The results showed that increase in mothers' education level was positively associated with cognitive skills of children; but not associated with their behavioral problems. The stability of behavioral problems from the age of 3 to 7 suggests that early interventions during toddlerhood can be critical.

The family income and maternal education were also investigated together as a composite component of SES (Dietrichson, Bog, Filges, & Jorgensen, 2017; Piotrowska, Stride, Croft, & Rowe, 2015; Schüz, Li, Hardinge, & McEachan, 2017). The findings indicated that low SES is strongly related to poorer development in literacy and language, more aggression, internalizing problems (Letourneau, Duffett-Leger, Levac, Watson, & Young-Morris, 2011), poorer academic achievement (Şirin, 2005), lower cognitive development of preschool children (Pike, Iervolino, Eley, Price, & Plomin, 2006) and high level of externalizing problems in adolescence (Anton, Jones, & Youngstrom, 2015). Mills et al. (2011) examined multiple factors related to child, maternal, and environmental characteristics and how they are associated with internalizing problems in 2 to 6-year-old children. According to their results, low level of parental education and low family income were directly related

to experiencing internalizing problems. Similarly, in Turkey, the findings also stress out the importance of low SES in child outcomes.

In Turkey, SES is generally explained within the concept of quality of environmental conditions, migration rate, rural/urban/suburban areas, maternal education, type of residence (i.e., squatter house) and income level (Çakıcı, 2006; Kağıtçıbaşı, Sunar, & Bekman, 2001; Ural & Kanlıkılıçer, 2010). The study conducted with Turkish preschoolers indicated that socioeconomically disadvantaged environment (i.e., rural areas, neighborhood, low educated mothers and financial problems) is an important risk factor for preschool children and related to experiencing more behavioral problems compared to children, who live in better living conditions such as living in urban places with highly educated mothers (Ural & Kanlıkılıçer, 2010). Çakıcı (2006) also found that Turkish mothers of toddlers and preschoolers from low socioeconomic status experience more difficulties in problem solving strategies, caring their children, and have negative relationships with their children compared to mothers from higher socioeconomic status. Moreover, Dereli and Dereli (2017) found that mothers who have lower level education (i.e., primary school graduate) and have lower level income (i.e., 0-1000 TL and 1001-2000TL in month) were more likely to have negative and conflicting relationships with their toddlers compared to mothers who have higher education degree and income. They also found that this negative and conflicting relationship between mothers and children predicted psycho-social development of children negatively (Dereli & Dereli, 2017); mothers' education level and income indirectly affected the child development. The SES was a significant risk factor both in Western and Turkish studies. However, the studies focusing on the effects of maternal education level and

income, and comparing different SES groups during toddlerhood are limited in Turkey (Dereli & Dereli, 2017; Tezel-Şahin & Cevher, 2007). Therefore, examining the maternal education level and the income as a composite score and making comparisons among different SES groups to understand factors associated with child's behavioral problems during toddlerhood would be a critical contribution to the Turkish literature.

### **1.5 The Aim of the Study**

As I covered in the literature review, the various studies depicted the associations between socioeconomic status, perceived social support, maternal stress, mother's perception of child intentionality, developmental expectations of mothers, and child temperament, and internalizing and externalizing behavioral problems. However, these associations were not explored during early childhood period in Turkey by comparing the different SES groups. The main aim of the current thesis study is to investigate the differences between the children and mothers from low-SES and high-SES with regard to the child behavioral problems, and factors influencing these problems, namely, the maternal stress, mother's perception of child intentionality, and perceived social support. Thus, firstly, I aim to investigate the relations among these variables in a cross-sectional study that recruited a large number of mothers from different SES groups. In addition to this, I aim to investigate whether the maternal characteristics and the child behavioral problems remain stable or show changes within 1 year by conduction a follow-up study. Moreover, I also explore the contribution of temperament and mothers' developmental expectations in

internalizing and externalizing behaviors in addition to perceived social support, maternal stress and mother's perception of child intentionality in the follow-up study.

## **1.6 The Research Questions of the Studies**

### **1.6.1 The Main Study Research Questions**

Research Question 1. Is there a difference between the mothers and children from low-SES and high-SES in terms of the mothers' perceived social support, maternal stress, mothers' perception of the child intentionality, and the children's behavioral problems?

Research Question 2. Does the perceived social support of the mother predict the child internalizing and externalizing problems?

Research Question 3. Does the maternal stress predict the child internalizing and externalizing problems?

Research Question 4. Is there an association between the perceived social support of the mother and the maternal stress?

Research Question 5. Does the perceived positive intentionality of the mother predict the child internalizing and externalizing problems?

Research Question 6. Does the perceived positive intentionality of the mother mediate the relationship between the maternal stress and the child internalizing and externalizing problems?

Research Question 7. Does the perceived positive intentionality of the mother mediate the relationship between the perceived social support of the mother and the child internalizing and externalizing problems?

Research Question 8. Does the perceived negative intentionality of the mother predict the child internalizing and externalizing problems?

Research Question 9. Does the perceived negative intentionality of the mother mediate the relationship between the maternal stress and the child internalizing and externalizing problems?

Research Question 10. Does the perceived negative intentionality of the mother mediate the relationship between the perceived social support of the mother and the child internalizing and externalizing problems?

### **1.6.2 The Follow-up Study Research Questions**

Research Question 1. Is there a difference in perceived social support of the mother, the maternal stress, the perception toward the child intentionality, and the children's internalizing and externalizing problems in 1-year time?

Research Question 2. Does the perceived social support of the mother predict the child internalizing and externalizing problems?

Research Question 3. Does the maternal stress predict the child internalizing and externalizing problems?

Research Question 4. Does the perceived positive intentionality predict the child internalizing and externalizing problems?



Research Question 5. Does the perceived negative intentionality predict the child internalizing and externalizing problems?

Research Question 6. Does the child temperament predict the child internalizing and externalizing problems?

Research Question 7. Does the developmental expectations of the mothers predict the internalizing and externalizing problems?

## **1.7 Hypotheses of the Studies**

### **1.7.1 The Main Study Hypotheses**

The proposed model in the Figure 3 will be tested with respect to following hypotheses:

Hypothesis 1. The perceived social support of the mother, perceived positive intentionality of the mother are expected to be less in low-SES mothers and children than in high-SES mothers and children.

Hypothesis 2. The maternal stress, perceived negative intentionality of the mother, and child internalizing and externalizing problems are expected to be more in low-SES mothers and children than in high-SES mothers and children.

Hypothesis 3. The perceived social support of the mother is expected to negatively predict the child internalizing and externalizing problems.

Hypothesis 4. The maternal stress is expected to positively predict the child internalizing and externalizing problems.

Hypothesis 5. A negative association is expected between perceived social support and maternal stress.

Hypothesis 6. The perceived positive intentionality of the mother is expected to negatively predict the child internalizing and externalizing problems.

Hypothesis 7. The perceived positive intentionality of the mother is expected to mediate the positive relationship between maternal stress and the child internalizing and externalizing problems.

Hypothesis 8. The perceived positive intentionality of the mother is expected to mediate the negative relationship between perceived social support of the mother and the child internalizing and externalizing problems.

Hypothesis 9. The perceived negative intentionality of the mother is expected to positively predict the child internalizing and externalizing problems.

Hypothesis 10. The perceived negative intentionality of the mother is expected to mediate the positive relationship between maternal stress and the child internalizing and externalizing problems.

Hypothesis 11. The perceived negative intentionality of the mother is expected to mediate the negative relationship between perceived social support of the mother and the child internalizing and externalizing problems.

### **1.7.2 The Follow-up Study Hypotheses**

By conducting the Paired T-test and Hierarchical regression analyses, the following hypotheses will be investigated.

Hypothesis 1. The perceived social support of the mother is expected to increase from Time 1 to Time 2.

Hypothesis 2. The maternal stress is expected to remain stable from Time 1 to Time 2.

Hypothesis 3. The perceived positive intentionality of the mother is expected to increase from Time 1 to Time 2.

Hypothesis 4. The perceived negative intentionality of the mother is expected to decrease from Time 1 to Time 2.

Hypothesis 5. The internalizing behavioral problems is expected to remain stable from Time 1 to Time 2.

Hypothesis 6. The externalizing behavioral problems is expected to decrease from Time 1 to Time 2.

Hypothesis 7. The perceived social support is expected to negatively predict internalizing and externalizing problems.

Hypothesis 8. The maternal stress is expected to positively predict internalizing and externalizing problems.

Hypothesis 9. The perceived positive intentionality of the mother is expected to negatively predict internalizing and externalizing behavioral problems.

Hypothesis 10. The perceived negative intentionality of the mother is expected to positively predict internalizing and externalizing behavioral problems.

Hypothesis 11. The emotionality dimension of temperament is expected to positively predict both internalizing and externalizing behavioral problems.

Hypothesis 12. The activity dimension of temperament is expected to positively predict both internalizing and externalizing behavioral problems.

Hypothesis 13. The sociability dimension of temperament is expected to positively predict only externalizing behavioral problems.

Hypothesis 14. The earlier developmental expectation of the mother is expected to positively predict both internalizing and externalizing behavioral problems.

Table 1. The variables that were measured in the main and follow-up studies.

<b>Variables</b>	<b>The Main Study</b>	<b>The Follow-up</b>
Socioeconomic Status	X	
Perceived Social Support	X	X
Maternal Stress	X	X
Perceived Intentionality	X	X
Developmental Expectation		X
Child Temperament		X
Internalization (DV)	X	X
Externalization (DV)	X	X

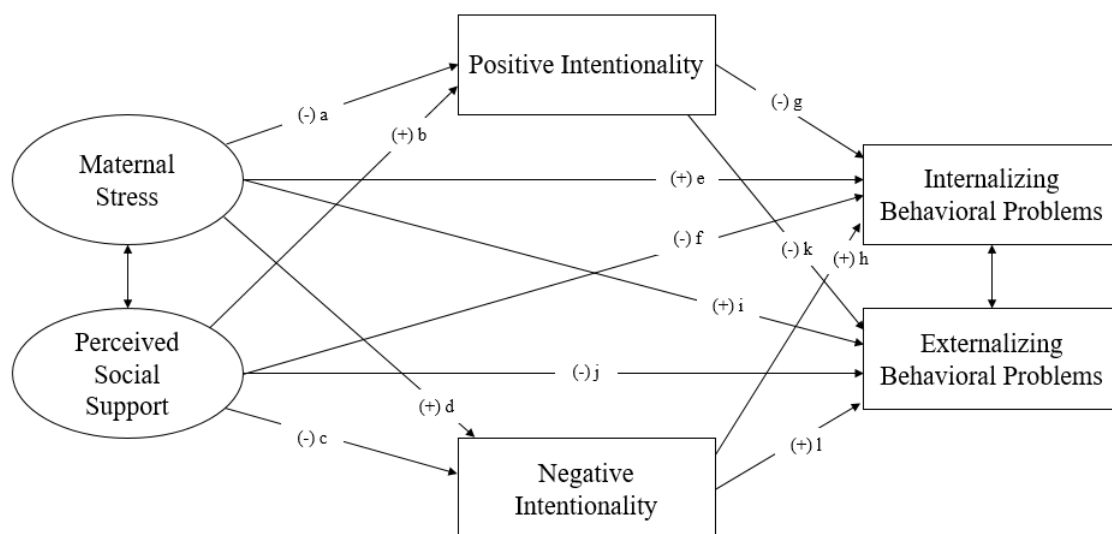


Figure 3. The suggested structural equation model regarding to the relation between the variables in the main study.

Note: Abbreviations in the figure refer to: (a) proposed negative association between maternal stress and positive intentionality; (b) proposed positive association between perceived social support and positive intentionality; (c) proposed negative association between perceived social support and negative intentionality; (d) proposed positive association between maternal stress and negative intentionality; (e) proposed positive association between maternal stress and internalizing behavioral problems; (f) proposed negative association between perceived social support and internalizing behavioral problems; (g) proposed negative association between positive intentionality and internalizing behavioral problems; (h) proposed positive association between negative intentionality and internalizing behavioral problems; (i) proposed positive association between maternal stress and externalizing behavioral problems; (j) proposed negative association between perceived social support and externalizing behavioral problems; (k) proposed negative association between positive intentionality and externalizing behavioral problems; (l) proposed positive association between negative intentionality and externalizing behavioral problems.

## CHAPTER 2

### METHOD

#### 2.1 Participants

Four hundred sixty-three mothers ( $M_{age}=32.03$  years,  $SD=4.82$ , Age Range: 18-47 years) and their children (48% Female,  $M_{age}=23.74$  months,  $SD=7.47$ , Age Range: 12-46 months) participated in the main study via advertising preschools, daycares, pharmacies and community family-health centers. The inclusion criteria were being biological parents of the child and absence of serious health problems for the mother and the child.

The follow-up study consisted of sixty-seven mothers who gave consent to receive information for future studies and accepted to take part to the present study ( $M_{age} = 33.51$  years,  $SD = 5.39$ , Age Range: 18-43). Their children were 19 to 51 months old (50% Female,  $M_{age} = 32.34$  months,  $SD = 7.80$ ). The demographic characteristics of the mothers and the fathers both in the main study and in the follow-up are shown in Table 2.

#### 2.2 Measures

##### 2.2.1 Demographic form

The mothers answered the demographic questions about the marital status of the mother, educational level of the mother and the father (i.e., illiterate, literate etc.), occupational status of their own, and the total income of the household (see Appendix A). The same demographic form was used for the follow-up.

Table 2. Demographic information of the mothers and fathers in the main and follow-up studies.

	<b>Main Study (N=463)</b>		<b>Follow-up (N=67)</b>	
	N	Percentage	N	Percentage
<b>Marital Status of Mothers*</b>				
Single	12	3	2	3
Married	448	97	65	97
<b>Mothers' Educational Level</b>				
Illiterate	2	1	0	0
Literate	6	1	2	3
Elementary School	53	11	10	15
Secondary School	68	15	7	16
High School	114	25	29	38
Collage (2 years)	47	10	6	8
University	125	27	5	6
Master's Degree	38	8	4	6
PhD or Doctoral Degree	10	2	5	8
<b>Mothers' Occupational Status</b>				
Worker	230	50	31	46
Housewife	233	50	36	54
<b>Fathers' Educational Level**</b>				
Illiterate	2	1	0	0
Literate	2	1	0	0
Elementary School	33	7	6	9
Secondary School	83	18	14	20

Table 2. *continued*

	Main Study (N=463)		Follow-up (N=67)	
	N	Percentage	N	Percentage
High School	120	26	22	33
Collage (2 years)	38	8	9	13
University	118	26	12	18
Master's Degree	53	11	1	2
PhD or Doctoral Degree	8	2	3	5
<b>Total Household Income</b>				
850 TL and below	5	1	1	2
From 851 TL to 1500 TL	81	18	11	16
From 1501 TL to 3000 TL	130	28	26	39
From 3001 TL to 5000 TL	78	17	17	25
From 5001 TL to 7500 TL	75	16	1	2
7501 TL and above	94	20	11	16

\* The mode imputation was made for the missing values and three mothers were entered as “married”.

\*\* The mode imputation was made for the missing values and six fathers were entered as “high school graduated”.

### 2.2.2 Multidimensional Scale of Perceived Social Support (MSPSS)

The scale measures the perceived social support of a person (Zimet, Dahlem, Zimet, & Farley, 1988) and was adopted to Turkish by Eker, Arkar, and Yaldız (2001) (see Appendix A). It consists of 12 items, with 7 point Likert- scale (1=*Very Strongly Disagree*, 7=*Very Strongly Agree*), and three subscales, support from family (i.e., “My family really tries to help me”), support from friends (i.e., “I can count on



my friends when things go wrong”), and support from significant other (i.e., “There is a special person in my life who cares about my feelings”). The high total score in the scale indicates high level of perceived social support. The Cronbach’s alpha of the scale is ranged from .85 to .92 (Eker et al., 2001). The Cronbach’s alpha of the scale of the present sample is .91 in the main study, and .86 in the follow-up. The Cronbach’s alpha of family subscale is .86 and .71, friend subscale is .90 and .90, and special one subscale is .93 and .90 in the main study and the follow-up, respectively.

### **2.2.3 Parenting Stress Index-Short Form (PSI-SF)**

The form has 36 items rated with a 5-point Likert scale (1=*Strongly Disagree*, 5=*Strongly Agree*) and targets the areas, in which parent and child have difficulties (Abidin, 1995). It was adapted to Turkish by Mert, Hallıoğlu, and Ankaralı Çamdeviren (2008) and has three subscales, namely, parental distress, parent-child dysfunctional interaction, and difficult child. The high total score in the scale means higher stress level. The Cronbach’s alpha is ranged from .71 to .81, and test-retest reliability is .88 for the original scale (Mert et al., 2008). In the present study, the Cronbach’s alpha is found as .95 and .93 for the total scale in the main study and the follow-up, respectively. The Cronbach’s alpha of parental distress subscale is .91 and .88, parent-child dysfunctional interaction subscale is .87 and .84, and difficult child subscale is .92 and .87 in the main study and the follow-up, respectively.

### **2.2.4 Infant Intentionality Questionnaire (IIQ)**

The scale consists of 23 items about positive and negative perception of parents about their infants’ behaviors and attitudes with a 5-point Likert-scale

(1=*Never*, 5=*Always*) (Feldman & Reznick, 1996; Reznick, 2008). Turkish translation and back-translation as well as validity and reliability analysis were done as a part of TUBITAK project: 114K813 (Arıkan, 2016) and presented in 52<sup>nd</sup> National Psychiatry Congress (Karabulut, İlhan, Kumru, & Arıkan, 2016). The Component Factor analysis revealed that two items should be removed due to their low loadings. Therefore, the scoring and analysis were made with 21 items (see Appendix A). There are 14 items in the positive intentionality subscale (i.e., “Does your baby attempt to communicate positively using smiles and grins?”), and 7 items in the negative intentionality subscale (i.e., “Does your baby do things on purpose to be annoying?”). The Cronbach’s alpha of positive intentionality subscale was .86 and negative intentionality was .82 for the main study. In the follow-up, Cronbach’s alpha was .85 and .66 for positive and negative intentionality subscales, respectively.

### **2.2.5 Developmental Expectation Questionnaire**

The original version of the scale was developed by combining items from previous studies (Goodnow, Cashmore, Cotton, & Knight, 1984; Willemsen & van de Vijver, 1997). It has total of 127 items, nevertheless short version consists of 61 items was used in the current study as in Durgel and van de Vijver (2008) (see Appendix B). There are eight subscales: Psychomotor Skills (i.e., “Hop on one foot several times”), Cognitive Skills (i.e., “Say own age”), Self-Control (i.e., “Wait for own turn in games”), Social Skills (i.e., “Share toys with other children”), Autonomy (i.e., “Decide what to wear”), Obedience (i.e., “Stop misbehaving when told”), Family Orientation (i.e., “Know who is family and who is not”), and Well-Mannered (i.e., “Have a sense of shame or disgrace”). The mothers were asked to mark the

specific age; in which they expect a child is able to achieve a particular skill. Each item has 13 different options to choose; from earlier than 1 year of age to later than 6 year of age, with 0.5 age intervals. The lower score of each subscales indicates earlier expectation of the mother. In the original study, the Cronbach's alpha was .89 for psychomotor skills, .92 for cognitive skills, .90 for self-control, .93 for social skills, .93 for autonomy, .91 for obedience, .92 for family orientation, and .91 for well-mannered (Nacak, Yağmurlu, Durgel, & van de Vijyer, 2011). The Cronbach's alpha of the current study is .84 for psychomotor skills, .87 for cognitive skills, .87 for self-control, .94 for social skills, .89 for autonomy, .93 for obedience, .90 for family orientation, and .91 for well-mannered.

### **2.2.6 Emotionality-Activity-Sociability Temperament Survey**

The scale aims to identify basic temperamental characteristics of children with 3 subscales consisting of 20 items (Buss & Plomin, 1984). The scale was adapted to Turkish by Sümer, Sayıl, Kazak-Berument, Doğruyol, Günaydın, Selçuk, Harma, Öztürk, Salman, & Selçuk (2008) and the internal reliability were adequate for Emotionality ( $\alpha = .78$ ), Activity ( $\alpha = .65$ ), and Sociability ( $\alpha = .71$ ). The emotionality subscale consisted of 7 items (i.e., "Cries easily"), the activity subscale consisted of 5 items (i.e., "Tends to move slowly"), and the sociability subscale consisted of 8 items (e.g., "Likes to be with people") (see Appendix B). It is assessed with a 4-point Likert scale (1=*Never*, 4=*Always*). For the current sample, the Cronbach's alphas were as follows for emotionality ( $\alpha = .63$ ), activity ( $\alpha = .66$ ), and sociability ( $\alpha = .79$ ).

### **2.2.7 Child Behavior Checklist (CBCL): Ages 18-60 months**

The Checklist consists of 100 items and has 3-point Likert scale (0= *Not True*, 2=*Very True or True Often*), which allows mothers to pinpoint the problematic behavior of children exhibit, between 18 months to 5 years of age (see Appendix A) (Achenbach & Rescorla, 2000). CBCL has two general subscales; internalizing and externalizing problem scores, and seven narrow-band scales; emotionally reactive, depressed/anxious, withdrawn, somatic problems, sleep problems, attention, and aggression. Only internalizing (i.e., “Avoid looking others in the eye”) and externalizing scores (i.e., “Demands must be met immediately”) were used in the current study. It was adapted to Turkish by Erol and Şimşek (1997) and the Cronbach’s alpha values for internalizing behaviors is .77 and for externalizing behaviors is .76. For the current sample, Cronbach’s alpha for internalizing behavior subscale is .84 and .77, and externalizing behavior subscale is .88 and .89 for the main study and the follow-up, respectively. The CBCL: Ages 18-60 months was also found to be reliable and valid, and used for aged between 12-18 months old children in various studies (Reid, Walter, & O’Leary, 1999; van Zeijl et al., 2006) and behavioral problems could occur in the first two years of life (Bagner, Rodriguez, Blake, Linares, & Carter, 2012). Therefore, I did not eliminate the children age ranged between 12 to 18 months.

### **2.3 Procedure**

The main study was a part of a larger project supported by Scientific and Technical Research Council of Turkey (TUBITAK 3501, project no: 114K813) and was approved by Ethics Board of Ozyegin University (see Appendix C). Both

undergraduate and graduate students worked in the TUBITAK project collected data from mothers in home visits after having signed consents forms from mothers. The order of the scales was counterbalanced and distributed in two packages. In the Mother Form I, Demographic Form, Multidimensional Scale of Perceived Social Support, Parenting Stress Index-Short Form, Emotion Regulation Questionnaire (Gross & John, 2003), Brief Symptom Inventory (Derogatis, 1992), Parenting Sense of Competence Scale (Gibaud-Wallston & Wandersman, 1978) and CBCL: Ages 18-60 Months were included. In the Mother Form II, Parental Reflective Functioning Questionnaire (Luyten et al., 2009), Caregiving Helplessness Questionnaire (George & Solomon, 2011), Infant Intentionality Questionnaire, and Coping with Toddler's Negative Emotion Scale (Spinrad, Eisenberg, Kupfer, Gaertner, & Michalik, 2004) were included. The mother form II includes scales that were translated and adopted to Turkish for the TUBITAK project. The mothers taking part in the study were reimbursed with a baby diaper or a toy package (including a play dough, crayon, a coloring book) and a booklet about the child development prepared by one of the graduate assistants.

The follow-up study was reviewed and approved by the Ethics Board of Ozyegin University (see Appendix D). I contacted and invited the participants who gave consent to be informed for the future studies from the study described above. The participants, who were accepted to take part, filled the consent form and a pack of questionnaires including Demographic Form, Multidimensional Scales of Perceived Social Support, Caregiving Helplessness Questionnaire, Infant Intentionality Questionnaire, Parenting Stress Index-Short Form, Coping with

Toddler's Negative Emotion Scale, Parental Reflective Functioning Questionnaire, Brief Symptom Inventory, and CBCL: Ages 18-60 Months. I also added Developmental Expectation Questionnaire and Emotionality-Activity-Sociability Temperament Survey in the questionnaire pack for the follow-up study. The scales were presented in a counterbalanced format by me or by an undergraduate student. Approximately 1 year after the study ( $M = 10.81$ ,  $Min = 7$  months,  $Max = 16$  months,  $SD = 2.43$ ) described above, the follow-up was completed. Similar reimbursement method was used as in the larger study described above. See details of the recruitment of the participants in the flow-chart diagram (See Figure 4).

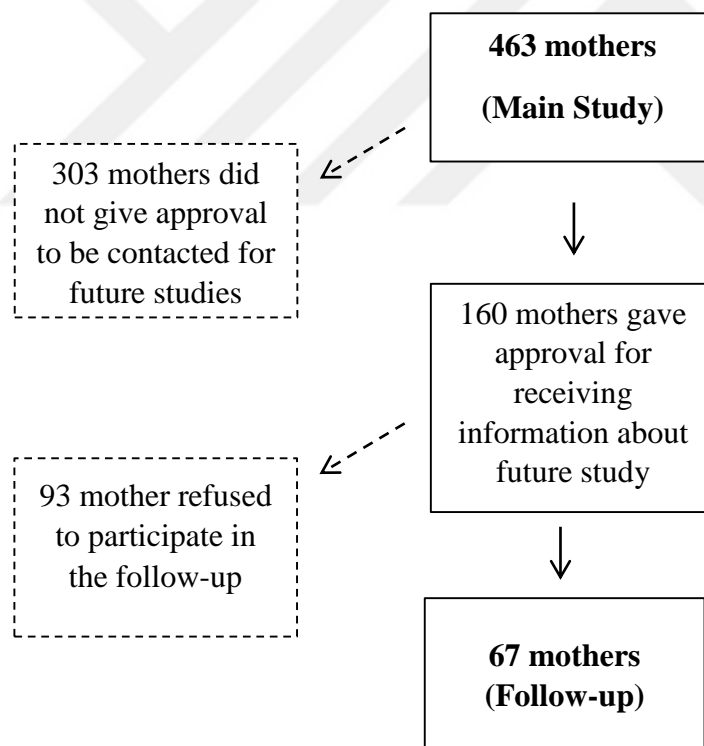


Figure 4. Recruitment process of the participants.

