THE EFFECTS OF PARENTAL EDUCATIONAL BELIEFS ON SCHOOL ENGAGEMENT THROUGH PERCEIVED PARENTAL BEHAVIORS

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ABSTRACT

THE EFFECTS OF PARENTAL EDUCATIONAL BELIEFS ON SCHOOL ENGAGEMENT THROUGH PERCEIVED PARENTAL BEHAVIORS

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In this thesis, the associations between maternal educational beliefs, expectations, parenting behaviors, and school engagement of children in grades 3 to 11 were investigated with two studies. In Study 1, maternal beliefs about important factors for children's school success were qualitatively examined on a nationwide sample. Main themes and subthemes were identified. Differences in such main themes and subthemes across genders and school levels were examined. Also, the associations between family theme and school engagement at Time 1 and Time 2 were investigated. In Study 2, the mediating role of perceived parenting behaviors in the relationship between maternal educational expectations and school engagement was longitudinally investigated for each school level. Moreover, multigroup comparison analyses were conducted to understand whether the mediation model differed across genders at each school level. According to the results of Study 1, mothers believed that school-, family- and child-related factors were important for school success. Also, mothers reported certain main themes and subthemes more frequently regarding their children's gender and school levels. Family theme had a significant association with only school engagement at Time 1. In Study 2, maternal educational expectations were directly related to school engagement at middle and high school levels.

Also, both maternal warmth and inductive reasoning at middle school but only maternal warmth at high school had a mediating role between maternal educational expectations and school engagement. Except for some intercepts, the mediation model was invariant across genders at all school levels.

Keywords: School Engagement, Parental Educational Beliefs and Expectations, Parenting Behaviors, Multigroup Comparison

ÖZ

EBEVEYNİN EĞİTİME DAİR İNANÇLARININ ALGILANAN EBEVEYN DAVRANIŞLARI ARACILIĞIYLA AKADEMİK İLGİ ÜZERİNDEKİ ETKİLERİ

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Bu tezde annelerin eğitime dair inanışlarının, beklentilerinin ve ebeveynlik davranışlarının 3.-11. sınıf arasındaki çocukların akademik ilgisi ile ilişkisi iki ayrı çalışma ile incelenmiştir. Çalışma 1 kapsamında annelerin çocukların okulda başarılı olması için önemli olan faktörlere dair inanışları yurt genelinde bir örneklemle niteliksel olarak incelenmiştir. Ana ve alt temalar belirlenmiştir. Bu ana ve alt temaların çocukların okul seviyesi ve cinsiyetine göre farklılaşması incelenmiştir. Ayrıca annelerin raporladıkları aile teması ile çocukların birinci ve ikinci zamandaki akademik ilgileri arasındaki ilişki incelenmiştir. Çalışma 2'de ise her okul seviyesi için ayrı ayrı, annelerin çocuklarının eğimlerine devam etme sürelerine dair beklentileri ve çocukların akademik ilgileri arasındaki ilişkide çocukların algıladığı anne ebeveynlik davranışlarının aracı rolü boylamsal olarak incelenmiştir. Ayrıca bu aracı modelin kız ve erkekte farklılaşıp farklılaşmadığını anlamak için her okul seviyesinde çoklu grup karşılaştırması analizi yapılmıştır. Çalışma 1'nin sonuçlarına bakıldığında okul başarısında annelerin genellikle okulla ilgili, aileyle ilgili ve çocukla ilgili faktörlerin önemli olduğuna inandıkları görülmüştür. Ayrıca annelerin çocuğunun cinsiyetine ve okul seviyesine göre bazı ana ve alt temaları daha sıklıkla raporladıkları görülmüştür. Aile teması sadece birinci zamandaki akademik ilgi ile anlamlı ilişki göstermiştir.

Çalışma 2 sonuçlarına bakıldığında ortaokul ve lise seviyeleri için annenin eğitime dair inancı doğrudan ikinci zamandaki akademik ilgiyi yordadığı bulunmuştur. Ayrıca lise seviyesinde sadece anne sıcaklığı aracı role sahipken ortaokul seviyesinde anne sıcaklığı ve açıklayıcı akıl yürütme annenin eğitime dair inançları ve akademik ilgi arasında aracı rolü olduğu görülmüştür. Amaçlanan aracı modelin bazı değişkenlerin kesişim noktaları haricinde her üç okul seviyesinde de cinsiyete göre farklılaşmadığı görülmüştür.

Anahtar Kelimeler: Akademik İlgi, Ebeveynin Eğitime Dair İnançları ve Beklentileri, Ebeveynlik Davranışları, Grup Karşılaştırması

To my lovely family

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LIST OF ABBREVIATIONS

TÜBİTAK	Türkiye Bilimsel ve Teknolojik Araştırma Kurumu
TÜİK	Türkiye İstatistik Kurumu
PPS	Probability-Proportional-to-Size Sampling
DISC	Development-in-Sociocultural-Context

CHAPTER 1

1.1. General Overview

Parental ethnotheories, defined as shared beliefs regarding parenting, family, and child development, are culturally shaped, and they have a significant role in constructing parental behaviors, which in turn affects child developmental outcomes (Rubin & Chung, 2006; Super & Harkness, 1997). Specifically, this cascading association between parental beliefs, behaviors, and child outcomes is also evident in children's academic outcomes. Relatedly, parents have a crucial role in shaping their children's beliefs, expectations, and behaviors regarding education, school, and learning in general. This role of parents has been widely investigated in previous research (Aunola et al., 2003; Eccles et al. 1983). In this regard, *Expectancy-Value Theory* of Eccles and colleagues (1983) claims that parents' beliefs and expectations shape their behaviors. In turn, parenting behaviors influence child's own beliefs, expectations, and then, their academic-related choices and behaviors. Similarly, Simpkins and colleagues (2012) indicated direct or indirect mechanisms for the association between parental beliefs, expectations, and the child's academic-related behaviors. As an example of indirect mechanisms, parents may convey their beliefs and expectations through their parenting behaviors such as warmth, and support or involvement in academic-related activities such as helping homework, and creating an environment supporting academic skills (Viljaranta et al., 2018). Thus, when parents have a supportive attitude, positive beliefs and high expectations about education, their children are more likely to have high motivation and expectations about their own performance and education. In turn, it is most probable that children would engage in learning-related tasks resulting in high academic success.

A growing body of studies have shown that parents with high educational expectations for their child's attainment play an important role in improving children's academic outcomes (Li et al, 2019; Pinquart & Ebeling, 2020). In addition, there are studies investigating the association between parental educational expectations and academic

success in Turkish samples. For example, Lindberg and colleagues (2019) conducted a study to examine how parental educational expectations are related to the academic success of Turkish children in the eighth grade. They interviewed mothers and fathers about their expectations for their children's highest level of degree and the reasons for the success and failure of their children. Lindberg and Güven (2021) also investigated that parental educational expectations are related to the academic success of Turkish elementary school students.

School engagement is a bridge from parental beliefs, expectations, and behaviors to the child's academic achievement (Pinquart & Ebeling, 2020). In this regard, it is a significant antecedent of academic achievement (e.g., for meta-analyses: Lei et al., 2018; Wong et al., 2023). Therefore, understanding family-related antecedents of school engagement is important to increase insights into enhancing academic achievement. In addition, there is a gap in research examining the association between family-related factors (i.e., parental beliefs, expectations, and parenting behaviors) and school engagement. Instead, previous studies have primarily investigated academic achievement or academic performance as the child's academic-related outcomes (Li et al., 2019; Lindberg et al., 2019; Lindberg & Güven, 2021; Pinquart & Ebeling, 2020 for a meta-analysis). Studies investigating the link between parental educational expectations and school engagement as an academic outcome are rather rare (Fan & Williams, 2010). Moreover, previous studies have mostly conceptualized parental educational expectations as an aspect of parental involvement instead of examining it as a predictor of parental involvement (Li et al., 2019). To our knowledge, few studies have examined the mediating role of parental involvement in the association between parental educational expectations and academic achievement (Li et al., 2024).

Additionally, research conducted with predominantly in Western and Asian cultures have supported the significant association between parental beliefs, expectations and the child's own academic-related beliefs, expectations and behaviors (Cheung & Pomerantz, 2015; Li et al., 2024; Simpkins et al., 2012). However, there are few studies conducted with Turkish samples related to this association (Lindberg et al., 2019; Lindberg & Güven, 2021; Sontur et al., 2021). These studies have focused on

how parental attitudes, expectations, and involvement are associated with academic achievement in small samples from specific school levels such as elementary or secondary school levels. Therefore, it is necessary to examine the association between school engagement and parental beliefs, expectations and behaviors in a nation-wide sample of Türkiye across school levels. For that purpose, as a part of a longitudinal study investigating how parental beliefs and expectations about child-rearing influence parenting behaviors, and then the child's developmental outcomes, the current thesis specifically focused on the associations between academic-related parental beliefs, expectations, and parenting behaviors and child's academic-related behaviors, namely, school success and engagement with two consecutive studies.

In particular, **Study 1** qualitatively examined maternal beliefs about important factors of school success. Since as previously emphasized, parental beliefs about the child's education are important to shape parents' involvement and behaviors in their child's education, which in turn influence the child's beliefs and behaviors related to education. Therefore, in *Study 1*, firstly it was aimed to investigate the maternal beliefs about school success. For this reason, Turkish mothers' beliefs regarding which factors are important to be successful in school were thematically described. The main themes and subthemes depending on the mothers' answers were given across both children's gender and school levels. Related to this, a chi-square analysis was conducted to examine how the themes differed related to children's gender and school level. Furthermore, based on the expectancy-value theory and previous literature, specifically, the associations between the main theme of "family" and school engagement at Time 1 and 2 were investigated through a correlation analysis.

In addition to Study 1 identifying themes of maternal beliefs about important factors related to school success, **in Study 2**, both parental educational expectations and parenting behaviors were examined related to educational outcome of children and adolescence based on the *Expectancy-Value Theory* (Eccles et al., 1983) and *Development-in-Sociocultural-Context (DISC) Model* (Wang et al., 2020). Specifically, a path model from maternal expectations about their child's education attainment at Time 1 to school engagement at Time 2 through perceived parenting

behaviors (i.e., namely maternal warmth, inductive reasoning, performance pressure and comparison) was investigated. Moreover, the same path model was run for three separate datasets of school levels (i.e., primary, middle, and high school). Also, a multigroup comparison across gender was examined to understand whether the same model is invariant across males and females for each school level.

Consequently, the thesis includes two consecutive studies composed of their own introduction, method, procedure, result, and discussion sections. Moreover, at the end of the thesis, a general discussion will be given to discuss and synthetize the results of both studies in the light of literature.

CHAPTER 2

STUDY 1

2.1. Introduction

Culturally constructed parental beliefs and expectations are important for the child's development and outcomes in general (Harkness & Super, 1993). In particular, parental beliefs and expectations directly or indirectly shape the child's own beliefs, attitudes, and expectations about their own academic development. More specifically, school engagement, as an academic outcome, is malleable and context-dependent, thus sensitive to personal and sociocultural factors (i.e., parental beliefs and expectations) (Reschly & Christenson, 2012). In line with this view, Wang and colleagues (2020) emphasized a Developmental-in-Sociocultural Context (DISC) Model of engagement in learning. The model includes cultural, family, school, and peer contexts as sociocultural factors. In addition, it includes developmental skills, motivational beliefs, and self-appraisals of the individual as individual factors. This model proposes a direct association between the development of engagement in learning and various contexts in addition to individual characteristics. Therefore, identifying individual and contextual factors related to engagement is necessary to enhance school engagement and ultimately, school success. The family context, which specifically includes parents' beliefs, expectations, and behaviors regarding education and learning, is key to forming the child's own values, beliefs, expectations, and ultimately behaviors in that specific area (Simpkins et al., 2012).

Thus, the current study aimed to understand maternal beliefs about which factors are important for school success, and particularly, the association between "*family*" theme and school engagement. In particular, it was aimed to qualitatively examine mothers' answers to the question of which factors are important for school success. Based on the mothers' answers, main themes and subthemes regarding individual factors and

sociocultural factors in school success were investigated. Secondly, it was aimed at understanding whether the frequencies of coded themes changed across gender and school levels. Lastly, as mentioned earlier, the association between "*family*" theme as a sociocultural factor and school engagement was examined. In the following sections, firstly, school engagement was defined and highlighted the importance of examining it as a predictor of academic-related outcomes. Then, parental beliefs and culture in general, and specifically, related to education and parental beliefs about education in Türkiye were discussed, respectively. Then, the current study was explained. Lastly, the findings were discussed in the light of the literature after the results were presented.

2.1.1. The Conceptualization of School Engagement

Researchers have shown a growing interest in the concept of school engagement and tried to understand why children and adolescents increasingly show disengagement in the school context. Previous studies showed that disengaged children and adolescents are more likely to report low academic outcomes (Schnitzler et al., 2021), internalizing and externalizing behavioral problems (Olivier et al., 2020), peer victimization (Iyer et al., 2010), and school dropout (Wang & Fredericks, 2014). Yet, Li (2011) argued that disengagement should not be treated as the antithesis of engagement. Since the absence of disengagement may be achieved with a minimal effort by attending regularly class or doing homework, not meaning that the student has a high active engagement. Therefore, recent studies have focused on understanding contextual and individual factors to ameliorate school engagement of children and adolescents instead of disengagement. However, correctly conceptualizing school engagement is important to measure it properly.

Li (2011) stated that the use of "engagement" as a term in education literature began in the mid-1980s. Previous studies have used a variety of terms related to "school engagement" such as student engagement, school bonding, school attachment, school belonging, academic engagement, and student commitment as reviewed in Jimerson et al. (2003). However, the term "school engagement" was first used by Pierson and Connell (1992). Existing literature shows that there is an ambiguity in the conceptualization of "school engagement". Some researchers defined it as a unidimensional construct with mainly behavioral dimensions (Mergendeller &

Mitman, 1985) while others defined it with two dimensions such as behavioral and emotional dimensions (Finn, 1989; Marks, 2000).

However, recent reviews proposed that school engagement is a multidimensional construct composed of behavioral, emotional/affective, and cognitive dimensions (Fredricks et al., 2004; Jimerson et al., 2003). Moreover, Fredricks and colleagues (2004) claimed that school engagement is a "meta construct". Contrary to this conceptualization, Appleton et al. (2006) recently defined school engagement as a multidimensional construct with four dimensions including academic, behavioral, cognitive, and psychological. Some recent studies have used this conceptualization in their research (Gandra & Cruz, 2021). As another conceptualization, Skinner et al. (2009) suggested that the school engagement concept includes interrelated four dimensions: engagement, disaffection, emotion, and behavior. The combinations of these are engaged behavior, disaffected behavior, engaged emotion, and disaffected emotion. In addition to behavioral, emotional, and cognitive dimensions, Reeve and Tseng (2011) recently proposed a concept of agentic engagement as a fourth dimension of school engagement. They defined it as "students' constructive contribution into the flow of instruction they receive" (p. 258). In other words, it includes active participation to class by asking questions, expressing their own preferences and opinions and offering a suggestion or contribution. On the other hand, in a systematic review of 33 articles, Yang et al. (2023) concluded that even though there is a variety of conceptualization and measurement of school engagement, a general idea is accepted to identify school engagement with three dimensions such as behavioral, emotional, and cognitive. Taken together these different conceptualizations, it seems that researchers agreed on the multidimensional nature of school engagement although there is no agreement on the numbers and names of subdimensions.

Another disagreement on school engagement is how to measure it. Recently studies have used school engagement scale composed of all three dimensions (Chiu, 2021; Charkhabi et al., 2019; Perdue et al., 2009; Yonezawa et al., 2009). However, they mostly used only behavioral dimension including observable indicators such as

participation in discussions, regular attendance to class, behaving in a positive conduct, and participation in extracurricular activities or two subdimensions including emotional and behavioral (Jimerson et al., 2003; Johnson et al. 2001). On the other hand, Fredericks et al. (2004) pointed out that three dimensions are dynamically interrelated. In the current study, we used the school engagement scale of Fredericks et al. (2004) composed of three subdimensions such as behavioral, emotional, and cognitive. However, all subdimensions were not used in the current study, and only the cognitive subdimension of school engagement was focused. Since the cognitive aspect of school engagement has been rarely studied, and it is closely related to intrinsic motivation, which is an important indicator of academic achievement.

Three dimensions of school engagement have different indicators. *Behavioral engagement* has been conceptualized with positive conduct like following rules and obeying class norms, academic-related efforts, involving in learning tasks, being persistent in studying, paying attention to learning materials, asking questions, participating in class discussions and school-related activities such as sports, art or school governance activities (Fredericks et al., 2004). It generally includes observable overt behaviors. Therefore, most studies have conceptualized school engagement with only behavioral engagement (Ryan, 2000). The reason may be that the measurement of behavioral engagement is more objective and easier than other dimensions. *Emotional engagement* has been identified with feelings toward the school and teacher such as liking or disliking school/teacher, being happy or sad in school, belonging to school, and identification with school (Wang et al., 2011). It includes all affections related to school and teachers. Finally, c*ognitive engagement* refers to the willingness to learn, investment in learning, self-regulation, and value of learning (Fredericks et al., 2004). Additionally, Newman et al. (1992) defined it as a psychological investment in and effort directed toward learning, deeply understanding, mastery knowledge and skills in academic works.

There is a debate related to cognitive engagement subdimension and motivation. Fredericks et al. (2004) argued that cognitive engagement and motivation are very similar concepts and have been defined similarly. Since both cognitively engaged or

intrinsically motivated students generally use metacognitive strategies to plan, monitor, and evaluate their cognition. Both of them intrinsically and autonomously decide to make an investment in learning and use their self-regulation skills. On the other hand, Appleton et al. (2006) advocated that motivation and engagement are separate. Since motivation is conceptualized as intensity, direction and quality of one's energies while engagement refers to "energy in action", meaning that one actively takes an action in learning. Li (2011) also agreed that motivation and engagement are distinct constructs. Although engagement includes active behavior, motivation just refers to internal cognitive and emotional state. In addition, it emphasized that motivation is necessary for engagement, but not enough. Thus, the current study focuses on one aspect of school engagement, namely cognitive engagement based on the conceptualization of Fredericks et al. (2004).

2.1.1.1. Importance of School Engagement as a Predictor of Academic-Related Outcomes

There is extensive literature showing that school engagement is significantly associated with school and academic-related factors for children and adolescents. For example, a growing literature has suggested school engagement as a strong predictor of academic success for students attending to a variety of grades (Balfanz & Byrnes, 2006; Dotterer & Lowe 2011; Estevez et al., 2021; Upadyaya & Salmela-Aro, 2013). Especially, a very recent systematic review and meta-analysis highlighted that academic achievement has the strongest association with behavioral, cognitive, and affective engagement, respectively (Wong et al., 2023). Similarly, a meta-analysis study with 69 independent studies showed that overall school engagement has a moderately strong and positive correlation with academic achievement. In addition, Chase et al. (2014) argued the mutual association between school engagement and academic success. They speculated that students with high academic success are more likely to engage in school or learning or vice versa, more engaged students tend to be academically successful. It means that both of them support each other in a mutual relationship.

Contrary to academic achievement, school retention and school dropout are negatively related to school engagement. Actually, one of the important reasons for the growing interest in school engagement is to understand the causes of school retention and

eventually school dropout pathway. Most studies showed that disengaged students most probably are at risk of firstly school retention and then school dropout. Literature suggested that failing more than once increases the likelihood of dropping out of school (Archambault et al., 2009). Middle and high school students with a school retention background reported lower school engagement than others with no retention history (Gandra & Cruz, 2021). Another study with 304 students also found a negative association between school engagement and retention (Gunuc, 2014). Similarly, a study with high school students found that disengaged and alienated students are at risk of school dropout eventually (Archambault et al., 2009). Moreover, in a longitudinal study with 12- to 16-year-old students, the students with unstable school engagement pathways were more likely to experience a school dropout (Janosz et al., 2008).

Consequently, understanding school engagement and its antecedents is important to reduce and ultimately prevent students' low academic achievement, school retention and dropout. Therefore, parents' roles in socialization process regarding their children's education are worth investigating to improve school engagement and subsequent academic-related outcomes. Relatedly, parenting beliefs about education will be discussed in the following section after parental beliefs and culture in general will be explained.

2.1.2. Parenting Beliefs and Culture

Parental ethnotheories are defined as culturally constructed shared beliefs, representations, and views about child-rearing, parenting and family (Harkness & Super, 1996). Parental beliefs about child-rearing are formed due to the culture and context in which parents live, which guides parents about appropriate/desirable or inappropriate/undesirable child-rearing practices of a specific culture (Bornstein & Cheah, 2006). In other words, culture determines normative child-rearing beliefs and behaviors, which are practiced by parents, and aims to reach optimal child outcomes (Keller & Kärtner, 2013). In addition, Super and Harkness (1997) points out *a developmental niche theory* in which the child is at the center and surrounded by three interconnected subsystems mutually influencing each other. These subsystems include

parental ethnotheories, culturally shaped customs/practices about child-rearing and physical/social settings. In relation to this theory, the current study focuses on how parental ethnotheories or beliefs influence parenting practices in child's academic development. In developmental niche theory, Super and Harkness (1997) emphasize how parental ethnotheories or beliefs influence child development. It claims that culture shapes specific norms, customs, beliefs, and behaviors related to child-rearing and care, and influences the development of child both directly and indirectly through parenting beliefs and practices. Parenting beliefs and practices are context-dependent, so they shape within the culture in which individual lives. For example, Western societies are categorized as having independent cultural orientation that emphasize and promote individuality values and goals to form an independent self. Therefore, parenting beliefs and practices serve to raise an autonomous and independent child. On the other hand, Eastern societies such as China are identified as having interdependent cultural orientation and have collectivistic values and goals, which results in creating a society with interdependent selves. Because of interdependent cultural orientation, in such a culture, parental beliefs and practices promote raising related and interdependent children. More specifically, Trommsdorff (2012) found that in Asian cultures, self-regulation in behavior, emotion, or cognition proposes to preserve social harmony while in European American cultures, it serves to enhance autonomy of the individual and to fulfill individual's own goals. With relation to self-regulation outcome, appropriate parenting practices, which are accordance with parental beliefs in that specific culture, promote to engage the child culturally appropriate self-regulation skills. Taken together these empirical findings and the developmental niche theory, it can be said that parental beliefs cannot be thought apart from culture the one belongs. In the following section, particularly, parental beliefs about education, and then Turkish parents' beliefs about education will be elaborated further, respectively.

2.1.2.1. Parenting Beliefs about Education

A variety of theories (i.e., ecological systems theory and developmental niche theory) emphasizes that interrelated systems influence the children's learning and education such as family, school, society, and social institutions (Bronfenbrenner, 1979; Harkness & Super, 2002). As explained in the former section, based on the interactions

between culture and family, parents hold culture-dependent or constructed beliefs on the child's learning and education (Kremer-Sadlik & Fatigante, 2015). Specifically, when a culture values education and learning, in a such culture, parents are more likely to have beliefs about valuing education and to transmit these beliefs to their children through academic socialization. Related to this viewpoint, extensive research has been conducted on Chinese and Japanese cultures in which education has a high value (Cheung & Pomerantz, 2011; Wang et al., 2022; Yamamoto et al., 2006; Yamamoto, 2020). Since Confucianism as a cultural belief system in these cultures, emphasizes the value of education, academic achievement and effort (Chi & Rao, 2003; Qin et al., 2008). In addition, social prestige and honor brought to family through acquiring knowledge and obtaining academic achievement are important for these cultures (Chi & Rao, 2003; Ng & Wang, 2019). Additionally, Japanese culture believes meritocracy, which is defined as obtaining a status relying on the individual's own ability and effort rather than wealth or nepotism (Yamamoto, 2024). Based on these cultural values, mostly mothers, as a primary figure transmit cultural beliefs and values to next generations, allocate more time and effort to support their children's learning and education (Chao, 1996; Holloway, 2010). As a result of high value of education and behaving accordingly to support the child's education, Japanese parents have high expectations about their children's academic performance.

As mentioned earlier, parents have important role to guide their children's education and learning depending on cultural beliefs and values. They begin to influence their children's learning and education before their children start school. This influence may be maintained indirectly or directly through organized educational environments, supporting in children's schooling and conveying certain beliefs about education and learning to the child. For example, they may provide an enriched home learning environment through the availability of various books, watching documentaries together, teaching writing, letters, or other basic literacy skills. In particular, Taylor et al. (2004) introduced a conceptual model of academic socialization of children. This model emphasizes the impact of cultural context on parental beliefs about school, and in turn, home learning environment and parental involvement. It posits that culturally regulated parental beliefs about school are indirectly associated with the child's school

adjustment and academic outcomes through home learning environment and parental involvement. This academic socialization model (Taylor et al., 2004) claims the mediating role of involvement as a parenting practice in the association between parental cognition about school and child's academic outcomes. In line with this claim, previous research has demonstrated that parental involvement in education is significantly related to children's aspiration (Jung & Zhang, 2016), motivation (Fan & Williams, 2010), and academic achievement (Tan et al., 2019). With regard to parenting practices and involvement, parents may emphasize importance of education and learning during communications with their children. In turn, children exposed to such conservations are more likely to internalize their parents' beliefs and values about education and show higher motivation and engagement in their school work. Thus, it is important to note that parents have a primary role on their children's academic socialization.

Taken together, parenting beliefs about education plays an important role for children's academic socialization and ultimately, academic-related outcomes through parenting practices. In this section, parenting beliefs about education were presented. In the next section, firstly, Kağıtçıbaşı's family change model will be introduced to understand the background of Turkish parents' beliefs about education. Then, Turkish parents' beliefs about education and schooling will be explained.

2.1.2.2. Parenting Beliefs about Education in Türkiye

To understand parental beliefs about education in Türkiye, it is important to know family dynamics, structure, and socioeconomic status of families. Parental academic socialization and beliefs in education are closely associated with these background factors (Smits & Gündüz-Hoşgör, 2006). Related to this view, Kağıtçıbaşı's Family Change Model (2002) stated three different family models, which characterizes by different features in terms of the value of child in the family, cultural orientation, and socioeconomic background. Firstly, ***the family model of total interdependence*** characterizes by both emotional and economic interdependence within the family and intergeneration, and it is prevalent in traditional rural societies (Vieira et al., 2013). The value of family as a whole is a priority rather than the value of individuals in the

family. The value of the child is mainly based on his/her economic utility. Since the child contributes to family economy by working. Moreover, parents mostly expect that their children will take care of the parents in old ages. Depending on economic utility of the child, schooling and attending higher degree in education are not mostly encouraged, which indicates that such families place less value on education. For example, in the rural regions of Türkiye, children were often encouraged to help their families in the field. Girls are supposed to take care of their younger siblings at home. Therefore, it is common in rural areas to drop out of school in the early grades due to helping the family. For example, children from some regions of Türkiye (i.e., Diyarbakır, Mardin, and Şanlıurfa) are not supported to obtain a high educational attainment and mostly dropout because they have to work (Gökşen et al., 2006) and take care of their siblings at home. Additionally, Yorulmaz (2024) reported that in the Eastern and Southeastern Anatolia Regions, the rate of girls aged 15-17 years attending a school is 79.5% while it is 93.4% in the other regions in Türkiye based on the data of Türkiye Statistical Institute. A qualitative study including 30 Turkish women who dropped out of school showed that family-related factors, such as taking care of siblings and supporting family economy, were the second most frequently reported reason for school dropout (Çolak & Tüzel İşeri, 2022). Taken together these statistics, in Türkiye, parents with family model of total interdependence place low value on education, therefore they are more likely not to support their children about education and schooling.

Contrary to *the family model of total interdependence,* ***family model of independence*** is prevalent in western middle class nuclear families. It identifies with priority of individuals, so children are encouraged to gain self-reliance and autonomy. The economic utility of the child is not emphasized but children have psychological value such as love, pride, and joy for their families. In this model, education and learning have high value because the individual should acquire skills necessary to be autonomous and self-actualize through education. For example, in Türkiye, Ankara, İstanbul, Eskişehir, Kocaeli, and İzmir are cities reporting the highest average schooling rate based on the statistics of 2023 (TÜİK, 2024). Since middle- and upper-class families in such cities most probably value education and provide optimal

environment to gain their children higher education attainment. Based on modernization hypothesis of 'converging on Western pattern' which is family model of independence, Kağıtçıbaşı (2002) reported a view that family model of total interdependence will evolve to family model of independence with socioeconomic development around world. However, it may not be necessary to evolve from family model of total interdependence to family model of independence. Since decline in material interdependence with increased affluence would not act together a decline in emotional interdependence. Therefore, Kağıtçıbaşı (2002) emphasized a third family model, ***family model of emotional/psychological interdependence*** identifying with material independence but psychological or emotional interdependence. The child's autonomy is not threat for the family continuity because the family does not expect the child to support the family financially. Similar to family model of independence, education and learning are also valued in family model of emotional/psychological interdependence.

A study conducted with three different generations and comparing value of the child across 1975 study and the 2003 study showed changes from family model of interdependence to family model of emotional/psychological interdependence (Kağıtçıbaşı & Ataca, 2005). According to this study, the reasons to have a child changed from economic expectations to psychological expectations. The study also indicated that young mothers from different socioeconomic backgrounds valued independence and self-reliance more, as desirable qualities of a child compared to older mothers and grandmothers. Indeed, it is an indicator of a change in parenting goals across generations as a result of the change in their family model from family model of interdependence to family model of emotional/psychological interdependence. Moreover, autonomy is a necessary ability for school success, a high educational attainment and having a good job in future. Related to this view, that's why mothers value self-reliance and autonomous self-development more. Correspondingly, Kağıtçıbaşı and Ataca (2005) found that average schooling in years increased from 3 years to 9.5 years from 1975 to 2003 across generations (i.e., younger mothers, older mothers, and grand-mothers). Recently, the rate of people aged 25 or over with a higher education degree such as bachelor's, master's or doctorate has

increased from 9.8% in 2008 to 24.6% in 2023 (TÜİK, 2024). Supporting **family model of emotional/psychological interdependence**, prior studies showed that parental beliefs and values regarding the desired child qualities reflect the combination of independence/self-reliance and emotionally interdependence/relatedness (Kağıtçıbaşı & Ataca, 2005; Yağmurlu et al., 2009). Moreover, Kağıtçıbaşı (2007) emphasized that the family model of *emotional/psychological interdependence* reflects the typical family model of Turkish culture. Similarly, İmamoğlu (1987) found that both autonomy and closeness in child-rearing are valued among middle and upper socioeconomic status parents in Türkiye.

Given the family model of *emotional/psychological interdependence* as the typical family model of Turkish culture, majority of Turkish parents tend to have parental beliefs and values about education encouraging both emotional dependence and economical independence. Since they believe that being autonomous and self-reliant as well as emotionally related are important to achieve higher educational degree, to gain success in school and to obtain a successful future career. Therefore, they tend to provide an optimal environment such as enrolling their children in a private school from starting kindergarten, so that they can receive better education. In this regard, sending their children to private primary, middle, and high schools is so common among Turkish families. Also, before university entrance exam, parents enroll their high school children to supplementary education known as “dershane” or provide their children additional tutoring (Yeşilyurt & Say, 2016). It can be said that Turkish parents believe that education should be valued, so that they behave accordingly and support their children’s education. Indeed, when parents with low economic status believe that education is valuable, they try to support their children in accordance with their possibilities. Since education is an important tool for social upward mobility for individuals from low economic status in Türkiye (Çevik, 2015). Thus, when parents value education more, they make investment and then, expect their children to have high academic success and obtain high educational attainment. More details regarding parental educational expectations will be discussed in Study 2. In the next section, the aim of the current study will be explained.

2.1.3. The Current Study

In summary, previous studies have shown that culturally constructed parental beliefs and behaviors play important role in academic socialization of children and adolescents (Eccles et al., 1983; Simpkins et al., 2012). Parental beliefs about education contribute to children's aspirations, motivations, and academic-related outcomes. Therefore, it seems that it is important to examine parental beliefs about education and academic success in order to understand academic socialization context of children and in turn, children's academic outcomes (Taylor et al., 2004). A meta-analysis including 62 studies published in Türkiye between 2000-2015 showed that parents' attitudes and behaviors affect children's school success as family-related factors (Sarıer, 2016). Moreover, Sarıer (2016) emphasized the importance of school-related and student-related factors in school success. However, Sarıer (2016) did not give detail information about who responded the question, "Which factors do affect academic achievement?" such as parents or students in these 62 studies. Also, the meta-analysis study only included the studies mainly conducted in specific regions of Türkiye such as central Anatolia and Marmara as well as certain grades such as primary or middle school levels. The current study will make a significant contribution to the literature to understand comprehensively current picture related to maternal beliefs on the factors affecting school success. The mothers are considered as primary agents in socialization of children and adolescents in Turkish culture (Sunar & Fişek, 2005), therefore the current study only focused on maternal beliefs.

Consequently, the current study aimed to explore the beliefs of mothers about the factors affecting school success in a nationwide sample of Türkiye across all school levels and gender. It was conducted as an exploratory-descriptive qualitative study including comparison of maternal beliefs across gender and school levels in an exploratory manner. In addition, it was aimed to investigate the association between the "*family*" theme which includes both main theme and sub-themes related to family and school engagement measured at two consecutive time points (i.e., Time 1 and Time 2).

2.2. Method

2.2.1. Participants

Present study's data were collected as part of a project (Türkiye Family, Child and Adolescents Project; Türkiye, Aile, Çocuk ve Ergen Projesi, TAÇEP) examining the associations among parental beliefs, behaviors, and the outcomes of children and adolescents between the ages of 6 and 17. It was funded by The Scientific and Technological Research Council of Turkey (TÜBİTAK) (Project code: 118K033-34-35).

Data of the project were collected at two time points with Time 1 data collection from December 2021 to June 2022 from 180 schools (i.e., 60 primary schools, 60 middle schools, and 60 high schools) across sixty-one cities of Türkiye and Time 2 data collection from March 2023 to June 2023. A total of 5988 mothers participated to the project at Time 1. Out of 5988 mothers of children and adolescents (from 1st grade to 11th grade), 5841 mothers responded to an open-ended question *("Which factors do you think are important to be successful children in school?"*). Therefore, the current study included 5841 mothers.

Moreover, the current study examined the association between mothers' mention of family ("family theme") as being important for children's academic success, and children's school engagement at Time 1 and Time 2. For this analysis, the current study included 5841 mothers and their child pairs (4426 children from Time 1 and 3093 children from Time 2 with a school engagement score). The detailed information about the mothers in Study 1 and their children are given in Table 1.

2.2.2. Measures

Mothers answered an open-ended question about their beliefs related to the factors of school success and filled out a demographic form. Children filled out a school engagement scale.

2.2.2.1. Mother Measures

2.2.2.1.1. Mothers' Beliefs about The Factors Related to School Success

Mothers were asked an open-ended question *("Which factors do you think are important to be successful children in school?"*) (Simpkins et al., 2012) to understand

the mothers' beliefs about school success at Time 1. Responses of the mothers were thematically coded by a graduate student and two undergraduate students after taking. a training about coding in MAXQDA 2022 program. This program allows thematically coding qualitative data and creating visual graphs of the themes reported by mothers.

Table 1. Mothers' and Their Children Characteristics in Study 1

Characteristics	**Sample (*N*=5841)**
Age of mothers (T1) (in years)	38.31 (*Min*=22, *Max*=62)
Mother's level of education (T1)	
Uncomplete Primary School, Illiterate	159 (2.7%)
Uncomplete Primary School, Literate	175 (3%)
Primary school	1486 (25.4%)
Middle school	1029 (17.6%)
High school	1691 (29%)
University	1172 (20.1%)
Master and Ph.D.	21 (0.4%)
Mother-reported monthly income (T1)	7228.03 TL (Minimum wage=4253.40 TL (316 $) (*Min*=0, *Max*=300.000)
Mothers perceived economic status (T1)	4.25 (*Min*=1, *Max*=10)
Settlement Type (T1)	
Urban	4294 (73.5%)
Rural	1547 (26.5%)
Number of children (T1) (Mean)	2.63 (*Min*=1, *Max*=13)
Family Structure (T1)	
Nuclear	4919 (84.2%)
Extended	421 (7.2%)
Single parent	500 (8.6%)
Mothers' Married Status (T1)	
Married with the father of the child	5470 (93.7%)
Divorced	244 (4.2%)
Widow	67 (1.1%)
Remarried	59 (1.0%)
Child Gender	
Female	3048 (52.2 %)
Male	2793 (47.8%)
School Levels (T2)	
Primary (Grade 1,2,3,4)	2266 (38.8%)
Middle (Grade 5,6,7,8)	2099 (35.9%)
High (Grade 9,10,11)	1476 (25.3%)

2.2.2.1.2. Demographic Form

The mothers filled in a questionnaire including demographic questions such as the age of the mothers, married status of the mother, family structure, monthly income of the family, the child's gender and school level etc.

2.2.2.2. Child Measures

2.2.2.2.1. School Engagement

School Engagement Scale developed by Fredericks et al. (2004) was used to examine children and adolescents' school engagement. The scale originally includes three subdimensions such as behavioral, emotional, and cognitive dimensions with 19 items. However, in the scope of the project, only cognitive subdimension of the scale was asked to children and adolescents to assess their efforts in learning, self-regulated learning skills, investment to learning, and internal motivation for learning. Therefore, in the current study, school engagement scale included only cognitive engagement subdimension. This subdimension includes 8 items (*"If I do not understand what I read, I go back and read it again"*) with a 4-point Likert-type scale ranging from 1 (*never*) to 4 (*always*). The school engagement scale was asked to children and adolescents from 3rd grade to 11th grade at Time 1 and from 4th grade to 12th grade at Time 2. In the original article, Cronbach alpha of the scale was reported as .82 for this subdimension. For Study 1, at Time 1, Cronbach alpha of the scale was .86 for whole sample, while it was .86 for primary school subsample (3rd and 4th grades), .85 for middle school subsample (5th thru 8th grade) and .84 for high school subsample (9th thru 11th grade). At Time 2, Cronbach alpha of the scale was .87 for whole sample, while it was .84 for primary school subsample (4th grade), .87 for middle school subsample (5th thru 8th grade) and .88 for high school subsample (9th thru 12th grade). The school engagement score was calculated by averaging 8 items of the scale.

2.2.3. Procedure

As mentioned earlier, the current study was conducted as a part of a longitudinal nationwide research titled as "Türkiye Family, Child, and Adolescents Project (Türkiye, Aile, Çocuk ve Ergen Projesi, TAÇEP)". Therefore, in the scope of the

project, the ethical approval from Human Subjects Ethics Committee of Middle East Technical University (see Appendix A) and the permission from the Ministry of National Education (see Appendix B) were obtained before data collection of the project.

Turkish Statistical Institute (Türkiye İstatistik Kurumu; TÜİK) randomly selected 180 main schools (60 schools for each school level) and an additional 180 schools by using a probability-proportional-to-size sampling (PPS) method to represent all schools in Türkiye. Research coordinators assigned to each school contacted to the school administrations and informed them about the project. Then, the coordinators randomly selected one or more classes from each grade according to specific conditions of the schools. In schools with sufficient willingness to participate, from randomly selected classes for each grade, the first fourteen students at the top of the class list were included in the study if they were eligible to participate in the study. However, when sufficient number of the students was not reached from each grade level in a particular school, one or two more classes were randomly selected to reach the targeted number of students. The mothers of the students were informed about the study by school or through class WhatsApp groups. Then, consent forms were sent to the mothers as an Qualtrics link. Mothers who accepted to participate were called and informed about the project in detail.

The mothers filled out the questionnaires via a Qualtrics link sent to their cellphones. However, in some schools, some of the mothers came to their children's schools to fill out the questionnaires on a tablet because of not having access to internet or cellphone, or due to being illiterate. After the mothers finished to fill out the questionnaires, children were visited at their schools and provided a tablet to fill in the questionnaires. A small gift was given to both mothers and children both at Time 1 and Time 2.

2.3. Results

2.3.1. Data Analytic Plan

MAXQDA 2022 program allowing to thematically code qualitative data was used to code the answers of the mothers given to the open-ended question "*Which factors do you think are important to be successful children in school?*". Two undergraduate students and a graduate student coded the answers of the mothers. Before starting the

main coding, the main themes (i.e., family, school climate, and teachers) and sub-themes (i.e., family environment, family support, and family's love within family main theme) were determined by looking over the answers of the mothers. A total of 5841 mothers' responses were coded based on 22 main themes and 65 subthemes for this question. In addition to 22 main themes, there was a "Other" main theme with 13 subthemes. A detailed table was given to show the explanations of each theme, how many times the mothers referred to a theme (*frequency of referring to relevant theme*), whether or not the mothers referred to a theme (*referring to relevant theme*) and what the percentage of each subtheme only within relevant main theme is (the percentage of subthemes within the main themes) (see Table 3). The frequencies and percentage were calculated through MAXQDA 2022. Correlation and chi-square analyses were conducted through the statistical software package of SPSS version 28.

2.3.2. Coding Process through MAXQDA 2022

At the end of November 2022, a graduate student received open-ended question-coding training for the MAXQDA program. Main themes and subthemes were determined by skimming the answers of 5841 mothers. A coding manual with explanations of each theme and subtheme, and specific examples from the data of each theme and sub-theme was prepared to use for the coding of the open-ended question. Two undergraduate coders watched the MAXQDA training video and then, they worked with the graduate student together on how to run the program and code the question. Each coder separately coded two different datasets each including thirty mothers and discussed them together for the conflict cases. Then, each coder individually coded another dataset with 350 mothers for intercoder agreement. For this dataset, intercoder agreement was calculated in the MAXQDA program based on the existence of same code in the document for each dyadic coder as follows: 66.19% for the first paired coder, 64.64% for the second paired coder, and 64.96% for the third paired-coder. The same three coders coded a new dataset of 350 mothers (a second set of 350 mothers), which was selected from whole dataset after removing the data of the mothers previously coded (i.e., the first dataset of 350 mothers) in order to increase the intercoder agreement among the Coder 1, 2, and 3. This second set of 350 mothers were coded by splitting four sub-datasets with 50 mothers and another sub-dataset with 150 mothers. Each coder individually coded four sub-datasets composed of 50 mothers

in each one. Then, disagreements were discussed for each set of 50 mothers' coding. The intercoder agreements of coders for four sub-datasets increased in time, so each coder individually coded the last sub-dataset of 150 mothers at one time. The intercoder agreements for each paired coder are given in Table 2.

Table 2. The Second Intercoder Agreements (%)

	Intercoder agreement for the dataset of 350 mothers in total	**Intercoder agreement for the first 50 mothers**	**Intercoder agreement for the second 50 mothers**	**Intercoder agreement for the third 50 mothers**	**Intercoder agreement for the fourth 50 mothers**	**Intercoder agreement for the last 150 mothers**
Coder 1-2	73.52	72.29	77.78	74.72	67.55	74.24
Coder 1-3	71.18	68.48	79.39	67.60	70.95	71.04
Coder 3-2	71.82	75	74.57	67.40	67.35	72.82

Then, an additional dataset of 900 mothers' responses were coded by each coder for intercoder agreement because a dataset of 350 mothers was not enough for a whole sample with 5841 mothers. For this dataset, intercoder agreement was calculated based on the existence of same code in the document for each dyadic coder as follows: 65.14% between Coder 1 and Coder 2, 64.88% between Coder 1 and Coder 3, and 68.36% between Coder 2 and Coder 3. Kappa value for the total of 1250 mothers' responses were also calculated based on at least 90% overlap of coded segments between coders through MAXQDA program. The calculation of Kappa (Brennan & Prediger, 1981) for Coder 1 and 2 was given in Figure 1. **a** refers to how often two coders had assigned the same response to a same segment. **b** and **c** indicated the number of disagreements between Coder 1 and Coder 2. Kappa (Brennan & Prediger,1981) was 0.61 for Coder 1 and Coder 2 as seen below. Landis and Koch (1977) claimed that 0.61 can be evaluated as good or substantial.

		Coder 1		
		1	**0**	
Coder 2	**1**	a = 4842	b = 1612	6454
	0	c = 1461	0	1461
		6303	1612	7915

Figure 1. Calculation of Kappa for Coder1 and Coder 2

P(observed) = Po = a / (a + b + c) = 0.61

P(chance) = Pc = 1 / number of codes = 1 / 87 = 0.01

Kappa = (Po - Pc) / (1 - Pc) = 0.61

Kappa value of Coder 1 and Coder 3 was 0.57 as given in Figure 2. Kuckartz and Rädiker (2019) emphasized that the threshold values might be misleading so they should be justified in relation to content of coding documents. Therefore, the value of 0.57 was acceptable when taking into consideration the content of mothers' answers in this study.

		Coder 1		
		1	**0**	
Coder 3	**1**	a = 4478	b = 1794	6272
	0	c = 1573	0	1573
		6051	1794	7845

Figure 2. Calculation of Kappa for Coder 1 and Coder 3

P(observed) = Po = a / (a + b + c) = 0.57

P(chance) = Pc = 1 / number of codes = 1 / 88 = 0.01

Kappa = (Po - Pc) / (1 - Pc) = 0.57

Kappa value for Coder 2 and Coder 3 was 0.62, which indicated a good result (Figure 3).

		Coder 2		
		1	**0**	
Coder 3	**1**	a = 4780	b = 1492	6272
	0	c = 1422	0	1422
		6202	1492	7694

Figure 3. Calculation of Kappa for Coder 2 and Coder 3

P(observed) = Po = a / (a + b + c) = 0.62

P(chance) = Pc = 1 / number of codes = 1 / 88 = 0.01

Kappa = (Po - Pc) / (1 - Pc) = 0.62

After completing coding of whole data, all coding of "Other" main theme were reviewed and formed 13 subthemes (i.e., love, trust, respect, peace, role model) for this main theme. For example, the mothers gave answer to the question by writing just "respect or love or trust". It was not possible to categorize these unspecific general answers into any main or subthemes, so that they were put under "Other" main theme. Then, 13 subthemes of the "Other" theme were specified and those expressions were placed into those 13 subthemes.

2.3.3. Themes Frequencies and Percentages

The main aim of Study 1 was to identify specific themes related to the maternal beliefs about the important factors for school success. Related to this aim, the explanations and examples for each identified theme were given in Table 3. The column named as

frequency of referring to relevant theme indicates how many times the mothers used a specific theme. Also, a percentage was calculated by dividing the frequency of a certain theme with the total of coding segment (N = 18304). For example, the mothers used 95 times of the subtheme of 'respecting the child's individuality', so the percentage of it was 0.52% with a calculation by dividing 95 to 18304. The column named as referring to relevant theme indicates whether or not the mothers used a certain theme. For example, out of 5841 mothers, 89 reported the subtheme 'respecting the child's individuality', so the percentage of it was calculated as 1.52% by dividing 89 to 5841. The column named as the percentage of subthemes within the main themes refers to what the percentage of each subtheme is only within its main theme. For example, 'respecting the child's individuality' as a subtheme of 'family' main theme was used 95 times, and the percentage of it within the 'family' theme was 3.05% by dividing 95 to 3110 which was the total frequency of all 'family' subthemes.

2.3.4. Themes and Subthemes across School Levels and Gender

Second aim of Study 1 was to investigate whether there was a difference in maternal beliefs across the child's school levels and gender. For the second aim, a non-

parametric statistical test, a chi-square analysis was conducted to understand how each theme and their subthemes differed across gender and school levels. In the next section, the results were given separately for main and subthemes across school levels. Also, the frequencies and percentages of each main theme and subthemes regarding school levels and gender were given in Table 4 and 5, respectively.

2.3.4.1. Main Themes across School Levels

With respect to *main themes*, the results indicated that there were significant differences across school levels in 'school liking' theme (X^2 (2, N = 5841) = 22.36, p < .001), 'motivation/desire/enthusiasm' theme (X^2 (2, N = 5841) = 6.57, p < .05), 'reading books' theme (X^2 (2, N = 5841) = 8.30, p < .05), 'family/child/school/teacher collaboration' theme (X^2 (2, N = 5841) = 16.02, p < .001) and 'economic conditions' theme (X^2 (2, N = 5841) = 8.41, p < .05). Post-hoc comparisons showed that the mother of primary school children reported more frequently 'school liking' theme than the mothers of middle and high school children. The mothers of high school children reported more frequently 'motivation/desire/enthusiasm' theme and 'economic conditions' theme than the mothers of primary school children, but less frequently 'reading books' theme and 'family/child/school/teacher collaboration' theme than both the mothers of primary and middle school children.

2.3.4.2. Subthemes across School Levels

Regarding *subthemes*, the results showed significant differences in some subthemes across school levels. In terms of the subthemes within studying main theme, there were significant differences in 'active class participation' (X^2 (2, N = 5841) = 9.99, p < .01), 'solving test' (X^2 (2, N = 5841) = 35.78, p < .001), 'reviewing material learned in class' (X^2 (2, N = 5841) = 27.78, p < .001), 'do homework/on time' (X^2 (2, N = 5841) = 17.29, p < .001), 'studying in a planned/regular and efficient manner' (X^2 (2, N = 5841) = 36.19, p < .001) and some other studying-related factors not classified into any subthemes (X^2 (2, N = 5841) = 18.82, p < .001). Post-hoc comparisons showed that the mothers of primary school children reported significantly less the subthemes of 'studying in a planned/regular and efficient manner', 'do homework/on time', (X^2 (2, N = 5841) = 17.29, p < .001), 'studying in a planned/regular and efficient manner'

Table 3. Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Family	**Respecting the Child's Individuality**	Respect for the child	to respect their decisions, and opinions	0.52% (n = 95)	1.52% (n = 89)	3.05% (n = 95)
	Being Understanding	Communicating and sharing with the child	Communication within the family, parents should not be oppressive	0.61% (n = 112)	1.83% (n = 107)	3.60% (n = 112)
	Family Support/Trust	All kinds of support and trust from the family	Family support, family trust, family appreciation, encouragement	4.50% (n = 824)	12.84% (n = 750)	26.50% (n = 824)
	Conscious/Aware/Self-Educated Family/Parents	Family or parent who exhibits conscious and highly aware behavior	Awareness of family, parents trying to educate themselves	0.32% (n = 58)	0.99% (n = 58)	1.86% (n = 58)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Family	**Family Love**	Family's love for the child	To be loved and valued at home	1.01% (n = 184)	3.03% (n = 177)	5.92% (n = 184)
	Family Environment	A peaceful, orderly family environment	An organized family environment, a healthy, happy and peaceful home environment	4.35% (n = 797)	13.22% (n = 772)	25.63% (n = 797)
	Family Caring	Family taking care of the child	Parents place value on their children and spending time with them, family monitoring	2.70% (n = 495)	8.04% (n = 470)	15.92% (n = 495)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Family	**Family Discipline**	Discipline applied by the family to the child	Continuous application of some routine rules that bring order	0.36% (n = 65)	1.10% (n = 64)	2.09% (n = 65)
	Values Education of the Family	Upbringing and values education given by the family, raising moral and well-behaved children, teaching them to love and respect	A sense of responsibility should be given, love and respect should be taught.	0.45% (n = 83)	1.40% (n = 82)	2.67% (n = 83)
	Not classified in subthemes	Any statement about family that cannot be placed in one of the subcategories	parents, family, guardian	2.17% (n = 397)	6.49% (n = 379)	12.77% (n = 397)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Individual Characteristics of the Child	**Psychological Health**	Expressions referring to psychological state of mind	Mentally healthy, no stress and psychological problems	0.66% (n = 121)	2.04% (n = 119)	3.98% (n = 121)
	Questioning	Child or student questioning and investigating	Investigative-questioning	0.41% (n = 22)	0.68% (n = 40)	1.35% (n = 41)
	Being Open to Learning/Curious/Loving to Learn	A child who is open to learning, curious and likes to learn	Curiosity, openness to learning	0.49% (n = 89)	1.46% (n = 85)	2.93% (n = 89)
	Responsible	The child who knows and fulfills his/her responsibilities	Having a sense of responsibility	1.09% (n = 199)	3.36% (n = 196)	6.55% (n = 199)
	Intelligent	The intelligence of the child, being intelligent	intelligence, level of intelligence, being smart	0.26% (n = 48)	0.80% (n = 47)	1.58% (n = 48)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Individual Characteristics of the Child	**Goal setting**	Thinking about the future and setting goals	S/he must have a goal; s/he must have a goal and plans	0.87% (n = 160)	2.71% (n = 158)	5.26% (n = 160)
	Being Honest	Honesty behavior/trait	Truthfulness, honest	0.09% (n = 16)	0.27% (n = 16)	0.53% (n = 16)
	Believing in Yourself	Self-believer	Believing that s/he can do it, believing in himself	0.26% (n = 48)	%0.80 (n = 47)	1.58% (n = 48)
	Self-Loving/at Peace with Oneself	Self-loving and at peace	Self-love	0.04% (n = 8)	0.14% (n = 8)	0.26% (n = 8)
	Being Happy/Happiness	The happiness of the child	Being the happiest	0.78% (n = 143)	2.43% (n = 142)	4.71% (n = 143)
	Hard Working	Being hardworking	Being hardworking, hard working	0.30% (n = 55)	0.94% (n = 55)	1.81% (n = 55)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Individual Characteristics of the Child	**Determined**	To be diligent, to be determined	Must be determined	1.61% (n = 295)	4.86% (n = 284)	9.71% (n = 295)
	Self-Discipline	Being disciplined	Organized, tidy plan and schedule	2.76% (n = 506)	8.17% (n = 477)	16.65% (n = 506)
	Obey the Rules	Following the rules	Obey the rules of a certain place	0.32% (n = 58)	0.98% (n = 57)	1.91% (n = 58)
	Respectful	Being respectful to others	Being respectful, being a respectful student	0.66% (n = 121)	2.05% (n = 120)	3.98% (n = 121)
	Enterprising/ Social/Outgoing	Being social	A social student, being social	0.23% (n = 42)	0.72% (n = 42)	1.38% (n = 42)
	Focused/ Attentive	Concentrated, focused and attentive	Being careful, pay attention	0.79% (n = 144)	2.43% (n = 142)	4.74% (n = 144)
	Moral/Well-Mannered	Being moral and well-mannered	Must have good morals and good manners	0.30% (n = 55)	0.94% (n = 55)	1.81% (n = 55)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Individual Characteristics of the Child	**To Be Successful**	Being a successful student at school	Child's success, being successful	0.45% (n = 82)	1.40% (n = 82)	2.70% (n = 82)
	Self-Confident	To be self-confident	Having high self-confidence	2.20% (n = 402)	6.78% (n = 396)	13.23% (n = 402)
	Physical Health	State of being physically healthy	Health, being healthy	0.43% (n = 79)	1.35% (n = 79)	2.60% (n = 79)
	Self-Expressive	Able to express himself/herself easily	Ability to express one's opinion, express oneself comfortably	0.28% (n = 51)	0.84% (n = 49)	1.68% (n = 51)
	Not classified in subthemes	Any statement not be placed in one of the subcategories	To be obedient, to be good, to be conscious	1.51% (n = 276)	4.26% (n = 249)	9.08% (n = 276)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Teacher	**Experienced/ Good Teachers**	Being an experienced teacher who likes what s/he does	Experienced educators will influence his success.	2.37% (n = 433)	7.31% (n = 427)	15.89% (n = 433)
	Teacher's Caring	Expressions involving the teacher's caring behaviors	A teacher who values and cares about the child	1.55% (n = 284)	4.76% (n = 278)	10.42% (n = 284)
	Liking Teacher	Liking his/her teacher	Liking the teacher so much	2.16% (n = 396)	6.71% (n = 392)	14.53% (n = 396)
	Teacher's Attitudes/ Behaviors	The teacher's approach to the student and the teacher's effort to make students to like the school	Teacher's attitudes and behaviors, approach to the child	1.48% (n = 271)	4.33% (n = 252)	9.94% (n = 271)
	Teacher Support	Teacher's supportive behaviors to children	Teacher support and encouragement	0.66% (n = 121)	2.02% (n = 118)	4.44% (n = 121)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Teacher	**Respect for Teacher**	Being respectful to the teacher	Respect for the teacher	0.47% (n = 86)	1.46% (n = 85)	3.16% (n = 86)
	Teacher's Love	Teacher's love for students	The love of the teacher, the love s/he gives to the children	0.55% (n = 101)	1.66% (n = 97)	3.71% (n = 101)
	Lecture Style (Good, Entertaining, Nice)	Expressions about the teacher's style of teaching the lesson and how s/he makes you enjoy the lesson.	Making the lesson interesting, engaging activities, teaching the lesson by making one enjoy it.	1.04% (n = 191)	3.10% (n = 181)	7.01% (n = 191)
	Positive teacher-student relationship	Positive teacher-student relationship with a good communication	Teacher-student relationship should be good; Teachers' empathy	1.49% (n = 272)	4.59% (n = 268)	9.98% (n = 272)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Teacher	**Not classified in subthemes**	Any statement about the teacher that cannot be placed in one of the subcategories	Educators, teachers, teaching staff	3.11% (n = 570)	9.55% (n = 558)	20.92% (n = 570)
School Climate	**School Administrators Who Do Their Job Well**	Expressions about school administrators who do their job well	School administration	0.25% (n = 46)	0.79% (n = 46)	6.70% (n = 46)
	Peaceful/Safe	Expressions about the peaceful and safe school environment	Peace at school	0.36% (n = 66)	1.11% (n = 65)	9.61% (n = 66)
	Quality/Good School	Statements regarding the qualification of a good school or a quality school	A good educational institution, the quality of the school	0.70% (n = 129)	2.17% (n = 127)	18.78% (n = 129)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
School Climate	**Good Guidance Service**	Statements about the importance and goodness of the school guidance service	School guidance service	0.15% (n = 28)	0.45% (n = 26)	4.08% (n = 28)
	School Discipline	Discipline at school	Good discipline and environmental order at school	0.49% (n = 90)	1.52% (n = 89)	13.10% (n = 90)
	Not classified in subthemes	Any statement about the school climate that cannot be placed in one of the subcategories	School climate, the school s/he attended	1.79% (n = 328)	5.43% (n = 317)	47.74% (n = 328)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Social Activities/Activities/ Events	**Sport**	Participation of the child in sports activities	Doing sports, activities and sports; interested in at least one sport	0.25% (n = 45)	0.77% (n = 45)	18.83% (n = 45)
	Art	Participation of the child in art activities	Or with art	0.09% (n = 16)	0.27% (n = 16)	6.69% (n = 16)
	Not classified in subthemes	Any statement about a social activity that cannot be placed in one of the subcategories	Social event, social activities	0.97% (n = 178)	2.93% (n = 171)	74.48% (n = 178)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Classroom Environment	**Noncrowded Classroom**	Statements about small class sizes	Classes should not be too crowded; education is not well because the class size is 50-60.	0.34% (n = 62)	1.06% (n = 62)	29.38% (n = 62)
	To Be Peaceful	Expressions about the peace of the classroom environment	Not feeling restless in the classroom environment	0.16% (n = 30)	0.51% (n = 30)	14.22% (n = 30)
	Not classified in subthemes	Any statement about the classroom environment that cannot be placed in one of the subcategories	Quality classroom, classroom environment	0.65% (n = 119)	2.00% (n = 117)	56.40% (n = 119)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Opportunity To Access Resources	**Library Facility**	Whether the school has a library or not	Having a library	0.04% (n = 8)	0.14% (n = 8)	3.09% (n = 8)
	Sufficient Material	Statements about the child's ability to access sufficient materials	Course equipment, necessary technological assistance, computers	0.64% (n = 118)	1.93% (n = 113)	45.56% (n = 118)
	Course/Extra Lesson	Statements regarding all kinds of courses and additional lessons	Supported education (course, private lessons), support with courses	0.54% (n = 98)	1.63% (n = 95)	37.84% (n = 98)
	Not classified in subthemes	Any statement about accessing resources that cannot be placed in one of the subcategories	Efficient resources, necessary resources, adequate access to resources	0.19% (n = 35)	0.58% (n = 34)	13.51% (n = 35)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Friend Relationships/ Friends	**Choosing the Right Friend/Friend Circle/ Environment**	Statements expressing the right choice of friends or just a friendly environment	Choosing the right friend, circle of friends, having a good circle of friends	1.93% (n = 353)	5.98% (n = 349)	48.96% (n = 353)
	Friend Love	Expressions about the child liking his/her friend or his/her friend liking him	Love for a friend, friend love	0.42% (n = 66)	1.30% (n = 76)	10.54% (n = 76)
	Friend Support	Phrases about support from a friend	S/he should get help from his/her friends	0.03% (n = 6)	0.10% (n = 6)	0.83% (n = 6)
	Good Communication	Expressions about communicating harmoniously and comfortably with classmates/friends	Getting along with friends, communicating well, getting along well	0.66% (n = 120)	2.02% (n = 118)	16.64% (n = 120)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Friend Relationships/ Friends	**Not classified in subthemes**	Any statement about friendship relationships that cannot be placed in one of the subcategories	Friendly environment, friends, friend relationship	0.91% (n = 166)	2.81% (n = 164)	23.02% (n = 166)
Meeting physical needs	**Nutrition**	Expressions about proper and adequate nutrition	Having breakfast and going to school, eating regularly, good nutrition	0.13% (n = 23)	1.99% (n = 116)	40.34% (n = 117)
	Sleep	Expressions about the child's sleep	8 hours sleep	0.66% (n = 120)	2.05% (n = 120)	41.38% (n = 120)
	Cleaning	Expressions about cleanliness and hygiene	being neat and clean, hygiene	0.64% (n = 117)	0.39% (n = 23)	7.93% (n = 23)
	Not classified in subthemes	Expressions regarding physical needs other than subcategories	Meeting basic needs	0.16% (n = 30)	0.51% (n = 30)	10.34% (n = 30)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Studying/Reading	**Active Class Participation**	Expressions about actively participating in the lesson and asking about things s/he does not understand	Asking questions that s/he does not understand and participating in the lesson	0.66% (n = 120)	1.99% (n = 116)	3.52% (n = 120)
	Listening Carefully to the Lesson/Teacher	Expressions about listening carefully to the lesson and concentrating	Listening to the teacher, listening to the lesson, listening to the lesson in class	4.34% (n = 794)	13.35% (n = 780)	23.30% (n = 794)
	Solving Test	Expressions about solving tests	Solving tests, solving lots of questions	1.03% (n = 189)	3.22% (n = 188)	5.55% (n = 189)
	Studying in a Planned/Regular and Efficient Manner	Expressions about studying regularly, study discipline, organized and planned	Working regularly and consistently	5.20% (n = 951)	16.02% (n = 936)	27.90% (n = 951)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Studying/Reading	**Do Homework on Time**	Expressions about doing the lesson on time or doing homework	Doing homework, completing assigned homework on time	1.08% (n = 197)	3.37% (n = 197)	5.78% (n = 197)
	Reviewing Material Learned in Class	Statements about reviewing course notes	Reviewing lesson, daily reviewing, regular lesson reviewing at home	2.84% (n = 520)	8.80% (n = 514)	15.26% (n = 520)
	Not classified in subthemes	Expressions about studying that do not fall into subcategories	Studying at home, studying a lot	3.48% (n = 637)	10.58% (n = 618)	18.69% (n = 637)
Genetic Factors		Expressions related to the genetic structure or ability of the person	Genetic structure, genetic factors	0.09% (n = 16)	0.27% (n = 16)	100% (n = 16)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Support/Opportunities Provided for Him/Her to Discover Him/Herself and His/Her Abilities	Being the right guide, directing, determining the child's interests and abilities and creating an environment	Correct guidance, supporting his/her interests	0.87% (n = 160)	2.64% (n = 154)	100% (n = 160)
Study Environment	Having a quiet environment or own room where the child can study	Having a study environment, a nice study environment, own room	1.09% (n = 200)	3.37% (n = 197)	100% (n = 200)
Reduce Phone/Computer Use	Statements about conscious technology use, spending less time on the phone or tablet	Staying away from tablet, phone and TV or using them very little, that is, using them for a short period of time	0.38% (n = 70)	1.18% (n = 69)	100% (n = 70)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	***Explanation of the Themes***	***Example Expressions***	***Frequency of Referring to Relevant Theme (%) N = 18304***	***Referring to Relevant Theme (%) N =5841***	***The Percentage of Subthemes Within the Main Themes (%)***
Family/Child/ School/ Teacher Collaboration	Statements about family, child and school communicating and collaborating	School-family cooperation, Teacher, child and family relationship (communication between teacher and parent in case of problems the child may experience)	1.04% (n = 190)	3.20% (n = 187)	100% (n = 190)
Going to School Regularly	Statements about going to school regularly	Going to school regularly, attendance at school, not being absent	0.21% (n = 38)	0.65% (n = 38)	100% (n = 38)
School Liking	Expressions about the child's liking for school	Liking school	1.68% (n = 308)	5.22% (n = 305)	100% (n = 308)
Reading Books	Expressions about reading books	Reading books, reading lots of books	2.32% (n = 425)	7.22% (n = 422)	100% (n = 425)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	***Explanation of the Themes***	***Example Expressions***	***Frequency of Referring to Relevant Theme (%) N = 18304***	***Referring to Relevant Theme (%) N =5841***	***The Percentage of Subthemes Within the Main Themes (%)***
Quality Education	Any expression describing education and its quality	A proper education system, a good curriculum, education in school	3.05% (n = 558)	8.90% (n = 520)	100% (n = 558)
Motivation/Desire/Enthusiasm	Statements about the child's motivation, desire and enthusiasm	A child who likes to read, who likes lessons, must have the desire	3.33% (n = 610)	10.00% (n = 584)	100% (n = 610)
Neighborhood	Expressions describing the neighborhood the child lives	neighborhood, good environment, peaceful environment	1.43% (n = 261)	4.33% (n = 253)	100% (n = 261)
Economic Conditions	Expressions about money or financial situation	There must be money, sufficient financial means	0.75% (n = 138)	2.31% (n = 135)	100% (n = 138)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Other	**Peace**	General expressions about peace	Peace	0.11% (n = 20)	0.34% (n = 20)	3.12% (n = 20)
	Basic Needs	Statements about different basic needs such as housing and transportation	Transportation, accommodation and service opportunities	0,03% (n = 6)	0.10% (n = 6)	0.94% (n = 6)
	Rivalry	Statements about the importance of competition	Competition is the most important one because we have more than 1,000,000 8th graders ahead of us.	0,01% (n = 1)	0.02% (n = 1)	0.16% (n = 1)
	Rules	Statements about the rules and the importance of obeying them	Rules are very important, certain rules, rules	0,04% (n = 7)	0.12% (n = 7)	1.09% (n = 7)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Other	**Activities to Enhance Learning**	Statements about all kinds of activities that will improve learning	Activities that will improve learning, activities that will support each child's imagination, information games	0,05% (n = 10)	0.17% (n = 10)	1.56% (n = 10)
	Freedom/Free	Expressions about freedom and being free	Being free, freedom	0.02% (n = 4)	0.07% (n = 4)	0.62% (n = 4)
	Understanding	Statements about the importance of understanding in general	Tolerance, positive approach, understanding	0.15% (n = 28)	0.48% (n = 28)	4.37% (n = 28)
	Material and Moral Support	General expressions of material or moral support from an unknown source	Material and moral support, giving what is needed, satisfying spiritually	0.38% (n = 70)	1.20% (n = 70)	10.92% (n = 70)