## CHAPTER 3

### RESULTS

#### 3.1 Overview

The results of the main and follow-up studies were presented into four parts. First, preliminary analyses were reported. Then, descriptive statistics and correlations of the variables were presented. In the third part, the results of the main study analyses with three different SEM models were reported; model for total sample, low-SES and high-SES samples. Lastly, results of the follow-up study were reported.

#### 3.2 Preliminary Analyses

##### 3.2.1 Drop-out Analyses

The preliminary analyses of the study were conducted in SPSS 20 (2011). The data consisted of 463 mothers. Before the main analyses, I computed a composite score with mothers' education level (1=illiterate, 2=literate, 3=elementary school graduated, 4=secondary school graduated, 5=high school graduated, 6=collage (2 years) graduated, 7=university graduated, 8=master's degree, 9= PhD or doctoral degree) and total household income (1=850TL and below, 2=851-1500TL, 3=1501-3000TL, 4=3001-5000TL, 5=5001-7500TL, 6=7501TL and above ) in order to determine SES ( $M = 9.45$ ,  $SD = 2.94$ ) as in the study of Baydar et al. (2014), and Gündüz, Yağmurlu, and Harma (2015).

The T-test and Chi-square tests were conducted to see whether there is a difference among mothers who did ( $n=160$ ) and did not ( $n=303$ ) give approval for future studies. According to the results, two samples did not differ in terms of gender

of the child ( $\chi^2(1) = 1.07, p = .30$ ), mother's age ( $t(461) = 1.36, p = .18$ ), social support ( $t(461) = 1.35, p = .18$ ), maternal stress ( $t(461) = .55, p = .58$ ), positive intentionality ( $t(461) = .26, p = .80$ ), and internalizing ( $t(461) = -1.76, p = .08$ ) and externalizing ( $t(461) = -.94, p = .35$ ) problems. However, there was a significant difference in socioeconomic status ( $t(354.99) = 3.60, p < .001$ ) and negative intentionality ( $t(370) = 2.60, p < .05$ ) (See Table 3). The mothers who did not give approval to receive information for future studies were more educated and had higher income compared to the mothers who gave approval for future studies. Also, the mothers who did not give approval were more likely to attribute more negative intentions toward their children's behaviors.

Table 3. The means and the standard deviations of the variables of the mothers who did and did not give approval.

Variables	No approval (n=303)		Gave approval (n=160)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Age of the mother	32.25	4.68	31.61	5.07
SES	9.79*	3.01	8.80*	2.71
Perceived Social Support	65.84	14.31	63.92	14.88
Maternal Stress	76.97	27.33	75.54	24.56
Positive Intentionality	53.32	9.26	53.09	8.34
Negative Intentionality	15.68*	5.60	14.39*	4.79
Internalizing Problems	0.29	0.24	0.33	0.22
Externalizing Problems	0.43	0.35	0.47	0.32

\* The differences in socioeconomic status and negative intentionality scores of mothers in the main and follow-up studies were statistically significant.



Then, the difference among the mothers who gave approval but did not participated in the follow-up ( $n=93$ ) and the mothers participated in the follow-up ( $n=67$ ) were checked. According to the results, there was no significant difference in terms of child gender ( $\chi^2(1) = .02, p = .89$ ), mother's age ( $t(158) = .94, p = .35$ ), socioeconomic status ( $t(158) = -1.23, p = .22$ ), social support ( $t(158) = -.03, p = .98$ ), maternal stress ( $t(158) = -.62, p = .53$ ), positive intentionality ( $t(158) = .72, p = .48$ ), negative intentionality ( $t(158) = -.95, p = .35$ ), and internalizing ( $t(158) = -.27, p = .79$ ) and externalizing ( $t(158) = 1.74, p = .08$ ) behavioral problems of children (See Table 4 for the means and the standard deviations).

Table 4. The means and the standard deviations of the variables of the mothers who did and did not participate in the follow-up study.

Variables	Did not participate ( $n=93$ )		Participated ( $n=67$ )	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Age of the mother	31.36	4.95	32.19	5.35
SES	3.59	1.35	3.31	1.21
Perceived Social Support	63.94	15.02	63.87	14.69
Maternal Stress	76.33	25.36	73.69	22.73
Positive Intentionality	52.78	8.55	53.81	7.86
Negative Intentionality	14.62	4.89	13.84	4.54
Internalizing Problems	0.33	0.22	0.32	0.21
Externalizing Problems	0.44	0.30	0.53	0.35

Lastly, I analyzed the differences among mothers, who did not give approval to receive information about the future studies ( $n=330$ ) and mothers, who participated in the follow-up study ( $n=67$ ). According to the results, there was a significant difference in socioeconomic status ( $t(368) = 4.06, p < .001$ ), negative intentionality ( $t(368) = 2.38, p < .05$ ), and child externalizing problems ( $t(368) = -2.52, p < .05$ ). However, there was no significant difference in child gender ( $\chi^2(1) = .26, p = .61$ ), age of the mother ( $t(368) = .135, p = .89$ ), perceived social support ( $t(368) = 1.51, p = .13$ ), maternal stress ( $t(368) = .58, p = .56$ ), positive intentionality ( $t(368) = -.59, p = .56$ ), and child internalizing problems ( $t(368) = -1.65, p = .10$ ) (See Table 5 for the means and standard deviations). Mothers, who participated in the follow-up study had less negative perception toward their children's intentions, and had lower income and education compared to mothers, who did not give approval to receive information about the future studies. However, the externalizing problems were higher in children, whose mothers participated in the follow-up study compared to children, whose mothers did not give approval to receive information about the future studies.

### **3.2.2 Preliminary Analyses**

The Z-score for socioeconomic status was taken and the mothers who were 1SD above the mean grouped as high-SES and the mothers who were 1SD below the mean grouped as low-SES as in the studies of Baydar et al. (2014), and Gündüz et al. (2015). I screened the data for missing values, normality, and outliers <sup>1</sup> (Tabachnick

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<sup>1</sup> There were 17 multivariate outliers in the total of 463 participants. I ran the analysis with and without multivariate outliers. Since there was no significant difference in all the analysis, I did not eliminate these multivariate outliers.

& Fidell, 1996). The mean replacement was done for missing values of MSPSS, PSI-SF, IIQ, and CBCL because the missing items were not more than 10% for each item number. Then, the normality assumption and the univariate outliers were dealt according to proposed method by Tabachnick and Fidell (1996).

Table 5. The means and the standard deviations of the variables of the mothers, who did not give approval for future studies and, who participated in the follow-up study.

Variables	Did not give approval ( <i>n</i> =303)		Participated ( <i>n</i> =67)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Age of the mother	32.29	4.69	32.20	5.24
SES	9.85*	3.01	8.25*	2.64
Perceived Social Support	66.08	14.14	62.93	15.35
Maternal Stress	76.86	27.39	74.58	22.81
Positive Intentionality	53.29	9.31	54.07	7.75
Negative Intentionality	15.70*	5.63	14.09*	4.41
Internalizing Problems	0.28	0.23	0.34	0.22
Externalizing Problems	0.43*	0.35	0.55*	0.35

\* The differences in socioeconomic status, negative intentionality, and externalizing problems were statistically significant.

In total sample, the skewness values were: -1.67 for family support, -1.15 for friend support, -.71 for significant other support, -.82 for Perceived Social Support, .45 for parental distress, 1.27 for dysfunctional interaction, .65 for difficult child, .73 for Maternal Stress, -.57 for positive intentionality, .64 for negative intentionality,

1.09 for internalizing behavioral problems, and .88 for externalizing behavioral problems. The mirrored square root transformation for negatively skewed family support and friend support, and square root transformation for dysfunctional interaction were made and values became; .83, .32, and .87, respectively.

In low-SES sample, the skewness values were as follows: -1.67 for family support, -.82 for friend support, -.45 for significant other support, -.65 for Perceived Social Support, .32 for parental distress, 1.13 for dysfunctional interaction, .40 for difficult child, .48 for Maternal Stress, -.63 for positive intentionality, .64 for negative intentionality, .89 for internalizing behavioral problems, and .60 for externalizing behavioral problems. The mirrored square root transformation for negatively skewed family support, and square root transformation for dysfunctional interaction were made. The values became acceptable for the normality assumption, .93 and .72, respectively.

In high-SES sample, the skewness values were as follows: -1.46 for family support, -1.05 for friend support, -1.07 for significant other support, -.81 for Perceived Social Support, .47 for parental distress, 1.36 for dysfunctional interaction, .80 for difficult child, .89 for Maternal Stress, -.54 for positive intentionality, .57 for negative intentionality, 1.34 for internalizing behavioral problems, and .96 for externalizing behavioral problems. The mirrored and square root transformation for negatively skewed family support, friend support, and significant other support, square root transformation for dysfunctional interaction, and log-transformation for internalizing behavioral problems were conducted. The values became acceptable for the normality assumption, .57, .21, .43, 1.01, and 1.12 respectively.

For the data in the follow-up, I screened the data for the missing values, the normal distribution, and the outliers (Tabachnick & Fidell, 1996). The mean replacement was made for missing values of MSPSS, PSI-SF, IIQ, CBCL and Developmental Expectation because the missing items were not more than 10% for each item. The skewness values of the follow-up study variables were as follows: -.33 for Perceived Social Support, .15 for Maternal Stress, -.35 for positive intentionality, .17 for negative intentionality, .43 for emotionality dimension, -.58 for activity dimension, -.34 for sociability dimension, .32 for physical domain, .11 for cognitive domain, -.05 for self-control domain, .56 for social domain, -.14 for autonomy domain, -.27 for obedience domain, -.17 for family orientation domain, -.10 for well-manner domain, .68 for internalizing problems, and .54 for externalizing problems. Then, the normality and the univariate outliers were handled according to proposed method by Tabachnick and Fidell (1996). There were no multivariate outliers and there was no need for transformation since the variables were normally distributed.

### **3.3 Descriptive Statistics of the Main Study Variables**

Table 6, Table 7, and Table 8 below show the Pearson correlation coefficients, means, and standard deviations of all variables for total, low-SES and high-SES samples, respectively. Both internalizing and externalizing behavioral problems were significantly associated with all variables of the study, except for positive infant intentionality in total and high-SES samples (see Table 6 and Table 8). For low-SES sample, however, internalizing and externalizing problems were

only significantly related with maternal stress and negative intentionality, but not with social support (see Table 7).

### **3.4 Low-SES vs. High-SES Group Analysis**

In order to examine the differences between the mothers and children from low-SES and high-SES regarding to perceived social support of the mother, the maternal stress, the mother's perception of child intentionality, and the children's internalizing and externalizing problems, the Independent Samples T-test was conducted. There were 251 low-SES mothers and 212 high-SES mothers among 463 mothers in the main study. The results of the the Independent Samples T-test analysis showed that there was a statistically significant difference between low- and high-SES mothers in the perceived social support ( $t(457,296) = -5.26, p < .001$ ), the maternal stress ( $t(459,353) = -4.97, p < .001$ ), the negative intentionality ( $t(461) = 2.56, p < .05$ ), and children's internalizing ( $t(447,643) = 7.60, p < .001$ ) and externalizing problems ( $t(454,267) = 6.00, p < .001$ ). However, there was no significant difference between low-SES and high-SES mothers in positive intentionality ( $t(461) = -.66, p = .51$ ) (See Table 9 for the means and standard deviations). High-SES mothers have more social support than low-SES mothers. On the other hand, low-SES mothers have more maternal stress and more negative perception toward their children compared to high-SES mothers. Also, children from low-SES have more internalizing and externalizing problems than high-SES children.

Table 6. The Pearson Correlations and the descriptive statistics of the total sample. N=463

Variables	2	3	4	5	6	7	8	9	10	11	12	M	SD
1. Family support <sup>a</sup>	.52**	-.32**	-.66**	.32**	.25**	.24**	.31**	-.12**	.17**	.19**	.12**	24.24	4.39
2. Friend support <sup>a</sup>		-.59**	-.84**	.20**	.14**	.19**	.20**	-.05	.09	.20**	.16**	21.73	5.60
3. Significant other support			.87**	-.10*	-.09	-.09*	-.10*	.03	-.04	-.14**	-.13**	19.25	7.68
4. Perceived Social Support				-.22**	-.17**	-.19**	-.21**	.07	-.10*	-.21**	-.17**	65.18	14.52
5. Parental distress					.66**	.69**	.88**	-.03	.46**	.41**	.46**	28.96	10.39
6. Dysfunctional interaction <sup>b</sup>						.74**	.88**	-.26**	.49**	.45**	.44**	21.12	8.63
7. Difficult child							.91**	-.03	.50**	.52**	.58**	26.36	10.53
8. Maternal Stress								-.10*	.54**	.52**	.56**	76.47	26.39
9. Positive intentionality									.02	-.05	.05	53.24	8.94
10. Negative intentionality										.24**	.35**	15.23	5.36
11. Internalizing behavioral problems											.65**	0.30	0.23
12. Externalizing behavioral problems												0.45	0.34

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

<sup>a</sup> Mirrored square root transformed variables

<sup>b</sup> Square root transformed variable

Table 7. The Pearson Correlations and the descriptive statistics of the low-SES sample ( $n=251$ ).

Variables	2	3	4	5	6	7	8	9	10	11	12	M	SD
1. Family support <sup>a</sup>	-.44**	-.34**	-.65**	.29**	.20**	.20**	.26**	-.08	.14*	.14*	.07	23.81	5.16
2. Friend support		.65**	.86**	-.07	-.00	-.06	-.05	.03	.00	-.05	-.03	20.32	6.16
3. Significant other support			.87**	-.01	-.00	-.01	-.01	.05	-.05	-.05	.02	17.94	7.95
4. Perceived Social Support				-.11	-.06	-.09	-.10	.05	-.07	-.09	-.02	62.07	15.66
5. Parental distress					.67**	.68**	.89**	.03	.43**	.41**	.50**	30.40	11.18
6. Dysfunctional interaction <sup>b</sup>						.69**	.88**	-.11*	.45**	.42**	.45**	22.76	9.27
7. Difficult child							.90**	.07	.47**	.49**	.59**	28.64	11.44
8. Maternal Stress								<.01	.51**	.50**	.59**	81.83	28.25
9. Positive intentionality									.01	-.02	.07	52.97	9.12
10. Negative intentionality										.20**	.33**	15.81	5.58
11. Internalizing behavioral problems											.62**	0.37	0.25
12. Externalizing behavioral problems												0.53	0.37

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

<sup>a</sup> Mirrored square root transformed variable

<sup>b</sup> Square root transformed variable



Table 8. The Pearson Correlations and the descriptive statistics of the high-SES sample ( $n=221$ ).

Variables	2	3	4	5	6	7	8	9	10	11	12	M	SD
1. Family support <sup>a</sup>	.61**	.39**	-.69**	.35**	.32**	.27**	.35**	-.17*	.18**	.23**	.17*	24.69	3.49
2. Friend support <sup>a</sup>		.55**	-.80**	.31**	.22**	.26**	.30**	-.05	.16*	.26**	.24**	23.47	4.05
3. Significant other support <sup>a</sup>			-.87**	.21**	.17**	.14*	.20**	-.03	-.02	.18**	.29**	20.80	7.06
4. Perceived Social Support				-.33**	-.25**	-.24**	-.31**	.07	-.09	-.27**	-.32**	69.00	11.84
5. Parental distress					.59**	.68**	.87**	-.11	.47**	.32**	.32**	27.40	9.03
6. Dysfunctional interaction <sup>b</sup>						.77**	.87**	-.41**	.48**	.38**	.32**	19.17	7.32
7. Difficult child							.92**	-.16*	.50**	.47**	.48**	23.71	8.52
8. Maternal Stress								-.25**	.54**	.44**	.42**	70.37	21.92
9. Positive intentionality									.05	-.05	.08	53.29	8.75
10. Negative intentionality										.24**	.32**	14.60	5.06
11. Internalizing behavioral problems <sup>c</sup>											.61**	0.22	0.17
12. Externalizing behavioral problems												0.34	0.26

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

<sup>a</sup>Mirrored square root transformed variables

<sup>b</sup>Square root transformed variable

<sup>c</sup>Log transformed variable

Table 9. The means and standard deviations of the study variables in low- and high-SES samples

Variables	M (Low)	SD (Low)	M (High)	SD (High)
Perceived Social Support	62.07*	15.66	68.86*	12.07
Maternal Stress	81.83*	28.25	70.13*	22.45
Positive Intentionality	52.99	9.08	53.54*	8.79
Negative Intentionality	15.81*	5.58	14.54*	5.02
Internalizing Behavioral Problems	0.37*	0.25	0.22*	0.18
Externalizing Behavioral Problems	0.53*	0.36	0.35*	0.27

\* The significant difference between low-SES and high-SES mothers and children.

### 3.5 SEM Analyses

#### 3.5.1 SEM Analyses for the Total Sample

In order to see the hypothesized associations of maternal stress, social support, mother's positive and negative intentionality, and internalizing and externalizing behavioral problems (See Figure 3), the structural equation models were run in AMOS 21, (2012). I did not include the perceived positive intentionality of the mother in the analysis models since it was not associated with the any of the variables in all samples.

The first model for total sample (MTS1) was statistically significant ( $\chi^2(21)=65.06, p<.001$ ). However, the modification indices of the overall analyses showed that it is reasonable to correlate the errors of family support subscale of MSPSS and parental distress subscale of PSI-SF (See Table 10). So, I correlated the

errors of these two subscales and reran the analysis. The Chi-square difference test showed that the second model was statistically better than the first model ( $\chi^2(1)=14.83, p<.001$ ) and model fit indices improved (See Table 11). I did not correlate the errors of the next highest two variables since it proposed the correlating the errors of family support with Maternal Stress, the total scale. So, the model for total sample 2 (MTS2) was accepted as the final model.

Table 10. Modification indices of the study variables for the total sample (MTS1).

<b>Variables</b>		<b>Modification Index</b>
Parental Distress	Family Support	14.57
Dysfunctional Interaction	Externalizing Problems	5.65
Difficult Child	Externalizing Problems	5.31
Family Support	Maternal Stress	18.16
Family Support	Negative Intentionality	8.49
Family Support	Parental Distress	<b>28.21*</b>
Family Support	Dysfunctional Interaction	18.15
Family Support	Difficult Child	10.93
Friend Support	Dysfunctional Interaction	5.29

\* Errors of the family support and the parental distress were correlated.

For the model fit indices, I relied on the proposed values by Cunningham, Preacher, and Banaji (2001) and Hu and Bentler (1999). They suggested that above 0.90 for the Comparative-fit index (CFI); below 0.05 for the standardized root mean square residual (SRMR); below 0.08 for the root-mean-square error of approximation

(RMSEA); above 0.95 for the Goodness-of-Fit index (GFI); above 0.95 for the Adjusted Goodness-of-Fit Index (AGFI); and above 0.95 for the Normed fit index (NFI) are the acceptable ranges (Cunningham et al., 2001; Hu & Bentler, 1999; Khine, 2013; Schreiber et al., 2006). The model fit indices of the original model (Model 1) ( $\chi^2(21) = 65.06, p < .001$ ) and the new model, after allowing errors of family support and parental distress to covariate (Model 2), are represented in Table 11.

Table 11. The model fit indices of the SEMs.

Model	CFI	SRMR	RMSEA	GFI	AGFI	NFI	<i>p</i>
Model for Total Sample <i>Model1 (MTS1)</i>	.98	.05	.07	.97	.94	.96	< .001
Model for Total Sample <i>Model2 Final Model (MTS2)</i>	.98	.04	.06	.98	.95	.97	<.001
Model for Low-SES <i>Model1 (MLS1)</i>	.97	.06	.07	.96	.92	.95	<.01
Model for Low-SES <i>Model2 Final Model (MLS2)</i>	.99	.05	.05	.97	.94	.96	<.05
Model for High-SES (MHS)	.95	.05	.09	.95	.89	.93	<.001

Note: Comparative Fit Index (CFI); Standardized Root Mean Square Residual (SRMR); Root Mean Square Error of Approximation (RMSEA); Goodness-of-Fit Index (GFI); Adjusted Goodness of Fit Index (AGFI); Normed Fit Index (NFI).

Figure 5 shows the structural equation model for the relations between maternal stress, perceived social support, mother’s perceived negative intentionality, and internalizing and externalizing problems with the standardized coefficients.

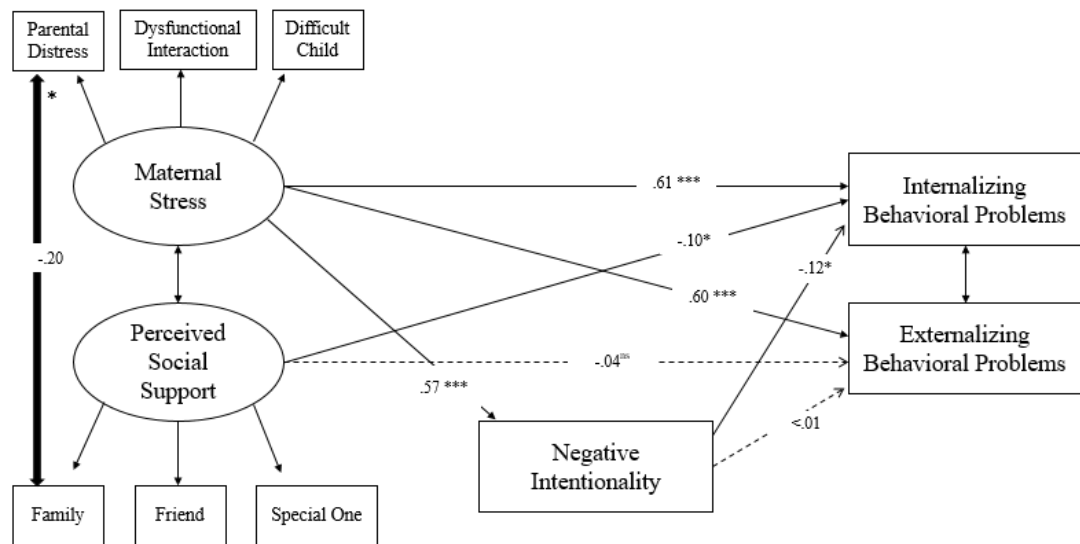


Figure 5<sup>2</sup>. SEM with standardized coefficients of the total sample (MTS2)<sup>3</sup>.

Table 12 shows SEM coefficients for the direct and indirect effects. The maternal stress positively predicted negative intentionality, internalizing and externalizing behaviors. The social support negatively predicted only internalizing problems. The negative intentionality negatively predicted internalizing problems and mediated the relationship between maternal stress and internalizing problems. In addition, mothers’ *family support* and *parental distress* was negatively correlated ( $r = -.20, p < .001$ ).

<sup>2</sup>According to the modification indices of the first model (MTS1), the errors of parental distress and family support were correlated in the final model (MTS2).

<sup>3</sup> Since the positive intentionality did not have significant correlation with other independent and also dependent variables, and it did not effect the dependent variables in the SEMs, I excluded the positive intentionality from the model for total, low-SES and high-SES samples.

Table 12. SEM coefficients for the direct and the indirect effects for the final model (MTS2).

IV	DV	Std. Coeff	Coeff	Std. error	<i>p</i>	
<i>Direct Effects</i>						
Maternal Stress	Internalizing	.61	.02	.001	<.001	
Perceived Social Support	Behavioral	-.10	-.01	.002	<.05	
Negative Intentionality	Problems	-.12	-.01	.002	<.05	
Maternal Stress	Externalizing	.60	.02	.002	<.001	
Perceived Social Support	Behavioral	-.04	-.00	.003	=.33	
Negative Intentionality	Problems	.00	.00	.003	=.98	
<i>Indirect Effects</i>						
		Bootstrapping			BC 95% CI	
		Std. Est.	S.E.	Lower	Upper	<i>p</i>
Maternal Stress → Negative Intentionality						
→ Internalizing Behavioral Problems		-.07	.002	-.003	<.01	<.05

Note: Bias Corrected (BC); Confidence Interval (CI).

### 3.5.2 SEM Analyses for the Low-SES Sample

According to the results, the model for low-SES sample was statistically significant ( $\chi^2(21) = 44.41, p < .01$ ). According to the modification indices (See Table 13), I correlated the errors of family support and parental distress and the model statistically improved ( $\chi^2(1) = 10.95, p < .001$ ). Also, the model fit indices with these correlated errors were significantly better than original model (See Table 11). I did not correlate the errors of the next highest two variables since it proposed the

correlating the errors of family support with Maternal Stress, the total scale. So, the model for low-SES 2 (MLS2) was accepted as the final model.

Table 13. Modification indices of the study variables for the Low-SES sample (MLS1).

	<b>Variables</b>	<b>Modification Index</b>
Parental Distress	Family Support	9.26
Family Support	Maternal Stress	15.21
Family Support	Negative Intentionality	5.37
Family Support	Internalizing Behavioral Problems	4.05
Family Support	Parental Distress	<b>21.69*</b>
Family Support	Dysfunctional Interaction	11.59
Family Support	Difficult Child	9.56

\* The errors of family support and parental distress were correlated.

The model for low-SES sample (MLS2) has a statistically good fit according to Cunningham et al. (2001) and Hu and Bentler (1999) (See Table 11). The Figure 6 shows the results of the structural equation model and the standardized coefficient. The results showed that the maternal stress positively predicted the perceived negative intentionality of the mother, internalizing and externalizing behavioral problems. The negative intentionality negatively predicted internalizing problems and mediated the relation between maternal stress and internalizing problems. The effect of perceived social support, however, was non-significant for both internalizing and externalizing problems (See Table 14). Moreover, there was a

negative correlation between mothers' *family support* and *parental distress* ( $r = -.16$ ,  $p < .01$ ).