Table 3. (cont'd) Themes and Subthemes of Mothers' Answers about Factors Related to School Success

Main Themes	*Subthemes*	*Explanation of the Themes*	*Example Expressions*	*Frequency of Referring to Relevant Theme (%) N = 18304*	*Referring to Relevant Theme (%) N =5841*	*The Percentage of Subthemes Within the Main Themes (%)*
Other	**Trust**	Expressions of trust from unknown sources	Feeling of confidence, trust, confidence	0.16% (n = 29)	0.50% (n = 29)	4.52% (n = 29)
	Presence of Role Models	Statements about the existence of people that the child will take as a role model	People to take as models, having a coach	0.13% (n = 24)	0.41% (n = 24)	3.74% (n = 24)
	Caring	Expressions of general interest of unknown sources	Caring, showing your care or interest	0.38% (n = 70)	1.18% (n = 69)	10.92% (n = 70)
	Respect	General expressions about respect from unknown sources	Respect	0.67% (n = 123)	2.09% (n = 122)	19.19% (n = 123)
	Love	General expressions about affection from unknown sources	Affection	0.80% (n = 147)	2.43% (n = 142)	22.93% (n = 147)
	Not classified in subthemes	Any expressions that do not fall into subcategories	Being a school pet, homeland	0,56% (n = 102)	1.63% (n = 95)	15.91% (n = 102)

(X^2 (2, N = 5841) = 36.19, p < .001) and some other studying-related factors not classified into any subthemes (X^2 (2, N = 5841) = 18.82, p < .001). Post-hoc comparisons showed that the mothers of primary school children reported significantly less the subthemes of 'studying in a planned/regular and efficient manner', 'do homework/on time', 'reviewing material learned in class', 'solving test' and 'some other studying-related factors not classified into any subthemes' than the mothers of both middle and high school children. Also, they indicated less frequently 'active class participation' subtheme compared to the mothers of high school children.

In terms of the subthemes within teacher main theme, there were significant differences in 'teacher's love' (X^2 (2, N = 5841) = 12.17, p < .01), 'liking teacher' (X^2 (2, N = 5841) = 33.68, p < .001), 'experienced/good teachers' (X^2 (2, N = 5841) = 21.15, p < .001) and some other teacher-related factors not classified into any subthemes (X^2 (2, N = 5841) = 19.02, p < .001). Post-hoc comparisons showed that the mothers of primary school children reported more frequently the subthemes of 'liking teacher', 'experienced/good teacher' and 'some other teacher-related factors not classified into any subthemes' than the mothers of both middle and high school children. Moreover, they indicated more frequently 'teacher's love' subtheme than the mothers of high school children.

With respect to the subthemes within family main theme, there were significant differences in 'family love' (X^2 (2, N = 5841) = 13.74, p < .001), 'family caring' (X^2 (2, N = 5841) = 64.83, p < .001), 'family support' (X^2 (2, N = 5841) = 19.28, p < .001) and some other family-related factors not classified into any subthemes (X^2 (2, N = 5841) = 18.98, p < .001). Post hoc comparisons indicated that the mothers of primary school children reported more frequently the subthemes of 'family love', 'family caring' and 'some other family-related factors not classified into any subthemes' than the mothers of both middle and high school children. Also, they indicated more frequently 'family support' subtheme than the mothers of high school children.

In terms of the subthemes within child's individual characteristics main theme, there were significant differences in 'being open to learning' (X^2 (2, N = 5841) = 8.29, p < .05), 'determined' (X^2 (2, N = 5841) = 26.00, p < .001), 'self-discipline' (X^2 (2, N = 5841) = 32.37, p < .001), 'goal setting' (X^2 (2, N = 5841) = 87.60, p < .001),

'psychological health' (X^2 (2, N = 5841) = 12.04, p < .01), and 'physical health' (X^2 (2, N = 5841) = 9.96, p < .01). Post-hoc comparisons showed that the mothers of high school children reported more frequently 'self-discipline' and 'goal setting' subthemes, but less frequently 'physical health' subtheme than the mothers of primary and middle school children. Moreover, they reported more frequently 'determined' subthemes but less frequently 'being open to learning' subtheme than the mothers of primary school children. On the other hand, the mothers of primary school children reported less frequently 'psychological health' subtheme than the mothers of middle and high school children.

Regarding the subthemes within classroom, school climate, friendship and other main theme, respectively, there were significant differences in 'non-crowded classroom' (X^2 (2, N = 5841) = 7.52, p < .05), some other classroom environment-related factors not classified into any subthemes (X^2 (2, N = 5841) = 7.97, p < .05), 'school discipline' (X^2 (2, N = 5841) = 30.70, p < .001), 'good guidance service' (X^2 (2, N = 5841) = 7.72, p < .05), 'choosing the right friend/friend circle/environment' (X^2 (2, N = 5841) = 40.81, p < .001), 'friend love' (X^2 (2, N = 5841) = 15.14, p < .001) and 'material and moral support' (X^2 (2, N = 5841) = 7.93, p < .05). Post-hoc comparisons indicated that the mothers of primary school children reported more frequently 'non-crowded classroom' than the mothers of high school children and 'some other classroom environment-related factors not classified into any subthemes' than the mothers of middle school children. The mothers of high school children indicated more frequently 'school discipline' and 'choosing the right friend/friend circle/environment' subthemes than the mothers of both primary and middle school children. The mothers of middle school children reported more frequently 'good guidance service' subtheme and less frequently 'material and moral support' than the mothers of primary school children. Similarly, they indicated less frequently 'friend love' subtheme than the mothers of primary and high school children.

2.3.4.3. Main and Subthemes across Gender

Related to *main themes*, the results showed that **the mothers of boys** reported significantly more frequently 'motivation/desire/enthusiasm' theme (X^2 (1, N = 5841)

Table 4. The Percentages of Themes and Subthemes across School Levels

	Primary School (Grade 1, 2, 3, 4) (n = 2266)	**Middle School (Grade 5, 6, 7, 8) (n = 2099)**	**High School (Grade 9, 10, 11) (n = 1476)**	**Total (n = 5841)**
Studying/reading				
Listening to the lesson/teacher carefully	275 (12.1%)	304 (14.5%)	201 (13.6%)	780 (13.4%)
Studying in a planned/regular and efficient manner	**281_a (12.4%)**	**382_b (18.2%)**	**273_b (18.5%)**	936 (16.0%)
Do homework/on time	**92_a (4.1%)**	**80_b (3.8%)**	**25_b (1.7%)**	197 (3.4%)
Reviewing material learned in class	**144_a (6.4%)**	**221_b (10.5%)**	**149_b (10.1%)**	514 (8.8%)
Solving test	**35_a (1.5%)**	**98_b (4.7%)**	**55_b (3.7%)**	188 (3.2%)
Active class participation	**29_a (1.3%)**	54 (2.6%)	**33_b (2.2%)**	116 (2.0%)
Not classified in subthemes	**192_a (8.5%)**	**261_b (12.4%)**	**165_b (11.2%)**	618 (10.6%)
Teacher				
Teacher's caring	123 (5.4%)	98 (4.7%)	57 (3.9%)	278 (4.8%)
Lecture style (good, entertaining, nice)	63 (2.8%)	77 (3.7%)	41 (2.8%)	181 (3.1%)
Respect for teacher	34 (1.5%)	29 (1.4%)	22 (1.5%)	85 (1.5%)
Experienced/good teachers	**210_a (9.3%)**	**131_b (6.2%)**	**86_b (5.8%)**	427 (7.3%)
Teacher's attitudes/behaviors	86 (3.8%)	103 (4.9%)	63 (4.3%)	252 (4.3%)
Liking teacher	**206_a (9.1%)**	**106_b (5.1%)**	**80_b (5.4%)**	392 (6.7%)
Teacher's love	**52_a (2.3%)**	33 (1.6%)	**12_b (0.8%)**	97 (1.7%)
Positive teacher-student relationship	115 (5.1%)	89 (4.2%)	64 (4.3%)	268 (4.6%)
Teacher support	40 (1.8%)	53 (2.5%)	25 (1.7%)	118 (2.0%)
Not classified in subthemes	**264_a (11.7%)**	**169_b (8.1%)**	**125_b (8.5%)**	558 (9.6%)

Note. Significant differences are given in bold. Different subscripted letters refer to a significant difference.

Table 4. (cont'd) The Percentages of Themes and Subthemes across School Levels

	Primary School (Grade 1, 2, 3, 4) (n = 2266)	**Middle School (Grade 5, 6, 7, 8) (n = 2099)**	**High School (Grade 9, 10, 11) (n = 1476)**	**Total (n = 5841)**
Family				
Family support/trust	**339$_a$ (15%)**	262 (12.5%)	**149$_b$ (10.1%)**	750 (12.8%)
Respecting the child's individuality	35 (1.5%)	34 (1.6%)	20 (1.4%)	89 (1.5%)
Family caring	**260$_a$ (11.5%)**	**143$_b$ (6.8%)**	**67$_b$ (4.5%)**	470 (8.0%)
Family love	**92$_a$ (4.1%)**	**53$_b$ (2.5%)**	**32$_b$ (2.2%)**	177 (3.0%)
Family discipline	28 (1.2%)	19 (0.9%)	17 (1.2%)	64 (1.1%)
Family environment	299 (13.2%)	285 (13.6%)	188 (12.7%)	772 (13.2%)
Being understanding	47 (2.1%)	35 (1.7%)	25 (1.7%)	107 (1.8%)
Values education of the family	41 (1.8%)	24 (1.1%)	17 (1.2%)	82 (1.4%)
Conscious/aware/self-educated family/parents	20 (0.9%)	28 (1.3%)	10 (0.7%)	58 (1.0%)
Not classified in subthemes	**187$_a$ (8.3%)**	**113$_b$ (5.4%)**	**79$_b$ (5.4%)**	379 (6.5%)
School climate				
Quality/good school	46 (2.0%)	47 (2.2%)	34 (2.3%)	127 (2.2%)
School administrators who do their job well	14 (0.6%)	17 (0.8%)	15 (1.0%)	46 (0.8%)
Peaceful/safe	33 (1.5%)	20 (1.0%)	12 (0.8%)	65 (1.1%)
School discipline	**24$_a$ (1.1%)**	**20$_a$ (1.0%)**	**45$_b$ (3.0%)**	89 (1.5%)
Good guidance service	**5$_a$ (0.2%)**	**16$_b$ (0.8%)**	5 (0.3%)	26 (0.4%)
Not classified in subthemes	127 (5.6%)	106 (5.1%)	84 (5.7%)	317 (5.4%)

Note. Significant differences are given in bold. Different subscripted letters refer to a significant difference.

Table 4. (cont'd) The Percentages of Themes and Subthemes across School Levels

	Primary School (Grade 1, 2, 3, 4) (n = 2266)	**Middle School (Grade 5, 6, 7, 8) (n = 2099)**	**High School (Grade 9, 10, 11) (n = 1476)**	**Total (n = 5841)**
Individual characteristics of the child				
Being open to learning/curious/love to learn	**43$_a$ (1.9%)**	31 (1.5%)	**11$_b$ (0.7%)**	85 (1.5%)
To be successful	35 (1.5%)	29 (1.4%)	18 (1.2%)	82 (1.4%)
Determined	**72$_a$ (3.2%)**	113 (5.4%)	**99$_b$ (6.7%)**	284 (4.9%)
Self-loving/at peace with oneself	4 (0.2%)	3 (0.1%)	1 (0.1%)	8 (0.1%)
Believing in yourself	16 (0.7%)	13 (0.6%)	18 (1.2%)	47 (0.8%)
Respectful	40 (1.8%)	47 (2.2%)	33 (2.2%)	120 (2.1%)
Responsible	77 (3.4%)	62 (3.0%)	57 (3.9%)	196 (3.4%)
Self-discipline	**153$_a$ (6.8%)**	**152$_a$ (7.2%)**	**172$_b$ (11.7%)**	477 (8.2%)
Hard working	18 (0.8%)	18 (0.9%)	19 (1.3%)	55 (0.9%)
Self-confident	161 (7.1%)	147 (7.0%)	88 (6.0%)	396 (6.8%)
Being happy/happiness	65 (2.9%)	50 (2.4%)	27 (1.8%)	142 (2.4%)
Physical health	**35$_a$ (1.5%)**	**36$_a$ (1.7%)**	**8$_b$ (0.5%)**	79 (1.4%)
Being honest	10 (0.4%)	2 (0.1%)	4 (0.3%)	16 (0.3%)
Obey the rules	27 (1.2%)	16 (0.8%)	14 (0.9%)	57 (1.0%)
Questioning	19 (0.8%)	12 (0.6%)	9 (0.6%)	40 (0.7%)
Intelligent	17 (0.8%)	22 (1.0%)	8 (0.5%)	47 (0.8%)
Goal setting	**17$_a$ (0.8%)**	**55$_a$ (2.6%)**	**86$_b$ (5.8%)**	158 (2.7%)
Psychological health	**28$_a$ (1.2%)**	**52$_b$ (2.5%)**	**39$_b$ (2.6%)**	119 (2.0%)
Enterprising/social/outgoing	22 (1.0%)	13 (0.6%)	7 (0.5%)	42 (0.7%)
Moral/well-mannered	23 (1.0%)	21 (1.0%)	11 (0.7%)	55 (0.9%)
Self-expressive	24 (1.1%)	14 (0.7%)	11 (0.7%)	49 (0.8%)
Focused/attentive	64 (2.8%)	45 (2.1%)	33 (2.2%)	142 (2.4%)
Not classified in subthemes	114 (5.0%)	76 (3.6%)	59 (4.0%)	249 (4.3%)

Table 4. (cont'd) The Percentages of Themes and Subthemes across School Levels

	Primary School (Grade 1, 2, 3, 4) (n = 2266)	**Middle School (Grade 5, 6, 7, 8) (n = 2099)**	**High School (Grade 9, 10, 11) (n = 1476)**	**Total (n = 5841)**
Classroom environment				
To be peaceful	15 (0.7%)	11 (0.5%)	4 (0.3%)	30 (0.5%)
Non-crowded classroom	**32_a (1.4%)**	23 (1.1%)	**7_b (0.5%)**	62 (1.1%)
Not classified in subthemes	**60_a (2.6%)**	**32_b (1.5%)**	25 (1.7%)	117 (2.0%)
Social activities/activities/events				
Art	8 (0.4%)	6 (0.3%)	2 (0.1%)	16 (0.3%)
Sport	21 (0.9%)	17 (0.8%)	7 (0.5%)	45 (0.8%)
Not classified in subthemes	73 (3.2%)	59 (2.8%)	39 (2.6%)	171 (2.9%)
Meeting physical needs				
Sleep	48 (2.1%)	48 (2.3%)	24 (1.6%)	120 (2.1%)
Nutrition	48 (2.1%)	49 (2.3%)	19 (1.3%)	116 (2.0%)
Cleaning	9 (0.4%)	9 (0.4%)	5 (0.3%)	23 (0.4%)
Not classified in subthemes	12 (0.5%)	7 (0.3%)	11 (0.7%)	30 (0.5%)
Friend relationships/ friends				
Choosing the right friend/friend circle/environment	**85_a (3.8%)**	**135_a (6.4%)**	**129_b (8.7%)**	349 (6.0%)
Good communication	57 (2.5%)	32 (1.5%)	29 (2.0%)	118 (2.0%)
Friend love	**43_a (1.9%)**	**12_b (0.6%)**	**21_a (1.4%)**	76 (1.3%)
Friend support	2 (0.1%)	1 (0.0%)	3 (0.2%)	6 (0.1%)
Not classified in subthemes	56 (2.5%)	65 (3.1%)	43 (2.9%)	164 (2.8)

Note. Significant differences are given in bold. Different subscripted letters refer to a significant difference.

Table 4. (cont'd) The Percentages of Themes and Subthemes across School Levels

	Primary School (Grade 1, 2, 3, 4) (n = 2266)	**Middle School (Grade 5, 6, 7, 8) (n = 2099)**	**High School (Grade 9, 10, 11) (n = 1476)**	**Total (n = 5841)**
Opportunity to access resources				
Course/extra lesson	28 (1.2%)	38 (1.8%)	29 (2.0%)	95 (1.6%)
Sufficient material	44 (1.9%)	44 (2.1%)	25 (1.7%)	113 (1.9%)
Library facility	2 (0.1%)	4 (0.2%)	2 (0.1)	8 (0.1%)
Not classified in subthemes	16 (0.7%)	9 (0.4%)	9 (0.6%)	34 (0.6%)
Neighborhood	108 (4.8%)	81 (3.9%)	64 (4.3%)	253 (4.3%)
Reading books	**174_a (7.7%)**	**166_a (7.9%)**	**82_b (5.6%)**	422 (7.2%)
Study environment	69 (3.0%)	76 (3.6%)	52 (3.5%)	197 (3.4%)
Economic conditions	**38_a (1.7%)**	51 (2.4%)	**46_b (3.1%)**	135 (2.3%)
School liking	**156_a (6.9%)**	**79_b (3.8%)**	**70_b (4.7%)**	305 (5.2%)
Quality education	209 (9.2%)	181 (8.6%)	130 (8.8%)	520 (8.9%)
Motivation/desire/enthusiasm	**200_a (8.8%)**	217 (10.3%)	**167_b (11.3%)**	584 (10.0%)
Support/opportunities provided for him/her to discover him/herself and his/her abilities	61 (2.7%)	45 (2.1%)	48 (3.3%)	154 (2.6%)
Family/child/school/teacher collaboration	**82_a (3.6%)**	**81_a (3.9%)**	**24_b (1.6%)**	187 (3.2%)
Genetic factors	9 (0.4%)	5 (0.2%)	2 (0.1%)	16 (0.3%)
Reduce phone/computer use	24 (1.1%)	24 (1.1%)	21 (1.4%)	69 (1.2%)
Going to school regularly	14 (0.6%)	9 (0.4%)	15 (1.0%)	38 (0.7%)

Note. Significant differences are given in bold. Different subscripted letters refer to a significant difference.

Table 4. (cont'd) The Percentages of Themes and Subthemes across School Levels

	Primary School (Grade 1, 2, 3, 4) (n = 2266)	**Middle School (Grade 5, 6, 7, 8) (n = 2099)**	**High School (Grade 9, 10, 11) (n = 1476)**	**Total (n = 5841)**
Other				
Basic needs	4 (0.2%)	0 (0.0%)	2 (0.1%)	6 (0.1%)
Rivalry	0 (0.0%)	1 (0.0%)	0 (0.0%)	1 (0.0%)
Rules	3 (0.1%)	1 (0.0%)	3 (0.2%)	7 (0.1%)
Activities to enhance learning	6 (0.3%)	4 (0.2%)	0 (0.0%)	10 (0.2%)
Freedom/free	2 (0.1%)	2 (0.1%)	0 (0.0%)	4 (0.1%)
Understanding	13 (0.6%)	8 (0.4%)	7 (0.5%)	28 (0.5%)
Material and moral support	**35_a (1.5%)**	**14_b (0.7%)**	21 (1.4%)	70 (1.2%)
Trust	12 (0.5%)	10 (0.5%)	7 (0.5%)	29 (0.5%)
Presence of role models/helpers	9 (0.4%)	9 (0.4%)	6 (0.4%)	24 (0.4%)
Caring	35 (1.5%)	22 (1.0%)	12 (0.8%)	69 (1.2%)
Respect	48 (2.1%)	45 (2.1%)	29 (2.0%)	122 (2.1%)
Love	63 (2.8%)	48 (2.3%)	31 (2.1%)	142 (2.4%)
Peace	7 (0.3%)	8 (0.4%)	5 (0.3%)	20 (0.3%)
Not classified in subthemes	37 (1.6%)	29 (1.4%)	29 (2.0%)	95 (1.6%)

Note. Significant differences are given in bold. Different subscripted letters refer to a significant difference.

= 3.95, p = .047) than the mothers of girls. On the other hand, **the mothers of girls** reported significantly more frequently 'study environment' theme (X^2 (1, N = 5841) = 7.76, p = .01) than the mothers of boys.

In terms of *subthemes*, **the mothers of girls** reported significantly more frequently 'psychological health' (X^2 (1, N = 5841) = 5.72, p = .02) and 'school administrators who do their job well' subthemes (X^2 (1, N = 5841) = 5.61, p = .02) than the mothers of boys. However, **the mothers of boys** reported significantly more frequently 'teacher's caring' (X^2 (1, N = 5841) = 4.41, p = .04) and 'activities to enhance learning' subthemes (X^2 (1, N = 5841) = 4.16, p = .04) compared to the mothers of girls.

2.3.5. Association between Family Theme and School Engagement

The third aim of Study 1 was to understand how 'family' theme was associated with school engagement at both Time 1 and Time 2. For this aim, a bivariate correlation analysis was performed. The frequencies of all subthemes and not classified in subthemes within *Family* theme were summed to calculate a total score of *Family* theme. For whole sample, the association between *Family* theme and school engagement at Time 1 was significant, r = .06, p < .001. Children with the mothers believing the importance of *Family* in school success had higher school engagement at Time 1. Moreover, when investigating this association across school levels, *Family* theme and school engagement at Time 1 were positively related to each other only for children at middle schools, r = .07, p < .01. On the other hand, for the whole sample, the correlation between total score of *Family* theme and school engagement at Time 2 was marginally significant, r = .03, p = .079.

2.4. Discussion

The current study aimed to examine mothers' beliefs about factors that are important for children to be successful at school. For this reason, the answers of mothers to the question *"Which factors do you think are important for children to be successful at school?"* were thematically coded through MAXQDA 2022 program. Secondly, it was aimed to understand whether or not the mothers' beliefs differed across school levels and gender. Related to this, a chi-square statistical test was conducted regarding main themes and subthemes across school levels and gender. Lastly, the association between

Table 5. The Percentages of Themes and Subthemes across Gender

	Female (n = 3048)	**Male (n = 2793)**	**Total (n = 5841)**
Studying/reading			
Listening to the lesson/teacher carefully	398 (13.1%)	382 (13.7%)	780 (13.4%)
Studying in a planned/regular and efficient manner	502 (16.5%)	434 (15.5%)	936 (16.0%)
Do homework/on time	101 (3.3%)	96 (3.4%)	197 (3.4%)
Reviewing material learned in class	271 (8.9%)	243 (8.7%)	514 (8.8%)
Solving test	98 (3.2%)	90 (3.2%)	188 (3.2%)
Active class participation	56 (1.8%)	60 (2.1%)	116 (2%)
Not classified in subthemes	333 (10.9%)	285 (10.2%)	618 (10.6%)
Teacher			
Teacher's caring	**128 (4.2%)**	**150 (5.4%)**	278 (4.8%)
Lecture style (good, entertaining, nice)	92 (3.0%)	89 (3.2%)	181 (3.1%)
Respect for teacher	46 (1.5%)	39 (1.4%)	85 (1.5%)
Experienced/good teachers	209 (6.9%)	218 (7.8%)	427 (7.3%)
Teacher's attitudes/behaviors	126 (4.1%)	126 (4.5%)	252 (4.3%)
Liking teacher	203 (6.7%)	189 (6.8%)	392 (6.7%)
Teacher's love	48 (1.6%)	49 (1.8%)	97 (1.7%)
Positive teacher-student relationship	145 (4.8%)	123 (4.4%)	268 (4.6%)
Teacher support	58 (1.9%)	60 (2.1%)	118 (2.0%)
Not classified in subthemes	302 (9.9%)	256 (9.2%)	558 (9.6%)
Family			
Family support/trust	410 (13.5%)	340 (12.2%)	750 (12.8%)
Respecting the child's individuality	51 (1.7%)	38 (1.4%)	89 (1.5%)
Family caring	231 (7.6%)	239 (8.6%)	470 (8.0%)
Family love	82 (2.7%)	95 (3.4%)	177 (3.0%)
Family discipline	33 (1.1%)	31 (1.1%)	64 (1.1%)
Family environment	419 (13.7%)	353 (12.6%)	772 (13.2%)
Being understanding	50 (1.6%)	57 (2.0%)	107 (1.8%)
Values education of the family	46 (1.5%)	36 (1.3%)	82 (1.4%)
Conscious/aware/self-educated family/parents	29 (1.0%)	29 (1.0%)	58 (1.0%)
Not classified in subthemes	193 (6.3%)	186 (6.7%)	379 (6.5%)
Individual characteristics of the child			
Being open to learning/curious/loving to learn	48 (1.6%)	37 (1.3%)	85 (1.5%)
To be successful	48 (1.6%)	34 (1.2%)	82 (1.4%)
Determined	163 (5.3%)	121 (4.3%)	284 (4.9%)
Self-loving/at peace with oneself	6 (0.2%)	2 (0.1%)	8 (0.1%)
Believing in yourself	26 (0.9%)	21 (0.8%)	47 (0.8%)
Respectful	58 (1.9%)	62 (2.2%)	120 (2.1%)
Responsible	107 (3.5%)	89 (3.2%)	196 (3.4%)
Self-discipline	252 (8.3%)	225 (8.1%)	477 (8.2%)

Note. Significant differences are given in bold.