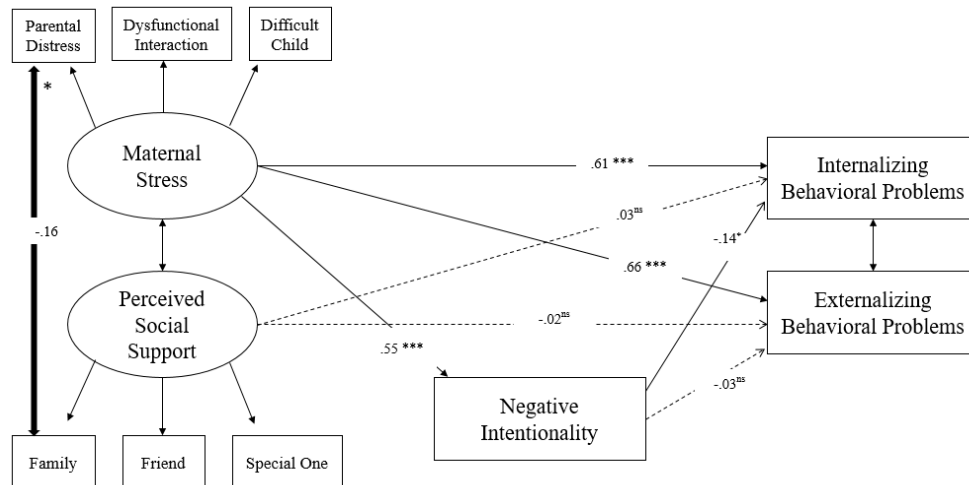


Figure 6<sup>4</sup>. SEM with standardized coefficients of the Low-SES sample (MLS2).

### 3.5.3 SEM Analyses for the High-SES Sample

The model for high-SES sample was statistically significant ( $\chi^2(21) = 58.25$ ,  $p < .001$ ). According to the modification indices (See Table 15), I did not correlate the errors of any variables since the values were low. The model fit indices were within acceptable ranges for the MHS (See Table 10) (Cunningham et al., 2001; Hu & Bentler, 1999). The Figure 7 shows the results of the structural equation model and the standardized coefficients.

<sup>4</sup> According to the modification indices of the first model (MLS1), the errors of parental distress and family support were correlated to improve the final model.



Table 14. SEM coefficients for the direct and the indirect effects for MLS2.

IV	DV	Std. Coeff	Coeff	Std. error	<i>p</i>	
<i>Direct Effects</i>						
Maternal Stress	Internalizing	.61	.16	.002	<.001	
Perceived Social Support	Behavioral	-.03	.01	.016	=.66	
Negative Intentionality	Problems	-.14	-.01	.003	<.05	
Maternal Stress	Externalizing	.66	.02	.003	<.001	
Perceived Social Support	Behavioral	-.02	-.01	.022	=.70	
Negative Intentionality	Problems	-.03	-.00	.004	=.69	
<i>Indirect Effects</i>						
		Bootstrapping		BC 95% CI		
		Std. Est.	S.E.	Lower	Upper	<i>p</i>
Maternal Stress → Negative Intentionality						
→ Internalizing Behavioral Problems		-.08	-.002	-.176	-.006	<.05

Note: Bias Corrected (BC); Confidence Interval (CI).

The maternal stress positively predicted negative intentionality, internalizing and externalizing problems. The perceived social support also negatively predicted the internalizing and externalizing problems. The effect of negative intentionality was non-significant for high-SES group (See Table 16). In addition, there was a negative significant correlation between maternal stress and perceived social support ( $r = -.36$ ,  $p < .001$ ).

Table 15. The modification indices of the study variables for the MHS.

Variables		Modification Index
Externalizing Behavioral Problems	Special One	7.39
Parental Distress	Perceived Social Support	5.50
Parental Distress	Family Support	5.90
Parental Distress	Friend Support	4.55
Family Support	Parental Distress	4.71
Family Support	Dysfunctional Interaction	5.72
Special One	Negative Intentionality	6.24
Special One	Externalizing Behavioral Problems	4.99

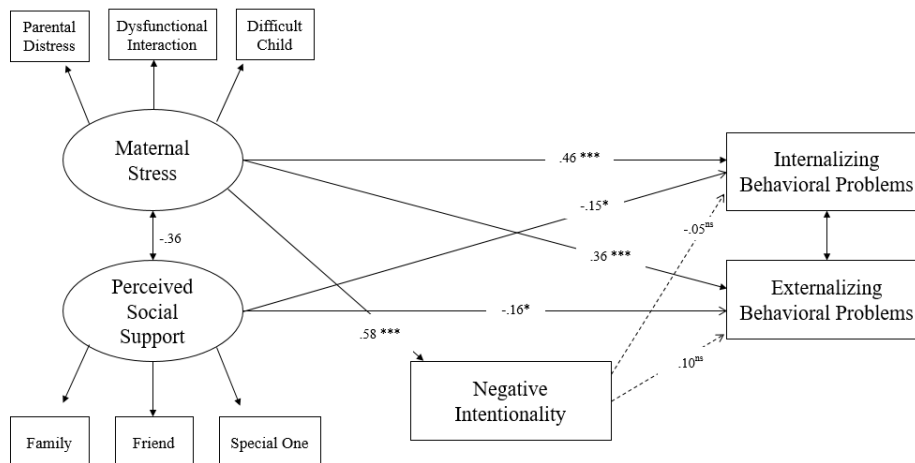


Figure 7. SEM with standardized coefficients of the High-SES sample (MHS).

Table 16. SEM coefficients for the direct effects for MHS.

IV	DV	Std. Coeff	Coeff	Std. error	<i>p</i>
Maternal Stress	Internalizing	.46	.00	.000	<.001
Perceived Social Support		.16	.01	.004	<.05
Negative Intentionality		-.05	.00	.001	=.54
Maternal Stress	Externalizing	.36	.01	.003	<.001
Perceived Social Support		.16	.06	.026	<.05
Negative Intentionality		.10	.01	.004	=.17

### 3.6 Results of the Follow-up Study

#### 3.6.1 Descriptive Statistics

The Pearson Correlation coefficients, the means, and the standard deviations of the variables were presented in Table 17. According to the results, maternal stress, emotionality dimension of temperament, and physical, cognitive, and self-control dimensions of developmental expectation are associated with internalizing problems, whereas maternal stress, negative intentionality, emotionality and activity dimensions of temperament, and physical and self-control dimensions of developmental expectation were associated with externalizing problems.

Table 17. The Pearson Correlations and the descriptive statistics of variables in the follow-up study. N=67

Variables	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	M	SD
1. Perceived Social Support	-.37**	.32**	-.23	-.31*	.07	-.06	-.33**	-.36**	-.21	-.17	-.18	-.14	-.21	-.12	-.19	-.10	67.26	12.09
2. Maternal Stress		-.06	.34**	.66**	.02	-.15	.35**	.29*	.36**	.20	.22	.26*	.33**	.24*	.67**	.64**	76.01	19.88
3. Positive Intentionality			-.06	-.04	.35**	.22	-.26*	-.38**	-.17	-.37**	-.43**	-.24	-.37**	-.11	.09	-.02	57.14	6.97
4. Negative Intentionality				.32**	.20	.09	.24*	.15	.29*	.23	.20	.16	.13	-.00	.18	.40**	15.11	3.99
5. Emotionality					.06	-.12	.34**	.40**	.35**	.19	.26*	.29*	.27*	.14	.62**	.46**	14.10	2.96
6. Activity						.43**	.04	.00	.08	.01	.00	.05	-.08	-.01	.15	.26*	15.34	3.03
7. Sociability							-.07	-.13	-.11	-.07	-.32**	-.08	-.07	-.06	-.09	.04	23.04	4.45
8. Physical								.65**	.58**	.47**	.61**	.49**	.56**	.39**	.35**	.25*	48.28	12.15
9. Cognitive									.67**	.73**	.80**	.68**	.73**	.54**	.33**	.22	56.65	13.50
10. Self-Control										.67**	.61**	.74**	.61**	.50**	.37**	.28*	50.12	13.78
11. Social											.78**	.69**	.76**	.67**	.11	.14	55.76	17.94
12. Autonomy												.68**	.73**	.57**	.23	.19	63.76	16.53

Table 17. continued.

Variables	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	M	SD
13. Obedience													.79**	.73**	.23	.17	80.43	20.96
14. Family Orientation														.83**	.19	.18	59.13	16.12
15. Well-Manner															.07	.05	55.20	16.13
16. Internalizing Behavioral Problems																.72**	0.29	0.18
17. Externalizing Behavioral Problems																	0.45	0.30

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

### 3.6.2 The Paired T-test Results for Time 1 and Time 2

First of all, the Paired T-test was conducted to see whether there is a significant difference between two time points among the variables. There was no significant difference between two time points in internalizing problems ( $t(66) = .89$ ,  $p = .43$ ) and maternal stress ( $t(66) = -1.23$ ,  $p = .23$ ). However, there was a statistically significant difference in perceived social support ( $t(66) = -2.33$ ,  $p < .05$ ), positive intentionality ( $t(66) = -3.70$ ,  $p < .001$ ), negative intentionality ( $t(66) = -2.94$ ,  $p < .01$ ), and externalizing problems ( $t(66) = 2.27$ ,  $p < .05$ ). The means and the standard deviations of variables in the main study (Time1) and in the follow-up (Time2) are listed in Table 18. According to the Table 18, the social support of mother, and mothers' both positive and negative intentionality increased, but child externalizing problems decreased over time.

Table 18. The means and standard deviations of the variables in the follow-up study.

Variables	M (T1)	SD (T1)	M (T2)	SD (T2)
Perceived Social Support	63.28*	14.85	67.26*	12.09
Maternal Stress	73.01	23.41	76.01	19.88
Positive Intentionality	53.62*	8.20	57.14*	6.97
Negative Intentionality	13.62*	4.50	15.11*	3.99
Internalizing Behavioral Problems	0.31	0.22	0.29	0.18
Externalizing Behavioral Problems	0.52*	0.35	0.45*	0.30

\* The difference in perceived social support, positive intentionality, negative intentionality, and externalizing problems between two time points were statistically significant.

### 3.6.3 Predictors for the Internalizing Behavioral Problems

Since my sample size was not large enough, I could not conduct SEM for the data in the follow-up (Kenny & Little, pp.121). A hierarchical regressions analysis was conducted to examine the predictors of internalizing behavioral problems according to Bronfenbrenner's model (1981) and Pearson Correlation coefficients. The maternal stress, emotionality dimension of temperament and physical, cognitive, and self-control dimensions of developmental expectation were significantly associated with internalizing behavioral problems (See Table 17). In the first step of the analysis, emotionality, the dimension of temperament, was entered and it explained 39% of the variance ( $F(1, 65) = 41.30, \beta = .62, p < .001$ ). In the second step of the analysis, maternal stress, and physical, cognitive and self-control dimensions of developmental expectation were entered. This model explained the dependent variable with additional 13% of the variance ( $F(5, 61) = 13.04, p < .001$ ). In this step of the analysis, emotionality and maternal stress positively predicted internalizing problems. The total model explained the 52% of the variance in internalizing problems. Table 19 shows the details of the regression analysis. The emotionality, by itself, positively predicted internalizing problems. When other independent variables were entered in the equation, emotionality was still significant but its effect was lower. Only maternal stress positively predicted internalizing problems among other independent variables in addition to emotionality. This indicated a possible partial mediation of maternal stress between emotionality and externalizing behavioral problems. The developmental expectation of mother regarding to the child's physical, cognitive, and self-control development were non-significant.

Table 19. The hierarchical regression predicting the internalizing problems.

Step	Predictors	B	$\beta$	$\Delta R^2$ (step)	Adjusted $R^2$ (model)
1	Emotionality	.04	.62***		
				.39***	.38
2	Emotionality	.02	.30*		
	Maternal Stress	<.01	.43**		
	Physical	<.01	.05		
	Cognitive	<.01	.00		
	Self-Control	<.01	.08		
				.52**	.48

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

### 3.6.4 Mediation Analysis of the Maternal Stress between the Emotionality and the Internalizing Problems

The mediation analysis of maternal stress between emotionality and internalizing problems was examined by Sobel (1982) test, following four conditions of Baron and Kenny (1986). First of all, a linear regression analysis was conducted between emotionality and maternal stress. In that regression analysis, emotionality was the independent variable and maternal stress was the dependent variable. The results showed that emotionality positively predicted maternal stress ( $\beta = .66$ ,  $t(65) = 7.11$ ,  $p < .001$ ,  $F(1,65)=50.53$ ,  $p < .001$ ). Secondly, a linear regression analysis was conducted between maternal stress and internalizing problems. In that analysis, maternal stress was the independent variable and internalizing problems was the



dependent variable. The results showed that maternal stress positively predicted internalizing problems ( $\beta = .67, t(65) = 7.25, p < .001, F(1,65)=52.52, p < .001$ ). Then, a linear regression analysis was conducted between emotionality and internalizing problems; in which emotionality was the independent variable and internalizing problems was the dependent variable. Emotionality positively predicted internalizing problems ( $\beta = .62, t(65) = 6.43, p < .001, F(1,65)=41.30, p < .001$ ). As the fourth step, a multiple regression analysis was conducted with two independent variables, emotionality and maternal stress as predictors, and internalizing problems as the dependent variable. The results showed that maternal stress partially mediated the relationship between emotionality and internalizing problems according to Sobel test (Sobel test statistic = 4.57,  $p < .001$ ; see Figure 8) and the effect of emotionality on internalizing problems decreased ( $\beta = .32, t(64) = 2.75, p < .01$ ).

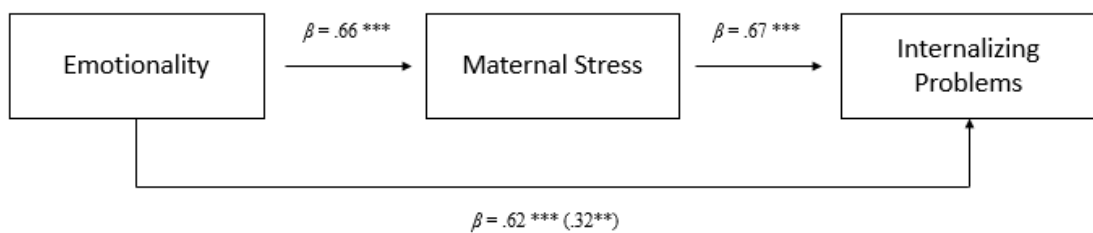


Figure 8. The mediation model for the Internalizing Problems. The figure indicates the mediating role of maternal stress in the association between emotionality and internalizing problems. The standardized regression coefficients are presented in the figure. The value in parentheses represents the standardized coefficient of the mediational analysis, when adding the maternal stress (the mediator) in the equation. \*\*  $p < .01$ , \*\*\*  $p < .001$

### 3.6.5 Predictors for the Externalizing Behavioral Problems

A hierarchical regression analysis was conducted to examine the predictors of externalizing behavioral problems according to Bronfenbrenner's model (1981) and the Pearson Correlations coefficients. The maternal stress, emotionality and activity dimensions of temperament, negative Intentionality, and physical and self-control domains of developmental expectation were significantly associated with externalizing behavioral problems (See Table 17). In the first step of the analysis, emotionality and activity dimensions of temperament were entered and explained 26% of the variance ( $F(2,64) = 11.30, p < .001$ ). In the second step, maternal stress, negative intentionality, and physical and self-control domains of developmental expectation were entered and explained the additional 23% of the variance, ( $F(6,60) = 9.69, p < .001$ ). The full model explained the 49% of the variance in externalizing problems. Table 20 shows the details of the regression analysis. When maternal stress, negative intentionality, physical and self-control domain of developmental expectation were entered into the analysis in the second step, emotionality dimension of temperament was no longer significant. In the second step, maternal stress was the new variable that positively predicted externalizing problems and indicated a possible mediation between emotionality and externalizing behavioral problems. Therefore, I tested that mediation according to Baron and Kenny (1986). The perceived negative intentionality of the mother, and developmental expectations of the mothers regarding to the child's physical and self-control development were non-significant.

Table 20. The hierarchical regression predicting the externalizing problems.

Step	Predictors	B	$\beta$	$\Delta R^2$ (step)	Adjusted $R^2$ (model)
1	Emotionality	.04	.44***		
	Activity	.02	.23*		
				.26***	.24
2	Emotionality	.00	.01		
	Activity	.02	.21*		
	Maternal Stress	.01	.57**		
	Negative	.01	.16		
	Intentionality	.00	.01		
	Physical	.00	.02		
	Self-Control				
				.49**	.44

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

### 3.6.6 Mediation Analysis of the Maternal Stress between the Emotionality and the Externalizing Problems

The mediation analysis of maternal stress between emotionality and externalizing problems was examined by Sobel (1982) test, following four conditions of Baron and Kenny (1986). First of all, a linear regression analysis was conducted between emotionality and maternal stress. In that regression analysis, emotionality was the independent variable and maternal stress was the dependent variable. The results showed that emotionality positively predicted maternal stress ( $\beta = .66$ ,  $t(65) =$

7.11,  $p < .001$ ,  $F(1,65)=50.53$ ,  $p < .001$ ). Secondly, a linear regression analysis was conducted between maternal stress and externalizing problems. In that analysis, maternal stress was the independent variable and externalizing problems was the dependent variable. The results showed that maternal stress positively predicted externalizing problems ( $\beta = .64$ ,  $t(65) = 6.70$ ,  $p < .001$ ,  $F(1,65)=44.93$ ,  $p < .001$ ). Then, a linear regression analysis was conducted between emotionality and externalizing problems; in which emotionality was the independent variable and externalizing problems was the dependent variable. Emotionality positively predicted externalizing problems ( $\beta = .46$ ,  $t(65) = 4.12$ ,  $p < .001$ ,  $F(1,65)=17.00$ ,  $p < .001$ ). As the fourth step, a multiple regression analysis was conducted with two independent variables, emotionality and maternal stress as predictors, and externalizing problems as the dependent variable. The results showed that maternal stress fully mediated the relationship between emotionality and externalizing problems according to Sobel test (Sobel test statistic = 5.76,  $p < .001$ ; see Figure 9) and the effect of emotionality was no longer significant ( $\beta = .06$ ,  $t(64) = 0.45$ ,  $p = .65$ ).

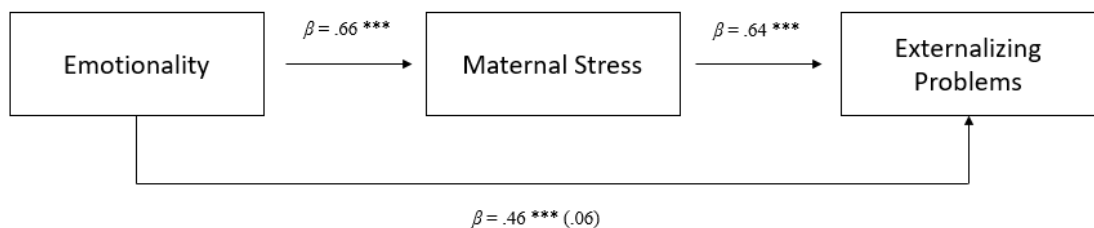


Figure 9. The mediation model for the Externalizing Problems. The figure indicates the mediating role of maternal stress in the association between emotionality and externalizing problems. The standardized regression coefficients are presented in the figure. The value in parentheses represents the standardized coefficient of the mediational analysis, when adding the maternal stress (the mediator) in the equation. \*\*\*  $p < .001$

## CHAPTER 4

### DISCUSSION

Bronfenbrenner (1981) suggested that child development is influenced by different sources such that the child characteristics, the parental characteristics and the environmental conditions. All these different factors shape the child development cumulatively. In order to understand the impact of SES, according to Ecological System Theory of Bronfenbrenner (1981), I divided the sample into two (low-SES and high-SES). Firstly, I examined the influence of perceived social support from *exosystem* layer, factors of maternal stress, and mother's perception of child's intentionality of *microsystem* layer of on outcome variables of child's internalizing and externalizing problems. Secondly, I examined the influence of developmental expectation of mothers that belongs to *microsystem* factors, and child temperament as a part of *individual* level factors on internalizing and externalizing problems in addition to perceived social support, maternal stress, and mother's perception of child intentionality in the follow-up study.

In the next section, I will first discuss the results of data attrition analysis and sample characteristics. Then, I will focus on associations I proposed in my hypothesis regarding maternal characteristics of perceived social support, maternal stress, mother's perception of child intentionality, developmental expectations of mothers, and toddler's temperament and child outcome variables of internalizing and externalizing behaviors. Then, I will point out the limitations of the thesis project and, lastly, will make a conclusion and add suggestions for future studies.

#### **4.1 Data Attrition and Sample Characteristics**

I conducted the attrition analysis to see whether there was a significant difference between drop-outs and mothers participated in the study (See Figure 5). I analyzed the differences between the mothers who gave approval to receive information about the future studies and those who did not. There was no significant difference in the age of the children and the mothers, the perceived social support, the maternal stress, the mother's perception of child's positive intentionality, and the internalizing and externalizing problems. However, there were significant differences in the SES and the mother's perception of child's negative intentionality. The mothers who were willing to receive information about the future studies had lower education level and income compared to the mothers, who did not give consent to receive information regarding future studies.

Even though international literature suggested that people from low-SES (less educated and have difficulties due to low level income) are more likely to refuse to continue attending the longitudinal studies due to their higher level of stress in their lives (Haring et al., 2009; Powers, Tavener, Graves, & Loxton, 2015; Powers & Loxton, 2010), Turkish low-SES mothers were more likely to continue attending the studies. The higher engagement of low-SES mothers to the study might be related to acting more prosocially compared to high-SES people as various studies indicated (See Guinote, Cotzia, Sandhu, & Siwa, 2015; Piff, Kraus, Cote, Cheng, & Keltner, 2010).

In addition, the mothers who were not willing to receive information about future studies were more likely to perceive their children's intentions as negative.

Peters, Calam, and Harrington (2005) found that when the mothers believed that the child behavioral problems depends solely on the child, but not the mother, they are less likely to continue attending the research. Therefore, mothers' attributions regarding their children's intentions and behaviors can be associated with the drop-out rates.

Secondly, I compared the mothers who participated and did not participate in the follow-up study. There was no significant difference for demographic characteristics of the children's and the mothers' age, and the independent variables of perceived social support, maternal stress, and mother's perception of child intentionality, and the dependent variables of internalizing and externalizing behavioral problems, and the socioeconomic status between these two groups of mothers. There was no significant difference between drop-outs and remaining mothers on social support and maternal stress, which were consistent with prior findings suggested that social support and stress were not related with attrition rate (Baker, Arnold, & Meagher, 2011; Gustavson, von Soest, Karevold, & Roysamb, 2012). Unlike my study, the research examining the predictors of attrition rates in longitudinal studies showed that the drop-outs were more likely to come from low socioeconomic background (Baker et al., 2011; Gustavson, von Soest et al., 2012), and younger groups (Haring et al., 2009; Powers, Tavener, Graves, & Loxton, 2015). In addition, mothers who continued to attend the longitudinal studies described their children as having high level behavioral problems compare to those did not attend (Baker et al., 2011). In the present study, the age of the mother and child, mothers' social support, stress, perception toward children's intentions, and socioeconomic

background, and level of child behavioral problems are not related with drop-out rates, when mothers' reported their willingness for participation once.

Lastly, I compared the mothers, who did not give approval to receive information about the future studies and the mothers, who participated in the follow-up study. There were significant differences among mothers, who did not give approval, and who participated in the follow-up in SES, negative intentionality, and the child externalizing problems. Parallel to the first attrition analysis, low-SES mothers, and mothers who have less negative perception about their children's intentions are more likely to participate in the follow-up study.

Moreover, mothers, who participated in the follow-up study reported more externalizing problems regarding their children compared to mothers who did not give approval. This result was consistent with the finding of Baker et al. (2011), who suggested that mothers, who tend to attend the longitudinal studies have children experiencing behavioral problems.

#### **4.2 The Difference between the Low-SES and High-SES Mothers and Children**

The main aim of the current thesis study was to compare the mothers and children from low- and high-SES in terms of the independent variables, the perceived social support, the maternal stress, the mothers' perception of child intentionality, and the dependent variables, internalizing and externalizing problems. The result showed that mothers in low-SES sample have more maternal stress and negative perception toward the child than the mothers in high-SES sample. In addition, low-SES mothers have lower level perceived social support compared to high-SES



mothers. Moreover, the children in low-SES sample have more internalizing and externalizing problems compared to children in high-SES sample.

In the current study, low-SES mothers had lower levels of perceived social support compared to high-SES mothers. The results of the current study regarding the independent variables were consistent with the literature. Coşkun and Akkaş (2009) found that mothers who have higher income and education level are more likely to have social support compared to mothers who have lower income and education level. They suggested that either low-SES mothers' social network may not be wide enough or the people they got support from also can have lower income and education level. So, this may be the reason of why the social support of low-SES mothers was not enough to decrease the intensity of child behavioral problems in the present thesis. The level of the social support as well as the sources of the support are significant mothers' to benefit from the support they received.

The findings regarding the high level of stress in low-SES mothers were also consistent with the literature. The research indicated that mothers from low-SES are more likely to report stress regarding to their parenting role compared to high-SES mothers (Seo & Moon, 2012). Cooper, McLanahan, Meadows, and Brooks-Gunn (2009) also indicated that mothers with low level education degree are more likely to report stress due to parenting. Thus, both income and maternal education increases the intensity of the maternal stress. Parallel with the literature, the result of the current study suggests that low-SES mothers experience either more stress or perceive the stress as more intense compared to high-SES mothers. Thus,

investigating the reasons of their maternal stress carries an importance to decrease their stress level.

Even though there are not many studies regarding mothers' perception toward child's intentionality in the literature, it is important to note that according to the current study, low-SES mothers are more likely to perceive their children's intentions as negative than high-SES mothers. Either the high level maternal stress or the low level social support, or both of the factors may lead to this negative perception. For the future studies, it is crucial to examine the any possible changes in mothers' perception after interveining their maternal stress or social support.

The research and reviews indicated that children are more likely to experience internalizing and externalizing problems, when they grow-up in poverty (Ackerman, Brown, & Izard, 2004; Flouri, Midouhas, & Joshi, 2014; Henninger & Luze, 2014), and if they have low-educated mothers (Carneiro, Meghir, & Parey, 2013; Graves Jr., Blake, & Kim, 2012; Harding, 2015; Kalil, Ryan, & Corey, 2012). Moreover, when family income and maternal education are investigated as a composite component (SES) as in the current thesis study, it was found as a significant risk factor for child behavioral problems (Anton, Jones, & Youngstrom, 2015; Letourneau, Duffett-Leger, Levac, Watson, & Young-Morris, 2011; Mills et al., 2011; Ural & Kanlıkılıçer, 2010). In line with the literature, the Turkish children from low-SES families are also more likely to exhibit behavioral problems than children from high-SES families. Thus, SES is a significant risk factor for child behavioral problems and those children who live in low-SES environment might be defined as children "at-risk".