Table 5. (cont'd) The Percentages of Themes and Subthemes across Gender

	Female (n = 3048)	**Male (n = 2793)**	**Total (n = 5841)**
Individual characteristics of the child			
Hard working	31 (1.0%)	24 (0.9%)	55 (0.9%)
Self-confidence	223 (7.3%)	173 (6.2%)	396 (6.8%)
Being happy/happiness	79 (2.6%)	63 (2.3%)	142 (2.4%)
Physical health	42 (1.4%)	37 (1.3%)	79 (1.4%)
Being honest	8 (0.3%)	8 (0.3%)	16 (0.3%)
Obey the rules	28 (0.9%)	29 (1.0%)	57 (1.0%)
Questioning	18 (0.6%)	22 (0.8%)	40 (0.7%)
Intelligent	25 (0.8%)	22 (0.8%)	47 (0.8%)
Goal setting	78 (2.6%)	80 (2.9%)	158 (2.7%)
Psychological health	**75 (2.5%)**	**44 (1.6%)**	119 (2.0%)
Enterprising/social/outgoing	16 (0.5%)	26 (0.9%)	42 (0.7%)
Moral/well-mannered	32 (1.0%)	23 (0.8%)	55 (0.9%)
Self-expressive	26 (0.9%)	23 (0.8%)	49 (0.8%)
Focused/attentive	78 (2.6%)	64 (2.3%)	142 (2.4%)
Not classified in subthemes	133 (4.4%)	116 (4.2%)	249 (4.3%)
School climate			
Quality/good school	64 (2.1%)	63 (2.3%)	127 (2.2%)
School administrators who do their job well	**32 (1.0%)**	**14 (0.5%)**	46 (0.8%)
Peaceful/safe	31 (1.0%)	34 (1.2%)	65 (1.1%)
School discipline	43 (1.4%)	46 (1.6%)	89 (1.5%)
Good guidance service	15 (0.5%)	11 (0.4%)	26 (0.4%)
Not classified in subthemes	166 (5.4%)	151 (5.4%)	317 (5.4%)
Classroom environment			
To be peaceful	18 (0.6%)	12 (0.4%)	30 (0.5%)
Non-crowded classroom	30 (1.0%)	32 (1.1%)	62 (1.1%)
Not classified in subthemes	63 (2.1%)	54 (1.9%)	117 (2.0%)
Social activities/activities/events			
Art	6 (0.2%)	10 (0.4%)	16 (0.3%)
Sport	21 (0.7%)	24 (0.9%)	45 (0.8%)
Not classified in subthemes	79 (2.6%)	92 (3.3%)	171 (2.9%)
Meeting physical needs			
Sleep	62 (2.0%)	58 (2.1%)	120 (2.1%)
Nutrition	64 (2.1%)	52 (1.9%)	116 (2.0%)
Cleaning	16 (0.5%)	7 (0.3%)	23 (0.4%)
Not classified in subthemes	13 (0.4%)	17 (0.6%)	30 (0.5%)
Opportunity to access resources			
Course/extra lesson	51 (1.7%)	44 (1.6%)	95 (1.6%)
Sufficient material	62 (2.0%)	51 (1.8%)	113 (1.9%)
Library facility	5 (0.2%)	3 (0.1%)	8 (0.1%)
Not classified in subthemes	22 (0.7%)	12 (0.4%)	34 (0.6%)

Note. Significant differences are given in bold.

Table 5. (cont'd) The Percentages of Themes and Subthemes across Gender

	Female (n = 3048)	**Male (n = 2793)**	**Total (n = 5841)**
Friend relationships/friends			
Choosing the right friend/friend circle/environment	191 (6.3%)	158 (5.7%)	349 (6.0%)
Good communication	71 (2.3%)	47 (1.7%)	118 (2.0%)
Friend love	40 (1.3%)	36 (1.3%)	76 (1.3%)
Friend support	2 (0.1%)	4 (0.1%)	6 (0.1%)
Not classified in subthemes	86 (2.8%)	78 (2.8%)	164 (2.8%)
Neighborhood	131 (4.3%)	122 (4.4%)	253 (4.3%)
Reading books	211 (6.9%)	211 (7.6%)	422 (7.2%)
Study environment	**122 (4.0%)**	**75 (2.7%)**	197 (3.4%)
Economic conditions	69 (2.3%)	66 (2.4%)	135 (2.3%)
School liking	160 (5.2%)	145 (5.2%)	305 (5.2%)
Quality education	253 (8.3%)	267 (9.6%)	520 (8.9%)
Motivation/desire/enthusiasm	**282 (9.3%)**	**302 (10.8%)**	584 (10.0%)
Support/opportunities provided for him/her to discover him/herself and his/her abilities	78 (2.6%)	76 (2.7%)	154 (2.6%)
Family/child/school/teacher collaboration	86 (2.8%)	101 (3.6%)	187 (3.2%)
Genetic factors	10 (0.3%)	6 (0.2%)	16 (0.3%)
Reduce phone/computer use	31 (1.0%)	38 (1.4%)	69 (1.2%)
Going to school regularly	20 (0.7%)	18 (0.6%)	38 (0.7%)
Other			
Basic needs	5 (0.2%)	1 (0.0%)	6 (0.1%)
Rivalry	0 (0.0%)	1 (0.0%)	1 (0.0%)
Rules	6 (0.2%)	1 (0.0%)	7 (0.1%)
Activities to enhance learning	**2 (0.1%)**	**8 (0.3%)**	10 (0.2%)
Freedom/free	1 (0.0%)	3 (0.1%)	4 (0.1%)
Understanding	15 (0.5%)	13 (0.5%)	28 (0.5%)
Material and moral support	34 (1.1%)	36 (1.3%)	70 (1.2%)
Trust	18 (0.6%)	11 (0.4%)	29 (0.5%)
Presence of role models/helpers	14 (0.5%)	10 (0.4%)	24 (0.4%)
Caring	36 (1.2%)	33 (1.2%)	69 (1.2%)
Respect	63 (2.1%)	59 (2.1%)	122 (2.1%)
Love	73 (2.4%)	69 (2.5%)	142 (2.4%)
Peace	11 (0.4%)	9 (0.3%)	20 (0.3%)
Not classified in subthemes	43 (1.4%)	52 (1.9%)	95 (1.6%)

Note. Significant differences are given in bold.

overall family theme and school engagement at Time 1 and Time 2 as an academic outcome was examined through a correlation analysis. To our knowledge, this is the first study that examined maternal beliefs about the factors associated with school success in a nation-wide sample of Türkiye across all school levels and gender.

Therefore, it contributed to the relevant literature by providing a comprehensive understanding regarding maternal beliefs about important factors related to school success.

With regard to the first aim of the study, main themes and subthemes were identified based on the mothers' answers. In general, three main factors were identified for school success: *child-related, school-related factors and family-related factors.* 67.3% of the mothers referred to at least one child-related factor while 40.5% and 35.7% of them reported at least one school-related and family-related factor, respectively. It should be noted that the total of these percentages does not add up to 100% because the themes are not mutually exclusive. It means that each mother could report different themes of each factor at the same time. These results are consistent with previous studies. In a review of 35 studies conducted with middle and high school students, Costa et al. (2024) showed that the determinants of academic achievement are personal factors such as gender, personality traits, motivation and self-contructs, and other factors including family, school and peer. In the current study, child-related factors include the main themes and subthemes regarding child's motivation, studying, reading books, regularly attending to school, liking school and child's characteristics such as self-discipline, self-confidence and having a goal setting. Specifically, regular study routine, reviewing material learned in class and listening to the teacher carefully are the subthemes within studying main theme reported by the mothers as child-related factors. Secondly, the mothers emphasized the importance of school-related factors which include school climate, classroom environment and teacher as the main themes and their subthemes. Lastly, they pointed out the importance of family-related factors including the subthemes of family such as family environment, support, caring and love. In line with literature, the current study mainly showed that child-related factors composed of the child's effort, investment in education and individual characteristics such as being determined and self-disciplined are the most important factors for school success and precede school-related and family-related factors. Marzano (2001) reviewed previous studies examining the student-related factors for achievement. However, he did not mention about the sample characteristics of studies. In this study, he claimed that student-related factors such as interest, prior knowledge and aptitude

explain 80% of variance in achievement. Moreover, some studies with Turkish students indicated the importance of student-related factors as well as family- and school-related factors for school success. In a meta-analysis study of 62 studies conducted in Türkiye, Sarıer (2016) indicated an effect size of 0.324 for student-related factors on achievement preceding family (0.271) and school-related factors (0.231). Similarly, Engin-Demir (2009) also found that student-related factors such as total hours spent on studies, gender, student's well-being at school and student's perception about parental support and teacher are explained 15% of the variance in academic achievement among urban poor primary-school students in Ankara, Türkiye. In the same study, family- and school-related factors such as school quality are explained 5.4% and 4.3% of the variance in achievement. Related to child-related factors, another study of 15-year-old Turkish students showed that time spent in learning is related to academic success in math and science (Özer & Anıl, 2011). However, Wößmann (2003) showed that school-related factors such as autonomy of teacher at school, school autonomy about personnel and others decisions and central examinations are more effective in math and science performance than student-related factors for 7th and 8th graders across 39 countries. In this study, student-related factors are composed of demographic information such as gender, age, grade, country of birth and living with both parents. This may explain why student-related factors do not explain more variance in math and science performance.

In the current study, regarding child-related factors, the mothers pointed out that child's motivation as an important factor for school success. Relatedly, intrinsic motivation is the key for cognitive engagement which is an aspect of school engagement (Walker et al., 2006), and academic achievement (Areepattamannil, 2012). Also, prior studies showed a longitudinal association between intrinsic motivation and academic achievement (Liu & Hou, 2018). Since students need to have intrinsic motivation to show self-regulated learning and use of cognitive and metacognitive strategies that are closely related to school achievement. Consistent with prior studies (Sarıer, 2016), in the current study mothers also indicated self-confidence as a child-related factor for school success. In the meta-analysis study of Sarıer (2016), self-confidence was found as the strongest factor for student

achievement of Turkish students. Similarly, Tombul et al. (2021) showed that self-confidence as a child-related factor is explained the highest variance in math achievement of 4th graders across different school locations of Türkiye such as village and urban. Also, the positive association between self-confidence and achievement is supported by international studies. For example, Ker (2016) found that self-confidence is the most important child-related factor related to math achievement for 4th and 8th graders across Singapore, Chinese Taipei and the USA. Similarly, Stankov et al. (2012) showed that self-confidence is the best predictor of achievement in math and English compared to self-efficacy and self-concept. In addition to self-confidence, in line with prior studies (Sarıer, 2016), study habits such as regular study routine and reviewing material learned in class were reported by the mothers as important factors for student achievement. However, unlike to Sarıer (2016), in the current study, the mothers did not emphasize self-efficacy and self-respect regarding child-related factors. It may be related low socio-economic backgrounds of the families in the current study. Since the mothers had low education level these words such as self-efficacy or self-respect might be sophisticated for them. They might not know the meaning of them. Moreover, these concepts are more related to individuality. However, the families from low socio-economic background give more importance to relatedness rather than independence and individuality.

School-related factors are the second most frequently reported factors. Specifically, the mothers frequently indicated that school climate, classroom environment and teacher are important school-related factors for school success. In line with previous studies (Engin-Demir, 2009), the mothers reported class size within classroom environment theme and quality of school within school main theme affecting school success. They also more frequently pointed out some subthemes of school climate such as quality and safety of school as important for school success. That is in line with prior studies. For example, Kutsyuruba et al. (2015) reviewed the studies predominantly conducted in North America and Europe on the relationship between school safety and achievement. This review emphasized the negative effects of unsafety school environment including bullying, victimization and violence on student achievement. In addition, Kwong and Davis (2015) confirmed a positive association

between students' perception of safety and academic achievement in specific courses such as math and reading. The positive association between school safety and achievement may be explained based on attachment theory. Since it is well-known that when children feel safe, they are more likely to establish secure attachments with their teachers and peers, which encourages them to explore securely and enhance their learning (Kelly et al., 2020). However, there is some studies not found a significant association between school-related factors such as school facilities, the number of students and teachers at school and achievement among high school children in Türkiye (Yeşilyurt & Say, 2016). The nonsignificant result of this study may be explained with the developmental stage of high school children. Since during high school years, the importance of individual characteristics such as self-discipline and efforts in learning increases rather than other environmental factors. With respect to school-related factors, the mothers also emphasized the quality of teachers such as being competent and qualified, teacher-child relationship composed of a good communication and liking the teacher as subthemes within teacher main theme. Related to this finding, studies showed that teacher-child relationship in early school years (Olsen & Huang, 2021) and teacher quality (Rivkin et al., 2005) promotes student achievement. Since positive teacher-student relationship is directly related to an increase in motivation and engagement, and eventually academic achievement (Roorda et al., 2011).

Family-related factors are the third most frequently reported factors after child- and school-related factors. Specifically, in the current study, family environment, family support/trust and family caring were mostly reported subthemes within family-related factors. These findings are in line with previous study investigating the association between parental support and academic achievement among adolescents (Kristjánsson & Sigfúsdóttir, 2009). The positive association between family support and achievement was also found among 4th grade students of urban public schools in a city of Pakistan (Chohan & Khan, 2010). Similarly, consistent findings on the positive association between parental support and academic outcomes were also found in low-income students (Roksa & Kinsley, 2019). Parental involvement as a family-related factor is also associated with academic achievement of 7-year-old students (Topor et

al., 2010). Some studies also showed that parents' involvement in early numeracy activities are important for math achievement of 4th grade children in Türkiye (Tomul et al., 2021). The same study also showed that parents' education and occupation levels as family-related factors are important for math achievement. However, in the current study, the mothers were not reported the importance of parents' education levels. The reason may relate that majority of mothers had primary or high school degree. Therefore, they might not think the importance of parents' education level on school success.

It should be explained that mothers' answers referring to a general term such as "family", "teacher", "school" or "classroom" rather than a specific subtheme such as "family love" were coded under the subtheme called "not classified in subthemes" within each main theme. In general, it was observed that some mothers did not use elaborative expressions such as family support or love to specify their answers. Instead, they just used a general expression to answer the question by saying "family" or "teacher". The reason of this may relate that most of the mothers had primary or high school education levels and came from low socieconomic backgrounds. These mothers may not know how to elaborate and explain their thoughts. Relatedly, based on reminiscing studies, prior studies showed that education level of mothers is related to using elobarative talks with children (Reese & Newcombe, 2007). Also, they may have low vocabulary and literacy skills to express themselves. Instead, they may use more familiar terms such as family and teacher. Thus, the frequencies of "not classified in subthemes" categories within each main theme were high. Moreover, it is interesting that certain themes within "other" main theme such as "freedom" (n=4) and within individual characteristics of the child such as "self-love" (n=8) were reported quite less. As mentioned earlier, based on socioeconomic characteristics of the mothers, they may not use such sofisticated words to emphasize the importance of autonomy and self-caring in their lives. Instead, factors related to interdependence, relatedness and group harmony may be important for them. Also, most of the mothers (n=82) reported "to be successful" theme as a child's characteristic for school success. However, the open-ended question was originally asked to specific factors to be successful at school. Therefore, these mothers might have misunderstood the question.

On the other hand, they might have used the theme "to be successful" as hardworking. Regarding the second aim of the study, a chi-square analysis was conducted to understand whether the themes mothers reported differed across school levels and gender. There were significant differences between the mothers of girls and boys in terms of percentages of some main themes and subthemes. The mothers of girls more frequently pointed out the importance of study environment, school administrators as a school-related factor and psychological health of the child as a child-related factor compared to the mothers of boys. On the other hand, the mothers of boys more frequently emphasized school-related factors such as teacher's caring and activities to enhance learning coded within "other" main theme than the mothers of girls. This may be because male students tend to show more disruptive behavior, to be distracted easily and not able to sustain their concentration and interest in learning than female students. Therefore, they are more likely to need more external regulation to improve engagement and learning with the help of teacher and various learning activities. Also, male students may be motivated and focus on a task through a positive teacher interaction, attention and care, and in turn, their engagement and success in school may increase (Erden & Wolfgang, 2004). Related to this view, the mothers might believe that male students may need more special attention and care coming from other people, namely teachers in school setting to be motivated and be successful than female students.

In terms of school levels, there were significant differences in percentages of some themes reported by the mothers of children and adolescents from different school levels. It appeared that mothers indicated certain themes more frequently by taking into consideration of their children's school levels. For example, the mothers of primary school children reported teacher- and family-related themes more often than the mothers of middle and high school children. More specifically, they pointed out more frequently the importance of teacher, teacher's liking of the child, qualification of teacher as teacher-related themes and family love, support and caring regarding family-related themes in addition to liking school and non-crowded classrooms. With respect to family-related themes, a meta-analysis study found a positive relation between parental involvement and academic achievement among urban elementary

school children (Jeynes, 2005). Family support and caring are especially important in earlier years of schooling because primary school children more likely to need parents' involvement and assistance in school-related works (Fan & Williams, 2010). They are not yet mature in regulating their own learning and do not have necessary study skills. Therefore, the involvement of mothers guides their children and help them with homework. Related to this, Turkish elementary school children reported more perceived family involvement than middle school children (Senler & Sungur, 2009). Similarly, previous studies showed that parental involvement decreases from elementary school to middle school (Green et al., 2007). Regarding teacher-related factors, prior studies emphasized that teacher had important role to enhance children's academic achievement in early grades (Konstantopoulos, 2011). Similarly, enjoyment of school or liking school in the early grades is also related to later academic achievement (Morris et al., 2021). The mothers of primary school children might have awareness and knowledge depending on their children's experiences that child's belongingness to school and liking teacher are crucial to adjust to school and engage in learning in early grades. On the other hand, the mothers of primary school children less frequently indicated specific subthemes of studying such as regular study habits, doing homework on time, reviewing course notes and solving practice tests on the covered course topics. This finding can be expected because children in early school years generally have high motivation and engagement in learning. Therefore, the mothers might believe that teacher and family are important to increase school success of primary school children rather than studying. The mothers of middle school children less frequently reported liking friends than both the mothers of primary school and high school children. This finding is interesting because it is well-known that friendship and peer relationship are important during middle school years.

Moreover, previous studies indicated a significant association between friendship and motivation in middle school years (Wentzel et al., 2004). The reason why the mothers of middle school children less frequently reported liking friends might be because they are likely to have concerns about negative influence of peers on their children during early adolescence. Since peers, especially at-risk group, may reinforce risk-taking behaviors, substance use or other externalizing problem behaviors (Van Ryzin et al.,

2012), which negatively influences children's academic outcomes. Related to this, in the current study, most mothers of middle school children also emphasized the importance of choosing good friends for school success.

On the other hand, the mothers of high school children more often highlighted discipline at school, having self-discipline and goal setting for future than the mothers of primary and middle school children. Unlike primary and middle school children, high school children can regulate themselves without the control of their parents. Individual features rather than external factors such as self-discipline and goal setting are more important in these years. Relatedly, Avcı and Özgenel (2024) also showed that motivation, respect and autonomy support are important factors to increase academic achievement and homework completion of Turkish high school students rather than teacher and parental practices. Autonomy needs of adolescents also increase in these years. They want to make their own decisions about their lives. Moreover, high school years are critical period for children to decide for their academic trajectory and goals for future. Therefore, they shape their decisions related to whether they would continue to their education with a university degree. Therefore, having self-discipline is important to obtain high grades and for Turkish students high score at university entrance exam. In addition, goal setting enhances study effort, self-discipline and eventually, student achievement in high school years (Moeller et al., 2012). Taken together, the mothers of children from all school levels believed that child-, school- and family-related factors are important for school success. However, it should be noted that certain factors were reported more frequently by the mothers depending on their children's school levels. Since the role of external sources in learning (i.e., family and teacher) decreases and the role of internal sources regarding adolescents' individual features such as self-discipline increases from primary school to high school. Lastly, for the third aim of the current study, a correlation analysis was conducted to examine the cross sectional and longitudinal association between overall family theme and both school engagement levels at Time 1 and Time 2. The findings showed that there was a significant correlation between overall family theme and school engagement at Time1, but not at Time 2. However, when the correlation analysis run separately for each school level, there was a significant correlation only

for middle school children. The reason might be that middle school children get more benefit from family support and involvement related to academic-related outcomes than primary and high school children. Since on the contrary to middle school children, the role of teacher and peer may be more important for primary school and high school children, respectively. Consequently, three main factors (i.e., family-related factors, school-related factors and child-related factors) were related to school success based on the mothers' reports. Future suggestions and policy implications will be discussed in general discussion section. In the following section (*Study 2*), the roles of maternal educational expectations and parenting behaviors on school engagement were examined.

CHAPTER 3

STUDY 2

3.1. Introduction

School engagement is an important concept associated with important outcomes, particularly school-related ones. Thus, there is a growing literature examining precursor role of school engagement on school-related outcomes such as academic success (Chase et al., 2014; Karababa, 2022), academic resilience (Finn & Rock, 1997), school retention (Gandra & Cruz, 2021) and school dropout as a result of school retention (Archambault et al., 2009; Janosz et al., 2008). In addition, school engagement is related to well-being (Wong et al., 2023), peer victimization (Dorio et al., 2018) and behavioral problems such as externalizing problems (Curhan et al., 2020) and cyberbullying (Wang et al., 2024). Given the results of previous studies, it appears that school engagement has a significant role in various child and adolescent outcomes.

School engagement is malleable, and increase or decrease depending on contextual features and changes in the environment (Fredricks et al., 2004). Therefore, it is crucial to understand the antecedents that increase school engagement. More importantly, such an increase in school engagement may enhance positive outcomes such as academic success but also hinder negative outcomes such as school dropout. Thus, the current study aimed to investigate family-related antecedents of school engagement in a nationwide study. Previous literature mainly focuses on the association between school engagement and school-related factors such as teacher-student relationship (Hofkens & Pianta, 2022), peer relationships (Li et al., 2011), or school climate (Lombardi et al., 2019). However, recent studies also emphasized the role of family and parents on school engagement (Simons-Morton & Chen, 2009; Tian & Chen, 2020).

In addition, some researchers have attempted to examine joint effects of both mothers and fathers on school engagement (Chung et al., 2020; Wang et al., 2019). Although there is growing interest in the association between family or parent-related factors and school engagement, there is still a lack of understanding about the mediating role of parenting behaviors in the relationship between parents' educational expectations and school engagement. Moreover, majority of the studies on school engagement have been conducted in the western, educated, industrialized, rich and democratic (WEIRD) cultures (Fernández-Zabala et al., 2016; Widlund et al., 2021) or Asian cultures (Liu et al., 2024; Wang et al., 2019). To our knowledge, there are few studies on school engagement conducted in the Turkish culture (Erdoğdu, 2019; Ergüç Şahan & Özgenel, 2021; Kızıldağ et al., 2017). However, these studies did not examine the association between school engagement and family-related factors. Instead, they focused on the relation between school engagement and academic achievement.

To fill this gap, the current study aimed to investigate the association between family-related factors and school engagement in Turkish culture. Specifically, it examined the mediating role of perceived parenting behaviors in the association between maternal educational expectations and school engagement. Also, it aimed to examine whether the mediating role of parenting between the maternal educational expectations and school engagement would differ across gender at each school level.

Thus, in the following sections firstly, theoretical background of the current study will be explained. Secondly, culture and parental educational beliefs and relatedly, parental educational expectations will be discussed briefly. Thirdly, educational attainment of Turkish children and adolescents will be explained. Fourthly, the relationship between the parental educational expectations, parenting behaviors and academic outcomes will be given. Then, the association between parenting behaviors (i.e., perceived maternal warmth, inductive reasoning, comparison and performance pressure) and school engagement, and the mediating role of parenting behaviors will be explained. Lastly, the roles of maternal education, gender and school levels in the proposed mediation model will be discussed, and continued with the current study.

3.1.2. Expectancy-Value Theory and Development-in- Sociocultural-Context (DISC) Model

The current study is based on the *Expectancy-Value Theory* (Eccles et al., 1983) and *Development-in-Sociocultural-Context (DISC) Model* (Wang et al., 2020). Broadly, *expectancy-value theory* posits that children's achievement-related choices and performance are indirectly associated with socializer's beliefs and behaviors (see Figure 4). Socializers mostly refer to parents and especially, to mothers. Therefore, the theory emphasizes that mothers' education-related beliefs and behaviors shape children's perceptions which in turn, children form own goals and self-schemata about their abilities. Then, children's goals and self-schemata are associated with their achievement-related choices and behaviors through their own expectations of success and subjective task value. In relation with this, for example, when a child attributes high value to a science course, and also expects to be successful in that course, s/he is more likely to get higher grades, and tend to get harder science courses in the future. According to expectancy-value theory, subjective task value includes four components: *attainment value, intrinsic value, utility value* and *cost* (Eccles et al., 1983). *Attainment value* refers to personal importance of doing well on a certain task. *Intrinsic value* is enjoyment or pleasure one gains from doing a task. *Utility value* refers to usefulness or perceived benefits for future goals. *Cost* is competition with other goals or how to doing a task (i.e., doing homework at home) limits you to do another task (i.e., playing a game on internet). Depending on expectancy-value theory, it seems that mothers have important role to shape their children's own values, beliefs, and behaviors in learning and education.

Specifically, the current study focuses on how socializers' (i.e., mothers) educational expectations and parenting behaviors are associated with one of child's achievement-related outcomes (i.e., school engagement) depending on *expectancy-value theory.* In line with this theory, Simpkins et al. (2012) examined a similar association between parental beliefs and youths' achievement-related behaviors in sport, music, math and reading. In this longitudinal study, they found that mothers' beliefs in such domains predicted their behaviors and then, these behaviors predicted youth motivational

beliefs in these domains one year later. In turn, youth motivational beliefs were related to engaging activities in these domains four years later. Expectancy-value theory and the study of Simpkins et al. (2012) also focuses on children's own beliefs and expectations. However, in the current study, the mediating role of children's own beliefs and expectations was not included in the proposed mediation model.

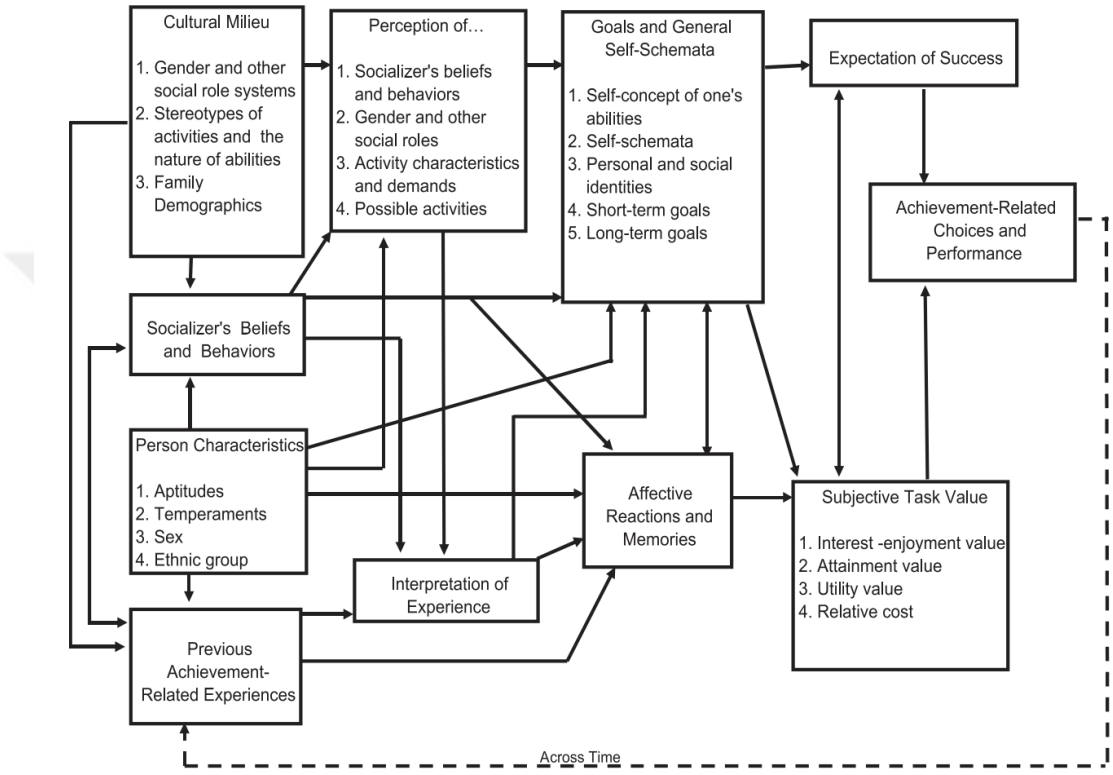

Figure 4. Expectancy-Value Model of Academic Achievement

The current study is also based on *Development-in-Sociocultural-Context (DISC) Model* proposed by Wang et al. (2020). It emphasizes a direct association between sociocultural contexts the child lives in (i.e., cultural, family, school and peer contexts) and engagement in addition to the mediating role of individual characteristics in this association. Developmental competencies and skills as well as motivational beliefs and self-appraisals are classified under individual characteristics, and directly associated with engagement in learning. This model also indicates the association between engagement in learning and academic outcomes such as educational

attainment and academic achievement (Wang et al., 2020). Moreover, it involves dynamic and bidirectional developmental processes (see Figure 5). Specifically, it suggests that family context as a component of sociocultural contexts is important to enhance school engagement and in turn, academic outcomes (i.e., academic achievement, college enrollment). Based on this model, in the current study, it was proposed that mothers as primary socializer agents in a family context have important role to improve their children's school engagement through their own educational expectations and parenting behaviors.

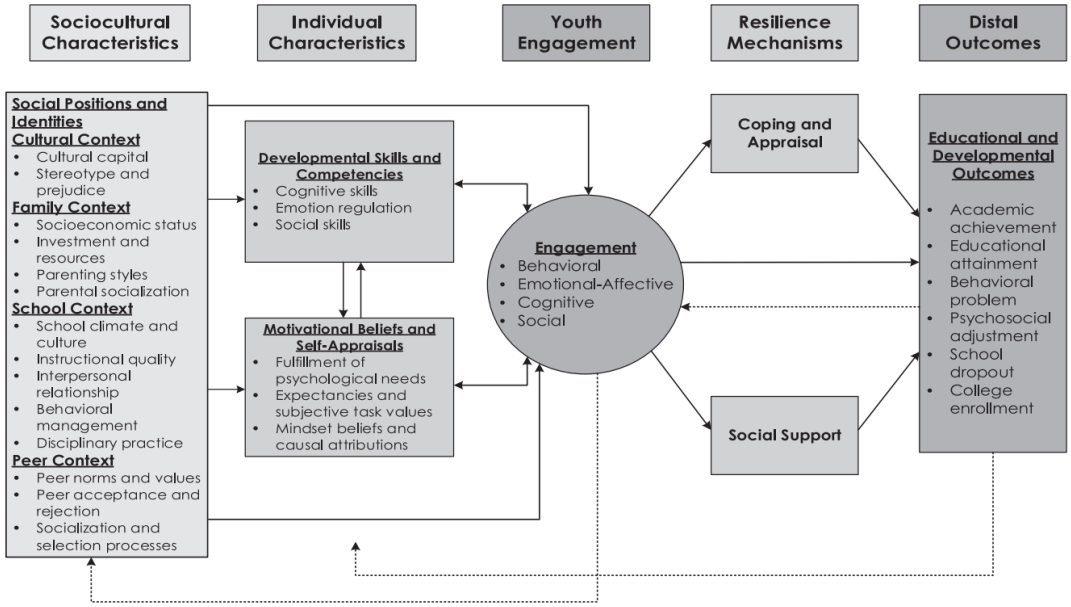

Figure 5. Development-in-Sociocultural-Context (DISC) Model

In the following section, firstly, the role of culture on parental educational beliefs will be discussed and then, parental educational expectations and its association with school engagement will be explained.

3.1.3. Culture and Parental Educational Beliefs

In this section how culture shapes educational beliefs of parents, especially Turkish parents will be briefly explained to avoid repetitions because the details of same topic were discussed in Study 1. Culture has a pivotal role in shaping parents' beliefs and expectations about family, parenting and child development (Harkness & Super, 2002).