The result of the current study suggested that low income and maternal education level are significant risk factor for both the mother and the children in Turkey. Therefore, intervening families from low-SES is crucial for well-being of the mother and the child.

#### **4.3 The Perceived Social Support in the Main and Follow-up Studies**

In the main study, I hypothesized that parental perceived social support would negatively predict the child internalizing and externalizing problems in all samples, total, low-SES and high-SES. The results demonstrated that there was a different pattern in the total, low-SES and high-SES samples. In total sample, perceived social support negatively predicted only internalizing behavioral problems. For high-SES sample, on the other hand, perceived social support negatively predicted both internalizing and externalizing problems. However, social support was not associated with child internalizing and externalizing problems in low-SES mothers.

Moreover, in the follow-up study, I hypothesized that perceived social support would negatively predict the internalizing and externalizing behavioral problems. However, the result indicated that social support did not predict the child behavioral problems among mothers participated in the follow-up study. The mothers in the follow-up study were also mainly coming from low-SES, and lack of association between social support and child behavioral problems were in line with the results of the main study.

Both meta-analysis and reviews examining the impact of social support indicated that intervention programs targeting enhancement of social support of the

single mothers were beneficial (Campbell, Thomson, Fenton, & Gibson, 2016). Also, interventions for the mothers with various problems and focusing on social support aspects improved the parental coping and reduced the maternal stress (Jackson, Frydenberg, Liang, Higgins, & Murphy, 2015), increased the resiliency of mothers of children with developmental problems (Peer & Hillman, 2014), and improved the marital relationship of mothers with children, who were diagnosed with autism spectrum disorder (Sim, Cordier, Vaz, & Falkmer, 2016). The meta-analysis of Nieuwboer, Fukkink, and Hermanns (2013) indicated that web-based interventions, which aimed to increase peer support of the parents, facilitated the improvement in the parenting role of parents with normally developed children. Moreover, the previous research suggested that social support of the mother act as a protective factor against parenting challenges related to child's developmental problems (Hsiao, 2016; McDonald, Kehler, Bayrampour, Fraser-Lee, & Tough, 2016), financial problems (Lee, Lee, & August, 2011), and parental mental health and child behavioral problems (Feldman, McConnel, & Aunos, 2012; Khan, Hanif, & Tariq, 2014), and negatively associated with the maternal depression (Horwitz, Briggs-Gowan, Storfer-Isser, & Carter, 2007), and the internalizing behavioral problems among children at the age of 3-to-5 (Burlaka, Bermann, & Graham-Bermann, 2015). The results of the current study regarding social support negatively predicted internalizing and externalizing behavioral problems for the high-SES sample, and negatively predicted internalizing problems in the total sample, were consistent with the listed findings above.

Although perceived social support was a significant predictor that decreasing the likelihood of child internalizing problems among children from low-SES

(Weitzman, Edmonds, Davagnino, & Briggs-Gowan, 2014), there was no effect of social support among low-SES mothers in the present study. Von Dras and Siegler (1997) suggested that the people's attachment style and personality characteristics (i.e., emotionality, extraversion) may influence their perceptions regarding the social support. Also, the personal judgment regarding whether the sources of support are reliable or not, may also play a role in the level of perceived social support (Spencer et al., 2006). In the current study, individual differences may interact with SES and in return may shape mothers' perceived social support levels in low-SES.

The Turkish studies examining the role of social support of mothers showed that parental social support, enhances the resilience of the mothers who have children with and without intellectual disabilities (Bayraklı & Kaner, 2012), and was negatively associated with on-going anxiety of the mothers of children with disability (Coşkun & Akkaş, 2009), the behavioral problems of children at the age of 6 (Özbey, 2012) and the externalizing behavioral problems of toddlers (Akçınar & Baydar, 2016). Only the sample of Coşkun and Akkaş (2009) was consisted of mothers from low SES mostly (97% of the mothers had income lower than 2000 TL) and they showed when parents of children with disabilities have high level social support from their environment, their anxiety level decrease. Since their sample consisted of the mothers of children with disability, which may require more need of support, it may not fully describe the associations between mothers' perceived social support and behavioral problems of normally developed children in low-SES.

Respler-Herman, Mowder, Yasik, and Shamah's (2012) study had a sample of normally developed children from low-income families, and did not found a

significant relation between social support and maternal stress. They suggested that social support is not the unique element to prevent the effects of maternal stress (Respler-Herman, Mowder, Yasik, & Shamah, 2012). Since the maternal stress is a strong predictor of behavioral problems in my study, social support may not buffer the negative influence of maternal stress on child behaviors as in the study of Respler-Herman et al. (2012). Similar to my study, Coşkun and Akkaş (2009) found that mothers who had higher income and education level had more perceived social support compared to mothers, who had lower income and education level. When parents have higher income and education level, their social network may become wider and their chances to interact with people from various social environments increases (Coşkun & Akkaş, 2009).

Even though there are promising intervention programs including enhancing the social support of parents (i.e., Campbell, Thomson, Fenton, & Gibson, 2016; Jackson, Frydenberg, Liang, Higgins, & Murphy, 2015; Peer & Hillman, 2014; Sim, Cordier, Vaz, & Falkmer, 2016), it seems there may be other significant factors which may influence the child's behavioral problems in low-SES sample. Nevertheless, improving the social support of parents from high-SES mothers might be effective for decreasing child internalizing and externalizing problems. The bottom line, not only the demographic characteristics, the SES, the individual differences in the instrumental support and the perception of social support but their interactive relationships should be taken into consideration in designing research and intervention programs focusing on child behavioral problems.

## **4.4 The Maternal Stress**

### **4.4.1 The Predictive Role of the Maternal Stress in the Main and Follow-up Studies**

In the main study, I hypothesized that maternal stress would positively predict mother's perceived negative intentionality, and the child's internalizing and externalizing problems. The results showed that maternal stress positively predicted internalizing and externalizing behavioral problems of children in the total, low-SES and high-SES samples. Also, maternal stress positively predicted negative intentionality of the mothers. In the follow-up study, I hypothesized that maternal stress would positively predict the internalizing and externalizing behavioral problems. The result indicated that maternal stress positively predicted the child behavioral problems.

The meta-analysis and the review papers demonstrated that the ineffective coping strategies and the low level of social support (Biswas, Moghaddam, & Tickle, 2015) are the factors increasing the intensity of parental stress. Moreover, the maternal stress is positively associated with the disruptive behaviors of the children during toddlerhood (Latimer, Wilson, Kemp, Thompson, Sim, Gillberg, Puckering, & Minnis (2012), postpartum depression of mothers, who gave premature birth (Gulamani, Kanji, Premji, & Azam, 2013), and developmental problems in fetus (Desdicioğlu & Malas, 2006). The cross-sectional research indicated a significant positive relationship between parental stress and child disruptive behavior in childhood period (Barry, Dunlap, Cotton, Lochman, & Wells, 2005). De Cock et al.

(2017) also found that parental stress increased the negative impact of negative parental bonding on executive functioning of the toddlers.

In their longitudinal study, Krahe, Bondü, Höse, and Esser (2014) demonstrated that parental stress in childhood period (6-15 years old) predicted the child aggression about three years later. Another longitudinal study indicated that maternal stress was positively associated with the internalizing and externalizing behavioral problems of children with developmental disabilities at the age of 3 to 18 (Woodman, Mawdsley, & Hauser-Cram, 2015). The study of Horwitz, Briggs-Gowan, Storfer-Isser, and Carter (2007) suggested that maternal stress was a significant predictor of maternal depression in mothers of children between 11 to 42 months and the negative influence of maternal stress was prevalent in 1-year follow up. Moreover, maternal stress when child was 14 months old was positively associated with externalizing problems from toddlerhood (24 months old) to childhood (12 years old) in a low-SES sample (Henninger, & Luze, 2014). In addition, Haapsamo et al. (2013) examined the longitudinal effect of maternal stress and found that maternal stress when infant was 8 months old was positively associated with internalizing and externalizing problems when child was 18 and 36 months old. The longitudinal study of Mantymaa et al. (2012) found that maternal stress at the age of 2 positively predicted internalizing behavioral problems at the age of 5. In the present study, the predictive influence of maternal stress on internalizing and externalizing problems was found both in low-SES and high-SES samples, and also in the follow-up study, depicting the significant and long lasting influence of maternal stress on child behavioral problems.



Even though various studies in the international literature showed the effects of maternal stress on children, the studies in Turkish literature focused mostly on the mothers of children with special needs (Topuz, Ülger, Elbasan, Yakut, & Ayhan, 2014; Yağmurlu, Yavuz, & Sen, 2015), the mothers of preterm babies (Uludağ & Ünlüoğlu, 2012; Yaman & Altay, 2015), or the pregnant women (Dağlar & Nur, 2014; Sayil, Güre, & Uçanok, 2007). They did not examine the influences of maternal stress on the child outcomes during toddlerhood. Also, there is a gap in the Turkish literature regarding the influence of maternal stress on normally developed toddlers' and children's behavioral problems (Yavuz, Selçuk, Çorapçı, & Aksan, 2017).

Yavuz, Selçuk, Çorapçı and Aksan (2017) aimed to fill that gap by examining the influence of the factors related to the child (i.e., temperament, age, and sex) and family (i.e., SES, maternal stress, and maternal warmth and negative control) on the internalizing problems among the children between 2-to-6 years old. According to their result, the maternal stress directly and indirectly affected the internalizing problems but its effect was found as weak. They suggested that there may be other possible indicators of internalizing problems among toddlers and children, such that maternal depression and anxiety, which were influenced by maternal stress, then, positively predicted the internalizing problems. However, Yavuz et al. (2017) only analyzed the factors influencing internalizing problems. The current study examined the factors affecting both internalizing and externalizing behavioral problems and found the maternal stress as a significant predictor of child behavioral problems in all SES groups.

I also hypothesized that maternal stress would positively predict the perception of mothers regarding the negative intentionality of the child. The result indicated that maternal stress positively predicted negative perceptions toward the child intentionality. When mothers have high level maternal stress, they are more likely to perceive their children's behaviors and intentions as negative. In line with my finding, Mash and Johnston (1983) suggested that when mothers have high level of stress, they have the tendency to report their children's behaviors as more problematic and negative. Another study also found that there was a positive association between maternal stress of mothers and their perception about their children's fussiness and difficultness (Östberg & Hagekull, 2000). In their review paper, Morgan, Robinson, & Aldridge (2002) suggested that increased maternal stress results in decreased accuracy regarding the child behavior. Moreover, mothers with high level of parental stress were more likely to have negative perception regarding their children's behaviors and to see the child as the cause of that misbehavior rather than the situation (Morgan et al., 2002).

The research in the literature demonstrated that the high level maternal stress is related to negative maternal perception toward their children's behaviors. However, those studies only focused on the child behaviors rather than focusing on the element of the child intention. The current study extended the literature by depicting that maternal stress is associated with the negative perception of mothers regarding their children's intention. Thus, maternal stress does not only negatively influence the child, by predicting the level of behavioral problems, but also negatively influences the perception of mothers, which in turn may result in

dysfunctional parent-child interaction. The future studies may examine the parent-child interaction as an outcome variable in addition to child behavioral problems.

According to the studies in the literature and also the current study, the maternal stress is a critical predictor of internalizing and externalizing problems of toddlers and children, and its influence can be stable over months and years. In addition, high level of maternal stress increases the negative perception of mothers toward their children's intentions and behaviors. The intervention programs targeting the reducing the stress level of mothers were found to be highly effective for mothers of children with autism spectrum disorder (Agazzi, Tan, Ogg, Armstrong, & Kirby, 2017; McConachie & Diggle, 2007), for mothers of children with attention deficit hyperactivity disorder (Vural, Akkaya, Küçükparlak, Ercan, & Eracar, 2014), and mothers who had multiple risk factors such as attempting the abortion, or experiencing domestic violence (Ferguson & Vanderpool, 2013). Moreover, according to the meta-analysis and reviews, family interventions and programs were effective to reduce the parental distress and enhance the parent-child interaction among families of toddlers and children (Bunting, 2004; Cluxton-Keller, Riley, Noazin, & Umoren, 2015), and their effectiveness are stable after 1 year from the intervention (Cluxton-Keller, Riley, Noazin, & Umoren, 2015). As reducing the intensity of maternal stress is a promising element for intervention programs (Haapsamo et al., 2013) and potentially eliminate further problems in children, it needs to be one of the primary goals of social policy makers in Turkey.

#### **4.4.2 The Relationship between the Perceived Social Support and the Maternal Stress in the Main Study**

In the main study, a significant negative correlation was expected between perceived social support and maternal stress in all three samples, total, low-SES and high-SES. In the total sample, perceived social support and maternal stress was negatively associated in addition to negative association of *family support* subscale and *parental distress* subscale after correlating their errors. In the low-SES sample, even though there was no association between perceived social support and maternal stress, *family support* subscale and *parental distress* subscale were negatively correlated after correlating the errors. In the high-SES sample, perceived social support and maternal stress were negatively correlated.

The previous studies indicated that social support and maternal stress were negatively associated in mothers of children, with disabilities (Felizardo, Ribeiro, & Amante, 2016; Gamal & Long, 2013; Sivrikaya & Çifçi Tekinarslan, 2013), with Down syndrome (Cuzzocrea, Murdaca, Costa, Filippello, & Larcana, 2016), with and without hearing loss (Dirks, Uilenburg, & Rieffe, 2016). Moreover, Singer, Davillier, Bruening, Hawkins, and Yamashita (1996) found that social support was negatively associated with stress of mothers of preterm infants, but this association was not observed in mothers of term infants. The importance of the link between the social support and the maternal stress was demonstrated in interventions as well (Telleen, Herzog, & Kilbane 1989).

In their intervention program, Telleen, Herzog, and Kilbane (1989) focused both on the social support and the parental stress of mothers with children younger

than 7 years. At the end of the intervention program, there was a decrease in social isolation and stress due to parenting. In line with the research, social support and maternal stress were found as negatively associated among Turkish mothers of toddlers. Even though there was no predictive role of social support on internalizing and externalizing problems in the current study, intervention programs including elements to improve the social support and to decrease the maternal stress might be effective in Turkish mothers and in decreasing their children's behavioral problems.

#### **4.4.3 The Mediational Role of the Maternal Stress in the Follow-up Study**

In the follow-up study, the maternal stress partially mediated the relationship between the emotionality dimension of temperament and the internalizing behavioral problems, and fully mediated the relationship between the emotionality dimension of temperament and the externalizing behavioral problems. In that analysis, maternal stress was the unique predictor of internalizing behavioral problems among other factors, namely, the perceived social support, the mother's perception of child intentionality, and the developmental expectations of mothers in the *microsystem* level of Bronfenbrenner's model (1981) in addition to emotionality factor of *individual level*. In the regression analysis, emotionality and activity, the elements of *individual level*, positively predicted the externalizing problems. Moreover, maternal stress of *microsystem* fully mediated the relationship between emotionality and externalizing problems.

Various studies indicated the association between child temperament and maternal stress (McBride, Schoppe, & Rane, 2002; Oddi, Murdock, Vadnais, Bridgett, & Gartstein, 2013; Yu & Kim, 2016). Yu and Kim (2016) found that the

emotionality of infant was positively associated with the maternal stress among preterm infants, whereas no association was found for the activity and the maternal stress. Oddi et al. (2013) examined the extraversion, the negative emotionality and the self-regulation as temperament dimensions and found that negative emotionality of infants was positively associated with maternal stress. Another study indicated that high level of activity and emotionality in the preschoolers predicted high level of maternal stress (McBride, Schoppe, & Rane, 2002). In the literature, there are also studies that found the mediational role of maternal stress in the relationship between the number of traumatic life events of children experienced and child behavioral problems (Whitson & Kaufman, 2017), maternal mental health and child behavioral problems (Sales, Greeno, Shear, & Anderson, 2004), stressful life events and child anxiety symptoms (Platt, Williams, & Ginsburg, 2016), challenges due to economic disadvantage and internalizing and externalizing behavioral problems (Rijlaarsdam et al., 2013), and temperament and child mental development (Molfese et al., 2010). Nonetheless, examining the mediational role of maternal stress in the relationship between temperament and child behavioral problems is limited in the Turkish literature (Yavuz, Selçuk, Çorapçı, & Aksan, 2017).

Yavuz, Selçuk, Çorapçı, and Aksan (2017) investigated the influence of the temperament, the parental behaviors and the stress on internalizing problems of the toddlers and the children. They showed that both fearful temperament and maternal stress significantly and positively predicted internalizing problems. The current study contributed to the literature by showing how maternal stress can be a risk factor for behavioral problems, specifically when the child has high level of emotionality and activity dimensions of temperament.

As Bronfenbrenner (1981) suggested, when child and maternal characteristics are considered together, revealing the interactive factors that shape the child outcomes potentially be more accurate. Moreover, since temperament is considered as inherited and stable characteristic, the mediational role of maternal stress in the relationship between temperament and behavioral problems is a promising area for interventions. This finding suggests that both prevention and intervention programs to reduce the child behavioral problems, should focus more on maternal stress in order to eliminate the possible negative impact of temperament on development of behavioral problems during toddlerhood.

#### **4.5 The Mother's Perception of Child Intentionality in the Main and Follow-up Studies**

In the main study, I hypothesized that positive intentionality would negatively predict internalizing and externalizing problems. However, there was no association of positive intentionality for all three samples as demonstrated in Tables 6, 7, and 8. Similarly, positive intentionality was not significantly correlated with the dependent variables of internalizing and externalizing problems in the follow-up study as indicated in Table 17. According to the results of the current study, mothers' positive attributions regarding their children's intentions and behaviors were not related to internalizing and externalizing problems of toddlers in Turkish sample.

Furthermore, I hypothesized that the negative intentionality would positively predict the internalizing and externalizing problems. For the total sample and the low-SES sample, contrary to my hypothesis, negative intentionality was negatively associated with internalizing problems, and it did not predict the externalizing

problems. For high-SES sample, however, negative intentionality did not predict the child behavioral problems. In the follow-up study, neither the positive nor the negative intentionality were associated with internalizing and externalizing behavioral problems.

The literature regarding the influence of child intentionality is very limited and mainly focused on how mother's perception about child intentionality shapes parent-child interaction (Feldman & Reznick, 1996) or parenting behavior (Burchinal, Skinner, & Reznick, 2010; Daggett, O'Brien, Zanolli, & Peyton, 2000). Despite the scarcity of research on mother's perception of child intentionality, there are studies focusing on maternal insightfulness and mothers' perceptions regarding underlying processes of children's behaviors (Koren-Karie, Oppenheim, Dolev, Sher, & Etzion-Carasso, 2002; Meins, Fernyhough, Fradley & Tuckey, 2001).

Koren-Karie, Oppenheim, Dolev, Sher, and Etzion-Carasso (2002) defined the positive insightfulness as how much parents are able to understand the underlying reason behind the child's behaviors by considering perspective of the child and showed a positive association between positive insightfulness and the maternal sensitivity, and children's secure attachment. Non-insightful mothers, on the other hand, were less sensitive toward their children, which is associated with insecure attachment. In addition, Meins et al. (2001) also found that when mothers had appropriate perception regarding their infants' mental states and they treat children in a sensitive manner, their children demonstrate secure attachment. Fonagy, Steele, Steele, Moran, and Higgit (1991) also indicated that when mothers understand and have accurate and positive interpretation regarding their infants' inner worlds, they



behave sensitively toward their infants. Similarly, another study found that when mothers have positive representations regarding their children and their interaction, they are more likely to engage in positive parenting (Slade et al., 1999). In addition, an intervention study examined the relationship between maternal insightfulness and behavioral problems of preschoolers who had clinical referral (Oppenheim, Goldsmith, & Koren-Karie, 2004).

Oppenheim, Goldsmith, and Koren-Karie (2004)'s training program focused on the mothers' insightfulness about their children's internal states and their results indicated that increasing maternal insightfulness effectively decreased child behavioral problems and the mothers who were classified as non-insightful before the treatment showed progress, and classified as positively insightful after the treatment. This change in mothers' perception from non-insightful (i.e., defining the child as negative) to insightful (i.e., effort to understand underlying behaviors of their children's feelings), was associated with less internalizing and externalizing behavioral problems. However, children whose mothers' insightfulness did not change showed increase in internalizing and externalizing problems (Oppenheim et al., 2004).

Although the positive perception of the mother regarding the child's intentionality was found to increase the maternal sensitivity and secure attachment, which were negatively related with the child behavioral problems in the literature (Alajgerdi; Sarabian, & Asgharipour, 2015; Edwards & Hans, 2016; Lin, Crnic, Luecken, & Gonzales, 2017; Pauli-Pott & Beckmann, 2007; Ştefan & Avram, 2017),

in the current thesis, positive perception of child's intentionality did not act as a buffer regarding the effect of the maternal stress on the child behavioral problems.

Still, the positive intentionality was negatively correlated with the maternal stress and its subscale, *dysfunctional interaction*, and positively correlated with *family support* subscale of the perceived social support in the total sample; negatively correlated with *dysfunctional interaction* subscale of the maternal stress in the low-SES sample; negatively correlated with the maternal stress and its subscales, *dysfunctional interaction* and *difficult child*, and positively correlated with *family support* subscale of the perceived social support in the high-SES sample. These correlations were in line with the studies examined above. Nevertheless, the influence of the positive intentionality may be less critical compared to the negative intentionality for behavioral problems in Turkish sample, specifically for 1-4 year old children. On the other hand, there may be other factors, which may decrease the influence of the positive perception of mothers on behavioral problems. Feldman and Reznick (1996) suggested that high level maternal education was associated with considering the child behaviors as less intentional and purposeful, whereas having more experience with the infant was associated with considering the child behaviors as more intentional and purposeful. Also, Daggett, O'Brien, Zanolli, and Peyton (2000) indicated that having negative perception toward life and underestimated or overestimated developmental expectations of mothers were positively related with negative perception toward child's behaviors and intentions. Therefore, individual differences among mothers might be critical in order to understand the role of their positive perceptions toward their children on behavioral problems.

On the other hand, the negative intentionality negatively predicted internalizing problems in total and low-SES samples were surprising since the research indicated a negative influence of negative perception of child intentionality on parenting behavior and parent-child interaction (Burchinal, Skinner, & Reznick, 2010; Daggett, O'Brien, Zanolli, & Peyton, 2000; Feldman & Reznick, 1996; Oppenheim et al., 2004). However, these studies did not examine the influence of negative perception of the mothers on child behavioral problems. Thus, there may be intervening factors in the relationship between negative intentionality and child behavioral problems such as parent-child interaction or maternal sensitivity, which interact with the influence of mothers' perception on child.

In the high-SES sample, however, there was no influence of negative intentionality on the child's behavioral problems. But, the Pearson Correlation matrices indicated a positive moderate to strong associations between the negative intentionality and the maternal stress, and its subscales, *parental distress*, *dysfunctional interaction*, and *difficult child* and a negative association with *family support* and *friend support* subscales of the perceived social support. No direct effect of the negative intentionality on behavioral problems even though these moderate associations might indicate that there might be other factors influencing the relationship between negative intentionality and behavioral problems, such as parent-child interaction. In the follow-up study of the current thesis project, even though the negative intentionality did not predict the internalizing and externalizing problems, there was a positive association between the emotionality dimension of temperament and the negative perception of the mothers. Thus, the impact of the relationship

between temperament and the mother's perception might be examined in the future studies with a larger number of sample.

The influence of mothers' negative perception regarding the child intentionality differs in SES groups. This difference among sociodemographic characteristics was similar with Feldman and Reznick's (1996), but they only examined the influence of maternal education. The current study took the maternal education and income together. On the other hand, Burman (2017) suggested that as infants grow up, identifying their intentions behind the particular behaviors gets easier. The mothers make more appropriate and positive judgments regarding their children's intentions as children get older. Moreover, the number of the siblings or the birth order of the children might influence the mother's perception. These factors might be examined in the future studies. So, examining whether the child behaves intentionally or not could be more accurate rather than evaluating whether their intentions are positive or negative for a study including toddlers and children.

Furthermore, examining the factors such as influence of the mother-child interaction, mothers' attitudes about life in the future studies can widen the literature regarding the impact of mothers' perception of child intentionality on the behavioral problems. As results of the current thesis indicated, the demographic characteristics of mothers should always be taken into consideration and a comparison should be made between low-SES and high-SES mothers.

#### **4.5.2 The Mediation Role of the Mother's Perception of Child Intentionality between the Maternal Stress and Child Behavioral Problems**

In the main study, I explored the mediational role of positive and negative intentionality in the relationship between the maternal stress and the child internalizing and externalizing problems. I expected that the perceived positive intentionality of the mothers would decrease the negative influence of the maternal stress on child behavioral problems, and the perceived negative intentionality would increase the negative influence of the maternal stress on child behavioral problems. The positive intentionality was not associated with the maternal stress and dependent variables, internalizing and externalizing problems for all three samples in the main study.

The negative intentionality, on the other hand, mediated the relationship between the maternal stress and internalizing problems in total and low-SES samples. For high-SES sample, there was no the mediational role of negative intentionality in the relationship between the maternal stress and the internalizing and externalizing problems. In total and low-SES samples, the negative intentionality decreased the negative influence of the maternal stress on behavioral problems. This finding was surprising since the research suggested a negative influence of negative perceptions toward the child intentionality (Burchinal, Skinner, & Reznick, 2010; Daggett, O'Brien, Zanolli, & Peyton, 2000; Feldman & Reznick, 1996; Oppenheim et al., 2004). This raises the possibility of other influential factors for maternal perceptions regarding child intentionality such as child attachment style, parent-child

interaction or maternal sensitivity. Secure attachment of the child, or high maternal sensitivity toward the child may eliminate the negative influence of perceived negative intentionality of mothers on child behavioral problems. Since the mothers' perception was found to influence the maternal sensitivity and child attachment in the studies (Koren-Karie, Oppenheim, Dolev, Sher, & Etzion-Carasso, 2002; Meins, Fernyhough, Fradley & Tuckey, 2001), the future research may explore the influence of mothers' perception, maternal sensitivity, and child attachment together to understand the role of the perceived intentionality on child behavioral problems.