Parental ethnotheories shaping in a culture provide parents a base about appropriate child-rearing practices in that culture. Thus, parents behave and engage in specific child-rearing practices that are compatible to that culture. For example, in individualistic cultures, parents mostly use child-rearing practices that support the child's autonomy because this culture values on being autonomous. However, in collectivistic cultures, parents have beliefs that group harmony and respect to this harmony are important. Therefore, in such cultures, parents mostly teach their children to be respectful, to be harmonious with the groups they belong and emphasize relatedness to family.

Regarding education, culture also has important role to form parents' educational beliefs and expectations. For example, Asian cultures place high value on education and achievement, therefore Asian parents' expectations are high for their children's academic life (Yamamoto & Holloway, 2010). Additionally, 90% of Asian parents reported their expectations for their child's educational attainment as obtaining a college degree or higher in a sample of middle and high school students from diverse ethnicities (Spera et al., 2009). Specifically, Chinese parents of primary school students reported education as "crucial" for whole life of their children and getting a social status. Also, majority of them expected that their children will complete at least university degree (Zou et al., 2013). More importantly, in these cultures, mothers are primarily responsible for their children's education, so that they have high dedication to and involvement in their children's education (Zhang et al., 2023). Relatedly, previous studies have found supportive evidence for important role of parents in their children's education (Malczyk & Lawson, 2019; Mo & Singh, 2008).

With regard to Turkish context, urban and middle-class Turkish parents, mostly categorized as family model of *emotional/psychological interdependence*, place a high value on education and getting at least university degree. Since these families know the importance of education in acquiring their children's necessary capabilities and skills to continue their lives independently. Similarly, they think that education is essential to have a good job and a high standard of living. Relatedly, parents of Turkish middle school students reported the importance of education to get a good job and to

be successful in life (Ateş & Ünal, 2020). These families may use different ways to convey their values and beliefs about education and schooling to their children. Firstly, they may talk to their children about the importance of education and having a university degree or higher. They can also provide financial and time resources as well as psychological support in encouraging their children to achieve high educational attainment (Ökten, 2016). In terms of psychological support, Turkish parents may provide warm and supportive environment, show affection and use a positive and encouraging language toward their children about academic topics (Ökten, 2016). In terms of financial and time resources, they may provide a stimulated learning environment, actively show involvement in the child's school-related tasks and send their children to a private school for a better education (Ökten, 2016; Sad & Gurbuzturk, 2013). Related to this, the number of students in private schools has increased in recent years in Türkiye (MEB, 2023). Since Turkish parents want their children to take better education and believe that is possible in private schools. With regard to parental involvement, the relevant literature indicates the importance of parental involvement in education on academic achievement of Turkish primary, middle and high school students (Kotaman, 2008). Similarly, prior studies found a significant relation between parental involvement and support, and school engagement in a Turkish sample (Erol & Turhan, 2018).

Child's academic socialization and school attainment are associated with some family background characteristics such as region, urbanization, household income, parental education and occupation in Türkiye (Smits & Hoşgör, 2006; Tansel, 2002). School attainment of both girls and boys decreased based on lower socio-economic status and living in countryside and eastern regions of Türkiye (Smits & Hoşgör, 2006). Related to this finding, the average of schooling in years is the lowest in Şanlıurfa and Ağrı as 7.4 and 7.6 years (TÜİK, 2024). Smits and Hoşgör (2006) indicated that girls whose fathers were farmer had less chance to continue in secondary education, while participation of boys in primary education was related to household income. Children are more likely to drop out of school in order to support their family economy, or especially, girls help their mothers at home by caring their younger siblings. In addition to these factors, there are also some families from low socioeconomic

background try to send their children to school even if they do not have enough economic and psychological resources to support their children's education. The underlying motivation of such families may relate to upward social mobility as a way of having a high standard of living through schooling and education, and hinder intergenerational transmission of low educational attainment and low economic status. Thus, it can be noted that parents have important role in shaping their children's educational beliefs and behaviors (Eccles et al., 1983). In the following section, parental educational expectations will be discussed in more detail.

3.1.4. Parental Educational Expectations

Parental educational expectations can be defined as parents' view about their child's future educational attainment, receiving higher grades and gaining achievements in standardized tests (Pearce, 2006). However, most of the previous studies conceptualized parental educational expectations as educational attainment that is maximum level of earning degree parents expect of their children (Rimkute et al., 2011; Weir et al., 2023). Similarly, in the current study, parental educational expectations were conceptualized as the highest level of education that parents expect their children would achieve.

In the relevant literature, there is a debate related to parental expectations and aspiration. Parental expectations and aspiration have been frequently used interchangeably. (Juang & Silbereisen, 2002). Yet, they have different meanings, aspiration refers to *idealistic* view about child's educational attainment regardless of initial performance of child while expectations depend on *realistic* view taking into consideration child's initial performance (Seginer, 1983; Symth, 2020). In line with realistic view, parents' expectations are shaped based on their own evaluation about child's previous academic performance (Briley et al., 2014; Pinquart & Ebeling, 2020). However, there are some evidences on bidirectional relationship between parents' expectations and academic outcomes, indicating that higher parents' expectations improve child's academic performance. Also reversely, when the child shows higher academic achievement, parents hold higher expectations in terms of educational attainment (Zhang et al., 2011). It is not the scope of the current study, however, related

to child's own expectations, prior studies have suggested that parental educational expectations play a significant role to determine child's own educational expectations (Rimkute et al., 2011) and aspirations (Kirk et al., 2011). When parents hold higher expectations about child's school attainment, their children are also more likely to hold a higher aspiration, and eventually to obtain a higher school attainment (Dockery et al., 2022, Wentzel, 1998). In addition, some studies emphasized a mutual relationship between parents' aspiration and child's aspiration (Schörner & Bittmann, 2023). Thus, it can be noted that child's own expectations and aspirations have important role to understand underlying mechanism between parents' expectations and child's academic outcomes.

A number of factors play a role in shaping parents' educational expectations about their children's educational attainment. A growing body of research showed that in addition to child's previous academic performance, child's gender (Wood et al., 2007), a higher parental education level (Englund et al., 2004; Rimkute et al., 2011) and a higher socioeconomic status (SES) of the family (Crosnoe et al., 2002; Davis-Kean, 2005) are some antecedents of parental educational expectations. However, some studies did not find a positive association between parental educational expectations and parents' education level (Kirk et al., 2011). Similarly, although there is evidence for a positive association between family SES and parental educational expectations, parents with low economic status may have high educational expectations for their children (Yan & Gai, 2022). Since they have hope to improve their living conditions, and they may eventually achieve a social upward mobility depending on their child's high educational attainment (Li & Chen, 2007). It can be possible that parental educational expectations may encourage children to study hard and show academic resilience even if having low economic conditions (Yan & Gai, 2022). In terms of gender, parents have higher educational expectations for their girls than boys (Wood et al., 2007). Especially mothers want their daughters to have a higher degree so that their daughters would become economically independent.

One of the aims of the current study is to understand Turkish mothers' educational expectations about the highest-level education of their children. Relevant literature on

parental educational expectations has predominantly come from American culture or Western cultures (Davis-Kean, 2005; Jacob, 2010; Rimkute et al., 2011) and Asian cultures (Spera et al., 2009; Zou et al., 2013). Nonetheless, little is known about Turkish parents' educational expectations and its relation to their children's academic outcomes, specifically school engagement (Lindberg et al., 2019). In the study of Lindberg and colleagues (2019), 35 Turkish mothers and 15 Turkish fathers of eighth graders were interviewed, and most of them reported that they expect their children at least undergraduate degree. However, their study was conducted with a small sample and focused only a specific grade level. Therefore, the current study aimed to contribute to the literature in understanding the relation between parental educational expectations and school engagement of Turkish children across various school levels (i.e., primary, middle and high school).

In the following section, depending on changing world conditions, the increase of education level of generations will be discussed in relation to parental educational expectations. Then, the association between parental educational expectations and school engagement will be explained.

3.1.4.1. Educational Attainment of Children and Adolescents in Türkiye

In recent decades, the educational attainment of generations has increased markedly as a result of globalization, urbanization due to migration from rural to urban areas, and changes in adaptive life skills due to new world arrangements and economic development. For example, comparing 2008 and 2023 in terms of the percentage of people aged 25 and over with at least a university degree, this rate increased from 9.8% to 24.6% (TÜİK, 2024). Similarly, the average schooling year has increased from 8.3 years to 10.1 years for males and from 7.3 years to 9.3 years for females (TÜİK, 2024). In line with these results, highly educated parents expect that their children also have a high educational attainment (Smits & Gündüz-Hoşgör, 2006). Turkish children with university degree have highly educated parents (Goksel, 2008). The underlying reason of this increase may relate to the increased value that parents place on education, availability and accessibility of universities opened in many cities of Türkiye.

In addition, Turkish parents' awareness might have increased about the opportunities that comes with at least university education, such as shortening men's compulsory military service, getting a good job with a higher salary, having a better social status in future and receiving respect of society. More importantly, it is well-known that education is crucial tool and functional in changing world to be able to compete with other societies for important improvements in technology, and relatedly economy. Thus, parents may encourage their children to attain higher education, and they make more investment in their children's education. Moreover, as mentioned earlier, higher education is considered as a tool for intergenerational upward mobility (Çevik, 2015). Especially, parents of low economic status may motivate their children about schooling and education because they may believe that their children will have better living standards as a result of getting their children a higher educational level. For example, the studies conducted with minority groups of low economic background have found supportive evidence that immigrant parents reported high expectations for their children's educational attainment because of believing in upward mobility through education (Raleigh & Kao, 2010). Taken together all these, it can be concluded that Turkish parents may aspire for their children to achieve a high degree regardless of their socio-economic background. In the next section, the association between parental educational expectations and school engagement will be given.

3.1.5. Parental Educational Expectations and Academic Outcomes

According to *expectancy-value theory* (Eccles et al., 1983), when parents hold high parental educational expectations for their children, children may get more motivated and tend to engage more to meet their parents' expectations. In this regard, some studies have shown a positive concurrent relationship between parental educational expectancy and academic achievement (Hu et al., 2024), while others have found a positive longitudinal relationship (Rutchick et al. 2009). Furthermore, a number of meta-analyses have supported the important role of parental educational expectations on academic achievement (Danışman, 2017; Jeynes, 2024; Pinquart & Ebeling, 2020). More importantly, in a recent meta-analysis with 55 studies conducted with different samples between 2010 and 2019, parental expectations had the strongest effect on academic success compared to other parental involvement components. However, the

magnitude of such a positive relationship between academic achievement and parental educational expectations may be weaker for racial/ethnic minorities than for European American families (Yamamoto & Holloway, 2010 for a review). When looking at studies examining the relationship between parental educational expectations and academic achievement in Turkish culture, there are few studies that find a positive relationship (Lindberg & Güven, 2021; Lindberg et al., 2019). However, these studies were conducted with small samples and focused on a specific school level (i.e., elementary school). Moreover, they may provide limited information about this relationship because they are correlational or qualitative studies.

Regarding school engagement as another important academic outcome, little is known about the association between parental educational expectations and school engagement (Fan & Williams, 2010). A very recent study found a reciprocal relationship between parental educational expectations and emotional school engagement among adolescents in England (Katsantonis, 2025). Given the literature about the association between school engagement and parental educational expectations, it is obvious that there is a gap. Moreover, a comprehensive understanding of the relationship between parental educational expectations and school engagement would provide an insight about the ways to improve academic achievement. In this regard, it is well-known that school engagement is an important precursor of academic-related outcomes, especially academic achievement (Chase et al., 2014; Cheung & Pomerantz, 2012; Tomaszewski et al., 2024). In line with this, a meta-analysis study of 169 studies indicated that child's academic engagement is a significant mediator between parental educational expectations and academic achievement (Pinquart & Ebeling, 2020). Therefore, the current study aimed to longitudinally investigate the association between parental educational expectations and school engagement among Turkish children and their mothers. In the next section, the association between parental educational expectations and parenting behaviors will be discussed in the detail.

3.1.6. Parental Educational Expectations and Parenting Behaviors

Parents' beliefs form a basis for constructing and shaping parenting behaviors (Keller & Otto, 2009). These beliefs play an important role to guide parents' behaviors about

what is optimal and appropriate for children's development (Bornstein et al., 2018). Particularly, parents' educational beliefs and expectations help determine their behaviors, practices and involvement in their children's learning and education. For example, when parents place a high value on education and learning, they are more likely to have high expectations for their children's educational attainment, which can lead to parents becoming more involved in their children's learning and education (Ng & Wei, 2020). In turn, a high level of parental involvement contributes to children's academic outcomes such as achievement (Parmar & Nathans, 2022) and academic engagement (Xiong et al., 2021).

Given the association between parental educational expectations and parental involvement, Asian cultures such as Chinese culture have been predominantly studied (Ng & Wei, 2020). Since depending on Confucian philosophies, Chinese parents have culturally constructed beliefs and expectations that their children's achievements and high attainment in education bring an honor to their family (Ng et al., 2014). In addition, traditional Chinese values emphasize the "training" role of parents in child development, which means monitoring, guiding and correcting child's behaviors (Chao, 2000). Furthermore, parents' own self-worth is related to child's performance (Ng et al., 2013). Therefore, Chinese parents, especially mothers, involve more in their children's learning and education (Pomerantz et al., 2014). Also, they mostly engage in learning-related activities with their children (Pomerantz et al., 2012). As result of high parental involvement in learning, Chinese students mostly show high achievements at school as well as on standardized tests compared to their peers (Brey et al., 2019).

As mentioned earlier, previous studies have investigated parental expectations for child's future educational attainment as a component of parental involvement in child's learning and education (Jeynes, 2024). Similarly, Peng and Wright (1994) have used parental expectations of child's future education as an indicator of parental involvement in their study with Asian American students. In addition, both parental expectations and involvement have been mostly examined as predictors of child's learning behaviors (Mao, 2022). However, the antecedent role of parental educational

expectations on parenting behaviors has been understudied (Wang et al., 2016). Therefore, the current study aimed to examine the predictor role of parental educational expectations on parenting behaviors of perceived maternal warmth, inductive reasoning, perceived performance pressure and comparison.

To the best of our knowledge, there are rare studies investigating the direct relationship between parental educational expectations and parental warmth (Davis-Kean, 2005). Prior studies have predominantly focused on the association among parental educational expectations, parental involvement in school activities and assistance in school-works (Zhan, 2006). However, parental warmth as an indicator of positive parent-child relationship would also be related to a high level of parental educational expectations. Mothers who have high expectations may not show more involvement in learning-related works but have a warm and affectionate relationship with their children. Therefore, examining the association between parental expectations and parenting behaviors from a general viewpoint rather than specific one may provide more information. Similarly, there is a gap in the literature on the relationship between parents' educational expectations and parents' inductive reasoning. Yet, inductive reasoning is an important aspect of authoritative parenting style as well as warmth. Prior studies found that when parents have earlier expectations about a specific child's outcome, they report more authoritative parenting style (Ren & Pope Edwards, 2014). Related to this, parents with a high level of expectations may tend to use inductive reasoning aspect of authoritative parenting style by putting appropriate limit settings and giving rational explanations about the consequences of child's behaviors, which may further promote parent-child open communication about learning-related issues and child's autonomy in learning-related works. On the other hand, with regard to parental comparison and performance pressure as negative parenting behaviors, parents with high expectations may reflect their concerns about academic performance of their children in a negative way by comparing their children with others and putting high pressure on their children in terms of being the best and doing the best (Xu et al., 2024). Depending on high parental educational expectations, children may perceive more academic pressure which is related to academic stress and an increase in exam anxiety (Deb et al., 2015; Kapıkıran, 2020). Moreover, perceived academic pressure negatively moderates the relationship between parental educational expectations and

children's well-being (Lu et al., 2021). It is also possible that parents with high expectations may engage in less negative parenting but may provide a supportive learning environment rather than a non-supportive environment with intrusive parenting behaviors (Tamayo Martinez et al., 2022).

Given the relevant literature conducted in Turkish context, the direct relation between parental educational expectations and parenting behaviors in Türkiye received less attention from the researchers. To our knowledge, there is a recent study of Lindberg and Güven (2021) investigated the impact of parental involvement and expectations on academic achievement in a small sample of Turkish elementary students. In addition, another study has examined the factors that are associated with parental involvement in child's education (Kaya & Bacanlı, 2016). However, they have not specifically studied the association between parental expectations of the child's educational attainment and parenting behaviors. In the next section, the association between parenting behaviors and school engagement will be discussed.

3.1.7. The Role of Parenting Behaviors on School Engagement

Given the literature examining the relationship between parental involvement and academic outcomes, there are a variety of conceptualizations of parental involvement. For example, Grolnick and Slowiaczek (1994) have conceptualized parental involvement as a multidimensional construct characterized by a dedication of resources to support child's education and it is composed of three categories: parents' overt behaviors (i.e., going to school and attending activities), cognitively and intellectually stimulating the child (i.e., providing an cognitively supportive environment through materials or books) and the child's perceptions of parents' affective and personal availability (i.e., interacting with people around the child's school). On the other hand, Epstein (1995) has conceptualized parental involvement as a multidimensional construct with six types to increase academic performance of children through parent-school collaboration: guiding parents about parenting, school-parent communications, being parents volunteer in school activities, involving in learning-related activities at home, involving parents in school-decision making such as school board, and involving in school-community collaborations.

This conceptualization mainly focuses on parents' involvement at school settings. Thus, it is obvious that prior studies agree on the multidimensionality of parental involvement with different subcategories.

Parental involvement has crucial role for academic outcomes such as school engagement (Steinberg et al., 1992) and academic achievement (Fan & Chen, 2001). Also, it enhances child's positive attitude and motivation towards school (Grolnick et al., 1991). As mentioned earlier, previous studies found that different aspects of parental involvement (i.e., parental aspiration) were related to school motivation constructs such as engagement (Fan et al., 2012). Another study also showed that various components of parental involvement (i.e., parents' participation in extracurricular activities with children, family rules for watching television, parental aspiration about the child's attainment, school-initiated contacts) were related to an increase in student engagement (Fan & Williams, 2010). Additionally, a study conducted with Turkish primary school students indicated the importance of parental involvement tasks (i.e., parental support for child's personality development, and socio-cultural development, volunteering in school activities and communication with child) to increase child's achievement in math, Turkish and science/technology.

However, these definitions of parental involvement have mainly focused on school-related factors (i.e., parent-school communication, helping in child's homework and volunteering activities of parents in school) (Malczyk & Lawson, 2019). Relatedly, parenting practices (Hill & Wang, 2015), styles and parent-child relationship quality (Cooper, 2009) have been understudied in terms of the relationship with school engagement. Therefore, the current study aimed to address this gap by examining perceived parenting behaviors such as perceived warmth, inductive reasoning, performance pressure and comparison. In this regard, investigating how children perceive their parents' behaviors rather than parents' own reports is crucial to properly understand the relationship between parenting behaviors and school engagement. Since parents' reports can be misleading due to viewing themselves more favorable in positive behaviors but less unfavorable in negative behaviors. For example, parents may perceive themselves more supportive compared to how their children perceive

them (Gaylord et al., 2003). In the next section, the conceptualization of these parenting behaviors and their relations with academic outcomes, especially school engagement will be discussed in detail.

3.1.7.1. Perceived Maternal Warmth

Parental warmth is defined as unconditional love, care and responsiveness to the child's emotional need (Chen & Liu, 2012). Moreover, it refers to a good quality of parent-child relationship, because parental warmth creates a warm and supportive environment for children to explore securely their surroundings and openly communicate with their parents (Bowlby, 1969). Additionally, self-determination theory of Ryan & Deci (2000) has emphasized that basic psychological needs such as competence, relatedness and autonomy are important to improve intrinsic motivation and engagement. Regarding the fulfillment of relatedness need of children, parental warmth provides a basis to construct a schema about the relationship with parents and others, and then, to fulfill the need of relatedness. Therefore, parental warmth is important for the relatedness which is associated with forming intrinsic motivation and further, school engagement.

A number of studies have documented that parental warmth is associated with academic outcomes (Chung et al., 2020; Parmar & Nathans, 2022; Spera, 2005). In line with this, in a study conducted with German adolescents in 6th grade, parental warmth as well as parental aspiration for their children's school, and academic/intellectual discussion with children were positively associated with the adolescents' academic capability beliefs and school grades (Juang & Silbereisen, 2002). In addition, there are some meta-analytic studies which found a positive relation between parental warmth and academic achievement (Pinquart, 2016; Rozenzweig, 2001). Furthermore, in different cultures such as China and the U.S, the positive impact of parental warmth on the children's approaches to learning involving the children's motivation, persistence, interest and active participation in class was shown (Ansari & Gershoff, 2016; Liu et al., 2024; Yang, 2019). Specifically, some studies found supportive evidence for a positive relationship between parental warmth and

school engagement (Wang et al., 2019) or engagement in a specific topic such as math (Sun et al., 2020; Tian & Chen, 2020). In addition, relatedness to parents among students from 3rd to 6th grade contributes to student engagement (Furrer & Skinner, 2003). Consequently, parents who provide a secure environment with acceptance, love and support through warm parenting may help their children explore and master their goals in academic domains, which may promote school engagement.

Considering previous studies, the current study aimed to examine the relationship between perceived maternal warmth and school engagement among Turkish students. It will contribute the relevant literature in order to address the gap investigating how perceived maternal warmth is related to Turkish students' school engagement.

3.1.7.2. Perceived Maternal Inductive Reasoning

Inductive reasoning can be defined as guiding children's behaviors by putting appropriate limit settings and giving explanations to children about the consequences of their behaviors. It helps children to understand how their behaviors could cause harm or hurt someone. In addition, regarding social adjustment and behavioral regulation skills, previous literature has mostly addressed the association between inductive reasoning and externalizing problems and prosocial behaviors (Choe et al., 2013; Pastorelli et al., 2016; Durmuşoğlu Saltalı & İmir, 2018). In addition, inductive reasoning in discipline is associated with children's internalization of social norms and rules easily, which improves their understanding over time about how to regulate themselves and enhances their autonomy.

Previous studies have not directly studied the association between parental inductive reasoning and school engagement. Instead, there are few studies examining the relationship between parental inductive reasoning and academic outcomes such as grades (Yan et al., 2022). Most studies have investigated inductive reasoning under authoritative parenting style. Since authoritative families are characterized by commonly use of inductive reasoning in their disciplines. Therefore, the association between inductive reasoning and school engagement will be discussed in the light of

the findings of studies examining the relationship between authoritative parenting style and academic outcomes.

Authoritative parenting style identified by Baumrind (1966) involves both responsiveness and demandingness/control in parenting behaviors. Parents with this parenting style show their affection and provide warm, sensitive and supportive parenting to their children, while they also control their children's behaviors by limit settings through inductive reasoning (Maccoby & Martin, 1983). In addition, this parenting style encourages parent-child open communication (Maccoby & Martin, 1983), psychological autonomy (Ginsburg & Bornstein, 1993), and behavioral control (Barber, 1996), which in turn, improves self-regulation skills. In this regard, students in 8th grade from authoritative families reports more use of self-regulated learning strategies that inductive reasoning of parents can enhance (Erden & Uredi, 2008). Regarding academic outcomes, there are some supportive evidences for the importance of authoritative parenting in obtaining academic achievements (Steinberg et al., 1992; Tsela et al., 2022). Moreover, some meta-analysis studies indicated a positive association between authoritative parenting and school achievement (Pinquart, 2016; Rosenzweig, 2001). Similarly, authoritative parenting is associated with the development of a high self-efficacy beliefs and intention to get good grades, and eventually academic achievement among Lebanese adolescents aged between 15 and 18 (Hayek et al., 2022).

Regarding school engagement, some studies have indicated a positive association between authoritative parenting and school engagement (Fernández et al., 2018; Simons-Morton & Chen, 2009). Icelandic adolescents from authoritative families at age 14 reported a high level of school engagement at age 15 (Blondal & Adalbjarnardottir, 2014). Taken together, it can be noted that authoritative parenting identified with rational limit settings through inductive reasoning as well as warm and supportive parenting behaviors provides children an optimal environment to develop better regulation skills, self-concept, self-esteem and specifically, intrinsic motivation (Masud et al., 2015). In turn, it is more likely to enhance school engagement and eventually, academic achievement.

3.1.7.3. Perceived Maternal Performance Pressure

Parental performance pressure can be defined as the expectations and demands that parents place on their children to "do and be their best" and to perform well academically at school (Vallejo, 2023). In the related literature, various terms such as academic pressure (Quach et al., 2015) or parental pressure (Deb et al., 2015) have been used interchangeably for performance pressure. In current study, it was entitled as performance pressure.

Parents believe that they have responsibilities to be involved in their children's education and encourage them to be successful at school. However, their expectations can be excessive and create tension and pressure on children to perform well and outperform their peers. Contrary to autonomy support, parental performance pressure also includes induced autonomy-suppressing parenting through parents' own demands, which may result in negative outcomes for school engagement that is related to self-regulation in learning. Since when parents use more performance pressure on their children, it may hinder children's self-regulated learning, to take their own responsibilities in their learning process and more importantly, to decrease their intrinsic motivation and engagement in learning (Luo & Zhang, 2018). Similarly, there are evidences for a negative relation of performance pressure and school engagement, specifically emotional and behavioral engagement (Murray, 2009; Luo & Zhang, 2018; Raufelder et al., 2015). For example, as a parenting style that has become widespread in recent years, helicopter parents are known to exert high pressure on their children in school-related matters such as school choice, study time and participation in sporting activities (Segrin et al., 2012). In addition, these parents are achievement-oriented and over-involved in their children's lives. However, helicopter parenting is associated with a lower school engagement (Nelson et al., 2015) and academic motivation (Schiffrin & Liss, 2017). Similarly, helicopter parenting seems to be more prevalent among the new generation of Turkish mothers in recent years. These mothers tend to act as if they have all the school-related responsibilities of their children. In fact, it can be said that this is a form of performance pressure. However, according to self-determination theory (Deci & Ryan, 2000), autonomy is an important need to be

intrinsically motivated and to engage in. Relatedly, parental autonomy support has a positive association with children's academic outcomes such as achievement (Pomerantz et al., 2014; Vasquez et al., 2016 for a meta-analysis) and academic engagement of Israeli adolescents (Roth et al., 2019) and school engagement of Korean youth living in South Korean, China and the U.S (Zhang et al., 2023).

In this relation, how child perceives parental performance pressure is crucial for possible outcomes. When the child perceives excessive pressure and feel stressed and tense, it is more likely to cause psychological problem such as anxiety. Some empirical evidence showed the detrimental effect of high parental expectations on the Chinese adolescents' psychological health such as depression and anxiety (Quach et al., 2015; Ma et al., 2018). Moreover, performance pressure leads to an increase in test anxiety (Chen, 2012), and in turn, negatively impacts achievement (Nagpal & Sinha, 2016). Similarly, Kapıkıran (2020) found a positive relation between parental academic success pressure and test anxiety among Turkish high school students. On other hand, when child does not perceive the pressure as excessive, it may not influence in a negative way. Thus, to understand perception of the child about pressure can provide more clear and proper information for the relevant literature. For example, children can perceive parental pressure as a sign of care and responsibility of their parents. In this regard, Kim and Park (2006) showed the positive relation of performance pressure and academic success of South Korean students. It may relate to cultural beliefs. Since South Korea is a collectivistic culture where people place high value on education and achievement, and believe that parents have an important role in their children's success. Therefore, the findings of these studies should be interpreted by taking into consideration of culture and cultural beliefs. Consequently, the current study aimed to investigate the association between perceived maternal performance pressure and cognitive engagement as one aspect of school engagement in Turkish culture.

3.1.7.4. Perceived Maternal Comparison

Parents may compare their children with children's peers or classmates. In this regard, parental comparison was defined as comparing their children with others such as siblings, peers, and children of relatives at the same age (Sumer et al., 2009). The direction of parental comparison is important in terms of causing a negative or positive

outcome in child. Specifically, regarding academic performance, parents tend to use more upward social comparison, referring to comparison of children with others who perform well and indicating an inferior or a negative focus. Since parents believe that they encourage their children to study hard and obtain academic achievement like their peers. Additionally, parental comparison is commonly used in other-oriented dependent cultures (i.e., Türkiye) (Sumer et al., 2009). Turkish parents tend to use more criticism and negatively compare their children with their peers in terms of school performance and other abilities. It may be thought as a kind of psychological control parents use on their children (Le et al., 2023).

Depending on self-determination theory, autonomy and competence needs are crucial to improve academic outcomes such as intrinsic motivation, engagement and academic self-concepts. However, parental upward comparison results in negative academic outcomes such as decreasing child-perceived academic self-efficacy and mastery motivation (Zhang & Yang, 2024), and self-esteem (Wang et al., 2017), and negative psychological well-being outcomes (i.e., increasing emotional disorders such as depression or anxiety) (Yang et al., 2021). Since parental comparison hinder the fulfillment of these needs of children. Children may also start to believe that they are not as good as others, which may lead a negative self-perception and self-schema (Pesu et al., 2016), which results in low autonomous or intrinsic motivation (Fang et al., 2022). Furthermore, adolescents who perceive their parents' pattern of comparison to someone who is performing well as negative report lower self-efficacy but higher self-handicapping (Xing et al., 2023). Additionally, parents' comparison is positively associated with socially prescribed perfectionism and academic inferiority, which results in depression (Lee et al., 2020). Relatedly, negative parenting behaviors such as comparison, shaming and criticism practices are related to greater depression and low school effort in both Chinese and American cultures (Camras et al., 2012). Also, guilt induction and intrusion as negative parenting behaviors are associated with low level of self-efficacy in math and literature among Turkish youth (Kara & Sümer, 2022). Related to these findings, parental negative comparison as an intrusive behavior can limit the child's autonomy and uniqueness (Sümer & Kağıtçıbaşı, 2010), which are important concepts in improving school engagement that includes self-regulating learning.

In sum, there is a negative relationship between parental comparison and academic outcomes. As stated earlier, to our knowledge, there is no study investigating a direct association between perceived parental comparison and school engagement. Therefore, the current study aimed to investigate the association between maternal perceived comparison and school engagement in a Turkish sample.

3.1.8. The Mediating Role of Parenting Behaviors

Parental educational expectations contribute to children's academic achievement (Danışman, 2017; Yamamoto & Holloway, 2010 for a review; Zhan, 2006). However, it is important to examine underlying mechanisms from parental educational expectations to children's academic outcomes in order to gain a deeper understanding about school engagement. Parenting behaviors may be key to understand this underlying mechanism in the association between parental educational expectations and academic outcomes. In other words, parenting behaviors may have a bridge role between parental educational expectations and academic outcomes, specifically school engagement. For example, as mentioned earlier, Eccles et al. (1983) emphasized the influence of parents' educational expectations on their behaviors, and in turn, children's achievement-related choices and performance. Furthermore, when parents have a high level of expectations for their children's educational attainment, they tend to be more involved in their children's education, which may promote children's engagement, and eventually academic performance (Kim, 2002). Additionally, they may convey their expectations through their communications with their children, which may promote children's aspirations, motivation and engagement in learning (Kirk et al., 2011).