#### **4.5.3 The Mediation Role of the Mother's Perception of Child Intentionality between the Perceived Social Support and Child Behavioral Problems**

I expected that the perceived positive intentionality of the mothers would increase the positive influence of the perceived social support on child behavioral problems, and the perceived negative intentionality would decrease the positive influence of the perceived social support on child behavioral problems. Neither the perceived positive intentionality nor the perceived negative intentionality had a mediational role in the relationship between the perceived social support and behavioral problems for all three samples. Even though the research suggested predictive role of maternal insightfulness for maternal sensitivity (Koren-Karie, Oppenheim, Dolev, Sher, & Etzion-Carasso, 2002; Meins, Fernyhough, Fradley & Tuckey, 2001) and high social support of parents was found to be related with increase in the maternal sensitivity (Kivijarvi et al., 2004; Neuhauser, 2018) and secure attachment of the child (Alan & Ege, 2013), the social support of the mothers

was not related to mothers' perception of child intentionality in the present study. Thus, the mediational role of the perceived intentionality in the relationship between the perceived social support and behavioral problems was not found.

The result of the current thesis study indicated that the level of social support of the mothers is not associated with their perceptions toward their children. This may be related to in which issues they need and receive support from their environment. The scale in the current study takes into account the general support that mothers perceived rather than support in parenting. To support that, Herwig, Wirtz, and Bengel (2004) showed the interactive contribution of social support and parenting practices to child behavioral problems. The result of the study indicated that social support did not directly predict the child behavioral problems, rather indirectly predicted the behavioral problems via parenting practices and satisfaction of partnership (Herwig et al., 2004). Even though indirect influence of social support was depicted in the literature, the result of the current study showed that mother's perception does not mediate the influence of social support on child behavioral problems. So, this may be the reason behind the lack of association between the mothers' perception of the child intentionality and the perceived social support. Therefore, the future studies may investigate the relationship between the social support of mothers regarding their parenting and their perception.

#### **4.6 The Mother's Developmental Expectation in the Follow-up Study**

In the follow-up study, I hypothesized that earlier developmental expectations of mothers would positively predict the internalizing and externalizing behavioral problems. The correlations indicated that physical, cognitive, and self-control

domains of developmental expectations were positively associated with internalizing problems, and physical and self-control domains of developmental expectations were positively associated with externalizing problems. I analyzed the effect of expectation in physical, cognitive, and self-control development on internalizing problems, and effect of expectation in physical and self-control development on externalizing problems. However, the results indicated that there was no effect of developmental expectations of mothers when maternal stress taken into account on child behavioral problems in the current study.

The studies examining the influence of developmental expectation of mothers, mainly compared the mothers from different socioeconomic backgrounds (Davis-Kean, 2005; Fox, Platz, & Bently, 1995; Halle, Kurtz-Costes, & Mahoney, 1997; Hess, Kashiwagi, Azuma, Price, & Dickson, 1980; Nacak, Yağmurlu, Durgel, & van de Vijyer, 2011; Williams & Williams, 2000; Williams, Williams, Lopez, & Tayko, 2000) or mothers from different cultures (Durgel, van de Vijyer, & Yağmurlu, 2012; Hess et al., 1980). Those studies suggested that mothers with higher education were more likely to have higher expectations in school achievement and to have earlier expectations regarding their children to develop mastery in particular skills (Davis-Kean, 2005; Halle et al., 1997; Hess et al., 1980; Nacak et al., 2011; Williams & Williams, 2000; Williams et al., 2000), with an expectation of the study indicating that high-SES mothers had lower expectation from their children compared to mothers from low-SES (Fox et al., 1995). To my knowledge, only two study examined the influence of mothers' expectation on child behavioral problems (Daggett, O'Brien, Zanolli, & Peyton 2000; Fox et al., 1995).



Fox et al. (1995) suggested that high-SES mothers with lower developmental expectation from their children were more likely to report less behavioral problems. In addition, Daggett, O'Brien, Zanolli, and Peyton (2000) found that when mothers have unrealistic expectations about their children's development, they perceive their children's behaviors as problematic, and attribute more intention to their misbehavior. Due to low sample size, a structural equation model was not appropriate to run in the follow-up study. Thus, a predictive role of developmental expectation was not found when maternal stress was taken into consideration. Still, the physical, cognitive, and self-control domains of developmental expectation and internalizing problems were moderately associated. So, with a larger sample size, the predictive role of mothers' developmental expectation on behavioral problems might be demonstrated. In the current study, however, developmental expectations of mothers did not predict the behavioral problems. Therefore, the future studies may examine the relationship between developmental expectations of mothers and child's behavioral problems.

#### **4.7 The Child Temperament in the Follow-up Study**

I hypothesized that emotionality and activity dimensions of child temperament would positively predict the internalizing and externalizing problems, whereas sociability dimension would positively predict externalizing problems. The result supported the hypothesis for the emotionality. The emotionality positively predicted both internalizing and externalizing problems. The activity, on the other hand, positively predicted only externalizing problems. The effect of sociability, however, was non-significant for externalizing problems in the current study.

The previous research indicated that temperamental characteristics such as negative emotionality, reactivity, and being difficult are the predictors of internalizing and externalizing problems (Carrasco, Holgado-Tello, Delgado, & Gonzalez-Pena, 2016; Fanti & Henrich, 2010; Janson & Mathiesen, 2008; Koschanska & Kim, 2013; Lawson & Ruff, 2004; Mills et al., 2012; Sanson, Hemphill, Yağmurlu, & McClowry, 2011). Moreover, studies also found that mothers of children high emotionality, experience high level of stress, whereas mothers of children with activity experience lower level stress (McBride, Schoppe, & Rane, 2002). Moreover, those mothers perceiving their children as difficult were reported high level of stress (Coplan, Bowker, & Cooper, 2003; Molfese et al., 2010). Even though there are negative influences of negative temperamental characteristics on both children and mothers, the social support was found as a protective factor for maternal stress among mothers of children with irritability (Belsky, 1990). In line with the research, high level of emotionality was found as the predictor for high level internalizing and externalizing problems, whereas high level of activity was found as predictor for high level externalizing problems in the current study. The impact of maternal stress was also crucial for the present study.

The maternal stress partially mediated the relationship between the emotionality and the internalizing problems, and fully mediated the relationship between the emotionality and the externalizing problems. When the level of maternal stress increase, the negative influences of the emotionality on internalizing and externalizing problems may also increase. However, if the level of maternal stress reduced among mothers with children high in emotionality, the child's behavioral problems may also decrease. The current thesis project demonstrated that both the

child and the maternal characteristics are important elements to shape the behavioral problems during early childhood period.

The negative impact of temperament on the child's internalizing and externalizing problems is stable during infancy, toddlerhood, and adolescence (Abulizi, Pryor, Michel, Melchior, & van der Waerden, 2017; Fanti & Henrich, 2010; Guedeney, Pingault, Thorr, & Larroque, 2014; Sidor, Fischer, & Cierpka, 2017). The current study has shown that the maternal stress act as a risk factor for the child's internalizing and externalizing problems. Also, approximately after 1 year from the first assessment, the internalizing behaviors did not change in the follow-up study. As temperament accepted as relatively stable child characteristic, it can be crucial to focus on the maternal stress in order to eliminate the negative impact of temperament in the future interventions.

The studies in Turkey regarding child temperament mainly focused on its relationship with prosocial behavior (Yağmurlu & Sanson, 2009; Yağmurlu, Sanson, & Köymen, 2005), and school adjustment (Yoleri, 2014). However, the research did not examine the joint-influence of the temperament and parental characteristics on toddlers as in our study. Also, these research consisted of children age 4-to-6 years old (Yağmurlu & Sanson, 2009; Yağmurlu et al., 2005) and children 5-to-6 years old (Yoleri, 2014). The current study examined the temperamental characteristics of younger children (Age Range: 19-51 months old) and filled the gap regarding the influence of temperament on behavioral problems in toddlers.

#### **4.8 The Differences between Two Time Points (Main Study vs. Follow-up Study)**

In the follow-up study, I hypothesized that the perceived social support and the positive intentionality would increase, the negative intentionality and the externalizing problems would decrease, and the maternal stress and the internalizing problems would remain stable from Time 1 to Time 2. The Paired T-test results showed that mothers' perceived social support, and positive and negative intentionality increased whereas child externalizing behavioral problems decreased from Time 1 to Time 2. In addition, maternal stress and internalizing behavioral problems remained stable from Time 1 to Time 2.

I hypothesized that perceived social support of mothers would increase from Time 1 to Time 2. The results supported that. Even though there are studies examining the role of social support on mother and child outcomes in the longitudinal designs, studies measuring the perceived social support of mothers at all the time points are limited. In a study with immigrant families in the United States, perceived social support from family and friend increased over 3-years period (Aroian, Uddin, & Blbas, 2017). Another study examining the influence of social support on depressive symptoms indicated that social support is stable over 2-years between the ages of 13 and 17 (Burke, Sticca, & Perren, 2017). So, the findings regarding the stability or change of perceived social support are not consistent and not related to mothers during toddlerhood. Thus, my hypothesis was exploratory regarding the increase in social support after approximately 1 year. Since children grow up, the chance of mothers to spend time with others also increase and they may have more contact with their peers by getting in a job or meeting with their children's

friends' families. Thus, the number of supportive resources of a mother is expected to increase over time. The result of the current study confirmed the hypothesis.

I hypothesized that there would be no significant difference in the maternal stress. Consistent with the previous studies focusing on the stability of the stress level of the mothers (Crnic, Gaze, & Hoffman, 2005; Pesonen et al., 2008), there was no difference in maternal stress level within time. Also, this persistent stress may influence a longer period of time. Pesonen et al. (2008) investigated the changes of temperament and maternal stress from infancy to preschool period in a follow-up study. The maternal stress when the child was in infancy period was in similar levels when the child was in preschool-age period (Pesonen et al., 2008). In addition, Crnic et al. (2005) examined the relationship between maternal stress, parent-child interaction, and behavioral problems among mothers of children at 3 years of age in a 2-year longitudinal study with 12-month period of measurement. They found that the level of maternal stress was stable across all three time points; when the child was at the age of 3, 4, and 5. The stable stress of mothers might be a risk factor for the well-being of the child and parents (Crnic et al. 2005), and some researchers suggest that children whose mothers have high stress level can be grouped as children "at-risk" (Morgon, Robinson, & Aldridge, 2002).

The results of the previous research and the current study suggested that the maternal stress is associated with child's behavioral problems and it may remain stable across time. Moreover, the result of the present study indicated that even though the social support increased, it did not lessen the stress of mothers

experienced. So, some other factors should be investigated in order to decrease the intensity of mothers' stress level.

Burman (2017) suggested perceiving older child's behaviors more positively and accurately is more common. Therefore, I expected positive intentionality to increase and negative intentionality to decrease from Time 1 to Time 2. Even though my hypothesis for positive intentionality was supported, the hypothesis for negative intentionality was not. Both perception (positive and negative) of mothers regarding children's intentionality increased in the current study. Since there was no research examining the mother's perception of child intentionality in a longitudinal design, it is not possible to make comparison with previous studies. However, the result of the current study indicated that the positive and negative intentionality subscales do not measure the completely opposite poles. In addition, the interaction of the children may increase in time and the behaviors that mothers make attributions about may also increase. This may be reason of why both positive and negative perception toward child's intention increased over 1 year. Future studies may examine the influence of mother's perception toward life to understand the factors shaping the mothers' perception toward their children.

I hypothesized that internalizing problems would remain stable and externalizing problems would decrease from Time 1 to Time 2 based on the research of Fanti and Henrich (2010) and Haapsamo et al. (2013). The results of the current study supported this hypothesis; there was no significant difference in internalizing scores of children between Time 1 and Time 2, however, the externalizing scores of children decreased from Time 1 to Time 2. Fanti and Henrich (2010) indicated that

externalizing problems of children decreased from age of 3 to 11, whereas internalizing problems showed a fluctuation from age of 3 to 11, but showed an increase from toddlerhood to preschool-age period. Similarly, Haapsamo et al. (2013) demonstrated that child externalizing problems decreased, whereas child internalizing problems remained stable from 18 months to 36 months. However, in the literature, there are also studies, which found different patterns of behavioral problems than the results of the present study.

Anselmi et al. (2008) investigated the continuity of behavioral problems from preschool to preadolescence. Their results indicated that internalizing and externalizing problems remained stable within these age periods, and externalizing problems show higher stability than internalizing problems. Anselmi et al. (2008) suggested that the reason behind this might be related to parents' increased attention to their children's problems with aggression as a result of observing their children's behaviors. Briggs-Gowan et al. (2006) investigated the toddlers' behavioral problems in a 1-year follow-up study and found that both internalizing and externalizing problems were persistent. Mantymaa et al. (2002) also found the continuity of internalizing and externalizing problems from toddlerhood to preschool-age.

Rescorla et al. (2001) compared the emotional and behavioral problems of children from 24 different societies. The Turkish sample of the research consisted of 825 toddlers and preschoolers. The sample of Turkey was found as one of the highest scores in internalizing problems, whereas the score of externalizing problems were closer to the overall mean obtained from all the countries in the study. Rescorla et al. (2001) suggested that this difference in the internalizing and externalizing problem

scores may be associated with the mothers' tendency to state the internalizing behaviors compared to the externalizing behaviors. As Rescorla et al. (2001) pointed out, the Turkish mothers may have a tendency to report the internalizing problems more than the externalizing problems in the current study as well.

#### **4.9 Limitations**

There were several limitations in the current study. Firstly, the attrition rate was high. Mothers who gave consent for attending future studies did not remain. Therefore, only 67 mothers participated in the follow-up study among 160 mothers, who gave consent to receive information about the future studies. So, the sample size in the follow-up study was low. Secondly, the study was not a longitudinal design. Therefore, the participants in the follow-up study were the ones who were willing to take part. This is an obstacle to generalize the findings. Thirdly, the sample of the follow-up study was consisted of mostly the mothers from low-SES (53 low-SES mothers and 14 high-SES mothers). Even though the sample size was not large enough and not equally distributed to make comparison regarding the SES, it can be said that the results of the follow-up study generally represented the low-SES mothers. In addition, the data only relies on the mothers' report. Including the fathers in future studies would be beneficial to see whether there is a difference between the mothers' and the fathers' perception toward their children. Moreover, the observational data would also be beneficial to evaluate the behavioral problems of children in addition to the mother report. Lastly, the negative intentionality subscale of Infant Intentionality Questionnaire is consisted of less items compared to positive intentionality subscale. Even though I used the sum of the items as the score of



subscales as authors suggested, using the mean scores in the analysis would be better for the future studies.

#### **4.10 Conclusions and the Future Directions**

The present study aimed to show the associations among various factors according to Bronfenbrenner (1981), namely, the perceived social support, the maternal stress, the mother's perception of child intentionality, the mother's developmental expectations and the child temperament, and internalizing and externalizing problems as dependent variables. The internalizing and externalizing problems in early childhood period are associated with experiencing physical abuse from parents (McElroy & Rodriguez, 2008), low level cognitive development (Turney & McLanahan, 2015), low level success in school (Kristoffersen & Smith, 2015), engaging in risky behaviors in adolescence (Racz, McMahon, & Luthar, 2011), and peer victimization (Forns et al., 2012), and unfortunately the effects on child tend to remain stable (Danese et al., 2009; Edwards, Holden, Felitti, & Anda, 2003). Therefore, examining the factors influencing behavioral problems is critical to intervene those factors to decrease their negative impact on the child at early stages. This study contributed to the literature that the maternal stress is a significant risk factor for toddlers to develop internalizing and externalizing problems, and its influence may remain in 1-year time. According to the results of the current thesis preproject, when the disadvantage of socioeconomic status is taken into consideration, social support is not effective to decrease the intensity of the behavioral problems of the child. Also, the present study pointed out that not only maternal factors (i.e., maternal stress and perceived social support) but also child-related factors (i.e.,

temperament) can be crucial in the level of internalizing problems, when the maternal stress is high. Therefore, examining child-specific factors in relation to the maternal, and the environment factors as Bronfenbrenner (1981) suggested, carries great importance. Furthermore, the current study fills the gap in the Turkish literature by examining the behavioral problems in toddlerhood period while investigating the various interactive factors.

Moreover, the results of my thesis project demonstrated that maternal stress is a strong predictor for child internalizing and externalizing problems regardless of socioeconomic background of the mothers. Also, the high level of the maternal stress predicted high level of negative perception of mothers toward their children's intentions and pointed out the mediational role of the maternal stress in the relationship between the emotionality and, internalizing and externalizing problems. The maternal stress affects not only the mother but the child directly and indirectly. Therefore, future studies may focus on factors triggering stress of the mothers. The mothers of children at early age, especially with difficult temperament, may benefit from the intervention programs focusing on the coping strategies against parental stressors.

The present study also revealed different associations in different SES groups. The perceived social support decreases the level of child internalizing and externalizing problems, but not in low-SES sample. The difference in SES groups may be due to insufficient support received by low-SES mothers or different life stressors between low-SES and high-SES mothers. In addition, the follow-up study, which mostly consisted of mothers from low-SES, demonstrated that even though

social support of the mothers increased, it did not lessen the maternal stress.

Therefore, future studies may focus on other sources to reduce the maternal stress for the low-SES mothers.

Even though there was no predictive role of mother's developmental expectation on child behavioral problems, the moderate correlation between expectation and behavioral problems indicate that the mother's developmental expectation can be one of the factor influencing child behavioral problems. Thus, future studies need to examine the influence of mother's developmental expectation by comparing the mothers from different socioeconomic background with a larger sample size.

In conclusion, the maternal stress, the perceived social support, the mother's negative perception toward the child's intentionality, and the child temperament can be significant indicators of child behavioral problems but their influences can be different in low and high SES groups. Thus, evaluating the child, maternal, and environmental characteristics together provided an important framework to understand ways to prevent and intervene behavioral problems in different SES groups in Turkey.

## APPENDICES

### APPENDIX A. Scales in the Main and Follow-Up Study

#### Demographics

Anketin Doldurulduğu Tarih: ..... / ..... / 20..

Çalışmaya Katılan Çocuğunuzla İlgili Sorular:

1. Çocuğunuzun Adı ve Soyadı: \_\_\_\_\_
2. Çocuğun Doğum Tarihi: Gün \_\_\_\_\_ Ay \_\_\_\_\_ Yıl \_\_\_\_\_.
3. Çocuğun Cinsiyeti: Erkek\_\_ Kız\_\_
4. Evde anne ve baba dışında birlikte yaşadığınız *başka yetişkinler* var mı? Evet \_ Hayır \_  
Varsa yakınlık derecesiyle birlikte kimler olduğunu lütfen yazınız \_\_\_\_\_
5. Evdeki *diğer çocukları* (kardeşler, evde sürekli sizinle kalan akraba çocukları vb. gibi) lütfen yazınız.

Çocukla olan yakınlığı	Çocuğun cinsiyeti	Çocuğun doğum tarihi	Aynı evde yaşıyorsanız işaretleyiniz.

Aşağıdaki tabloda çocuğunuza hangi aylarda, kimlerin baktığı sorulmaktadır. Bakan kişi ve/veya kişilerin altına X işareti koyunuz. Birden çok kişi bakmış veya bakıyorsa ilgili tüm kişilerin altına X işareti koyunuz.

	Aylar	Çocuğun Bakımı						
		Çocuğun Annesi	Çocuğun Babası	Çocuğun Anneannesi	Çocuğun Babaannesi	Yuva-Kreş/ Anaokulu	Yakınız/ arkadaşınız	Diğer: (lütfen aşağıya yazınız)
6.	0-3 ay							
7.	4-6 ay							
8.	7-12 ay							
9.	13-24ay							
10.	24 ay ve yukarısı							

11. Medeni haliniz (uygun olan seçeneğin altındaki rakamı daire içine alınız).

Evli	Ayrılmış veya Boşanmış	Dul	Yeniden evlenmiş
1	2	3	4

12. Aşağıdaki bilgileri kendiniz ve eşiniz için doldurunuz. (Eşiniz hayatta değilse o sütunu boş bırakınız.)

	Sizin:	Eşinizin:
12. Yaşınız:		
13. Mesleğiniz:		
14. Şu anda yaptığınız iş:		
15. Toplam kaç yıl okudunuz:		

16. En son bitirdiğiniz okulu aşağıdaki kutucuklardan birini işaretleyerek gösteriniz.

	Siz	Eşiniz		Siz	Eşiniz		Siz	Eşiniz
1. Okur – yazar değil			4. Ortaokul Mezunu			7. Üniversite Mezunu (4 yıllık)		
2. Okur-yazar			5. Lise Mezunu			8. Yüksek Lisans Mezunu		
3. İlkokul Mezunu			6. Yüksek Okul Mezunu (2 yıllık)			9. Doktora Mezunu		

17. Aylık olarak eve giren toplam para miktarı (maaşlar, kira gelirleri ve diğer tüm yan gelirlerin toplamı) nedir? (lütfen birini işaretleyiniz.)

1	Ayda 850 TL ve altı		3	Ayda 1501 – 3000 TL	5	Ayda 5001 – 7500 TL	
2	Ayda 851 – 1500 TL		4	Ayda 3001 – 5000 TL	6	Ayda 7501 TL ve üzeri	

## Multidimensional Scale of Perceived Social Support

<b>ACYSDÖ:</b> Aşağıda 12 cümle ve her birinde cevaplarınızı işaretlemeniz için <b>1'den 7'ye kadar</b> rakamlar verilmiştir. Her cümlede söyleneni, sizin için ne kadar doğru olduğunu veya olmadığını altındaki rakamlardan <b>yalnız bir tanesini</b> daire içine alarak işaretleyiniz. Bu şekilde 12 cümlenin her birinde bir işaret koyarak cevaplarınızı veriniz.		Hiç Katılmıyorum	Katılmıyorum	Biraz Katılmıyorum	Kararsızım	Biraz Katılıyorum	Katılıyorum	Tamamen Katılıyorum
1.	Ailem ve arkadaşlarım dışında olan ve ihtiyacım olduğunda yanımda olan bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var.	1	2	3	4	5	6	7
2.	Ailem ve arkadaşlarım dışında olan ve sevinç ve kederlerimi paylaşabileceğim bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var.	1	2	3	4	5	6	7
3.	Ailem (örneğin annem, babam, eşim, çocuklarım, kardeşlerim) bana gerçekten yardımcı olmaya çalışır.	1	2	3	4	5	6	7
4.	İhtiyacım olan duygusal yardımı ve desteği ailemden (örneğin annemden, babamdan, eşimden, çocuklarımdan, kardeşlerimden) alırım.	1	2	3	4	5	6	7
5.	Ailem ve arkadaşlarım dışında olan ve beni gerçekten rahatlatan bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var.	1	2	3	4	5	6	7
6.	Arkadaşlarım bana gerçekten yardımcı olmaya çalışırlar.	1	2	3	4	5	6	7
7.	İşler kötü gittiğinde arkadaşlarıma güvenebilirim.	1	2	3	4	5	6	7
8.	Sorunlarımı ailemle (örneğin annemle, babamla, eşimle, çocuklarımla, kardeşlerimle) konuşabilirim.	1	2	3	4	5	6	7
9.	Sevinç ve kederlerimi paylaşabileceğim arkadaşlarım var.	1	2	3	4	5	6	7
10.	Ailem ve arkadaşlarım dışında olan ve duygularıma önem veren bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var.	1	2	3	4	5	6	7
11.	Kararlarımı vermede ailem (örneğin annem, babam, eşim, çocuklarım, kardeşlerim) bana yardımcı olmaya isteklidir.	1	2	3	4	5	6	7
12.	Sorunlarımı arkadaşlarımla konuşabilirim.	1	2	3	4	5	6	7

## **Parenting Stress Index-Short Form**

Due to copyright agreement, the items of the questionnaire were not listed here. For the details, check website of Par: [www.parinc.com](http://www.parinc.com)

For the Turkish adaptation, you may check the references (Mert et al., 2008).