There are also a few studies examining the mediating role of parental involvement in the association between parents' educational expectations and academic outcomes (Li et al., 2024; Sy & Schulenberg, 2005). Specifically, the mediating role of parental involvement of Asian American and European American families (i.e., home literacy involvement, parents' school involvement and nonhome educational activities such as taking the child to library) was found in the relationship between parental beliefs/expectations and math/reading achievements (Sy & Schulenberg, 2005).

Similarly, a recent study with a sample of Chinese high school students found that parental involvement, which includes parental emotional management and intellectual involvement, is partially mediated the association between parental expectations for children's educational attainment and academic achievement (Li et al., 2024).

Contrary to parental involvement, the mediating role of specific parenting behaviors such as warmth, inductive reasoning, comparison, and performance pressure have rarely studied in the association between parental educational expectations and academic outcomes such as school engagement. For example, Weir and colleagues (2023) examined parental warmth, pressure and expectations as predictors of GPA in a multiple regression analysis. Additionally, parenting behaviors (i.e., parental warmth, reading) were found to have a mediating role in the relationship between parents' educational expectations and math and reading achievement among African Americans ages 8 to 12 (Davis-Kean, 2005). However, to our knowledge, there is no study which examined the mediating role of parenting behaviors on parental educational expectations and school engagement. Therefore, the current study aimed to contribute to the relevant literature through a mediation model examining the association between parental educational expectations and school engagement via parenting behaviors. Specifically, it was aimed to investigate the mediating role of specific parenting behaviors such as perceived warmth, inductive reasoning, comparison and performance pressure in such an association among Turkish mother-child pairs.

3.1.9. Maternal Education, Gender and School Level

Maternal education is an important factor that positively shapes child development. More specifically, it plays a crucial role in the child's academic outcomes (Harding et al., 2015 for a review) and educational attainment (Utsinger et al., 2022). Related to parental expectations for their children's educational attainment, mothers with high education level generally have high expectations for their children's educational attainment (Hossler & Stage, 1992). For example, Rimkute and colleagues (2012) found that when Finnish mothers have a higher level of education, they report more expectations for their children's education level. In addition, Long and Pang (2016)

indicated that parental education including both maternal and paternal education is related to higher parental expectations for the highest educational attainment of their children in 9th grade from five different regions of China. Spera et al. (2009) also suggested that more educated parents have higher parental expectations regarding their children's attainment for a large sample composed of middle and high school parents from various ethnicities (i.e., African American, Asian, Caucasian, Hispanic). In the light of prior studies, maternal education is an important antecedent of parental expectations related to their children's attainment. Since mothers are more likely to convey the message that education has high value to get better job and salary in the future, and to provide necessary resources in order to encourage their children for a high educational attainment. Thus, it is more likely that mothers with high education level have high expectations about their children's attainment, and in turn, their children mostly get high education level. Relatedly, adolescents whose mothers have high educational attainment tend to complete high school and continue to college education (Choi et al., 2008). Similarly, 84.6% of Turkish children whose mothers have a college attainment also acquire a college degree (TÜİK, 2024).

In addition to the positive association between maternal education and maternal expectations of their children's attainment, educated mothers may promote their children's academic outcomes because they may provide a supportive home environment (Zadeh et al., 2010) and show more academic support such as involvement in home-based or school-based learning activities (Henry et al., 2011). A positive association between maternal education and school achievement through home environment variables such as number of books at home was found among Chinese primary school students (Tan et al., 2021). Similarly, Weis and colleagues (2023) showed that maternal education is positively associated with school achievement of Chilean fourth graders through their mothers' self-transcendence values (i.e., altruism, tolerance, and social responsibility), maternal restrictive control, and the children's behavior regulation. Taken together previous studies, it can be thought that maternal education may also promote school engagement as an academic outcome. Relatedly, Erol and Turhan (2018) found that a high level of parental

education is associated with an increase in both perceived parental involvement and school engagement among Turkish middle school students. Therefore, in the current study, maternal education was added to the proposed mediation model as a covariate

of school engagement and parental educational expectations. In addition to maternal education level, gender may also have an association with school engagement. Several studies indicate that being female is related to a higher level of school engagement. For example, in a survey named as "High School Survey of School Engagement", Indian female students at high school reported more engagement in school than males (Yazzie-Mintz, 2007). Additionally, Chiu et al. (2012) found that female students at fifteen-year-olds from 41 different countries (i.e., Turkey, Germany, Sweden, Korean, Switzerland etc.) had a higher score for attitudes toward school measuring specifically cognitive aspects of school engagement compared to male students. Compared to girls, boys are more likely to follow unstable trajectories identified with decreasing in school engagement in a Canadian sample, which is most probably related to risk for dropouts (Janosz et al., 2008). Similarly, Wang et al. (2011) indicated a gender difference in school engagement, which suggests that girls show more engagement in school than boys. In line with this study, a recent study found that boys aged 14-15 have less active engagement in school than girls (Bang et al., 2020). Studies conducted with Turkish students also indicated a significant difference of school engagement in favor of females (Ilgar & Parlak, 2014; Öztürk & Sertbaş, 2021). However, some studies also showed that there is a gender difference in emotional and behavioral aspects of school engagement in favor of girls, but in cognitive aspect, boys do not have lower engagement than girls (Lam et al. 2012). On the other hand, some studies have not concluded that there is a gender specific difference in school engagement level of Turkish high school students (Alparslan, 2016). Similarly, Charkhabi et al. (2019) did not find gender difference in a sample of Russian students aged 6-12 years. Thus, given aforementioned findings, there are mix findings related to gender difference in school engagement.

In addition to school engagement, gender may also differently influence both parenting behaviors and parental educational expectations, and their links with school

engagement. For example, Indian female adolescent reported more parental pressure than males (Singh & Manju, 2023). With regard to positive parenting behaviors, Kara and Sümer (2022) found that Turkish girls perceived more positive parenting behaviors such as warmth than boys, and in turn, maternal warmth had stronger effect on girls' self-efficacy compared to boys. Similarly, the association between maternal warmth and achievement are stronger for girls than boys in a sample of Singapore students (Stright & Yeo, 2014). However, related to association between maternal warmth and cognitive aspect of school engagement conceptualized as school self-esteem, Lowe and Dotterer (2013) did not find any gender difference. Additionally, related to parental pressure, in a study with secondary school students in Germany, Raufelder et al. (2015) showed that maternal pressure negatively correlates with school engagement for both girls and boys, which indicates no gender difference. In relation to parental expectations for their children's attainment, Wood and colleagues (2007) suggested that parents of African American boys aged 6-9 have lower expectations than their girls. Similarly, mothers of Australian students reported high educational expectations for their girls than boys (Dockery et al., 2022; Koshy et al., 2019). Taken together the aforementioned studies, existing evidence suggest that gender has an effect at the mean level of parenting behaviors such as pressure and warmth, parental educational expectations and school engagement in favor of females. However, no research has yet compared males and females in a mediation model examining the association between parental educational expectations and school engagement through parenting behaviors. For this reason, the current study aimed to make a multigroup comparison across gender in the proposed mediation model.

Similar to gender, academic outcomes of children may vary with age and school level. When they get older and enroll in an upper grade, academic engagement and achievement may decrease based on developmental changes and environmental factors such as the effect of teacher, peer or family. Compared to early grades, individuals may have different goals, expectations, self-efficacy, academic interest and motivation in high school years. Related to this view, Dotterer et al. (2009) found that academic interest of students significantly declines from early grades to upper grades, but starts to increase at age 18. Moreover, this decline is greater for boys than girls.

Similarly, most studies showed that school engagement decrease from early grade level to later levels. Especially, during the transition years to an upper grade level such as elementary school to middle school, students report more decline in their school engagement (Fredericks et al., 2011). Wang and Eccles (2012) also concluded that African American students from 7th to 11th grades experienced a decline in school engagement conceptualized with school compliance, participation in extracurricular activities, school identification and subjective valuing of learning. In addition, Janosz et al. (2008) found seven different school engagement trajectories among students aged from 12 to 16. This study showed several trajectories such as transitory increasing, decreasing or stable moderate in which school engagement of the students decline from age 12 to 16. However, they also identified a reverse pattern in transitory decreasing and increasing trajectories referring to an increase in school engagement over time (Janosz et al., 2008). Similarly, there are also studies reporting a positive relationship between grade level and school engagement. For example, in a multilevel study including fifteen-year-old students from 41 different countries, Chiu et al. (2012) found that an increase in grade level is associated with an increase in attitude toward school score referring cognitive engagement aspect of school engagement. Contrary to these studies, in a study with a sample of Russian students aged 6-12 years, there was no age difference in school engagement (Charkhabi et al., 2019).

Regarding the relationship between parenting behaviors and academic outcomes across school levels, warmth was significantly associated with achievement in 3rd grade, but not in grades between 4 and 6 (Stright & Yeo, 2014). In relation to parental educational expectations, a study showed that there is no significant change in parents' expectations for their children's attainment from kindergarten to fifth grade with an expectation of at least bachelor degree (Weinberg, 2009). In addition, based on achievement literature, the association between parental educational expectations and achievement is stronger during elementary school than middle school, which may enable to infer same association with school engagement (Philippson, 2013). However, a meta-analytic study did not find a moderator effect of age between current achievement and future expectations (Pinquart & Ebeling, 2020). Thus, depending on the above-mentioned findings, it should be concluded that there is mix evidence related

to grade level. Moreover, to our knowledge, no studies have yet investigated the moderator role of school level in a mediation model investigating how parental educational expectations influences school engagement via parenting behaviors. At the following part, the current study was explained in detail.

3.1.10. The Current Study

To summarize, previous studies showed that school engagement is an important factor for school achievement. For this reason, to investigate the antecedents of school engagement may strengthen our understanding about the ways of improving school achievement. As regards to the antecedents of school engagement, family-related factors such as parenting behaviors and parental educational expectations have an important role on school engagement and eventually, school achievement. In the relevant literature, the association between parental factors (i.e., parental expectations, parent-child communication, communication with school and teacher, family rules for watching tv) and school engagement of children has been frequently studied (Fan &Williams, 2010; You & Sharkey, 2009). However, little research has been done to understand the association between parenting behaviors such as warmth, comparison and performance pressure as negative intrusive behaviors and school engagement (Bentley, 2013; Murray, 2009; Raufelder et al., 2015).

Additionally, previous studies have mostly documented the relation between family factors and school achievement rather than school engagement, which is a bridge between family factors and achievement (Parmar & Nathans, 2022). Moreover, there is a general tendency that prior research has frequently focused on a specific school level, especially middle or high school levels (Lowe & Dotterer, 2013). However, it is important to examine the association between family-related factors such expectations and behaviors and school engagement across all school levels. Since it may provide a comprehensive understanding about how the links between the family-related factors and school engagement vary across different developmental phases. In addition, gender also may make a difference in the links between these variables. Lastly, parenting was measured through children's and adolescents' self-reports, because not

how parents think they treat their children but how their children perceive parenting practices appears to determine child and adolescent outcomes. Thus, more importantly, the aforementioned studies have been mainly conducted with Asian or Western cultures such as China and America. Therefore, it seems that there is a gap in the relevant literature examining these associations in different cultures such as Türkiye. Since majority of Turkish families tend to rear their children based on emotional/psychological interdependence family model, which indicates a high value of high educational attainment, and parental support.

Taken together, the current study aimed to investigate the mediating role of perceived maternal behaviors at Time 1 (i.e., warmth, inductive reasoning, comparison and performance pressure) in the association between maternal educational expectations at Time 1 and school engagement at Time 2. More importantly, present study longitudinally examined the associations between maternal factors and children's school engagement, which provides an insight to infer causality between the maternal factors and school engagement. Additionally, a multigroup comparison was made to understand whether the mediation model vary across gender.

Lastly, the proposed mediation model was separately examined for all school levels. In addition, maternal education was added to the model as a covariate for both maternal educational expectations and school engagement. Specifically, in the current study, the following hypotheses were investigated:

1) Maternal educational expectations for their children's educational attainment at Time 1 would be positively related to school engagement one year later.
2) Maternal educational expectations would be positively associated with both perceived maternal warmth and inductive reasoning.
3) Prior studies showed a positive association between parental educational expectations, comparison and performance pressure (Deb et al., 2015; Lu et al., 2021; Xu et al., 2024). However, mothers with high expectations would not engage in more intrusive parenting behaviors not to hinder autonomy needs of

their children. Therefore, the association between maternal educational expectations and negative parenting behaviors (i.e., comparison and performance pressure) was tested in an exploratory way.

4) It was expected that both perceived maternal warmth and inductive reasoning at Time 1 would be positively associated with school engagement at Time 2.

5) It was expected that both perceived maternal comparison and performance pressure at T1 would be negatively associated with school engagement at T2.

6) With regard to mediating role of parenting behaviors, it was hypothesized that parenting behaviors (i.e., perceived maternal warmth, inductive reasoning, comparison and performance pressure) at Time 1 would mediate the association between maternal educational expectations at Time 1 and school engagement at Time 2. Specifically, maternal educational expectations would be positively related to both maternal warmth and inductive reasoning which in turn positively related to school engagement. Also, there would be mediating roles of maternal comparison and performance pressure at Time 1 in the association between maternal educational expectations at Time 1 and school engagement at Time 2 (Figure 6).

7) With regard to school level, there are mix findings in relation to school engagement. However, to our knowledge, no research has yet examined the mediating role of parenting behaviors (i.e., perceived maternal warmth, inductive reasoning, comparison and performance pressure) in the association between maternal educational expectations and school engagement across school levels. It was analyzed exploratory.

8) In term of gender, prior literature has found supportive evidence for a high mean level of parental educational expectations and school engagement in favor of girls. However, to our knowledge, no research has yet examined the mediating roles of parenting behaviors (i.e., perceived maternal warmth, inductive reasoning, comparison and performance pressure) in the association between maternal educational expectations and school engagement across gender with a multigroup approach. It was analyzed exploratory.

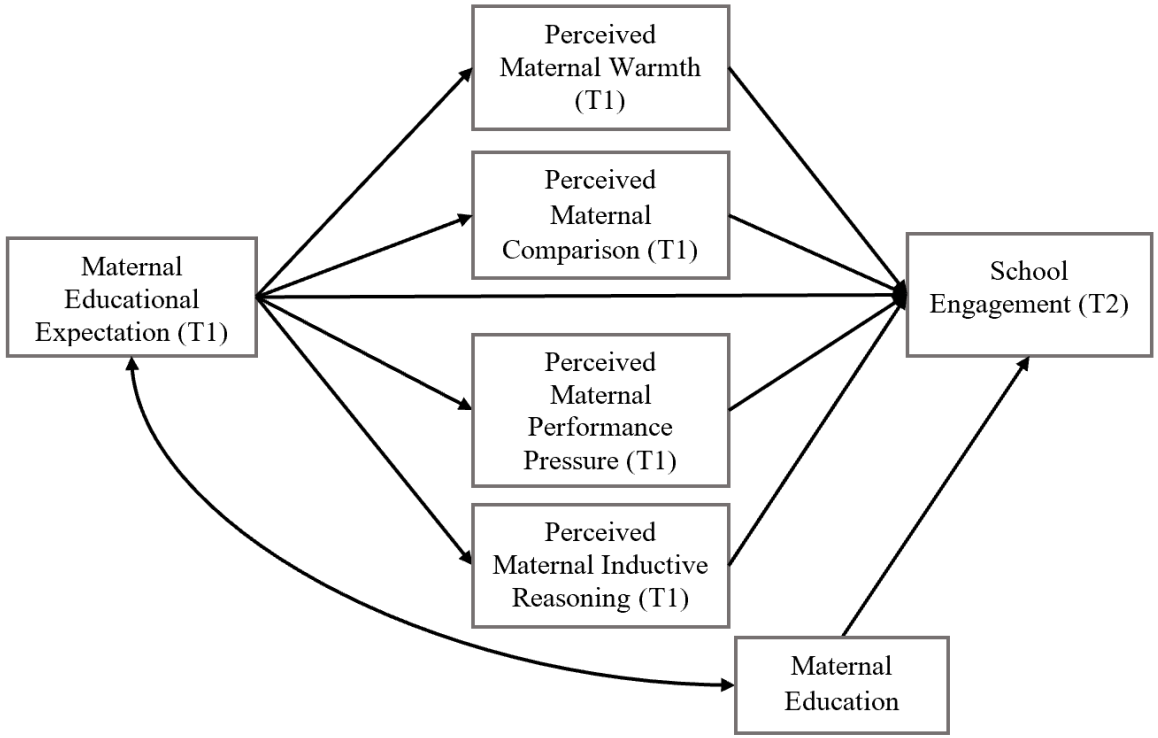

Figure 6. The Proposed Mediation Model

3.2. Method

3.2.1. Participants

As in Study 1, the data of Study 2 were also collected as part of Türkiye Family, Children and Adolescents Project (Türkiye, Aile, Çocuk ve Ergen Projesi, TAÇEP). It is a nationwide and longitudinal project with two time points. A total of 5066 children and adolescents who were in grades 3 to 11 at Time 1 participated to the project. However, at Time 2 686 number of children and adolescents could not be reached due to earthquake, and additional 1045 number dropped from the study due to personal reasons. Thus, at Time 2, 3335 number of children and adolescents participated in the larger project out of those 5066 at Time 1. Out of 3335 children, 3411 filled out the school engagement scale at Time 2 which was the outcome variable of the current study.

Participants filled out the questionnaires on Qualtrics platform that they could not skip any item of a questionnaire but they could discontinue to respond to the remaining questionnaires. Hence, there were no single missing item for any of the questionnaires (i.e., school engagement, maternal educational expectations, maternal warmth, inductive reasoning, performance pressure and comparison) used in the current study. However, some children who had school engagement score from Time 2 did not answer some questionnaires (i.e., maternal comparison and inductive reasoning) at Time 1 used as mediators in the current study. More specifically, 125 of 3411 children and adolescent did not have a perceived maternal comparison and inductive reasoning scores at Time 1. Similarly, some mothers did not report their expectations about their children's educational attainment which was an independent variable in the current study. Therefore, of the remaining 3286 children and adolescents, 305 mothers who did not have a maternal educational expectations data were deleted from the dataset. Therefore, the current study included 2981 mother-child dyads. The detailed information about demographics of the participants of Study 2 were given in Table 6.

3.2.2. Measures

Children and adolescents filled out parenting behavior measures of maternal warmth, maternal inductive reasoning, maternal comparison and maternal performance

Table 6. Mother-Child Dyads' Characteristics in Study 2

Characteristics	Sample (N=2981)
Child Gender	
Female	1579 (53 %)
Male	1402 (47%)
Age of children (T1) (in years)	12.46 (*Min*=7, *Max*=18)
Child School Type (T1)	
Public	2815 (94.4%)
Private	166 (5.6%)
School Levels (T2)	
Primary	382 (12.8%)
Middle	1444 (48.4%)
High	1155 (38.7%)
Child Grade (T2)	
4.	381 (12.8%)
5.	327 (11%)
6.	398 (13.4%)
7.	389 (13%)
8.	330 (11.1%)
9.	245 (8.2%)
10.	345 (11.6)
11.	305 (10.2%)
12.	258 (8.7%)
High school preparation class	2 (0.1%)
Type of high school	
Anatolian	449 (49.1%)
Science	25 (2.7%)
Religious Vocational High School	131 (14.3%)
Vocational and Technical High School	261 (28.6%)
Fine Arts	43 (4.7%)
Sports	5 (0.5%)
Type of middle school	
General	1149 (84.7%)
Religious Vocational Middle School	197 (14.5%)
District Boarding School	11 (0.8%)
Child's own room (T1)	
Yes	1471 (49.3%)
No	1509 (50.6%)

Table 6. (cont'd) Mother-Child Dyads' Characteristics in Study 2

Characteristics	Sample (N=2981)
Age of mothers (T1) (in years)	39.06 (*Min*=22, *Max*=62)
Mother's level of education (T1)	
Uncomplete Primary School, Illiterate	68 (2.3%)
Uncomplete Primary School, Literate	77 (2.6%)
Primary school	785 (26.3%)
Middle school	512 (17.2%)
High school	906 (30.4%)
University	584 (19.6%)
Master and Ph.D.	49 (1.7%)
Mother-reported monthly income (T1)	7098.20 TL (Minimum wage=4253.40 TL (316 $) (*Min*=0, *Max*=100.000)
Mothers perceived economic status (T1)	4.25 (*Min*=1, *Max*=10)
Settlement Type (T1)	
Urban	2089 (70.1%)
Rural	892 (29.9%)
Number of children (T1) (Mean)	2.59 (*Min*=1, *Max*=13)
Family Structure (T1)	
Nuclear	2494 (83.7%)
Extended	242 (8.1%)
Single parent	244 (8.2%)
Mothers' Married Status (T1)	
Married with the father of the child	2771 (93%)
Divorced	132 (4.4%)
Widow	43 (1.4%)
Remarried	35 (1.2%)

Note. T1= Time1, T2=Time 2

pressure and school engagement. Mothers were asked to fill out their expectations about their children's education attainment and a demographic form.

3.2.2.1. Child and Adolescent Measures

3.2.1.1.1. School Engagement

School engagement scale was used as an outcome variable in Study 2. In the scope of the project, it was given to children in 3rd to 11th grades at Time 1. However, in the

current study, school engagement collected from 4th to 12th grades at Time 2 was used. For Study 2, Cronbach alpha of the scale was .87 for whole sample, while it was .84 for primary school subsample (4th grade), .87 for middle school subsample (5th thru 8th grades) and .88 for high school subsample (9th thru 12th grades) at Time 2.

3.2.1.1.2. Maternal Warmth

Parental Acceptance-Rejection Questionnaire (PARQ) was used to assess children and adolescent's perceived maternal warmth/affection (Rohner & Khaleque, 2005a). The scale was adapted to the Turkish by Angel (1993). The scale originally includes four subdimensions (i.e., maternal warmth/affection, hostility, neglect, and undifferentiated rejection) and 24 items on a 4-point Likert type scale from 1 (*never*) to 4 (*always*). In the current study, warmth/affection subdimension with 8 items (e.g., "My mother says nice things about me.") was used to assess children's and adolescents' perceived maternal warmth/affection. Maternal warmth collected at Time 1 was used in the current study. In original study, Cronbach alpha of the subdimension was reported as .84. In the current study, Cronbach alpha of the warmth subdimension was .87 for whole sample, but it was .81 for primary school subsample, .86 for middle school subsample, and .91 for high school subsample at Time 1. The mean score of 8 items was used in the analyses.

3.2.1.1.3. Maternal Inductive Reasoning

Child-rearing Questionnaire (Paterson & Sanson, 1999) was used to assess children and adolescents perceived maternal inductive reasoning. The Turkish adaptation of the scale was made by Yagmurlu and Sanson (2009). The original scale is a mother-reported but Yavaslar (2016) adapted the scale as child-reported. The inductive reasoning subscale composed of 6 items on a 4-point Likert type scale from 1 (*never*) to 4 (*always*) was used in the current study. "My mother explains the consequences of my actions." is an example item of the subscale. Yavaslar (2016) reported Cronbach alpha of the subscale as .71 in her study. In the current study, maternal inductive reasoning collected at Time 1 was used. Cronbach alpha of the subscale was .86 for whole sample, but it was .85 for primary and middle school subsamples, and .88 for

high school subsample at Time 1. The mean score of 6 items was used in the analyses.

3.2.1.1.4. Maternal Comparison

The comparison subdimension of Parenting Behaviors Scale (PBS, Sumer et al., 2009) was used to investigate children's perceived maternal comparison. The comparison subdimension includes 5 items (e.g., "Does your mother compare you to your friends about lessons?") on a 4-point Likert-type scale ranging from 1 (*never*) to 4 (*always*). Maternal comparison collected at Time 1 was used in the current study. In the original article, Cronbach alpha of the scale was reported as .78 for this subdimension. In the current study, at Time 1, Cronbach alphas of the scale were .79 for primary school subsample, .87 for middle school subsample, .89 for high school subsample and .87 for the whole sample. The maternal comparison score was calculated by averaging 5 items of the scale.

3.2.1.1.5. Maternal Performance Pressure

The performance pressure subscale of Perceived Parental Autonomy Support Scale (P-PASS) (Mageau et al., 2015) was given to children and adolescents to understand how they perceive their mothers' performance pressure. The subscale includes 4 items (e.g., "My mother insisted that I always be better than others.") on a 4-point Likert-type scale ranging from 1 (*never*) to 4 (*always*). The subscale was translated into Turkish by the project team using the translation-back-translation method. Maternal performance pressure collected at Time 1 was used in the current study. At Time 1, Cronbach alpha of the scale with 4 items was .54 for primary school subsample, .66 for middle school subsample and .72 for high school subsample. The second item of the scale which is "My mother does not want that I do something just for enjoying myself instead of being successful." decreased the reliability of the scale for primary school subsample. Since children in this school level had difficulty to understand the meaning of the sentence, we decided to omit this item for primary school subsample. The reliability of the scale with three items increased to .58 for primary school subsample. The mean score of 4 items were calculated to use in the analyses of middle and high school subsamples, whereas the mean score was calculated with 3 items for primary school subsamples.

3.2.2.2. Parental Measures

3.2.2.2.1. Mothers' Expectations for Their Children's Education Attainment

At Time 1, mothers were asked *"How long do you think your child will continue to her/his education?"* (Dweck, 1999) to report their expectations about their children's education attainment. They responded to this question on a 6-point Likert-type scale ranging from 1 (*primary school*) to 6 (*graduate*).

3.2.2.2.2. Demographic Form

Mothers were asked to fill in the demographic information questions including the age, education level, monthly family income, income level compared to the society you are living in ranging from 1 to 10, family structure (nuclear, extended or single parent), the number of children in the household and whether the child has his or her own room.

3.2.3. Procedure

Procedure of Study 2 is same as Study 1. Mothers filled out the questionnaires via a Qualtrics link sent to their cellphones but mothers who did not have access to internet or cellphone or being illiterate were invited to schools and answered the questionnaires with the help of our research team.

Similarly, majority of the children filled out the questionnaires in their schools. An appropriate room in the schools were arranged with the help of the school administrations to distribute the questionnaires to the children and adolescents. Research team provided tablets to the children and adolescents and they filled out questionnaires through a Qualtrics link on given tablets. At Time 2, same participants were asked to participate the second part of the study, and same data collection procedure was applied. However, at Time 2, some children (e.g., 402 children from primary school to middle school and 322 children from middle school to high school) had passed to an upper school level, and an additional 200 children changed their schools due to other personal reasons. Therefore, the research team visited a total of 648 schools to reach those children who changed their schools at Time 2 in addition to children continued at same school. However, 229 children filled out the questionnaires through Qualtrics link sent to their or mothers cellphones because of

not reaching at their schools. A small gift was given to all mothers and children after filling out the questionnaires.

3.3. Results

3.3.1. Data Analytic Plan

Data screening, descriptive statistics, correlations, One-way Analysis of Variance (ANOVA), and Independent T-Test were conducted through the statistical software package of SPSS version 28. The statistical software package of SPSS Amos version 26 was used for multivariate normality, and the main analysis to compare the proposed path model across gender for primary, middle and high school. The data were checked for univariate and multivariate normality, and multicollinearity. Descriptive analyses, bivariate correlation analysis, one-way ANOVA and independent t-test were performed, respectively.

For structural invariance analysis, firstly whole dataset was split based on school levels of children at Time 2. Therefore, three different datasets for each school level (i.e., primary, middle and high school) were created. Then, multi-group path analysis across gender was performed for three datasets separately using maximum likelihood estimation (MLE). Respectively, configural invariance, weak invariance (also called as metric invariance) and strong invariance (also called as scalar invariance) were conducted to examine whether both male and female children had same path model, same path coefficients among variables and same intercepts. The chi-square ($\chi 2$), comparative fit index (CFI), and the root-mean-square error of approximation (RMSEA) values were reported to assess the model fit of the proposed model. When the model fit showed a CFI equal to 0.90 or above and RMSEA lower than 0.08, it was accepted as a good fit model (Byrne, 1998; Kline, 2005). Both chi square difference ($\Delta\chi 2$) and CFI difference (ΔCFI) were reported to decide whether or not nested models are accepted or rejected to refer a certain invariance across gender. However, Cheung and Rensvold (2002) emphasized that $\Delta\chi 2$ is sensitive to sample size. Hence, it was mainly relied on CFI difference with a cutoff value 0.01 as recommended by Cheung and Rensvold (2002). If an invariance was not achieved while constraining all path coefficients or intercepts to be equivalent across gender, each parameter was

constrained one by one based on previous accepted invariance model. This method is known as the forward method referring to sequentially adding parameters as equivalence. Putnick and Bornstein (2016) emphasized that the forward method is better than the backward method indicating sequentially releasing the parameters. Therefore, the forward method was used in the current study if invariance was not achieved in a certain parameter.

3.3.2. Data Screening

The data were checked for missing cases, univariate and multivariate normality, linearity, homoscedasticity and multicollinearity before conducting main analyses. Firstly, missing cases were detected in the dataset. The participants filled in the questionnaire via online link which did not allow to leave unanswered any item in a certain questionnaire. The questionnaires were given as block, but the order of questionnaires in a block was random. Therefore, there were no a single missing item in any questionnaires used in the current study. However, there were unanswered whole questionnaires because some participants quitted to answer the remaining questionnaires after some time. Related to this, the participants with missing questionnaires were deleted from the dataset. Specifically, out of 3411 children and adolescents in 4th to 12th grades at Time 2 who filled out school engagement scale, 125 children who did not answer the questionnaires of maternal comparison and inductive reasoning, and 305 their mothers who did not answer the item about maternal educational expectations were deleted from the dataset of the current study. Thus, 2981 mother-child dyads remained in the dataset. Univariate normality of each variable was assessed in SPSS 28 for separate datasets of each school level. Kline (2011) suggested that the cutoff values for univariate normality should be between -3 to +3 for skewness and between -10 to +10 for kurtosis. In the current study, both skewness and kurtosis of each variable (i.e., maternal educational expectations, maternal warmth, inductive reasoning, comparison and performance pressure at Time 1 as well as school engagement at Time 2) were in acceptable range (skewness= -1.37 to 1.26; kurtosis=-0.91 to 2.41) for each school level. Therefore, the datasets of each school level had a univariate normality. To assess multivariate normality, Mardia's coefficient in Amos 26 were used for separate datasets of each school level.

Bollen (1989) suggested that Mardia's coefficient should be less than p(p+2) which p is denoted to the number of observed variables. In the current study, there were 7 observed variables, therefore 7(7+2) equals to 63. For each school level, Mardia's coefficient was between 2 to 9, so they were lower than 63, which means that the datasets were multivariate normal. Multicollinearities of datasets of each school level were checked, and the VIFs of all variables were less than 5 as suggested. The correlation matrix also showed no multicollinearity with a range between -.46 to .56 for each school level.

3.3.3. Descriptive Statistics and Bivariate Correlations of Variables Across School Levels

Descriptive statistics and bivariate correlations of the study variables were given in Table 7 and Table 8 across school levels, respectively. Correlations between study variables ranged from -.23 to 52 for primary school, -.29 to .51 for middle school and -.46 to .51 for high school (see Table 8). To understand how school engagement of children differed across different school levels and gender, one-way ANOVA and independent t-test statistical analyses were conducted. In the following section, the details about these analyses were discussed.