## Infant Intentionality Questionnaire

<b>BNHAAÖ:</b> Lütfen düşüncenizi en iyi yansıtan rakamı işaretleyiniz. İki ucun (1 Hiçbir Zaman ve 5 Her Zaman) arasındaki düşüncelerinizi ifade etmek için 2, 3 ve 4 rakamlarını kullanınız.		Hiçbir Zaman	Seyrek Olarak	Bazen	Sık Sık	Her Zaman
1.	Bebeğiniz kasten sizi sinirlendirecek şeyler yapar mı?	1	2	3	4	5
2.	Bebeğiniz oyuncuıyla oynarken oyuncuğının neye neden olabileceğini tahmin eder mi? (Örneğin, topu atınca zıplar)	1	2	3	4	5
3.	Bebeğiniz yaptıklarınızın amacını fark eder mi? (Örneğin, onu giydirmek isteyeceğinizin)	1	2	3	4	5
4.	Bebeğiniz belli şeylerin olacağını bekler mi? (Örneğin, belli bir oyuncuğın ortaya çıkarılabileceğini)	1	2	3	4	5
5.	Bebeğiniz, gülümseyerek veya gülücüklerle olumlu iletişim kurmaya çalışır mı?	1	2	3	4	5
6.	Bebeğiniz, akıllıca bir şey yaptığında övgü bekler mi?	1	2	3	4	5
7.	Bebeğiniz başkalarını cezalandırmayı ya da onlarla ödeşmeyi dener mi?	1	2	3	4	5
8.	Bebeğiniz bir şeyleri başardığında bundan gurur duyar mı?	1	2	3	4	5
9.	Bebeğiniz, başkalarının kendinden memnun olduğunu anlar mı?	1	2	3	4	5
10.	Bebeğinizin, sizi kızdırmak için siz görmezden geldiği olur mu?	1	2	3	4	5
11.	Bebeğiniz keyif aldığı bir aktivite devam etsin diye bilerek olumlu bir şekilde hareket eder mi?	1	2	3	4	5
12.	Bebeğiniz beklenmedik şeyler olduğunda şaşırır mı?	1	2	3	4	5
13.	Bebeğiniz birisinin oyun oynamaya istekli olduğunu fark edebilir mi?	1	2	3	4	5
14.	Sırf zorluk çıkarmak için bebeğinizin yeni değişmiş bezini pislettiği olur mu?	1	2	3	4	5
15.	Bebeğiniz çevresinde ne olup bittiğini anlar mı?	1	2	3	4	5
16.	Bebeğiniz etrafı dağıtmak için bir şeyleri yere atar mı?	1	2	3	4	5
17.	Bebeğinizin oyun oynamak için sizinle göz teması kurduğu olur mu?	1	2	3	4	5
18.	Bebeğiniz nispet olsun diye kasten yaramazlık yapar mı?	1	2	3	4	5
19.	Bebeğiniz bir plan ya da taktik geliştirebilir mi?	1	2	3	4	5
20.	Bebeğiniz bir şeyi kötülük olsun diye yapabilir mi?	1	2	3	4	5
21.	Bebeğiniz, hedefine ulaşmak için planlı hareket edebilir mi (Örneğin yere düşen bir oyuncuğı almak için)?	1	2	3	4	5



## Child Behavior Checklist: Ages 18-60 Months

**ÇDKL:** Aşağıda çocukların özelliklerini tanımlayan bir dizi madde bulunmaktadır. Her bir madde **çocuğunuzun şu andaki ya da son 6 ay** içindeki durumunu belirtmektedir. Bir madde çocuğunuz için **çok ya da sıklıkla doğru ise 2, bazen ya da biraz doğru ise 1, hiç doğru değilse 0** sayılarını yuvarlak içine alınız. Lütfen tüm maddeleri işaretlemeye çalışınız. **LÜTFEN TÜM MADDELERİ YANITLAYINIZ. SİZİ KAYGILANDIRAN MADDELERİN ALTINI ÇİZİNİZ.**

0	1	2
Doğru Değil (Bildiginiz kadarıyla)	Bazen ya da Biraz Doğru	Çok ya da Sıklıkla Doğru

1. Ağrı ve sızıları vardır (tıbbi nedeni olmayan).	0	1	2	16. İstekleri anında karşılanmalıdır.	0	1	2
2. Yaşından daha küçük gibi davranır.	0	1	2	17. Eşyalarına zarar verir.	0	1	2
3. Yeni şeyleri denemekten korkar.	0	1	2	18. Ailesine ait eşyalara zarar verir.	0	1	2
4. Başkalarıyla göz göze gelmekten kaçınır.	0	1	2	19. Hasta değilken bile ishal olur, kakası yumuşaktır.	0	1	2
5. Dikkatini uzun süre toplamakta ya da sürdürmekte güçlük çeker.	0	1	2	20. Söz dinlemez, kurallara uymaz.	0	1	2
6. Yerinde rahat oturamaz, huzursuz ve çok hareketlidir.	0	1	2	21. Yaşam düzenindeki en ufak bir değişiklikten rahatsız olur.	0	1	2
7. Eşyalarının yerinin değiştirilmesine katlanamaz.	0	1	2	22. Tek başına uyumak istemez.	0	1	2
8. Beklemeye tahammülü yoktur, her şeyin anında olmasını ister.	0	1	2	23. Kendisiyle konuşulduğunda yanıt vermez.	0	1	2
9. Yenmeyecek şeyleri ağzına alıp çiğner.	0	1	2	24. İştahsızdır (açıklayınız)	0	1	2
10. Yetişkinlerin dizinin dibinden ayrılmaz, onlara çok bağımlıdır.	0	1	2	25. Diğer çocuklarla anlaşamaz.	0	1	2
11. Sürekli yardım ister.	0	1	2	26. Nasıl eğleneceğini bilmez, büyümüş de küçülmüş gibi davranır.	0	1	2
12. Kabızdır, kakasını kolay yapamaz (hasta değilken bile).	0	1	2	27. Hatalı davranışından dolayı suçluluk duymaz.	0	1	2
13. Çok ağlar.	0	1	2	28. Evden dışarı çıkmak istemez.	0	1	2
14. Hayvanlara eziyet eder.	0	1	2	29. Güçlkle karşılaştığında çabuk vazgeçer.	0	1	2
15. Karşı gelir.	0	1	2	30. Kolay kıskanır.	0	1	2

0	1			2		
Doğru Değil (Bildiginiz kadarıyla)	Bazen ya da Biraz Doğru			Çok ya da Sıklıkla Doğru		

31. Yenilip içilmeyecek şeyleri yer ya da içer- (kum, kil, kalem, silgi gibi) (açıklayınız).....	0	1	2	48. Gece kabusları vardır, korkulu rüyalar görür.	0	1	2
32. Bazı hayvanlardan, ortamlardan ya da yerlerden korkar(açıklayınız).....	0	1	2	49. Aşırı yemek yer.	0	1	2
33. Duyguları kolayca incinir.	0	1	2	50. Aşırı yorgundur.	0	1	2
34. Çok sık bir yerlerini incitir, başı kazadan kurtulmaz.	0	1	2	51. Hiçbir neden yokken panik yaşar.	0	1	2
35.Çok kavga dövüş eder.	0	1	2	52. Kakasını yaparken ağrısı acısı olur.	0	1	2
36. Her şeye burnunu sokar.	0	1	2	53. Fiziksel olarak insanlara saldırır,onlara vurur.	0	1	2
37. Anne-babasından ayrıldığında çok tedirgin olur.	0	1	2	54. Burnunu karıştırır, cildini ya da vücudunun diğer taraflarını yolar (açıklayınız) .....	0	1	2
38. Uykuya dalmada güçlük çeker.	0	1	2	55. Cinsel organlarıyla çok fazla oynar.	0	1	2
39. Baş ağrıları vardır (tıbbi nedeni olmayan).	0	1	2	56. Hareketlerinde tam kontrollü değildir, sakardır.	0	1	2
40. Başkalarına vurur.	0	1	2	57. Tıbbi nedeni olmayan, görme bozukluğu dışında göz ile ilgili sorunları vardır (açıklayınız).....	0	1	2
41. Nefesini tutar.	0	1	2	58. Cezadan anlamaz, ceza, davranışını değiştirmez.	0	1	2
42. Düşünmeden, insanlara ya da hayvanlara zarar verir.	0	1	2	59. Bir uğraş ya da faaliyeti bitirmeden diğerine çabuk geçer.	0	1	2
43. Hiçbir neden yokken mutsuz görünür.	0	1	2	60. Döküntüleri ya da başka cilt sorunları vardır (tıbbi nedeni olmayan).	0	1	2
44. Öfkeliidir.	0	1	2	61. Yemek yemeyi reddeder.	0	1	2
45. Midesi bulanır, kendini hasta hisseder (tıbbi nedeni olmayan).	0	1	2	62. Hareketli, canlı oyunlar oynamayı reddeder.	0	1	2
46. Bir yerleri seyirir, tikleri vardır (açıklayınız) .....	0	1	2	63. Başını ve bedenini tekrar tekrar sallar.	0	1	2
47. Sinirli ve gergindir.	0	1	2	64. Gece yatağına gitmemek için direnir.	0	1	2

0	1			2		
Doğru Değil (Bildiginiz kadarıyla)	Bazen ya da Biraz Doğru			Çok ya da Sıklıkla Doğru		

65. Tuvalet eğitimine karşı direnir (açıklayınız) .....	0	1	2	83. Çok sık küser, surat asar, somurtur.	0	1	2
66. Çok bağıırır, çağırır, çığlık atar.	0	1	2	84. Uykusunda konuşur, ağlar, bağıırır.	0	1	2
67. Sevgiye, şefkate tepkisiz görünür.	0	1	2	85. Öfke nöbetleri vardır, çok çabuk öfkelenir korkar (açıklayınız).....	0	1	2
68. Sıkılgan ve utangaçtır.	0	1	2	86. Temiz, titiz ve düzenlidir	0	1	2
69. Bencildir, paylaşmaz.	0	1	2	87. Çok korkak ve kaygılıdır	0	1	2
70. İnsanlara karşı çok az sevgi, şefkat gösterir.	0	1	2	88. İşbirliği yapmaz.	0	1	2
71. Çevresindeki şeylere çok az ilgi gösterir.	0	1	2	89. Hareketsiz ve yavaştır, enerjik değildir.	0	1	2
72. Canının yanmasından, incinmekten pek az korkar.	0	1	2	90. Mutsuz, üzgün, çökkün ve keyifsizdir (açıklayınız) .....	0	1	2
73. Çekingen ve ürkektir.	0	1	2	91. Çok gürültücüdür.	0	1	2
74. Gece ve gündüz çocukların çoğundan daha az uyur.	0	1	2	92. Yeni tanıdığı insanlardan ve durumlardan çok tedirgin olur.	0	1	2
75. Kakasıyla oynar ve onu etrafa bulaştırır (açıklayınız) .....	0	1	2	93. Kusmaları vardır (tıbbi nedeni olmayan) .....	0	1	2
76. Konuşma sorunu vardır (açıklayınız) .....	0	1	2	94. Geceleri sık sık uyanır.	0	1	2
77. Bir yere boş gözlerle uzun süre bakar ve dalgın görünür.	0	1	2	95. Alıp başını gider.	0	1	2
78. Mide-karın ağrısı ve krampları vardır (tıbbi nedeni olmayan).	0	1	2	96. Çok ilgi ve dikkat ister.	0	1	2
79. Üzgünken birden neşeli, neşeli iken birden üzgün olabilir.	0	1	2	97. Sızlanır, mızırdanır.	0	1	2
80. Yadırganan, tuhaf davranışları vardır (açıklayınız).....	0	1	2	98. İçe kapanıktır, başkalarıyla birlikte olmak istemez.	0	1	2
81. İnatçı, somurtkan ve rahatsız edicidir.	0	1	2	99. Evhamlıdır.	0	1	2
82. Duyguları değişkendir, bir anı bir anını tutmaz.	0	1	2	100. Çocuğunuzun burada değinilmeyen başka sorunu varsa lütfen yazınız.....	0	1	2

## APPENDIX B. Additional Scales in the Follow-Up Study

### Developmental Expectation Questionnaire

<b>GBÖ:</b> Lütfen aşağıda listelenmiş becerileri herhangi bir çocuğun ilk kez kaç yaşında (yıl olarak) yapabileceğini yandaki verilen seçeneklerden birini seçerek belirtiniz.  Sizce bir çocuk <b>kaç yaşında</b> aşağıdaki becerileri <b>yapabilir</b> ?	Daha erken	1 yaş	1 <sup>1/2</sup> yaş	2 yaş	2 <sup>1/2</sup> yaş	3 yaş	3 <sup>1/2</sup> yaş	4 yaş	4 <sup>1/2</sup> yaş	5 yaş	5 <sup>1/2</sup> yaş	6 yaş	Daha geç
1. Tek ayak üstünde birkaç kez zıplamak													
2. Çizmek için bir kalem tutmak													
3. Bir kitabın sayfalarını çevirmek													
4. Düz bir çizgi üstünde yürümek													
5. Ayakkabılarını doğru giymek													
6. Duzgun bir daire çizmek													
7. Çizgilerin arasını taşırmadan boyamak													
8. Kaşığı dökmeden kullanmak													
9. Kendi yaşını söylemek													
10. En az üç rengi isimlendirmek (siyah ve beyaz hariç)													
11. Kendi adını yazmak													
12. 10'a kadar saymak													
13. 'Yarın' gibi zaman kavramlarını anlamak													
14. 'daha çok', 'daha az', ve 'aynı' kavramlarını anlamak													
15. Kadın ve erkeği ayırtmak													
16. Hangi mevsimde olduğunu söylemek													
17. Oyunlarda sırasını beklemek													
18. Bir fikre katılmadığını tartismadan belirtmek													
19. Bir şeyi elde edemediğinde ağlamamak													
20. Kaybetse bile oyunu kuralına göre oynamaya devam etmek													
21. Bir sırada sabırla beklemek													
22. Bir iş üzerinde (örn. yap-boz) bitirinceye kadar hiç durmadan çalışmak													
23. Başka çocuklarla oyuncakları paylaşmak													
24. Oyunda işbirliği yapmak													
25. Arkadaşlarını oyuna katılmak için davet etmek													
26. Birlikte oynadığı bir en iyi arkadaşının olması													

<b>GBÖ:</b> Lütfen aşağıda listelenmiş becerileri herhangi bir çocuğun ilk kez kaç yaşında (yıl olarak) yapabileceğini yandaki verilen seçeneklerden birini seçerek belirtiniz.	<b>Daha erken</b>	<b>1 yaş</b>	<b>1<sup>1/2</sup> yaş</b>	<b>2 yaş</b>	<b>2<sup>1/2</sup> yaş</b>	<b>3 yaş</b>	<b>3<sup>1/2</sup> yaş</b>	<b>4 yaş</b>	<b>4<sup>1/2</sup> yaş</b>	<b>5 yaş</b>	<b>5<sup>1/2</sup> yaş</b>	<b>6 yaş</b>	<b>Daha geç</b>
Sizce bir çocuk <b>kaç yaşında</b> aşağıdaki becerileri <b>yapabilir?</b>													
27. Dağınıklığı temizlemekte diğer çocuklara yardım etmek													
28. Birisinin öfkeli olduğunu anlamak													
29. Arkadaşları ağlayınca onları teselli etmek													
30. Bir hata yaptıktan sonra 'özür dilerim' demek													
31. Ne giyeceğine karar vermek													
32. Öğlen yemeğinde ne yiyeceğine karar vermek													
33. Kendi yatağını yardımsız toplamak													
34. Tek başına 30 dakika boyunca vakit geçirmek													
35. Doğum gününü nasıl kutlamak istediği konusunda fikrini söylemek													
36. Bir karar onunkine ters düştüğünde açıklama istemek													
37. Başkalarıyla oyun oynama konusunda girisken olmak													
38. Eğer istemiyorsa arkadaşının oyun teklifini geri çevirmek													
39. Aile kurallarına hiç pazarlık etmeden uymak (örn., akşam yemeği, TV ve bilgisayar saatleri)													
40. Annesi yardım etmesini istediğinde TV ya da okumaktan vazgeçmek													
41. Söylenildiğinde yaramazlık yapmayı kesmek													
42. Söylenince odasını hemen toplamak													
43. Ebeveynlerin yasakladığı şeyleri yapmamak													
44. Annesi çağırır çağırılmaz arkadaşlarıyla oynamayı kesmek													
45. Büyük kardeşlerin sözünü dinlemek													
46. Anne-babası bir şey istediğinde 'hayır' dememek													
47. Anne-babası konuşurken sözlerini kesmemek													
48. Basit ev işlerine yardım etmek (örn., bulaşıkları kurulamak)													
49. Kimin aileden olduğunu kimin olmadığını bilmek													
50. Aile üyelerine karşı cömert olması gerektiğini bilmek													
51. Ailesinin kendisinden beklentilerini önemsemek													
52. Aile üyelerinin birbirlerini desteklediklerini bilmek													
53. Ev eşyalarını kardeşleriyle paylaşması gerektiğini													
54. Aile üyelerinin birbirine güvendiğini bilmek													
55. Ayıp ve utanç anlayışının olması													

<b>GBÖ:</b> Lütfen aşağıda listelenmiş becerileri herhangi bir çocuğun ilk kez kaç yaşında (yıl olarak) yapabileceğini yandaki verilen seçeneklerden birini seçerek belirtiniz.  Sizce bir çocuk <b>kaç yaşında</b> aşağıdaki becerileri <b>yapabilir?</b>	<b>Daha erken</b>	<b>1 yaş</b>	<b>1<sup>1/2</sup> yaş</b>	<b>2 yaş</b>	<b>2<sup>1/2</sup> yaş</b>	<b>3 yaş</b>	<b>3<sup>1/2</sup> yaş</b>	<b>4 yaş</b>	<b>4<sup>1/2</sup> yaş</b>	<b>5 yaş</b>	<b>5<sup>1/2</sup> yaş</b>	<b>6 yaş</b>	<b>Daha geç</b>
<b>56.</b> Terbiyeli olmak													
<b>57.</b> Büyüklerine saygılı davranmak													
<b>58.</b> Anne-babasına saygı göstermek													
<b>59.</b> Ahlaki açıdan doğru olmadığı için yalan söylememek													
<b>60.</b> Doğru zamanda "teşekkür ederim" demek													
<b>61.</b> İnsanları selamlamak													



## Emotionality-Activity-Sociability Temperament Survey

<b>MÖ:</b> Aşağıdaki çocuk davranışlarının her birini okuduktan sonra, lütfen sağ taraftaki sayılardan birini yuvarlak içine alarak çocuğunuz için en uygun seçeneği işaretleyiniz. Çocuğunuz belirtilen davranış ve durumları hiç sergilemiyorsa <b>1 Hiçbir zaman</b> seçeneğini, bazen sergiliyorsa <b>2 Bazen</b> seçeneğini, sık sık sergiliyorsa <b>3 Sık Sık</b> seçeneğini, her zaman sergiliyorsa <b>4 Her zaman</b> seçeneğini işaretleyiniz.		Hiçbir Zaman	Bazen	Sık Sık	Her Zaman
1.	Utangaçtır.	1	2	3	4
2.	Kolayca ağlar.	1	2	3	4
3.	İnsanlarla bir arada olmayı sever.	1	2	3	4
4.	Yerinde duramaz.	1	2	3	4
5.	Tek başına oynamaktansa başkalarıyla oynamayı tercih eder.	1	2	3	4
6.	Duygusal olmaya meyillidir.	1	2	3	4
7.	Bir şeye başlarken yavaş hareket eder.	1	2	3	4
8.	Kolayca arkadaş edinir.	1	2	3	4
9.	Uyanır uyanmaz koşuşturmaya başlar.	1	2	3	4
10.	Onun için insanlar diğer şeylerden daha ilgi çekicidir.	1	2	3	4
11.	Sık sık huysuzlanır ve ağlar.	1	2	3	4
12.	Arkadaş canlısıdır.	1	2	3	4
13.	Çok enerjiktir.	1	2	3	4
14.	Tanımadığı insanlara ısınması zaman alır.	1	2	3	4
15.	Kolayca keyfi kaçır.	1	2	3	4
16.	Yalnız bir çocuktur.	1	2	3	4
17.	Sakin, sessiz oyunları aktif ve hareketli oyunlara tercih eder.	1	2	3	4
18.	Yalnızken tek başına ayrı kalmış gibi hisseder.	1	2	3	4
19.	Keyfi kaçtığı anda şiddetli tepki gösterir.	1	2	3	4
20.	Tanımadığı insanlarla kolay arkadaşlık kurar.	1	2	3	4

## APPENDIX C. Ethic Board Approval of the Main Study

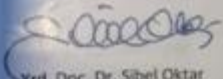
**ÖZYEGİN**  
**ÜNİVERSİTESİ**

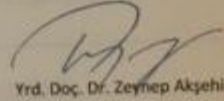
**İNSAN ARAŞTIRMALARI ETİK KURULU**  
**TOPLANTI TUTANAĞI**

**TOPLANTI SAYISI** : 2014 / 6  
**TOPLANTI TARİHİ** : 25 Ağustos 2014  
**TOPLANTI YERİ** : Özyeğin Üniversitesi, Nişantepe Mah., Orman Sk., No: 13  
Alemdağ, Çekmeköy, İstanbul  
**KATILANLAR** : Yrd. Doç. Dr. Sibel Oktar (Etik Kurul Üyesi)  
Yrd. Doç. Dr. Zeynep Akşehirli (Etik Kurul Üyesi)

**KARAR**

Özyeğin Üniversitesi Psikoloji Bölümü öğretim üyesi Dr. Gizem Arıkan'ın yürütücüsü olduğu, "Güvenli Çember Ebeveynlik Eğitim Programı İle Anne-Çocuk Arasındaki Bağlanma İlişkisinin Güçlendirilmesi" adlı projenin etik olarak uygulanabilirliği Özyeğin Üniversitesi Etik Kurulu tarafından oy birliği ile onaylanmıştır.

  
Yrd. Doç. Dr. Sibel Oktar  
Etik Kurul Üyesi

  
Yrd. Doç. Dr. Zeynep Akşehirli  
Etik Kurul Üyesi

Yrd. Doç. Dr. Nilüfer Kafescioğlu\*  
Etik Kurul Üyesi

\*Etik Kurul 3 üyeden oluşmaktadır. Üçüncü üye olan Yrd. Doç. Dr. Nilüfer Kafescioğlu, bu çalışmada araştırmacı olduğu için etik kurul görüşmesine ve oylamasına katılmamıştır.



## APPENDIX D. Ethic Board Approval of the Thesis Project (Follow-Up Study)



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Ek 5: Kontrol Listesi

Özyeğin Üniversitesi Psikoloji Bölümü yüksek lisans öğrencisi Belliz Canlı'nın yürütücülüğünü üstleneceği "Anne, Çocuk ve Çevresel Faktörlerin Erken Çocuklukta Problem Davranışlara Etkisi" başlıklı proje değerlendirilmiştir.

Proje etik açısından uygun bulunmuştur.   
Projenin etik açısından geliştirilmesi gerekmektedir.   
Proje etik açısından uygun bulunmamıştır.

İmzalar:

Prof. Dr. Canan Ergin  
Etik Kurulu Başkanı

Yrd. Doç. Dr. Sibel Oktar  
Etik Kurulu Üyesi

Yrd. Doç. Dr. F. Seçil Bayraktar  
Etik Kurulu Üyesi

## REFERENCES

- Abidin, R. R. (1995). *Parenting Stress Index (3<sup>rd</sup> ed.): Professional Manual*. Lutz, FL: Psychological Assessment Resources.
- Abidin, R. R. (1992). The determinants of parenting behavior. *Journal of Clinical Child Psychology, 21*(4), 407-412.
- Abulizi, X., Pryor, L., Michel, G., Melchior, M., & van der Waerden, J. (2017). Temperament in infancy and behavioral and emotional problems at age 5.5: The EDEN mother-child cohort. *Plos ONE, 12*(2), 1-17.
- Achenbach, T. M. & Rescorla, L. (2000). *Manual for the Child Behavior Checklist/1<sup>1/2</sup>-5 and 2001 profile*. Burlington: University of Vermont Department of Child Psychiatry.
- Achenbach, T. M. (1978-79). The child behavior profile: An empirically based system for assessing children's behavioral problems and competencies. *International Journal of Mental Health, 7*(3/4), 24-42.
- Ackerman, B. P., Brown, E. D., & Izard, C. E. (2004). The relations between persistent poverty and contextual risk and children's behavior in elementary school. *Developmental Psychology, 40*(3), 367-377.
- Agazzi, H., Tan, S. Y., Ogg, J., Armstrong, K., & Kirby, R. S. (2017). Does parent-child interaction therapy reduce maternal stress, anxiety, and depression among mothers of children with autism spectrum disorder? *Child & Family Behavior Therapy, 39*(4), 283-303.

- Ahnert, L. & Lamb, M. E. (2003). Shared care: Establishing a balance between home and child care settings. *Child Development, 74*(4), 1044-1049.
- Akçınar, B. & Baydar, N. (2016). Development of externalizing behaviors in the context of family and non-family relationships. *Journal of Child and Family Studies, 25*(6), 1848-1859.
- Alajgerdi, M., Sarabian, S., & Asgharipour, N. (2015). Comparative study of attachment styles in mothers of 8 to 12 year-old children with and without behavioral problems. *Journal of Fundamentals of Mental Health, 17*(1), 19-25.
- Alan, H. & Ege, E. (2013). The influence of social support on maternal-infant attachment in Turkish society. *Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi, 16*(4), 234-240.
- Al-Gamal, E. & Long, T. (2013). Psychological distress and perceived social support among Jordanian parents living with a child with cerebral palsy: A cross-sectional study. *Scandinavian Journal of Caring Sciences, 27*, 624-631.
- Angold, A. & Egger, H. L. (2007). Preschool psychopathology: Lessons for the lifespan. *Journal of Child Psychology and Psychiatry, 48*, 961-966.
- Anselmi, L., Barros, F. C., Teodoro, M. L. M., Piccinini, C. A., Menezes, A. M. B., Araujo, C. L., & Rohde, L. A. (2008). Continuity of behavioral and emotional problems from pre-school years to pre-adolescence in a developing country. *Journal of Child Psychology and Psychiatry, 49*(5), 499-507.

Anthony, L. G., Anthony, B., Glanville, D. N., Naiman, D. Q., Waanders, C., & Shaffer, S. (2005). The relationships between parenting stress, parenting behavior and preschoolers' social competence and behavior problems in the classroom. *Infant and Child Development, 14*, 133-154.

Anton, M. T., Jones, D. J., & Youngstrom, E. A. (2015). Socioeconomic status, parenting, and externalizing problems in African American single-mother homes: A person-oriented approach. *Journal of Family Psychology, 29*(3), 405-415.

Arikan, G. (2016). *Improving mother-child attachment relationship with "Circle of Security Parenting" training program*. The project in progress supported by The Scientific and Technological Research Council of Turkey, TUBITAK, Grant no: 114K813.

Aroian, K., Uddin, N., & Blbas, H. (2017). Longitudinal study of stress, social support, and depression in married Arab immigrant women. *Health Care for Women International, 38*(2), 100-117.

Atzaba-Poria, N., Pike, A., & Deater-Deckard, K. (2004). Do risk factors for problem behavior act in a cumulative manner? An examination of ethnic minority and majority children through an ecological perspective. *Journal of Child Psychology and Psychiatry, 45*(4), 707-718.

Bagner, D. M., Rodriguez, G. M., Blake, C. A., Linares, D., & Carter, A. S. (2012). Assessment of behavioral and emotional problems in infancy: A systematic review. *Clinical Child & Family Psychology Review, 15*, 113-128.

- Baker, C. N., Arnold, D. H., & Meagher, S. (2011). Enrollment and attendance in a parent training prevention program for conduct problems. *Prevention Science, 12*, 126-138.
- Barry, T. D., Dunlap, S. T., Cotton, S. J., Lochman, J. E., & Wells, K. C. (2005). The influence of maternal stress and distress on disruptive behavior problems in boys. *Journal of the American Academy of Child & Adolescent Psychiatry, 44*(3), 265-273.
- Bartan, M. (2010). *Kütahya örnekleminde ebeveyn-çocuk ilişkisi envanterinin 60-72 aylık çocukların anne ve babalarına uyarlanması*. Yayınlanmamış Yüksek Lisans Tezi. Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.
- Bates, J. E. (1983). Issues in the assessment of difficult temperament: A reply to Thomas, Chess, & Korn. *Merrill-Palmer Quarterly, 29*, 89-97.
- Baydar, N., Küntay, A. C., Yağmurlu, B., Aydemir, N., Cankaya, D., Göksen, F., & Cemalcılar, Z. (2014). "It takes a village" to support the vocabulary development of children with multiple risk factors. *Developmental Psychology, 50*(4), 1014-1025.
- Bayraklı, H. & Kaner, S. (2012). Investigating the factors affecting resiliency in mothers of children with and without intellectual disability. *Educational Sciences: Theory & Practice, 12*(2), 936-943.
- Bayram Özdemir, S. & Cheah, C. S. L. (2015). Turkish mothers' parenting beliefs in response to preschoolers' aggressive and socially withdrawn behaviors. *Journal of Child & Family Studies, 24*, 687-702.

- Belhadj Kouider, E. & Koglin, U. (2014). Emotional and behavioral problems in migrant children and adolescents in Europe: A systematic review. *European Child and Adolescent Psychiatry, 23*, 373-391.
- Belsky, J. (1990). Parental and nonparental child care and children's socioemotional development: A decade in review. *Journal of Marriage and Family, 52*(4), 885-903.
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development, 55*, 83-96.
- Bengi-Arslan, L., Verhulst, F. C., van der Ende, J., & Erol, N. (1997). Understanding childhood (problem) behaviors from a cultural perspective: Comparison of problem behaviors and competencies in Turkish immigrant, Turkish, and Dutch children. *Social Psychiatry and Psychiatric Epidemiology, 32*(8), 477-484.
- Betts, K. S., Williams, G. M., Najman, J. M., & Alati, R. (2015). The relationship between maternal depressive, anxious, and stress symptoms during pregnancy and adult offspring behavioral and emotional problems. *Depression and Anxiety, 32*(2), 82-90.
- Bevaart, F., Mieloo, C. L., Wierdsma, A., Donker, M. C. H., Jansen, W., Raat, H., Verhulst, F. C., & van Oort, F. V. A. (2014). Ethnicity, socioeconomic position and severity of problems as predictors of mental health care use in 5- to 8-year-old children with problem behavior. *Social Psychiatry and Psychiatric Epidemiology, 49*, 733-742.

- Biswas, S., Moghaddam, N., & Tickle, A. (2015). What are the factors that influence parental stress when caring for a child with an intellectual disability? A critical literature review. *International Journal of Developmental Disabilities, 61*(3), 127-146.
- Breevaart, K. & Bakker, A. B. (2011). Working parents of children with behavioral problems: A study on the family-work interface. *Anxiety, Stress, & Coping, 24*(3), 239-253.
- Briggs-Gowan, M. B., Carter, A. S., Bosson-Heenan, J., Guyer, A. E., & Horwitz, S. M. (2006). Are infant-toddler social-emotional and behavioral problems transient?. *Journal of the American Academy of Child & Adolescent Psychiatry, 45*(7), 849-858.
- Bronfenbrenner, U. (1981). *The ecology of human development: Experiments by nature and design*. London, UK: Harvard University Press.
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology, 22*(6), 723-742.
- Bunting, L. (2004). Parenting programmes: The best available evidence. *Child Care in Practice, 10*(4), 327-343.
- Burchinal, M., Skinner, D., & Reznick, J. S. (2010). European American and African American mothers' beliefs about parenting and disciplining infants: A mixed-method analysis. *Parenting: Science and Practice, 10*, 79-96.

- Burke, T., Sticca, F., & Perren, S. (2017). Everything's gonna be alright! The longitudinal interplay among social support, peer victimization, and depressive symptoms. *Journal of Youth and Adolescence*, *46*, 1999-2014.
- Burlaka, V., Bermann, E. A., Graham-Bermann, S. A. (2015). Internalizing problems in at-risk preschoolers: Associations with child and mother risk factors. *Journal of Child and Family Studies*, *24*, 2653-2660.
- Burman, E. (2017). *Deconstructing developmental psychology*, 3<sup>rd</sup> Ed. New York: Routledge.
- Buss, A. H. (1991). The EAS theory of temperament. In J. Strelau & A. Angleitner (Eds.), *Explorations in temperament international perspectives on theory and measurement*, pp. 43-60. New York: Springer Science+Business Media.
- Buss, A. H. & Plomin, R. (1984). *Temperament: Early developing personality traits*. Hillsdale, NJ: Lawrence Erlbaum.
- Buss, A. H. & Plomin, R. (1975). *A temperament theory of personality development*. New York: Wiley-Interscience.
- Campbell, M., Thomson, H., Fenton, C., & Gibson, M. (2016). Lone parents, health, wellbeing and welfare to work: A systematic review of qualitative studies. *BMC Public Health*, *16*.
- Campbell, S. B., Shaw, D. S., & Gilliom, M. (2000). Early externalizing behavior problems: Toddlers and preschoolers at risk for later maladjustment. *Development and Psychopathology*, *12*, 467-488.



- Carcamo, R. A., Vermeer, H. J., van der Veer, R., & van IJzendoorn, M. H. (2016). Early full-time day care, mother-child attachment, and quality of home environment in Chile: Preliminary Findings. *Early Education and Development, 27*(4), 457-477.
- Carneiro, P., Meghir, C., & Parey, M. (2013). Maternal education, home environments, and the development of children and adolescents. *Journal of the European Economic Association, 11*(1), 123-160.
- Carrasco, M. A., Holgado-Tello, F. P., Delgado, B., & Gonzalez-Pena, P. (2016). Reactive temperament traits and behavioral problems in children: The mediating role of effortful control across sex and age. *European Journal of Developmental Psychology, 13*(2), 197-212.
- Carter, A. S., Briggs-Gowan, M. J., Jones, S. M., & Little, T. D. (2003). The infant-toddler social and emotional assessment (ITSEA): Factor structure, reliability, and validity. *Journal of Abnormal Child Psychology, 31*(5), 495-514.
- Chorpita, B. F. & Barlow, D. H. (1998). The development of anxiety: The role of control in the early environment. *Psychological Bulletin, 124*, 3-21.
- Cluxton-Keller, F., Riley, A. W., Noazin, S., & Umoren, M. V. (2015). Clinical effectiveness of family therapeutic interventions embedded in general pediatric primary care settings for parental mental health: A systematic review and meta-analysis. *Clinical Child and Family Psychology Review, 18*, 395-412.

- de Cock, E. S. A., Henrichs, J., Klimstra, T. A., Maas, A. J. B. M., Vreeswijk, C. M. J. M., Meeus, W. H. J., & van Bakel, H. J. A. (2017). Longitudinal associations between parental bonding, parenting stress, and executive functioning during toddlerhood. *Journal of Child & Family Studies, 26*, 1723-1733.
- Cooper, C. E., McLanahan, S. S., Meadows, S. O., Brooks-Gunn, J., & Johnson, D. (2009). Family structure transitions and maternal parenting stress. *Journal of Marriage and Family, 71*(3), 558-574.
- Coplan, R. J., Bowker, A., & Cooper, S. M. (2003). Parenting daily hassles, child temperament, and social adjustment in preschool. *Early Childhood Research Quarterly, 18*, 376-395.
- Coşkun, Y. & Akkaş, G. (2009). Engelli çocuęu olan annelerin sürekli kaygı düzeyleri ile sosyal destek algıları arasındaki ilişki. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi, 10*(1), 213-227.
- Crittenden, P. M. (1988). Relationship at risk. In J. Belsky & T. Nezworski (Eds.), *Clinical implications of attachment* (pp. 136-174). Hillsdale, NJ: Erlbaum.
- Crnic, K. A., Gaze, C., & Hoffman, C. (2005). Cumulative parenting stress across the preschool period: Relations to maternal parenting and child behavior at age 5. *Infant and Child Development, 14*, 117-132.
- Cruise, S. & O'Reilly, D. (2014). The influence of parents, older siblings, and non-parental care on infant development at nine months of age. *Infant Behavior and Development, 37*, 546-555.

- Cunningham, W. A., Preacher, K. J., & Banaji, M. R. (2001). Implicit attitude measures: Consistency, stability, and convergent validity. *Psychological Science, 12*(2), 163-170.
- Cushon, J. A., Vu, L. T. H., Janzen, B. L., & Muhajarine, N. (2011). Neighborhood poverty impacts children's physical health and well-being over time: Evidence from the early development instrument. *Early Education and Development, 22*(2), 183-205.
- Cuzzocrea, F., Murdaca, A. M., Costa, S., Filippello, P., & Larcan, R. (2016). Parental stress, coping strategies and social support in families of children with a disability. *Child Care in Practice, 22*(1), 3-19.
- Çakıcı, S. (2006). *Alt ve üst sosyoekonomik düzeydeki ailelerin aile işlevlerinin, anne-çocuk ilişkilerinin ve aile işlevlerinin anne-çocuk ilişkilerine etkisinin incelenmesi*. Yayınlanmamış Yüksek Lisans Tezi. Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.
- Daga, S. S., Raval, V. V., & Raj, S. P. (2015). Maternal meta-emotion and child socioemotional functioning in immigrant Indian and white American families. *Asian American Journal of Psychology, 6*(3), 233-241.
- Daggett, J., O'Brien, M., Zanolli, K., & Peyton, V. (2000). Parents' attitudes about children: Associations with parental life histories and child-rearing quality. *Journal of Family Psychology, 14*(2), 187-199.
- Dağlar, G. & Nur, N. (2014). Gebelerin stresle başa çıkma tarzlarının anksiyete ve depresyon düzeyi ile ilişkisi. *Cumhuriyet Tıp Dergisi, 36*, 429-441.

- Danese, A., Moffitt, T. E., Harrington, H., Milne, B. J., Polanczyk, G., Pariante, C. M., Poulton, R., & Caspi, A. (2009). Adverse childhood experiences and adult risk factors for age-related disease: Depression, inflammation, and clustering of metabolic risk markers. *Archives of Pediatrics & Adolescent Medicine, 163*(12), 1135-1143.
- Davis-Kean, P. E. (2005). The influence of parent education and family income on child achievement: The indirect role of parental expectations and the home environment. *Journal of Family Psychology, 19*(2), 294-304.
- Deater-Deckard, K. (1998). Parenting stress and child adjustment: Some old hypotheses and new questions. *Clinical Psychology: Science and Practice, 5*, 314-332.
- Dereli, E. & Dereli, B. M. (2017). Ebeveyn-çocuk ilişkisinin okul öncesi dönem çocukların psikososyal gelişimlerini yordaması. *Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi, 14*(1), 227-258.
- Derogatis, L. R. (1992). *The Brief Symptom Inventory (BSI). Administration, scoring, and procedures manual-II*. Baltimore. Johns Hopkins University School Of Medicine, Clinical Psychometrics Research Unit.
- Desdicioğlu, K. & Malas, M. A. (2006). Fetal büyümeye etki eden maternal faktörler. *Süleyman Demirel Üniversitesi Tıp Fakültesi Dergisi, 13*(2), 47-54.
- Dickerson, A. & Popli, G. K. (2016). Persistent poverty and children's cognitive development: Evidence from the UK Millennium Cohort Study. *Journal of the Royal Statistical Society, 179*(2), 535-558.

- Dietrichson, J, Bog, M., Filges, T., & Jorgensen, A. M. K. (2017). Academic interventions for elementary and middle school students with low socioeconomic status: A systematic review and meta-analysis. *Review of Educational Research, 87*(2), 243-282.
- Dirks, E., Uilenburg, N., & Rieffe, C. (2016). Parental stress among parents of toddlers with moderate hearing loss. *Research in Developmental Disabilities, 55*, 27-36.
- Donovan, A. M. (1988). Family stress and ways of coping with adolescents who have handicaps: Maternal perceptions. *American Journal on Mental Retardation, 92*(6), 502-509.
- Durgel, E., van de Vijyer, F. J. R., & Yağmurlu, B. (2012). Self-reported maternal expectations and child-rearing practices: Disentangling the associations with ethnicity, immigration, and educational background. *International Journal of Behavioral Development, 37*(1), 35-43.
- Durgel, E. & van de Vijver, F. (2008, July). Developmental expectations of Dutch and Turkish-Dutch mothers of preschoolers. *19<sup>th</sup> International Congress of the International Association for Cross-Cultural Psychology*, Bremen.
- Durmuşoğlu-Saltalı, N. & Arslan, E. (2012). Parent's attitudes as a predictor of preschoolers' social competence and introverted behavior. *Elementary Education Online, 11*(3), 729-737.

- Dursun, A. (2010). *Okul öncesi dönemdeki çocukların davranış problemleriyle anne-baba tutumları arasındaki ilişkinin incelenmesi*. Yayınlanmamış Yüksek Lisans Tezi. Dokuz Eylül Üniversitesi Eğitim Bilimleri Enstitüsü, İzmir.
- Dush, C. M. K., Schmeer, K. K., & Taylor, M. (2013). Chaos as a social determinant of child health: Reciprocal associations. *Social Science & Medicine*, 95, 69-76.
- Edwards, R. C. & Hans, S. L. (2016). Prenatal depressive symptoms and toddler behavior problems: The role of maternal sensitivity and child sex. *Child Psychiatry and Human Development*, 47, 696-707.
- Edwards, V. J., Holden, G. W., Felitti, V. J., & Anda, R. F. (2003). Relationship between multiple forms of childhood maltreatment and adult mental health in community respondents: Results from the adverse childhood experiences study. *The American Journal of Psychiatry*, 160, 1453-1460.
- Eisenhower, A. S., Baker, B. L., & Blacher, J. (2009). Children's delayed development and behavior problems: Impact on mothers' perceived physical health across early childhood. *Social Science & Medicine*, 68(1), 89-99.
- Eker, D., Arkar, H., & Yıldız, H. (2001). Çok boyutlu algılanan sosyal destek ölçeği'nin gözden geçirilmiş formunun faktör yapısı, geçerlik, ve güvenilirliği. *Türk Psikiyatri Dergisi*, 12(1), 17-25.
- Ensminger, M. & Fotherill, K. (2003). A decade of measuring SES: What it tells us and where to go from here. In M. Bornstein & R. Bradley (Eds.),

*Socioeconomic status, parenting, and child development* (pp. 13–28).

Mahwah, NJ: Lawrence Erlbaum.

Erol, N. & Şimşek, Z. (1997). Türkiye Ruh Sağlığı Profili: Çocuk ve gençlerde yeterlik alanları ile sorun davranışların dağılımı. In N. Erol, C. Kılıç, M. Ulusoy, M. Keçeci, & Z. Şimşek (Eds.) *Türkiye Ruh Sağlığı Profili: Ön Rapor* (pp 12-33). Ankara: Aydoğdu Ofset.

Erol, N., Şimşek, Z., Öner, Ö., & Münir, K. (2005). Behavioral and emotional problems among Turkish children at ages 2 to 3 years. *Journal of American Academy of Child and Adolescent Psychiatry*, 44(1), 80-87.

Fanti, K. A. & Henrich, C. C. (2010). Trajectories of pure and co-occurring internalizing and externalizing problems from age 2 to age 12: Findings from the national institute of child health and human development study of early child care. *Developmental Psychology*, 46(5), 1159-1175.

Feldman, M., McConnell, D., & Aunos, M. (2012). Parental cognitive impairment, mental health, and child outcomes in a child protection population. *Journal of Mental Health Research in Intellectual Disabilities*, 5, 66-90.

Feldman, R. & Reznick, J. S. (1996). Maternal perception of infant intentionality at 4 and 8 months. *Infant Behavior and Development*, 19, 483-496.

Felizardo, S., Ribeiro, E., & Amante, M. J. (2016). Parental adjustment to disability, stress indicators and the influence of social support. *Procedia Social and Behavioral Sciences*, 217, 830-837.

- Ferguson, J. M. & Vanderpool, R. C. (2013). Impact of a Kentucky maternal, infant, and early childhood home-visitation program on parental risk factors. *Journal of Child and Family Studies*, 22, 551-558.
- Flink, I. J. E., Prins, R. G., Mackenbach, J. J. P., Jaddoe, V. W., Hofman, A., Verhulst, F. C., Tiemeier, H., & Raat, H. (2013). Neighborhood ethnic diversity and behavioral and emotional problems in 3 year olds: Results from the generation R study. *Plos One*, 8(8), e70070.
- Flouri, E., Midouhas, E., & Joshi, H. (2014). Family poverty and trajectories of children's emotional and behavioral problems: The moderating roles of self-regulation and verbal cognitive ability. *Journal of Abnormal Child Psychology*, 42, 1043-1056.
- Fonagy, P., Steele, M., Steele, H., Moran, G. S., Higgitt, A. C., (1991). The capacity for understanding mental states: The reflective self in parent and child and its significance for security of attachment. *Infant Mental Health Journal*, 12(3), 201-218.
- Forns, J., Torrent, M., Garcia-Estaban, R., Caceres, A., Gomila, M. P., Martinez, D., Morales, E., Julvez, J., Grimalt, J. O., & Sunyer, J. (2012). Longitudinal association between early-life socio-environmental factors and attention function at the age 11 years. *Environmental Research*, 117, 54-59.
- Forrest-Bank, S. S. & Jenson, J. M. (2015). The relationship among childhood risk and protective factors, racial microaggression and ethnic identity, and



academic self-efficacy and antisocial behavior in young adulthood. *Children and Youth Services Review*, 50, 64-74.

Fox, R. A., Platz, D. L., & Bently, K. S. (1995). Maternal factors related to parenting practices, developmental expectations, and perceptions of child behavior problems. *The Journal of Genetic Psychology*, 156(4), 431-441.

Fuchs, S., Klein, A. M., Otto, Y., & von Klitzing, K. (2013). Prevalence of emotional and behavioral symptoms and their impact on daily life activities in a community sample of 3-to5-year-old children. *Child Psychiatry & Human Development*, 44, 493-503.

George, C. & Solomon, J. (2011). Caregiving helplessness: The development of a screening measure for disorganized maternal caregiving. In J. Solomon & C. George (Eds.), *Disorganized attachment & caregiving* (pp. 133-166). New York: Guilford Press.

Gershoff, E. T., Aber, J. L. & Raver, C. C. (2005). *Child poverty in the United States: An evidence-based conceptual framework for programs and policies*. In R.M. Lerner, F. Jacobs, & D. Wertlieb (Eds.), *Applied developmental science: An advanced textbook* (pp. 113-138). Thousand Oaks, CA: Sage.

Gibaud-Wallston, J. & Wandersman, L. P. (1978). *Development and utility of the parenting sense of competence scale*. Toronto: The annual meeting of the American Psychological Association.

- Glover, V. (2014). Maternal depression, anxiety and stress during pregnancy and child outcome; what needs to be done. *Best Practice & Research Clinical Obstetrics Gynaecology*, 28, 25-35.
- Goodnow, J., Cashmore, J., Cotton, S., & Knight, R. (1984). Mothers' developmental timetables in two cultural groups. *International Journal of Psychology*, 19, 193-205.
- Gourley, L., Wind, C., Henninger, H. M., & Chinitz, S. (2013). Sensory processing difficulties, behavioral problems, and parental stress in a clinical population of young children. *Journal of Child and Family Studies*, 22, 912-921.
- Graves Jr., S. L., Blake, J., & Kim, E. S. (2012). Differences in parent and teacher ratings of preschool problem behavior in a national sample: The significance of gender and SES. *Journal of Early Intervention*, 34(3), 151-165.
- Gross, J. J. & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348-362.
- Guedeney, A., Pingault, J. B., Thorr, A., & Larroque, B. (2014). Social withdrawal at 1 year is associated with emotional and behavioral problems at 3 and 5 years: The EDEN mother-child cohort study. *European Child & Adolescent Psychiatry*, 23, 1181-1188.
- Guinote, A., Cotzia, I., Sandhu, S., & Siwa, P. (2015). Social status modulates prosocial behavior and egalitarianism in preschool children and adults. *Psychological and Cognitive Sciences*, 112(3), 731-736.

- Gulamani, S. S., Kanji, Z., Premji, S. S., & Azam, S. I. (2013). A review of postpartum depression, preterm birth, and culture. *Journal of Perinatal & Neonatal Nursing, 27*(1), 52-59.
- Gustavson, K., von Soest, T., Karevold, E., & Roysamb, E. (2012). Attrition and generalizability in longitudinal studies: Findings from a 15-year population-based study and a Monte Carlo simulation study. *BMC Public Health, 12*(1), 918-930.
- Gündüz, G., Yağmurlu B., & Harma, M. (2015). Self-regulation mediates the link between family context and socioemotional competence in Turkish preschoolers. *Early Education and Development, 26*, 729-748.
- Haapsamo, H., Pollock-Wurman, R. A., Kuusikko-Gauffin, S., Ebeling, H., Larinen, K., Soini, H., & Moilanen, I. (2013). Maternal stress and young children's behavioral development: A prospective pilot study from 8 to 36 months in a Finnish sample. *Early Child Development and Care, 183*(12), 1841-1852.
- Halle, T. G., Kurtz-Costes, B., & Mahoney, J. L. (1997). Family influences on school achievement in low-income, African American children. *Journal of Educational Psychology, 89*(3), 527-537.
- Hankin, B. L., Fraley, R. C., & Abela, J. R. Z. (2005). Daily depression and cognitions about stress: Evidence for a traitlike depressogenic cognitive style and the prediction of depressive symptoms in a prospective daily diary study. *Journal of Personality and Social Psychology, 88*(4), 673-685.

- Harding, J. F. (2015). Increases in maternal education and low-income children's cognitive and behavioral outcomes. *Developmental Psychology, 51*(5), 583-599.
- Haring, R., Alte, D., Völzke, H., Sauer, S., Wallaschofski, H., John, U., & Schmidt, C. O., (2009). Extended recruitment efforts minimize attrition but not necessarily bias. *Journal of Clinical Epidemiology, 62*, 252-260.
- Henninger, W. R. & Luze, G. (2014). Poverty, caregiver depression and stress as predictors of children's externalizing behaviors in a low-income sample. *Child and Family Social Work, 19*, 467-479.
- Hess, R. D., Kashiwagi, K., Azuma, H., Price, G. G., & Dickson, W. P. (1980). Maternal expectations for mastery of developmental tasks in Japan and the United States. *International Journal of Psychology, 15*, 259-271.
- Hildingsson, I. & Thomas, J. (2014). Parental stress in mothers and fathers one year after birth. *Journal of Reproductive and Infant Psychology, 32*(1), 41-56.
- Horwitz, S. M. C., Briggs-Gowan, M. J., Storfer-Isser, A., & Carter, A. S. (2007). Prevalence, correlates, and persistence of maternal depression. *Journal of Women's Health, 16*(5), 678-691.
- Hsiao, Y. J. (2016). Pathways to mental health-related quality of life for parents of children with autism spectrum disorder: Roles of parental stress, children's performance, medical support, and neighbor support. *Research in Autism Spectrum Disorders, 23*, 122-130.

- Hu, L. & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55.
- Jackson, A. C., Frydenberg, E., Liang, R. P. T., Higgins, R. O., & Murphy, B. M. (2015). Familial impact and coping with child heart disease: A systematic review. *Pediatric Cardiology*, 36(4), 695-712.
- Janson, H. & Mathiesen, K. S. (2008). Temperament profiles from infancy to middle childhood: Development and associations with behavior problems. *Developmental Psychology*, 44(5), 1314-1328.
- Kağıtçıbaşı, Ç, Sunar, Diane, & Bekman, S. (2001). Long-term effects of early intervention: Turkish low-income mothers and children. *Applied Developmental Psychology*, 22, 333-361.
- Kalil, A., Ryan, R., & Corey, M. (2012). Diverging destinies: Maternal education and the developmental gradient in time with children. *Demography*, 49, 1361-1383.
- Kan, K. & Tsai, W-D. (2005). Parenting practices and children's educational outcomes. *Economics of Education Review*, 24, 29-43.
- Karabulut, D., İlhan, A., Kumru, A., & Arıkan, G. (2016, November). Turkish psychometric properties of Infant Intentionality Questionnaire during early childhood period. Poster presented at the 52nd National Psychiatry Congress, Antalya, Turkey.

- Kenny, D. A. & Little, T. D. (2013). *Longitudinal structural equation modeling*. New York: The Guilford Press.
- Khan, M. J., Hanif, R., & Tariq, N. (2014). Relationship of parental mental health with children's behavioral problems: Role of social support and resilience. *Journal of Behavioral Sciences, 24*(1), 115-129.
- Khine, M. S. (2013). *Application of structural equation modeling in educational research and practice*. The Netherlands: Sense Publishers.
- Kivijarvi, M., Raiha, H., Kaljonen, A., Virtanen, S., Lertola, K., & Piha, J. (2004). Maternal sensitivity behavior and infant crying, fussing and contented behavior: The effects of mother's experienced social support. *Scandinavian Journal of Psychology, 45*, 239-246.
- Kliman, D. S. & Vukelich, C. (1985). Mothers and fathers: Expectations for infants. *Family Relations, 34*(3), 305-313.
- Kochanska, G. & Kim, S. (2013). Difficult temperament moderates links between maternal responsiveness and children's compliance and behavior problems in low-income families. *Journal of Child Psychology and Psychiatry, 54*(3), 323-332.
- Kochanska, G. (1993). Toward a synthesis of parental socialisation and child temperament in early development of conscience. *Child Development, 64*, 325-347.

- Konstantareas, M. K. (1991). Autistic, learning disabled and delayed children's impact on their parents. *Canadian Journal of Behavioral Science*, 23(3), 358-375.
- Konstantareas, M. K. & Homatidis, S. (1989). Assessing child symptom severity in parents of autistic children. *Journal of Child Psychology and Psychiatry*, 30(3), 459-470.
- Koren-Karie, N., Oppenheim, D., Dolev, S., Sher, E., & Etzion-Carasso, A. (2002). Mothers' insightfulness regarding their infants' internal experience: Relations with maternal sensitivity and infant attachment. *Developmental Psychology*, 38(4), 534-542.
- Krahe, B., Bondü, R., Höse, A., & Esser, G. (2014). Child aggression as a source and a consequence of parenting stress: A three-wave longitudinal study. *Journal of Research on Adolescence*, 25(2), 328-339.
- Krishna, A., Oh, J., Lee, J.-K., Lee, H.-Y., Perkins, J. M., Heo, J., Ro, Y. S., & Subramanian, S. V. (2015). Short-term and long-term associations between household wealth and physical growth: A cross-comparative analysis of children from four low- and middle-income countries. *Global Health Action*, 8.
- Kristoffersen, J. H. & Smith, N. (2015). Gender differences in the effects of behavioral problems on school outcomes. *Journal of Economic Behavior and Organization*, 115, 75-93.

Kwon, K. A., Han, S., Jeon, H. J., & Bingham, G. E. (2013). Mothers' and fathers' parenting challenges, strategies, and resources in toddlerhood. *Early Child Development and Care, 183*(3-4), 415-429.