3.3.4. Preliminary Analyses: One-way ANOVA for School Levels, and Independent T-Test for Gender

A Two-way Analysis of Variance (ANOVA) was conducted to investigate the differences in school engagement across gender and school levels. However, Levene's test of equality of error variances was significant *Levene's test* (5, 2975) = 2.36, $p < .05$ and the interaction between gender and school level was not significant, F (2, 2975) = 2.73, $p > .05$. Therefore, we decided to continue with a One-way Analysis of Variance (ANOVA) to examine how school engagement scores at Time 2 of the children and adolescents change across school levels. There was a significant difference in school engagement across school levels, F (2, 2978) = 61.97, $p < .001$. *Primary school students* reported significantly more school engagement at Time 2 compared to *middle* ($M_{diff.} = .17$, $p < .05$) and *high school students* ($M_{diff.} = .40$, $p < .05$) (see Table 7 for means of the school levels). Also, middle school students had higher average scores of school engagement than high school students ($M_{diff.} = .24$, $p < .05$).

Table 7. Descriptive Statistics of Variables Across School Levels

	Female					Male				
	N	*M*	*SD*	*Min.*	*Max.*	*N*	*M*	*SD*	*Min.*	*Max.*
Primary school										
School engagement (T2)	178	3.00	.65	1.00	4.00	204	2.83	.69	1.00	4.00
Maternal warmth (T1)	178	3.25	.67	1.00	4.00	204	3.26	.59	1.00	4.00
Maternal inductive reasoning (T1)	178	2.65	.83	1.00	4.00	204	2.84	.79	1.00	4.00
Maternal comparison (T1)	178	1.58	.61	1.00	4.00	204	1.67	.66	1.00	4.00
Maternal performance pressure (T1)	178	2.09	.77	1.00	4.00	204	2.18	.79	1.00	4.00
Mothers' educational expectations (T1)	178	5.08	.88	2.00	6.00	204	5.10	.96	1.00	6.00
Maternal education	178	4.29	1.34	1.00	7.00	204	4.57	1.36	1.00	7.00
Middle School										
School engagement (T2)	755	2.82	.67	1.00	4.00	689	2.66	.75	1.00	4.00
Maternal warmth (T1)	755	3.35	.59	1.00	4.00	689	3.33	.57	1.13	4.00
Maternal inductive reasoning (T1)	755	2.99	.76	1.00	4.00	689	3.03	.72	1.00	4.00
Maternal comparison (T1)	755	1.78	.76	1.00	4.00	689	1.84	.75	1.00	4.00
Maternal performance pressure (T1)	755	1.98	.71	1.00	4.00	689	2.14	.74	1.00	4.00
Mothers' educational expectations (T1)	755	5.17	.77	2.00	6.00	689	4.99	.88	1.00	6.00
Maternal education	755	4.39	1.28	1.00	8.00	689	4.39	1.29	1.00	7.00
High School										
School engagement (T2)	646	2.63	.67	1.00	4.00	509	2.35	.71	1.00	4.00
Maternal warmth (T1)	646	3.10	.74	1.00	4.00	509	3.19	.59	1.00	4.00
Maternal inductive reasoning (T1)	646	2.92	.76	1.00	4.00	509	2.89	.71	1.00	4.00
Maternal comparison (T1)	646	1.99	.85	1.00	4.00	509	1.87	.77	1.00	4.00
Maternal performance pressure (T1)	646	2.07	.79	1.00	4.00	509	2.08	.74	1.00	4.00
Mothers' educational expectations (T1)	646	5.23	.65	3.00	6.00	509	4.96	.80	2.00	6.00
Maternal education	646	4.23	1.28	1.00	8.00	509	4.40	1.30	1.00	8.00

Note. School levels at Time 2 were reported. Maternal education was coded as 1=Illiterate, 8=Ph.D.

Table 8. Pearson's Correlations between Variables across School Levels

Variables	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
Primary school (n = 382)								
1. School engagement (T2)	1							
2. Maternal warmth (T1)	**.18****	1						
3. Maternal inductive reasoning (T1)	**.15****	**.52****	1					
4. Maternal comparison (T1)	-.07	**-.23****	-.01	1				
5. Maternal performance pressure (T1)	.06	.04	.03	**.33****	1			
6. Mothers' education expectations (T1)	.06	**.26****	**.17****	-.06	-.09	1		
7. Maternal education	-.09	**.18****	**.16****	-.10	**-.19****	**.36****	1	
8. Gender	-.13	.00	**.11***	.07	.06	.01	**.10***	1
Middle School (n = 1444)								
1. School engagement (T2)	1							
2. Maternal warmth (T1)	**.28***	1						
3. Maternal inductive reasoning (T1)	**.23****	**.51****	1					
4. Maternal comparison (T1)	**-.12****	**-.29****	-.01	1				
5. Maternal performance pressure (T1)	-.02	**-.13****	**.07****	**.45****	1			
6. Mothers' education expectations (T1)	**.16****	**.13****	**.11****	-.02	**-.09****	1		
7. Maternal education	-.02	**.13****	**.07****	.02	**-.09****	**.21****	1	
8. Gender	**-.11****	-.02	.03	.04	**.11****	**-.11****	-.00	1
High School (n = 1155)								
1. School engagement (T2)	1							
2. Maternal warmth (T1)	**.20****	1						
3. Maternal inductive reasoning (T1)	**.23****	**.51****	1					
4. Maternal comparison (T1)	**-.06***	**-.46****	**-.11****	1				
5. Maternal performance pressure (T1)	.01	**-.31****	.04	**.56****	1			
6. Mothers' education expectations (T1)	**.19****	**.09****	.01	.01	-.01	1		
7. Maternal education	-.05	.04	-.02	**-.06***	**-.11****	**.18****	1	
8. Gender	**-.20****	**.07***	-.03	**-.07***	.01	**-.19****	**.07***	1

Note. $^{*}p < .05$, $^{**}p < .01$. School levels of Time 2 were reported. Child's gender was coded as 0 = girls, 1 = boys.

An Independent t-test was also conducted to examine gender difference in school engagement with three separate datasets regarding school levels (i.e., primary, middle and high school). *Girls in primary school* (M = 3.00, SD = .65) compared to *boys* (M = 2.83, SD = .69) had higher school engagement t (380) = 2.54, $p < .05$. Similarly, there was a significant difference between girls ($M_{mid.\ sch.}$ = 2.82, $SD_{mid.\ sch.}$ = .67; $M_{high.\ sch.}$ = 2.63, $SD_{high.\ sch.}$ = .67) and boys ($M_{mid.\ sch.}$ = 2.66, $SD_{mid.\ sch.}$ = .75; $M_{high.\ sch.}$ = 2.35, $SD_{high.\ sch.}$ = .71) in middle school, t (1386.93) = 4.19, $p < .001$ and in high school, t (1153) = 6.95, $p < .001$. In sum, girls reported significantly higher school engagement than boys across all school levels.

3.3.5. Maternal Educational Expectations across School Levels and Gender

The descriptive statistics of mother's expectations about their children's educational attainment were given in Table 9 and Figures 7-11. The majority of mothers at all school levels expected their children to receive a 4-year undergraduate or graduate education. Two of the mothers whose children went to middle and high school probably misunderstood the question. Since their children attended middle school or high school but their expectations for their children' educational attainment were primary school and middle school, respectively (see Table 9). Similarly, mothers of females and males predominantly reported their expectations as 4-year undergraduate or graduate education (Figure 10 and 11).

3.3.6. Multigroup Comparison across Gender for Each School Level

With respect to the impacts of school levels and gender *(hypothesis 7 and 8)*, it was aimed that the mediating model was analyzed through a multigroup comparison analysis in order to understand whether or not the model differed across gender for each school level.

For ***primary school level***, firstly, baseline model for each gender was separately analyzed. As in Table 10, the model fit indices of female children indicated a poor model fit, χ^2 (4) = 14.62, $p < .01$, CFI = .916, $RMSEA$ = .122. Based on modification indices which suggested a path from maternal education to maternal performance pressure, since it was theoretically meaningful, a path was added to the model. The new model showed a better fit to the data, χ^2 (3) = 7.84, $p < .05$, CFI = .962, $RMSEA$ = .095.

Table 9. The Percentages of Mothers' Expectations about Educational Attainment

	Frequency (N)	*Percent (%)*
Primary school (T2)		
Primary school	1	0.3
Middle School	5	1.3
High School	29	7.6
2-year-undergraduate	19	5
4-year-undergraduate	198	51.8
Graduate	130	34
Middle school (T2)		
Primary school	1	0.1
Middle School	15	1
High School	86	6
2-year-undergraduate	82	5.7
4-year-undergraduate	836	57.9
Graduate	424	29.4
High school (T2)		
Primary school	-	-
Middle School	1	0.1
High School	49	4.2
2-year-undergraduate	99	8.6
4-year-undergraduate	678	58.7
Graduate	328	28.4

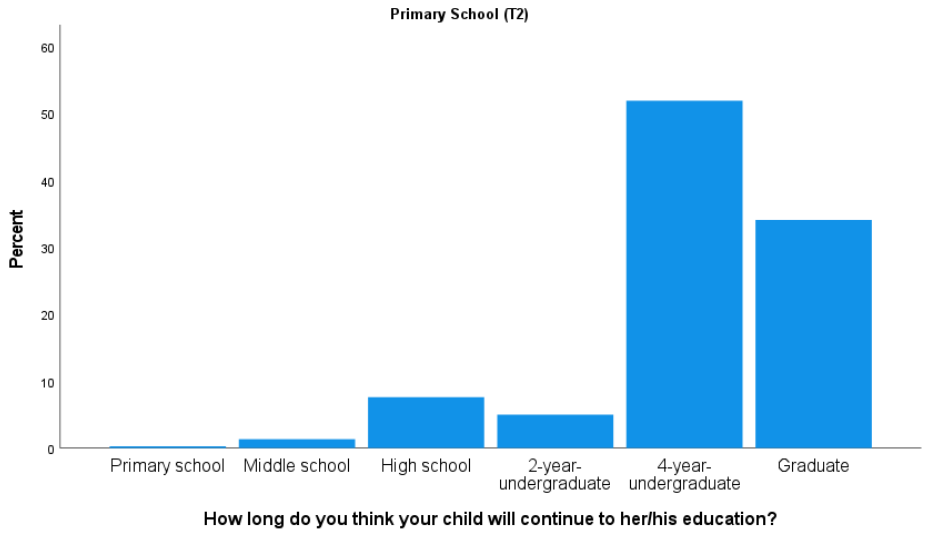

Figure 7. Maternal Expectations for Primary School Children (*N*= 382)

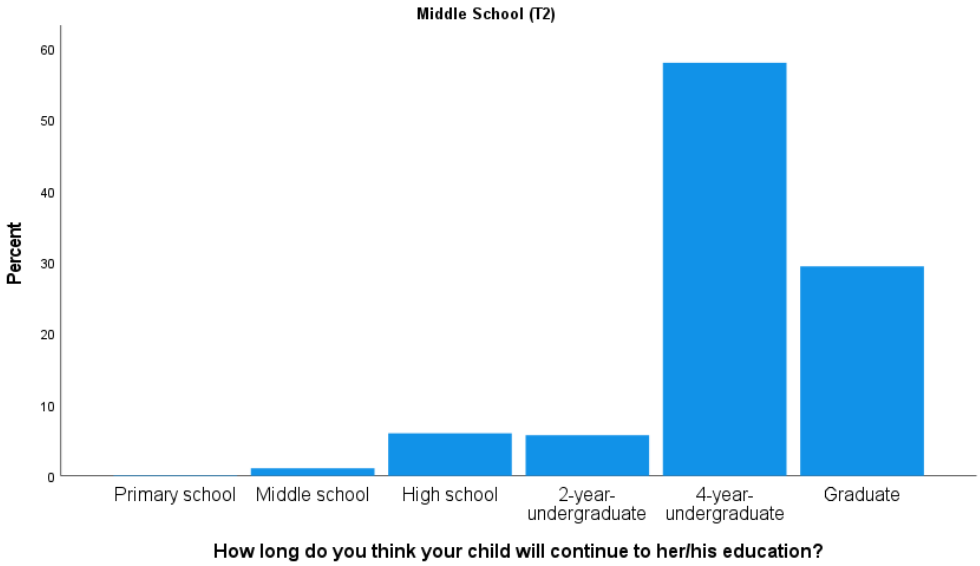

Figure 8. Maternal Expectations for Middle School Children (*N*= 1444)

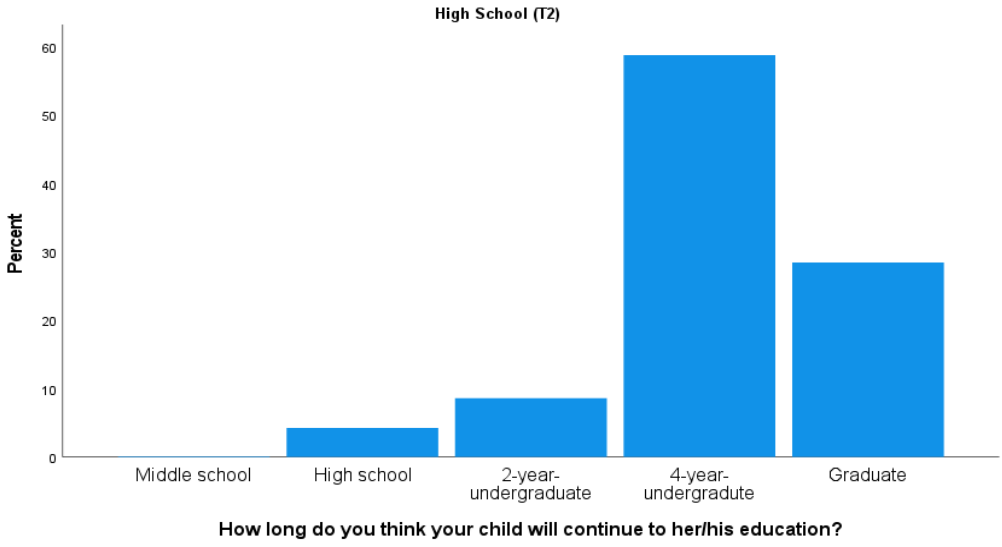

Figure 9. Maternal Expectations for High School Children (*N*= 1155)

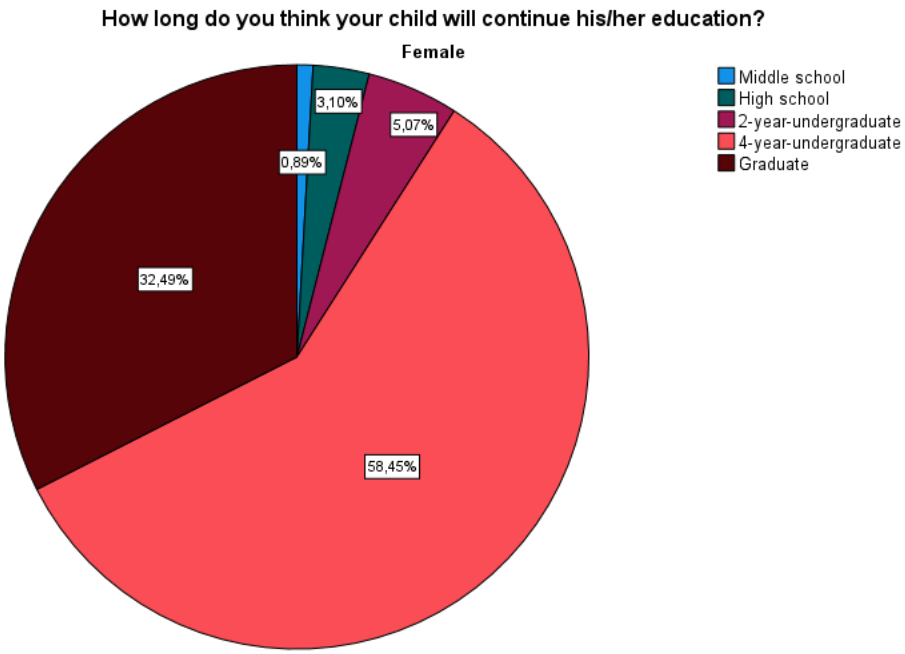

Figure 10. Maternal Educational Expectations for Females (N=1579)

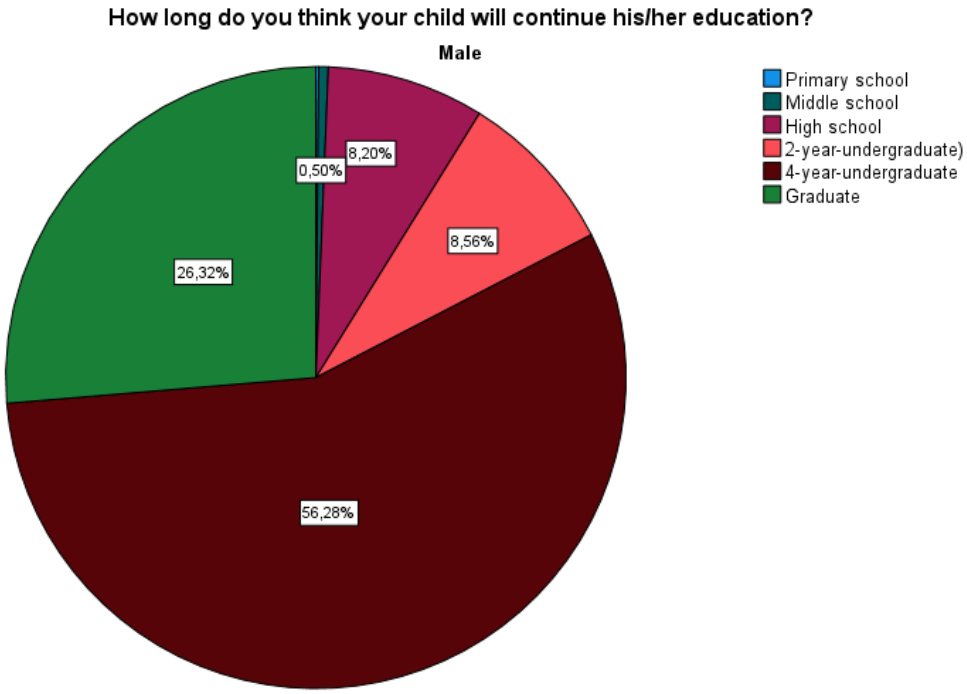

Figure 11. Maternal Educational Expectations for Males (N=1402)

However, *RMSEA* value was still greater than .08. The comparison of the two models showed a significant difference, $\Delta\chi^2$ (1) = 6.78, $p < .01$, suggesting that the more comprehensive model with an additional path was better than the previous model. Then, to decrease the *RMSEA* value, a nonsignificant path (i.e., maternal education expectations to performance pressure) were removed from the last accepted model. This model indicated a good fit to the data, χ^2 (4) = 7.87, $p > .05$, *CFI* = .969, *RMSEA* = .074. The comparison of this model with the previous model showed that there was no significant difference, $\Delta\chi^2$ (1) = 0.03, $p > .05$, so the last more parsimonious model was accepted as baseline model for females (Table 10 and Figure 12)

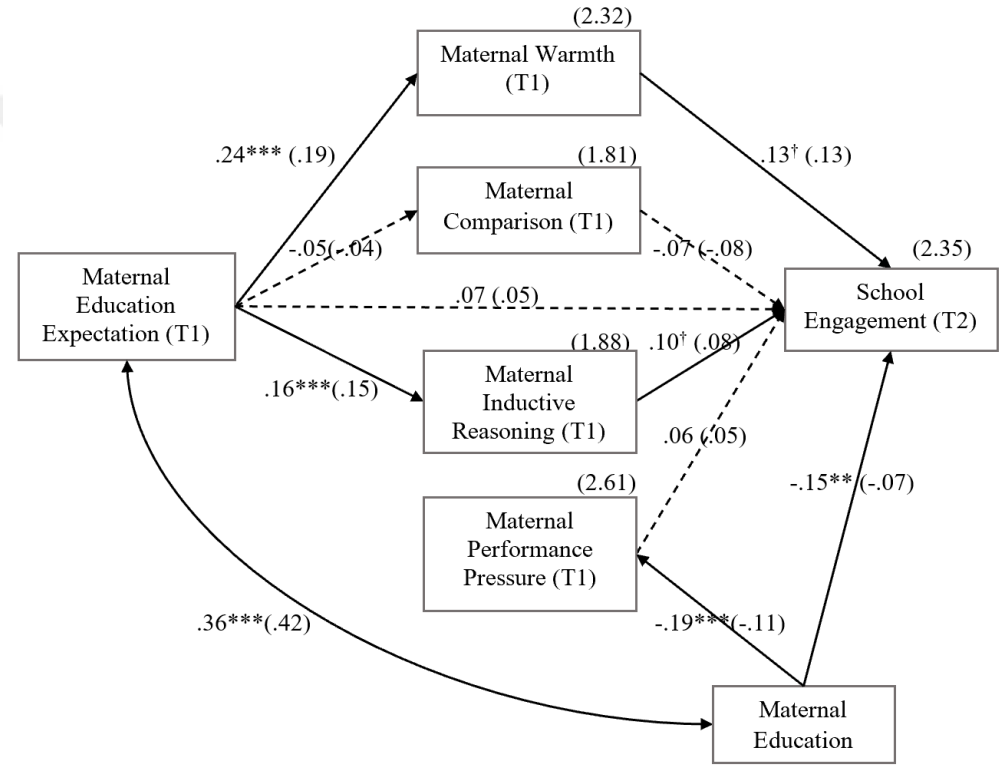

Figure 12. Final Accepted Model for Girls of Primary School

Notes. Scores in parentheses are unstandardized. Unstandardized intercepts are given at the above corner of each endogenous variable. $^{**}p < .01$, $^{***}p < .001$, $^{\dagger}p < .10$.

For males, the fit indices of the first baseline model indicated a good fit, χ^2 (4) = 7.52, $p > .05$, *CFI* = .980, *RMSEA* = .066. However, similar to the modification indices of females, it suggested to add an additional path from maternal education to performance pressure. Therefore, this path was added to the model. The new more comprehensive model showed a perfect fit to the data, χ^2 (3) = 1.80, $p > .05$, *CFI* = 1.000, *RMSEA* =

.000. The comparison of the models showed a significant difference between them, $\Delta\chi^2$ (1) = 5.73, $p < .05$. It was decided to accept the more comprehensive model with perfect fit indices. Then, to have same baseline model for females, a nonsignificant path in the accepted model were removed (i.e., maternal education expectations to performance pressure). Similar to the previous model, the more parsimonious model showed a perfect fit to the data, χ^2 (4) = 2.02, $p > .05$, *CFI* = 1.000, *RMSEA* = .000. There was no significant difference between them, $\Delta\chi^2$ (1) = 0.22, $p > .05$.

The last model with a nonsignificant path was accepted as baseline model for males (Table 10 and Figure 13). Thus, both genders had same baseline model with good fit indices to analyze configural invariance model.

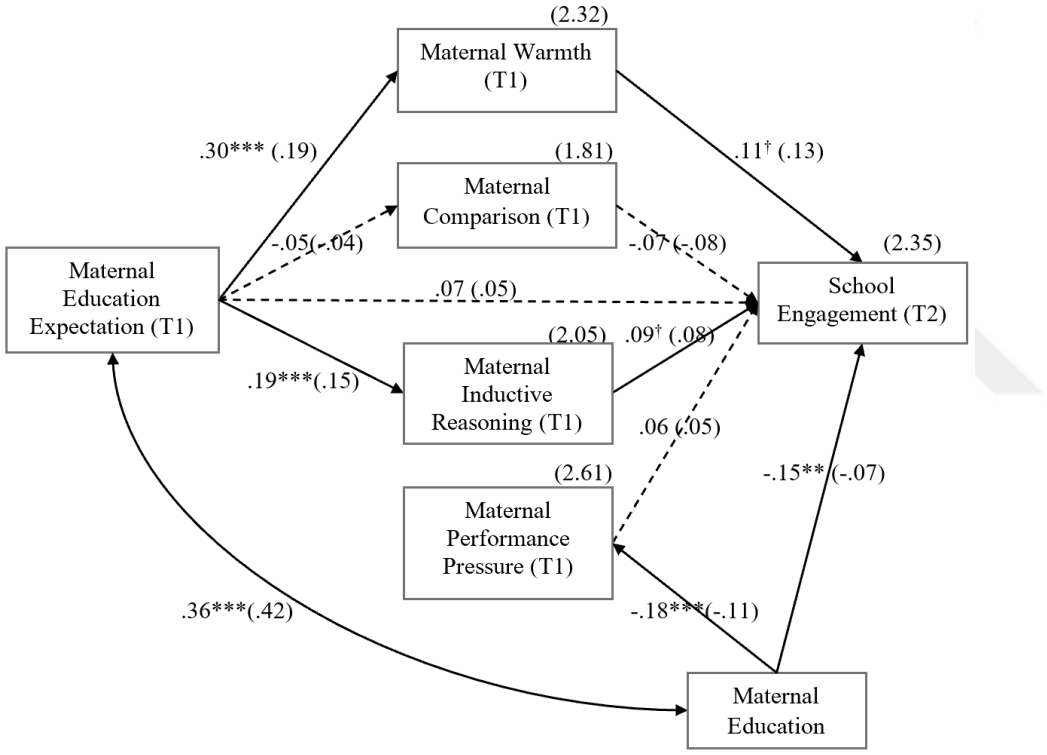

Figure 13. Final Accepted Model for Boys of Primary School

Notes. Scores in parentheses are unstandardized. Unstandardized intercepts are given at the above corner of each endogenous variable. $^{**}p < .01$, $^{***}p < .001$, $^{\dagger}p < .10$.

Second, configural invariance model referring to same path model while allowing freely estimations of all path coefficients, and intercepts across gender was tested. As in Table 10, the model fit indices showed a good fit model, χ^2 (8) = 9.89, $p > .05$, *CFI* = .994, *RMSEA* = .025, indicating that both females and males had the same path model.

Third, metric (weak) invariance model was tested by constraining all path coefficients to be equivalent across gender while allowing intercepts to vary. The model fit indices indicated that metric invariance model showed a perfect fit to the data, χ^2 (18) = 14.31, $p > .05$, *CFI* = 1.000, *RMSEA* = .000. Also, the comparison with configural invariance model indicated that full metric invariance was supported, $\Delta\chi^2$ (10) = 4.42, $p > .05$ and ΔCFI = .006. It indicated a full metric invariance meaning that all path coefficients across males and females were equal to each other (Table 10).

Lastly, scalar (strong) invariance model referring equivalence of the intercepts in addition to path coefficients across gender was tested. The model fit indices indicated a good fit to the data, χ^2 (23) = 30.45, $p > .05$, *CFI* = .976, *RMSEA* = .029. However, the comparison with configural invariance model demonstrated a non-full scalar invariance model because a significant difference between the models and *CFI* difference greater than .01, $\Delta\chi^2$ (5) = 16.14, $p < .01$ and ΔCFI = .024. Then, to examine partial scalar invariance model, the intercepts were sequentially constrained to be equivalent into the previous models based on the forward method. Respectively, the intercepts of maternal warmth (j1), maternal comparison (j2), maternal performance pressure (j3), school engagement (j4) and maternal inductive reasoning (j5) were constrained to be equivalent across gender. Except for the intercept of maternal inductive reasoning, all other intercepts were equivalent across gender. The fit indices and comparison of the nested models were given in Table 10. Thus, partial scalar invariance was achieved, indicating an equivalence of all path coefficients and intercepts except for maternal inductive reasoning (j5) across gender (Table 10).

The path coefficients and intercepts of each group based on final scalar partial invariance model were separately given in Figure 12 and 13. The results showed that maternal education expectations were positively related to both maternal warmth (b = .19, $p < .001$) and inductive reasoning (b = .15, $p < .001$). However, there were no significant direct associations from maternal education expectations to both maternal comparison (b = -.04, $p > .05$) and school engagement at Time 2 (b = .05, $p > .05$). Similarly, maternal performance pressure (b = .05, $p > .05$) and comparison (b = -.08, $p > .05$) were not significantly related to school engagement. On the other hand, maternal warmth (b = .13, p = .051) and inductive reasoning (b = .08, p = .097) showed

a tendency to be positively associated with school engagement. Lastly, higher maternal education was significantly related to a decrease in school engagement (b = -.07, p < .01) and maternal performance pressure (b = -.11, p < .001).

According to partial scalar invariance model, both genders had same path coefficients and intercepts except for maternal inductive reasoning ($int._{male}$ = 2.05, $int._{female}$ =1.88) as given in Figure 12 and 13. Male children reported a higher maternal inductive reasoning than female children when the other variables were zero in the model.

Lastly, 2000 bootstrapping sample with 95% bias-corrected percentile (BC) was performed to investigate the indirect effects of maternal warmth and inductive reasoning. The results showed that neither maternal warmth (b = .024, 95 % *CI* [-.001, .057]) nor inductive reasoning (b = .012, 95 % *CI* [-.001, .032]) significantly mediated the association between maternal education expectations and school engagement.

For ***middle school level***, baseline model was separately tested across gender. The model fit indices indicated that the model of female children adequately fitted the data, χ^2 (4) = 26.69, p < .001, *CFI* = .967, *RMSEA* = .087. To increase the fitting of *RMSEA*, a nonsignificant path (i.e., performance pressure→school engagement) was removed from the model (Figure 14). The more parsimony model showed a better fit, χ^2 (5) = 27.14, p < .001, *CFI* = .968, *RMSEA* = .077. The comparison of these models indicated a non-significant difference, $\Delta\chi^2$ (1) = .445, p > .05 (Table 11).

For males, the model also showed a good fit to the data, χ^2 (4) = 12.66, p < .05, *CFI* = .984, *RMSEA* = .056. However, similar to the baseline model of females, the same nonsignificant path ((i.e., performance pressure→school engagement) was removed (Figure 15), and it indicated a good fit, χ^2 (5) = 15.44, p < .05, *CFI* = .981, *RMSEA* = .055. There was no significant difference between the models, $\Delta\chi^2$ (1) = 2.78, p > .05 (Table 11). Therefore, as a common baseline model of both male and female, the last model removed the path from performance pressure to school engagement was accepted to test configural invariance model. Configural invariance model showed a good fit to the data, χ^2 (10) = 42.58, p < .001, *CFI* = .974, *RMSEA* = .048. It means that both genders had a same path model. In other words, the proposed structural path model was equivalent for both genders (Table 11).