Latimer, K., Wilson, P., Kemp, J., Thompson, L., Sim, F., Gillberg, C., Puckering, C., & Minnis, H. (2012). Disruptive behavior disorders: A systematic review of environmental antenatal and early years risk factors. *Child: Care, Health and Development, 38*(5), 611-628.

Lawson, K. R. & Ruff, H. A. (2004). Early attention and negative emotionality predict later cognitive and behavioral function. *International Journal of Behavioral Development, 28*, 157-165.

Lee, C. Y. S., Lee J., & August, G. J. (2011). Financial stress, parental depressive symptoms, parenting practices, and children's externalizing problem behaviors: Underlying processes. *Family Relations, 60*, 476-490.

Leigh, B. & Milgrom, J. (2008). Risk factors for antenatal depression, postnatal depression and parenting stress. *BMC Psychiatry, 8*(24).

Leis, J. A., Heron, J., Stuart, E. A., & Mendelson, T. (2014). Associations between maternal mental health and child emotional and behavioral problems: Does prenatal mental health matter? *Journal of Abnormal Child Psychology, 42*, 161-171.

Lengua, L. J. & Kovacs, E. A. (2005). Bidirectional associations between temperament and parenting and the prediction of adjustment problems in middle childhood. *Applied Developmental Psychology, 26*, 21-38.



- Letourneau, N. L., Duffett-Leger, L., Levac, L., Watson, B., & Young-Morris, C. (2011). Socioeconomic status and child development: A meta-analysis. *Journal of Emotional and Behavioral Disorders, 21*(3), 211-224.
- Lin, B., Crnic, K. A., Luecken, L. J., & Gonzales, N. A. (2017). Ontogeny of emotional and behavioral problems in a low-income, Mexican American sample. *Developmental Psychology, 53*(12), 2245-2260.
- Luyten, P., Mayes, L. C., Sadler, L., Fonagy, P., Nicholls, S. et al. (2009). *Manual for the Parental Reflective Functioning Questionnaire-1 (PRFQ-1)*. Unpublished manual, Yale Child Study Center, New Haven, CT.
- Mantymaa, M., Puura, K., Luoma, I., Latva, R., Salmelin, R. K., & Tamminen, T. (2012). Predicting internalizing and externalizing problems at five years by child and parental factors in infancy and toddlerhood. *Child Psychiatry & Human Development, 43*, 153-170.
- Mash, E. J. & Johnston, C. (1983). Parental perceptions of child behavior problems, parenting self-esteem, and mothers' reported stress in younger and older hyperactive and normal children. *Journal of Consulting and Clinical Psychology, 51*(1), 86-99.
- McBride, B. A., Schoppe, S. J., & Rane, T. R. (2002). Child characteristics, parenting stress, and parental involvement: Father versus mothers. *Journal of Marriage and Family, 64*(4), 998-1011.

McConachie, H. & Diggle, T. (2007). Parent implemented early intervention for young children with autism spectrum disorder: A systematic review. *Journal of Evaluation in Clinical Practice*, 13, 120-129.

McDonald, S., Kehler, H., Bayrampour, H., Fraser-Lee, N., & Tough, S. (2016). Risk and protective factors in early child development: Results from the all our babies (AOB) pregnancy cohort. *Research in Developmental Disabilities*, 58, 20-30.

McElroy, E. M. & Rodriguez, C. M. (2008). Mothers of children with externalizing behavior problems: Cognitive risk factors for abuse potential and discipline style and practices. *Child Abuse and Neglect*, 32, 774-784.

Meins, E., Fernyhough, C., Fradley, E., & Tuckey, M. (2001). Rethinking maternal sensitivity: Mothers' comment on infants' mental processes predict security of attachment at 12 months. *Journal of Child Psychology and Psychiatry*, 42(5), 637-648.

Mert, E., Hallıođlu, O., & Ankaralı amdeviren, H. (2008). Ebeveyn stres indeks kısa formun Trke uyarlaması: Bir psikometrik alıřma. *Trkiye Kliniikleri*, 28, 291-296.

Miller, G. E. & Chen, E. (2013). The biological residue of childhood poverty. *Child Development Perspectives*, 7(2), 67-73.

Mills, R. S. L., Hastings, P. D., Helm, J., Serbin, L. A., Etezadi, J., Stack, D. M., Schwartzman, A. E., & Li, H. H. (2012). Temperamental, parental, and

- contextual contributors to early-emerging internalizing problems: A new integrative analysis approach. *Social Development*, 21(2), 229-253.
- Molfese, V. J., Rudasill, K. M., Beswick, J. L., Jacobi-Vessels, J. L., Ferguson, M. C., & White, J. M. (2010). *Merrill-Palmer Quarterly*, 56(1), 49-79.
- Montes, G., Lotyczewski, B. S., Halterman, J. S., & Hightower, A. D. (2012). School readiness among children with behavior problems at entrance into kindergarten: Results from a US national study. *European Journal of Pediatrics*, 171, 541-548.
- Morey, J. N. & Gentzler, A. L. (2017). Parents' perceptions of and responses to children's emotions: Relations with meta-emotion philosophy and adult attachment. *Parenting*, 17(2), 73-103.
- Morgan, J., Robinson, D., & Aldridge, J. (2002). Parenting stress and externalizing child behavior. *Child and Family Social Work*, 7, 219-225.
- Nacak, M., Yağmurlu, B., Durgel, E., & van de Vijver, F. (2011). Metropol ve Anadolu'da ebeveynlik: Biliş ve davranışlarda şehrin ve eğitim düzeyinin rolü. *Türk Psikoloji Dergisi*, 26(67), 85-100.
- Neuhauser, A. (2018). Predictors of maternal sensitivity in at-risk families. *Early Child Development and Care*, 188(2), 126-142.
- Nieuwboer, C. C., Fukkink, R. G., & Hermanns, J. M. A. (2013). Online programs as tools to improve parenting: A meta-analytic review. *Children and Youth Services Review*, 35, 1823-1829.

- Oddi, K. B., Murdock, K. W., Vadnais, S., Bridgett, D. J., & Gartstein, M. A. (2013). Maternal and infant temperament characteristics as contributors to parenting stress in the first year postpartum. *Infant and Child Development, 22*, 553-579.
- Oppenheim, D., Goldsmith, D., & Koren-Karie, N. (2004). Maternal insightfulness and preschoolers' emotion and behavior problems: Reciprocal influences in a therapeutic preschool program. *Infant Mental Health Journal, 25*(4), 352-367.
- Östberg, M. & Hagekull, B. (2000). A structural equation approach to the understanding of parenting stress. *Journal of Clinical Child Psychology, 29*(4), 615-625.
- Özbey, S. (2012). Ebeveynlerin evlilik uyumu ve algıladıkları sosyal destek ile altı yaş çocuklarının problem davranışları arasındaki ilişkinin incelenmesi. *Kastamonu Eğitim Dergisi, 20*(1), 43-62.
- Park, S., Kim, B. N., Kim, J. W., Shin, M. S., Yoo, H. J., Lee, J., & Cho, S. C. (2014). Associations between maternal stress during pregnancy and offspring internalizing and externalizing problems in childhood. *International Journal of Mental Health Systems, 8*(44).
- Parke, R. D. & Buriel, R. (1998). Socialization in the family: Ethnic and ecological perspectives. In W. Damon (Ed.), *Handbook of child psychology* (5th edn, vol 3, pp. 135-210). New York: John Wiley & Sons.

Pauli-Pott, U. & Beckmann, D. (2007). On the association of interparental conflict with developing behavioral inhibition and behavior problems in early childhood. *Journal of Family Psychology, 21*(3), 529-532.

Payne, S. C., Cook, A. L., & Diaz, I. (2012). Understanding childcare satisfaction and its effect on workplace outcomes: The convenience factor and the mediating role of work-family conflict. *Journal of Occupational and Organizational Psychology, 85*, 225-244.

Peer, J. W. & Hillman, S. B. (2014). Stress and resilience for parents of children with intellectual and developmental disabilities: A review of key factors and recommendations for practitioners. *Journal of Policy and Practice in Intellectual Disabilities, 11*(2), 92-98.

Pesonen, A. K., Raikkönen, K., Heinonen, K., Komsu, N., Jarvenpää, A. L., & Strandberg, T. (2008). A transactional model of temperamental development: Evidence of a relationship between child temperament and maternal stress over five years. *Social Development, 17*(2), 326-340.

Peters, S., Calam, R., & Harrington, R. (2005). Maternal attributions and expressed emotion as predictors of attendance at parent management training. *Journal of Child Psychology and Psychiatry, 46*(4), 436-448.

Piff, P. K., Kraus, M. W., Cote, S., Cheng, B. H., & Keltner, D. (2010). Having less, giving more: The influence of social class on prosocial behavior. *Journal of Personality and Social Psychology, 99*(5), 771-784.

- Pike, A., Iervolino, A. C., Eley, T. C., Price, T. S., & Plomin, R. (2006). Environmental risk and young children's cognitive and behavioral development. *International Journal of Behavioral Development, 30*(1), 55-66.
- Piotrowska, P. J., Stride, C. B., Croft, S. E., & Rowe, R. (2015). Socioeconomic status and antisocial behavior among children and adolescents: A systematic review and meta-analysis. *Clinical Psychology Review, 35*, 47-55.
- Platt, R., Williams, S. R., & Ginsburg, G. S. (2016). Stressful life events and child anxiety: Examining parent and child mediators. *Child Psychiatry & Human Development, 47*, 23-34.
- Plomin, R. (1976). Extraversion: Sociability and impulsivity? *Journal of Personality Assessment, 40*(1), 24-30.
- Powers, J., Tavener, M., Graves, A., & Loxton, D. (2015). Loss to follow-up was used to estimate bias in a longitudinal study: A new approach. *Journal of Clinical Epidemiology, 68*, 870-876.
- Powers, J. & Loxton, D. (2010). The impact of attrition in an 11-year prospective longitudinal study of younger women. *Annals of Epidemiology, 20*, 318-321.
- Putnam, S. P., Sanson, A. V., & Rothbart, M. K. (2002). Child temperament and parenting. In M. Bornstein (Ed.), *Handbook of Parenting Volume I Children and Parenting* (pp. 3-43). Mahwah, NJ: Lawrence Erlbaum.

- Racz, S. J., McMahon, R. J., & Luthar, S. S. (2011). Risky behavior in affluent youth: Examining the co-occurrence and consequences of multiple problem behaviors. *Journal of Child and Family Studies, 20*(1), 120-128.
- Reid, M. J., Walter, A. L., & O'Leary, S. G. O. (1999). Treatment of young children's bedtime refusal and nighttime wakings: A comparison of "standard" and graduated ignoring procedures. *Journal of Abnormal Child Psychology, 27*(1), 5-16.
- Reis, J. (1988). Child-rearing expectations and developmental knowledge according to maternal age and parity. *Infant Mental Health Journal, 9*(4), 287-304.
- Recorla, L. A., Achenbach, T. M., Ivanova, M. Y., Harder, V. S., Otten, L., Bilenberg, N., Bjarnadottir, G., Capron, C., de Pauw, S. S. W., Dias, P., Dobrean, A., Döpfner, M., Duyme, M., Eapen, V., Erol, N., Esmaeili, E. M., Ezpeleta, L., Frigerio, A., Fung, D. S. S., Gonçalves, M., Guomundsson, H., Jeng, S. F., Jusiene, R., Kim, Y. A., Kristensen, S., Liu, J., Lecannelier, F., Leung, P. W. L., Machado, B. C., Montiroso, R., Oh, K. J., Ooi, Y. P., Plück, J., Pomalima, R., Pranvera, J., Schmeck, K., Shahini, M., Silva, J. R., Şimşek, Z., Sourander, A., Valverde, J., van der Ende, J., van Leeuwen, K. G., Wu, Y. T., Yurduşen, S., Zubrick, S. R., & Verhulst, F. C. (2011). International comparisons of behavioral and emotional problems in preschool children: Parents' reports from 24 societies. *Journal of Clinical and Adolescent Psychology, 40*(3), 456-467.

- Respler-Hermann, M., Mowder, B. A., Yasik, A. E., & Shamah, R. (2012). Parenting beliefs, parental stress, and social support relationships. *Journal of Child and Family Studies, 21*, 190-198.
- Reyes-Aragon, C. J. D., Amar, J. A., Correa, A. D. C., Harb, S. L., Madariaga, C., & Abello-Llanos, R. (2016). The care and development of children living in contexts of poverty. *Journal of Child and Family Studies, 25*, 3637-3643.
- Reznick, J. S. (2008). *Inferring Infant Intentionality*. Berlin, Germany: VDM Dr. Müller.
- Rijlaarsdam, J., Stevens, G. W. J. M., van der Ende, J., Hofman, A., Jaddoe, V. W. V., Mackenbach, J. P., V., Verhulst, F. C., & Tiemeier, H. (2013). Economic disadvantage and young children's emotional and behavioral problems: Mechanism of risk. *Journal of Abnormal Child Psychology, 41*, 125-137.
- Rothbart, M. K. & Bates, J. E. (1998). Temperament. In W. Damon (editor-in-chief) & N. Eisenberg (Vol Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (5th ed., pp. 105-176). New York: Wiley.
- Sales, E., Greeno, C., Shear, M. K., & Anderson, C. (2014). Maternal caregiving strain as a mediator in the relationship between child and mother mental health problems. *Social Work Research, 28*(4), 211-223.
- Sanson, A., Hemphill, S. A., Yağmurlu, B., & McClowry, S. (2011). Temperament and social development. In P. K. Smith & C. H. Hart (Eds.), *The Wiley-*



*Blackwell Handbook of Childhood Social Development* (pp. 227-245).

Oxford, UK: Blackwell Publishing Ltd. (SH).

Sarason, I. G., Sarason, B. R., Shearin, E. N., & Pierce, G. R. (1987). A brief measure of social support: Practical and theoretical implications. *Journal of Social and Personal Relationships*, 4(4), 497-510.

Saygı, D. & Balat, G. D. (2013). Anasınıfına devam eden çocuğu olan annelerin çocukları ile ilişkilerinin incelenmesi. *International Journal of Human Sciences*, 10(1), 844-862.

Sayıl, M., Güre, A., & Uçanok, Z. (2007). First time mothers' anxiety and depressive symptoms across the transition to motherhood: Associations with maternal and environmental characteristics. *Women & Health*, 44(3), 61-77.

Schreiber, J. B., Stage, F. K., King, J., Nora, A., & Barlow, E. A. (2006). Reporting structural equation modeling and confirmatory factor analysis results: A review. *The Journal of Education Research*, 99(6), 323-337.

Schüz, B., Li, A. S. W., Hardinge, A., & McEachan, R. R. C. (2017). Socioeconomic status as a moderator between social cognitions and physical activity: Systematic review and meta-analysis based on the theory of planned behavior. *Psychology of Sport and Exercise*, 30, 186-195.

Seo, S. J. & Moon, H. (2012). Do Korean young children's daily routines and their mothers' parenting stress differ according to socioeconomic status? *Social Behavior and Personality*, 40(3), 481-500.

- Seven, S. (2007). Ailesel faktörlerin altı yaş çocukların sosyal davranış problemlerine etkisi. *Educational Administration: Theory and Practice*, 51, 477-499.
- Sidor, A., Fischer, C., & Cierpka, M. (2017). The link between infant regulatory problems, temperament traits, maternal depressive symptoms and children's psychopathological symptoms at age three: A longitudinal study in a German at-risk sample. *Child and Adolescent Psychiatry and Mental Health*, 11.
- Siklos, S. & Kerns, K. A. (2006). Assessing need for social support in parents of children with autism and down syndrome. *Journal of Autism & Developmental Disorders*, 36, 921-933.
- Sim, A., Cordier, R., Vaz, S., & Falkmer, T. (2016). Relationship satisfaction in couples raising a child with autism spectrum disorder: A systematic review of the literature. *Research in Autism Spectrum Disorder*, 31, 30-52.
- Singer, L. T., Davillier, M., Bruening, P., Hawkins, S., & Yamashita, T. S. (1996). Social support, psychological distress, and parenting strains in mothers of very low birthweight infants. *Family Relations*, 45(3), 343-350.
- Sivrikaya, T. & Çiftçi Tekinarslan, İ. (2013). Zihinsel yetersizliği olan çocuğa sahip annelerde stres, sosyal destek ve aile yükü. *Özel Eğitim Dergisi*, 14(2), 17-32.
- Slade, A., Belsky, J., Aber, J. L., & Phelps, J. L. (1999). Mothers' representations of their relationships with their toddlers: Links to adult attachment and observed mothering. *Developmental Psychology*, 35(3), 611-619.
- Spencer, M. B., Harpalani, V., Cassidy, E., Jacobs, C. Y., Donde, S., Goss, T. N., Munoz-Miller, M., Charles, N., & Wilson, S. (2006). Understanding

vulnerability and resilience from a normative developmental perspective:

Implications for racially and ethnically diverse youth. In D. Cicchetti & D. J. Cohen (Eds.) *Developmental Psychopathology Volume One: Theory and Method*. New Jersey: John Wiley & Sons, Inc.

Spinrad, T.; Eisenberg, N.; Kupfer, A.; Gaertner, B.; Michalik, N. The coping with negative emotions scale; Paper presented at the International Conference for Infant Studies; Chicago. 2004 May.

Stallman, H. M. & Ohan, J. L. (2016). Parenting style, parental adjustment, and co-parental conflict: Differential predictors of child psychosocial adjustment following divorce. *Behavior Change*, 33(2), 112-126.

Stifter, C. A. & Wiggins, C. N. (2004). Assessment of disturbances in emotion regulation and temperament. In R. DelCamen-Wiggings & A. S. Carter (Eds.), *Handbook of Infant, Toddler, and Preschool Mental Health Assessment*, (pp. 79-103). Oxford: New York.

Sümer, N., Sayıl, M., Kazak-Berument, S., Doğruyol, B., Günaydın, G., Selçuk, E., Harma, M., Öztürk, A., Salman, S. & Selçuk, E. (2008). *The role of the attachment, caregiving, and family dynamics on child development*. Completed project supported by The Scientific and Technological Research Council of Turkey, TUBITAK, Grant no: 105K102.

Şirin, S. R. (2005). Socioeconomic status and academic achievement: A meta-analytic review of research. *Review of Education Research*, 75(3), 417-453.

- Ştefan, C. A. & Avram, J. (2017). Investigating direct and indirect effects of attachment on internalizing and externalizing problems through emotion regulation in a cross-sectional study. *Journal of Child and Family Studies*, 26, 2311-2323.
- Tabachnick, B. G. & Fidell, L. S. (2013). *Using Multivariate Statistics* (6<sup>th</sup> ed.). New Jersey: Pearson Education.
- Telleen, S., Herzog, A., & Kilbane, T. L. (1989). *American Journal of Orthopsychiatry*, 59(3), 410-419.
- Tezel-Şahin, F & Cevher, F. N., (2007, 10-15 Septemer). *Türk toplumunda aile-çocuk ilişkilerine genel bir bakış*. ICANAS 38 (38. Uluslararası Asya ve Kuzey Afrika Çalışmaları Kongresi), Atatürk Kültür, Dil ve Tarih Yüksek Kurumu, Ankara.
- Thomas, A., Chess, S., Birch, H., Hertzog, M., & Korn, S. (1963). *Behavioral individuality in early childhood*. New York: New York University Press.
- Topuz, S., Ülger, Ö., Elbasan, B., Yakut, H., & Ayhan, Y. (2014). Türkiye’de farklı engellere sahip çocukların annelerinin yaşam kalitesinin ve psikososyal destek ihtiyaçlarının araştırılması: Pilot çalışma. *Türk Fizyoterapi ve Rehabilitasyon Dergisi*, 25(2), 63-71.
- Tremblay, R. E., Japel, C., Perusse, D., Boivin, M., Zoccolillo, M., Montplaisir, J., & McDuff, P. (1999). The search for the age of “onset” of physical aggression: Rousseau and Bandura revisited. *Criminal Behavior and Mental Health*, 9, 24-39.

- Turnbull, A. P., Turnbull, H. R., Erwin, E., & Soodak, L. (2006). *Families, professionals, and exceptionality: Positive outcomes through partnerships and trust* (5<sup>th</sup> ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.
- Turney, K. & McLanahan, S. (2015). The academic consequences of early childhood problem behaviors. *Social Science Research, 54*, 131-145.
- Uludağ, A. & Ünlüoğlu, İ. (2012). Yenidoğan yoğun bakım ünitesinde izlenen bebeklerin annelerinde stres oluşturan faktörler, stresle başa çıkmada birinci basamağın rolünün belirlenmesi. *Konuralp Medical Journal / Konuralp Tıp Dergisi, 4(3)*, 19-26.
- Ural, O. & Kanlıkılıçer, P. (2010). Behavioral problems in Turkish preschool-age children. *Gifted Education International, 26*, 51-60.
- Vieira, J. M., Matias, M., Ferreira, T., Lopez, F. G., & Matos, P. M. (2016). Parents' work-family experiences and children's problem behaviors: The mediating role of the parent-child relationship. *Journal of Family Psychology, 30(4)*, 419-430.
- Vural, P., Akkaya, C., Küçükparlak, İ., Ercan, İ., & Eracar, N. (2014). Psychodramatic group psychotherapy as a parental intervention in attention deficit hyperactivity disorder: A preliminary study. *The Arts in Psychotherapy, 41*, 233-239.
- Von Dras, D. D. & Siegler, I. C. (1997). Stability in extraversion and aspects of social support at mid-life. *Journal of Personality and Social Psychology, 72*, 233-241.

- Weitzman, C., Edmonds, D., Davagnino, J. & Briggs-Gowan, M. J. (2014). Young child socioemotional/behavioral problems and cumulative psychosocial risk. *Infant Mental Health Journal, 35*(1), 1-9.
- Whitson, M. L. & Kaufman, J. S. (2017). Parenting stress as a mediator of trauma exposure and mental health outcomes in young children. *American Journal of Orthopsychiatry, 87*(5), 531-539.
- Willemsen, M. E. & van de Vijver, F. J. R. (1997). Developmental expectations of Dutch, Turkish-Dutch, and Zambian mothers: Towards an explanation of cross-cultural differences. *International Journal of Behavioral Development, 21*, 837-854.
- Williams, P. D. & Williams, A. R. (2000). Balinese' mothers developmental timetables for young children. *Western Journal of Nursing Research, 22*(6), 717-735.
- Williams, P. D., Williams, A. R., Lopez, M., Tayko, N. P. (2000). Mothers' developmental expectations for young children in Philippines. *International Journal of Nursing Studies, 37*, 291-301.
- Woodman, A. C., Mawsdley, H. P., & Hauser-Cram, P. (2015). Parenting stress and child behavior problems within families of children with developmental disabilities: Transactional relation across 15 years. *Research in Developmental Disabilities, 36*, 264-276.
- Wu, Y. T., Chen, W. J., Hsieh, W. S., Chen, P. C., Liao, H. F., Su, Y. N., & Jeng, S. F. (2012). Maternal-reported behavioral and emotional problems in

Taiwanese preschool children. *Research in Developmental Disabilities*, 33, 866-873.

Yağmurlu, B. & Sanson, A. (2009). Parenting and temperament as predictors of prosocial behavior in Australian and Turkish Australian children. *Australian Journal of Psychology*, 61(2), 77-88.

Yağmurlu, B., Sanson, A., & Köymen, S. B. (2005). Ebeveynlerin ve çocuk mizacının olumlu sosyal davranış gelişimine etkileri: zihin kuramının belirleyici rolü. *Türk Psikoloji Dergisi*, 20(55), 1-20.

Yağmurlu, B., Yavuz, H. M., & Şen, H. (2015). Well-being of mothers of children with orthopedic disabilities in a disadvantaged context: Findings from Turkey. *Journal of Child and Family Studies*, 24, 948-956.

Yaman, Ş. & Altay, N. (2015). Posttraumatic stress and experiences of parents with a newborn in the neonatal intensive care unit. *Journal of Reproductive and Infant Psychology*, 33(2), 140-152.

Yavuz, M. H., Selçuk, B., Çorapçı, F., & Aksan, N. (2017). Role of temperament, parenting behaviors, and stress on Turkish preschoolers' internalizing symptoms. *Social Development*, 26(1), 109-128.

Yıldırım Sarı, H., Altıparmak, S., Salman F., Coşkun, H., Karayel, H., Bilgin, N., Öztürk H., & Bahçeci, B. (2012). Relationship between life satisfaction, health status, social support, stress management and sociodemographic variables in mothers of children with intellectual disability. *IIB International Refereed Academic Social Sciences Journal*, 3(4), 92-118.

- Yoleri, S. (2014). The effects of age, gender, and temperament traits on school adjustment for preschool children. *e-International Journal of Educational Research*, 5(2), 54-66.
- Yoleri, S. (2014). The relationship between temperament, gender, and behavioral problems in preschool children. *South African Journal of Education*, 34(2), 1-18.
- Yoleri, S. & Gürşimşek, A. I. (2012). Temperamental characteristics and peer victimization among pre-school children. *International Journal of Global Education*, 1(1), 54-65.
- Yoshikawa, H., Aber, J. L., & Beardslee, W. R. (2012). The effects of poverty on the mental, emotional, and behavioral health of children and youth: Implications for Prevention. *American Psychologist*, 67(4), 272-284.
- Yu, M. & Kim, K. E. (2016). A structural equation model for parenting stress in mothers of premature infants. *Journal of Child and Family Studies*, 25, 1334-1344.
- Yurdeşen, S., Erol, N., & Gençöz, T. (2013). The effects of parental attitudes and mothers' psychological well-being on the emotional and behavioral problems of their preschool children. *Maternal & Child Health Journal*, 17, 68-75.
- van Zeijl, J., Mesman, J., Stolk, M. N., Alink, L. R. A., van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., Juffer, F., & Koot, H. M. (2006). Terrible ones? Assessment of externalizing behaviors in infancy with the Child



Behavior Checklist. *Journal of Child Psychology and Psychiatry*, 47(8), 801-810.

Zilanawala, A., Sacker, A., Nazroo, J., & Kelly, Y. (2015). Ethnic differences in children's socioemotional difficulties: Findings from the millennium cohort study. *Social Science & Medicine*, 134, 95-106.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, 52, 30-41.