Table 10. Multigroup Comparison for Primary School Level

Model (MLE)	χ^2(df)	CFI	RMSEA	Model Comparison	$\Delta\chi^2$ (Δdf)	ΔCFI	Decision
Baseline model (only for female) (BF1)	14.62 (4)	.916	.122	-	-	-	-
Baseline model with a new path (Maternal education→performance press., only for female) (BF2)	7.84 (3)	.962	.095	BF1-BF2	6.78** (1)	-	Accept
Adjusted baseline model without a non-sig. path (expectations→comparison, only for female) (BF3)	7.87 (4)	.969	.074	BF2-BF3	0.03 (1)	-	Accept
Baseline model (only for male) (BM1)	7.52 (4)	.980	.066	-	-	-	-
Baseline model with a new path (Maternal education→performance press., only for male) (BM2)	1.80 (3)	1.000	.000	BM1-BM2	5.73* (1)	-	Accept
Adjusted baseline model without a non-sig. path (expectations→comparison, only for male) (BM3)	2.02 (4)	1.000	.000	BM2-BM3	0.22 (1)	-	Accept

Note. N = 382; n_{female} = 178, n_{male} = 204. M7 was the final accepted model, which was a partial scalar invariance model. j1: warmth, j2: comparison, j3: performance pressure, j4: school engagement, j5: inductive reasoning. $^{*}p < .05$, $^{**}p < .01$.

Table 10. (cont'd) Multigroup Comparison for Primary School Level

Model (MLE)	χ^2(df)	CFI	RMSEA	Model Comparison	$\Delta\chi^2$ (Δdf)	ΔCFI	Decision
Configural model (M1)	9.89 (8)	.994	.025	-	-	-	-
Metric invariance (M2)	14.31 (18)	1.000	.000	M1-M2	4.42 (10)	.006	Accept
Scalar invariance (M3)	30.45 (23)	.976	.029	M2-M3	16.14 (5)	.024	Reject
Partial scalar invariance							
j1 constrained (M4)	14.31 (19)	1.000	.000	M2-M4	.000 (1)	.000	Accept
j2 constrained (M5)	16.45 (20)	1.000	.000	M4-M5	2.14 (1)	.000	Accept
j3 constrained (M6)	17.23 (21)	1.000	.000	M5-M6	1.27 (1)	.000	Accept
j4 constrained (M7)	24.34 (22)	.992	.017	M6-M7	6.61** (1)	.008	Accept
j5 constrained (M8)	30.45 (23)	.976	.029	M7-M8	6.11* (1)	.016	Reject

Note. N = 382; n_{female} = 178, n_{male} = 204. M7 was the final accepted model, which was a partial scalar invariance model. j1: warmth, j2: comparison, j3: performance pressure, j4: school engagement, j5: inductive reasoning. $^{*}p < .05$, $^{**}p < .01$.

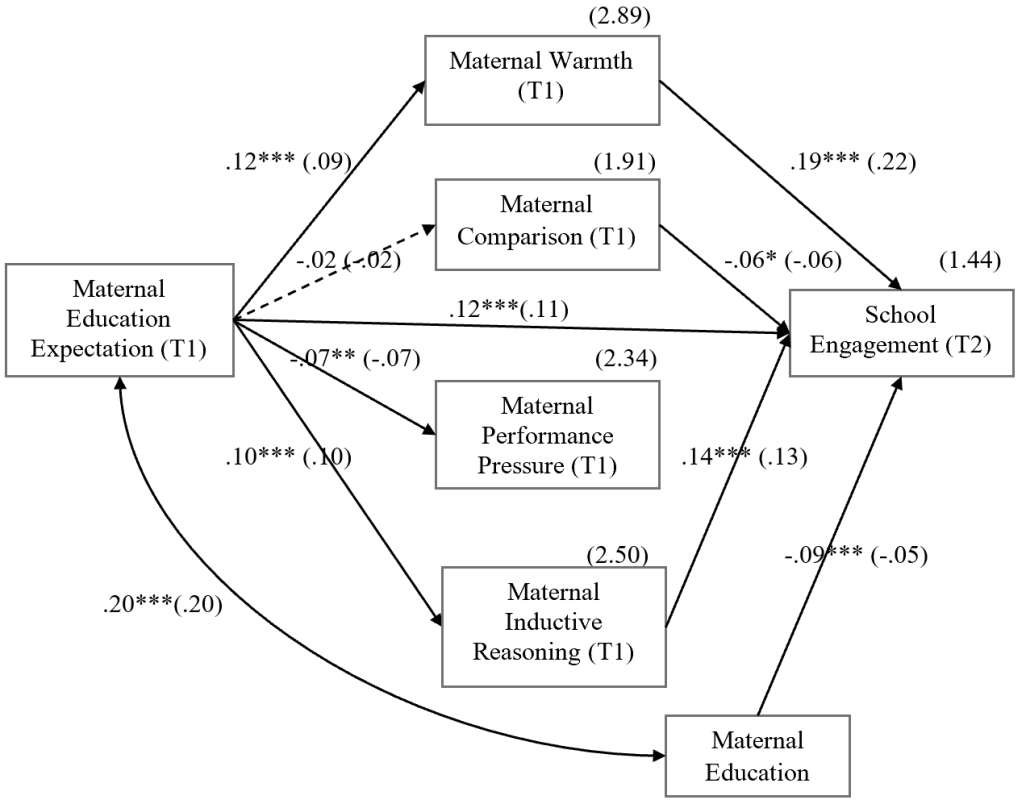

Figure 14. Final Accepted Model for Girls of Middle School

Notes. Scores in parentheses are unstandardized. Unstandardized intercepts are given at the above corner of each endogenous variable. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Then, metric invariance model was tested by constraining path coefficients to be equivalent across gender, but allowing to vary intercepts. It demonstrated a good fit model to the data, χ^2 (19) = 54.01, $p < .001$, *CFI* = .972, *RMSEA* = .036, indicating an equivalence in path coefficients of both genders. When comparing metric invariance model with the configural invariance model, there was no significant difference, $\Delta\chi^2$ (9) = 11.44, $p > .05$ and ΔCFI = .002. Therefore, the metric invariance model was accepted (Table11). Lastly, scalar invariance model was tested to ensure the equivalence of the intercepts across gender in addition to path coefficients. Model fit indices indicated that the scalar invariance model fitted well to the data, χ^2 (24) = 85.93, $p < .001$, *CFI* = .951, *RMSEA* = .042. However, the comparison between metric and scalar invariance model showed that there was a significant difference, $\Delta\chi^2$ (5) =

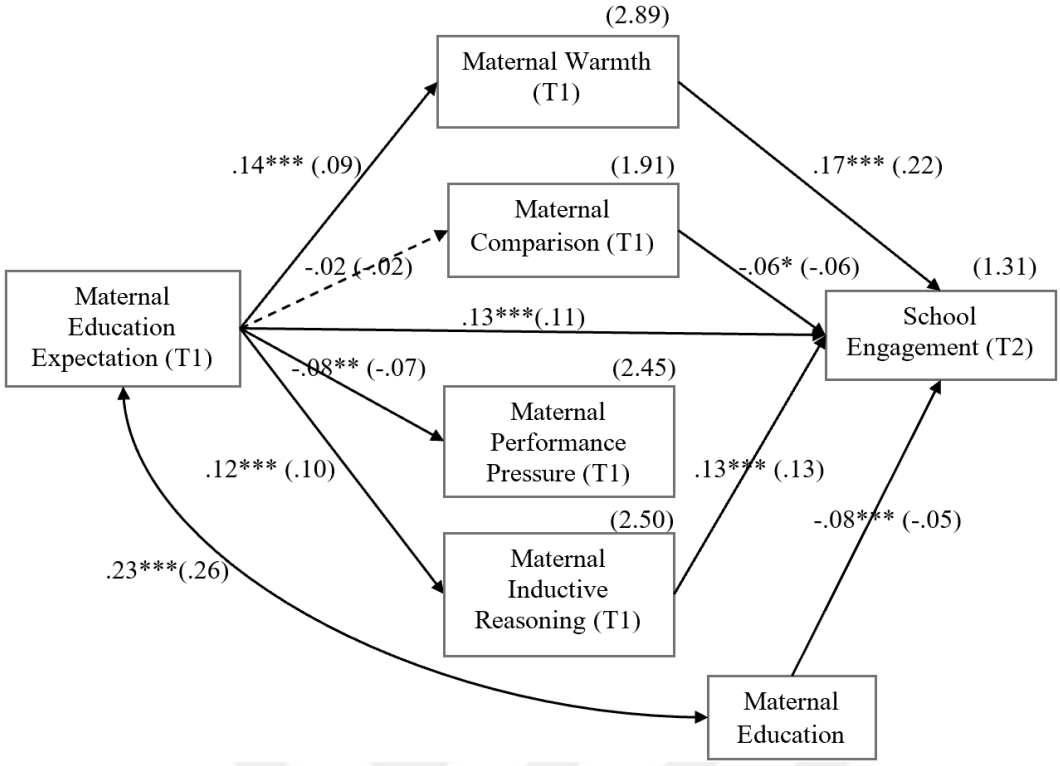

Figure 15. Final Accepted Model for Boys of Middle School

Notes. Scores in parentheses are unstandardized. Unstandardized intercepts are given at the above corner of each endogenous variable. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

31.92, $p < .001$ and $\Delta CFI = .021$ greater than .01 cutoff values of *CFI*. Since the full scalar invariance model was not accepted, the forward method to sequentially added equivalences of the intercepts into the accepted metric invariance model was performed. Sequentially, the intercepts of maternal warmth (j1), maternal comparison (j2), maternal performance pressure (j3), school engagement (j4) and maternal inductive reasoning (j5) was constrained to be equivalent across gender. The model with equivalent intercepts of maternal warmth indicated a good fit model, χ^2 (20) = 54.02, $p < .001$, *CFI* = .973, *RMSEA* = .034.

Also, the comparison with the metric invariance model showed a non-significant difference between them, $\Delta\chi^2$ (1) = .003, $p > .05$ and $\Delta CFI = .001$. The model fit indices and the comparisons of other nested models showed that all intercepts except for maternal performance pressure (j3) and school engagement (j4) were equivalent across gender as given in Table 11. In conclusion, the partial scalar invariance was accepted,

indicating an equivalence in both all path coefficients and the intercepts except for performance pressure and school engagement across gender (Table 11).

Path coefficients and intercepts of the final accepted model were separately given in Figure 14 for females and in Figure 15 for males. For both males and females, the results showed that maternal education expectations were positively related to both maternal warmth (b = .09, p < .001) and inductive reasoning (b = .10, p < .001). However, it was negatively related to maternal performance pressure, (b = -.07, p < .01). Also, it was directly and positively associated with school engagement at Time 2, (b = .11, p < .001). Maternal warmth (b = .22, p < .001) and inductive reasoning (b= .13, p < .001) were positively related to school engagement, but negatively associated with maternal comparison (b = -.06, p < .05). Similarly, children of less educated mothers showed higher school engagement compared to the children with more educated mothers, (b = -.05, p < .001). The correlation between maternal education level and mothers' education expectations was positive for both males (r = .26, p < .001) and females (r =.20, p < .001). Lastly, regarding partial scalar invariance model, both females and males had same intercepts of maternal warmth, comparison, and inductive reasoning as given in Figures 14 and 15. However, they had different intercepts for performance pressure ($int._{male}$ = 2.45, $int._{female}$ = 2.34) and for school engagement ($int._{male}$ = 1.31, $int._{female}$ = 1.44). Male children had higher performance pressure than female children when the other variables were zero. However, they showed lower school engagement compared to females. To examine the indirect effects of maternal education expectations through maternal warmth and inductive reasoning, 2000 bootstrapping sample with 95% bias-corrected percentile (BC) were performed. The results showed that the association between maternal education expectations and school engagement was significantly mediated by both warmth (b = .020, 95 % *CI* [.010, .032]) and inductive reasoning (b = .013, 95 % *CI* [.005, .023]).

For ***high school level***, baseline model for each gender was separately analyzed. The model fit indices showed that the model for female children fitted the data well, χ^2 (4) = 14.27, p < .01, *CFI* = .989, *RMSEA* = .063 (Figure 16). On the other hand, the baseline model of males indicated a better fit model, χ^2 (4) = 8.18, p > .05, *CFI* = .990, *RMSEA* = .045 as in Table 12 and Figure 17.

Table 11. Multigroup Comparison for Middle School Level

Model (MLE)	χ^2(df)	CFI	RMSEA	Model Comparison	$\Delta\chi^2$ (Δdf)	ΔCFI	Decision
Baseline model (only for female) (BF1)	26.69 (4)	.967	.087	-	-	-	-
The more parsimony baseline model (only for female) (BF2)	27.14 (5)	.968	.077	BF1-BF2	.445 (1)	.001	Accept
Baseline model (only for male) (BM1)	12.66 (4)	.984	.056	-	-	-	-
The more parsimony baseline model (only for male) (BM2)	15.44 (5)	.981	.055	BM1-BM2	2.78 (1)	.003	Accept
Configural model (M1)	42.58 (10)	.974	.048	-	-	-	Accept
Metric invariance (M2)	54.01 (19)	.972	.036	M1-M2	11.44 (9)	.002	Accept
Scalar invariance (M3)	85.93 (24)	.951	.042	M2-M3	31.92***(5)	.021	Reject
Partial Scalar Invariance							
j1 constrained (M4)	54.02 (20)	.973	.034	M2-M4	.003 (1)	.001	Accept
j2 constrained (M5)	56.12 (21)	.972	.034	M4-M5	2.10 (1)	.001	Accept
j3 constrained (M6)	70.25 (22)	.961	.039	M5-M6	14.13***(1)	.011	Reject
j4 constrained (M7)	70.48 (22)	.961	.039	M5-M7	14.36***(1)	.011	Reject
j5 constrained (M8)	58.53 (22)	.971	.034	M5-M8	2.41 (1)	.001	Accept

Note. N = 1444; n_{female} = 755, n_{male} = 689. j1: warmth, j2: comparison, j3: performance pressure, j4: school engagement, j5: inductive reasoning. M8 was the final accepted model, which was a partial scalar invariance model. $^{***}p < .001$.

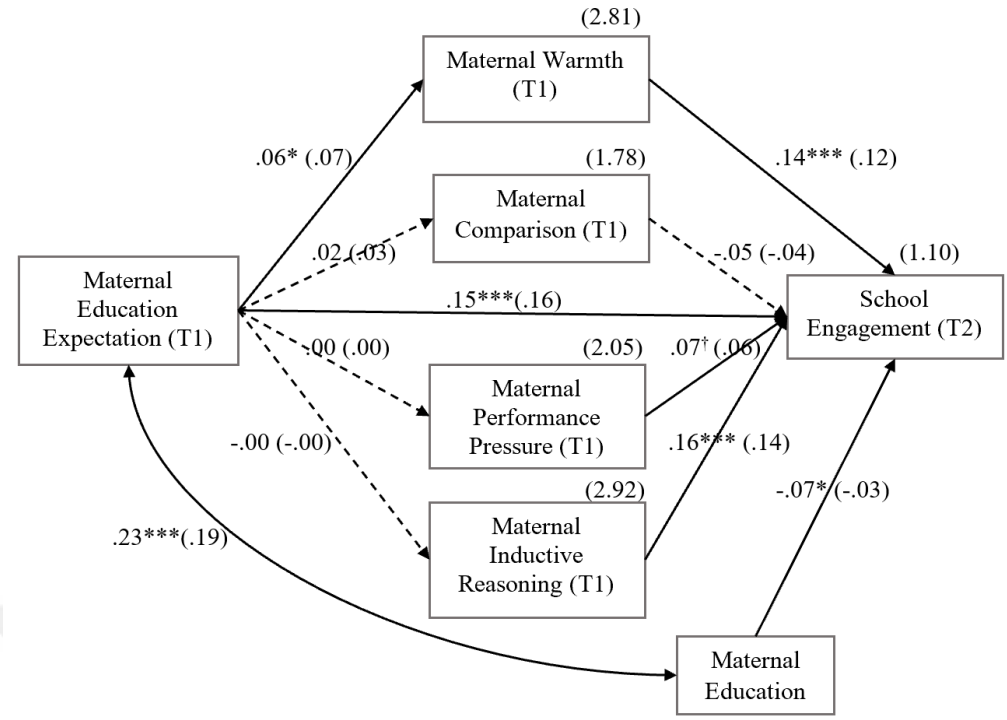

Figure 16. Final Accepted Model for Girls of High School

Notes. Scores in parentheses are unstandardized. Unstandardized intercepts are given at the above corner of each endogenous variable. Dashed lines indicate non-significant links. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$, $^{\dagger}p < .10$.

Secondly, the accepted baseline model was examined through multi-group analysis to ensure a configural model examining whether or not same path model is valid for both genders. The results showed that there was an equivalence in terms of the path model for both males and females in this unconstrained structural model, χ^2 (8) = 22.45, $p <$ .01, *CFI* = .989, *RMSEA* = .040 (Table 12). Thirdly, metric invariance model was conducted to understand whether or not path coefficients are same across gender while allowing intercepts to vary. The metric invariance model with equivalent path coefficients indicated a good fit to the data, χ^2 (18) = 44.42, $p < .01$, *CFI* = .980, *RMSEA* = .036. It means that both male and female children had same path coefficients. When comparing metric invariance model with the configural model, metric invariance model was accepted based on *CFI* difference test lower than .01, $\Delta\chi^2$ (10) = 21.97, $p < .05$ and ΔCFI = .009 (Table 12).

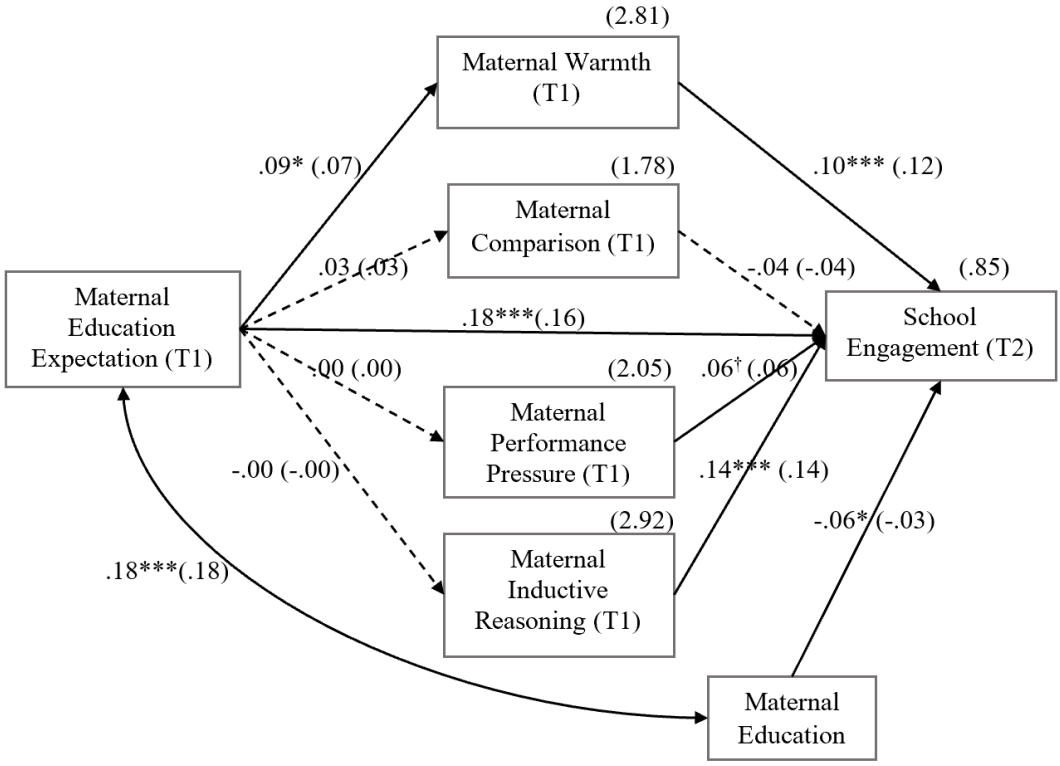

Figure 17. Final Accepted Model for Boys of High School

Notes. Scores in parentheses are unstandardized. Unstandardized intercepts are given at the above corner of each endogenous variable. Dashed lines indicate non-significant links. $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$, $^{\dagger}p < .10$.

Lastly, scalar invariance model, a model nested in the metric invariance model that has an equivalence in the path coefficients and intercepts across gender, was examined. The model fit indices showed a good fit model, χ^2 (23) = 102.58, $p < .01$, *CFI* = .940, *RMSEA* = .055. However, based on the comparison with the accepted metric invariance model, the scalar invariance model indicated a non-equivalence in all intercepts for males and females, because *CFI* difference is greater than .01, $\Delta\chi^2$ (5) = 58.16, $p < .001$ and ΔCFI = .040 (Table 12). Since full scalar invariance model was not confirmed, partial scalar invariance was examined by adding equivalent intercepts between males and females one by one to the accepted metric invariance model. Firstly, only the intercepts of maternal warmth (j1) across gender were allowed to be equivalent and showed a good fit, χ^2 (19) = 52.21, $p < .001$, *CFI* = .975, *RMSEA* = .039. Besides, *CFI* difference was .005 lower than .01, $\Delta\chi^2$ (1) = 7.79, $p < .01$ and

ΔCFI = .005. Then respectively, the intercepts of maternal comparison (j2), maternal performance pressure (j3) and school engagement (j4) and maternal inductive reasoning (j5) were constrained to be equivalent. The model fit indices and nested model comparisons were given in Table 12. Regarding these results, except the model with equivalence of the intercepts in school engagement (j4), all other models showed a good fit indices and CFI difference lower than .01. Therefore, the final accepted model included an invariance or equivalence in all path coefficients, and all intercepts except for the intercepts of school engagement across gender. In conclusion, there was a partial scalar invariance across gender as given in Table 12.

Path coefficients and intercepts were separately given for both female and male children in Figure 16 and Figure 17. The results showed that the mothers' expectations about their children educational attainment was positively associated with perceived maternal warmth (b = .07, p < .05) and directly with school engagement at Time 2 (b = .16, p < .001). Besides, perceived maternal warmth (b = .12, p = .001) and inductive reasoning (b = .14, p < .001) showed a positive association with school engagement. It suggests that children who reported higher mothers' warmth and inductive reasoning had a higher school engagement. Moreover, there was a positive tendency between maternal performance pressure and school engagement, (b = .06, p = .053). The correlation between maternal education and mothers' education expectations was positive for both males (r = .18, p < .001) and females (r =.23, p < .001). However, mothers' education level was negatively related to school engagement among high school children, (b = -.03, p < .05). It indicates that children with less educated mothers had higher scores in school engagement. In terms of intercepts across gender, only school engagement was different. Other intercepts of the endogenous variables (i.e., maternal warmth, inductive reasoning, performance pressure and comparison) were same across gender as given in Figure 16 and 17. It means that females had higher

school engagement than males when all other variables in the model was zero. Based on 95% bias-corrected percentile (BC) performing 2000 bootstrapping sample, indirect effect of maternal education expectations was only significant through maternal warmth, b = .008, 95 % CI [.002, .019].

3.4. Discussion

This study aimed to examine the association between mothers' expectations for the child's the highest educational attainment and school engagement longitudinally in a nationwide sample of Türkiye. In addition, the mediating roles of mothers' parenting behaviors such as warmth, inductive reasoning, performance pressure and comparison were examined in this association. Lastly, the study explored whether this mediational model differed across gender and school levels.

Related to ***hypothesis 1***, it was expected that mothers' expectations for their child's highest education attainment would be positively associated with school engagement one year later. The results confirmed that maternal educational expectations were positively related to school engagement of middle and high school children one year later. This finding is in line with previous studies examining the relation between mothers' expectations and school engagement among 10th graders (Fan & Williams, 2009). Turkish middle and high school children might engage more in their learning to achieve their mothers' expectations. In the current study, almost all mothers regardless of their child's school level, reported that they expect them to attain at least university degree or higher as consistent with previous studies conducted with middle and high school children (Dockery et al., 2022; Lindberg et al., 2009). Regarding this finding, it can be said that when the mothers have high expectations for their children, they can create a supportive learning environment and ultimately promote their children's academic outcomes. Moreover, middle and high school-aged children may try to fulfill their mothers' expectations by showing high effort and making great investment in their learning. Also, mothers' expectations may positively influence their children's self-confidence and self-concept in academic works and consequently increase children's learning efforts. However, this direct association was not significant for primary school children. Similarly, Englund et al., (2004) also did not find a concurrent association between parental expectations for the highest education attainment and child's achievement among early elementary school children. Given the nonsignificant result of the association between the mothers' expectations and school engagement, the reason may relate that in early years, each child has a high level of school engagement and motivation in their learning.

Table 12. Multigroup Comparison for High School Level

Model (MLE)	χ^2(df)	CFI	RMSEA	Model Comparison	$\Delta\chi^2$ (Δdf)	ΔCFI	Decision
Baseline model (only for female)	14.27 (4)	.989	.063	-	-	-	Accept
Baseline model (only for male)	8.18 (4)	.990	.045	-	-	-	Accept
Configural model (M1)	22.45 (8)	.989	.040	-	-	-	Accept
Metric invariance (M2)	44.42 (18)	.980	.036	M1-M2	21.97*(10)	.009	Accept
Scalar invariance (M3)	102.58 (23)	.940	.055	M2-M3	58.16***(5)	.040	Reject
Partial Scalar Invariance							
j1 constrained (M4)	52.21 (19)	.975	.039	M2-M4	7.79**(1)	.005	Accept
j2 constrained (M5)	53.94 (20)	.975	.038	M4-M5	1.73 (1)	.000	Accept
j3 constrained (M6)	57.92 (21)	.972	.039	M5-M6	3.98*(1)	.003	Accept
j4 constrained (M7)	93.83 (22)	.946	.053	M6-M7	35.91***(1)	.026	Reject
j5 constrained (M8)	66.66 (22)	.966	.042	M6-M8	8.75**(1)	.006	Accept

Note. N = 1155; n_{female} = 646, n_{male} = 509. j1: warmth, j2: comparison, j3: performance pressure, j4: school engagement, j5: inductive reasoning. M8 was the final accepted model, which was a partial scalar invariance model. $^{***}p < .001$, $^{**}p < .01$, $^{*}p < .05$.

Table 13. Maternal Educational Expectations and School Engagement Through Parenting Behaviors: School Levels and Gender

		Primary School			**Middle School**			**High School**		
	Gender	***β***	***b***	**SE**	***β***	***b***	**SE**	***β***	***b***	**SE**
Direct effect										
MEE→SE	Female	.07	.05	.04	**.12*****	.11	.02	**.15*****	.16	.03
	Male	.07	.05	.04	**.13*****	.11	.02	**.18*****	.16	.03
MEE→W	Female	**.24*****	.19	.03	**.12*****	.09	.02	**.06***	.07	.03
	Male	**.30*****	.19	.03	**.14*****	.09	.02	**.09***	.07	.03
MEE→IR	Female	**.16*****	.15	.04	**.10*****	.10	.02	-.00	-.00	.03
	Male	**.19*****	.15	.04	**.12*****	.10	.02	-.00	-.00	.03
MEE→C	Female	-.05	-.04	.03	-.02	-.02	.02	.02	.03	.03
	Male	-.05	-.04	.03	-.02	-.02	.02	.03	.03	.03
MEE→PP	Female	-	-	-	**-.07****	-.07	.02	.00	.00	.03
	Male	-	-	-	**-.08****	-.07	.02	.00	.00	.03
W→SE	Female	.13†	.13	.07	**.19*****	.22	.04	**.14****	.12	.04
	Male	.11	.13	.07	**.17*****	.22	.04	**.10****	.12	.04
IR→SE	Female	.10†	.08	.05	**.14*****	.13	.03	**.16*****	.14	.03
	Male	.09	.08	.05	**.13*****	.13	.03	**.14*****	.14	.03

Table 13 (cont'd). Maternal Educational Expectations and School Engagement Through Parenting Behaviors: School Levels and Gender

		Primary School			**Middle School**			**High School**		
Direct effect	**Gender**	***β***	***b***	**SE**	***β***	***b***	**SE**	***β***	***b***	**SE**
C→SE	Female	-.07	-.08	.06	**-.06***	-.06	.02	-.05	-.04	.03
	Male	-.07	-.08	.06	**-.06***	-.06	.02	-.04	-.04	.03
PP→SE	Female	.06	.05	.05	-	-	-	.07†	.06	.03
	Male	.06	.05	.05	-	-	-	.06†	.06	.03
ME→ SE	Female	**-.15****	-.07	.03	**-.09****	-.05	.01	**-.07***	-.03	.02
	Male	**-.15****	-.07	.03	**-.08****	-.05	.01	**-.06***	-.03	.02
ME ↔ MEE	Female	**.36*****	.42	.10	**.20*****	.20	.04	**.23*****	.19	.03
	Male	**.37*****	.48	.10	**.23*****	.26	.04	**.18*****	.18	.05
		b	**SE**	**95% *CI***	***b***	**SE**	**95% *CI***	***b***	**SE**	**95% *CI***
Indirect effects										
MEE→W→SE		.02	.02	[-.00, .06]	.02	.01	**[.01, .03]**	.01	.00	**[.00, .02]**
MEE→IR→SE		.01	.01	[-.00, .03]	.01	.00	**[.01, .02]**	.00	.00	[-.01, .01]
MEE→C→SE		.00	.00	[-.00, .02]	.00	.00	[-.00, .01]	-.00	.00	[-.01, .00]
MEE→PP→SE		-	-	-	-	-	-	.00	.00	[-.00, .01]

Note. MEE: Maternal Educational Expectations, SE: School Engagement, W: Warmth, IR: Inductive Reasoning, C: Comparison, PP: Performance Pressure, ME: Maternal Education. $^{***}p<.001$, $^{**}p<.01$, $^{*}p<.05$.

Relatedly, in the current study, the average mean of school engagement among primary school children was higher than children at middle and high school. Since primary school children are so motivated to learn new things, and make investment in learning. Moreover, primary school children who like and have positive emotions towards their teachers are more likely to be cognitively engaged in and to show a high performance in their courses (Furrer & Skinner, 2003). Thus, Turkish primary school children have a high level of school engagement regardless of their mothers' expectations about their education attainment. This finding also showed that mothers' expectations are more effective in academic outcomes of Turkish students at later school years such as middle and high school.

In terms of ***hypothesis 2***, it was expected that maternal educational expectations would be positively related to both perceived maternal warmth and inductive reasoning as two positive aspects of parenting behaviors. The results supported this hypothesis referring to a positive association between mothers' expectations and maternal warmth for children and adolescents across all school levels but the association between the mothers' expectations and inductive reasoning was only significant for primary and middle school children. These findings are consistent with previous studies indicating that parents' expectations for their children's educational attainment was positively related to parental warmth for 8-12-year-olds (Davis-Kean, 2005). It is likely that mothers with high expectations provide a warm and supportive learning environment and show their affections toward their children in order to encourage their children's educational attainment. Study 1 also supported this speculation. Since mothers reported that family love and support are important for academic achievement of children.

In terms of inductive reasoning, to our knowledge no previous study examined its association with mothers' educational expectations. However, there is evidence on the relationship between parental educational expectations and authoritative parenting style in which inductive reasoning is an important component of it (Ren & Pope Edwards, 2014). Based on these studies, a positive relation between maternal educational expectations and inductive reasoning was hypothesized. This finding seems to indicate that mothers with high expectations tend to use more explanations

to create an optimal learning environment by guiding and helping their children to regulate their behaviors. Thus, their children would have better academic outcomes especially before adolescence stage. Inductive reasoning includes appropriate limit-setting through giving a rational explanation and verbally reminding of rules, which in turn increases adjustment of children in early school years (Pettitt et al., 1997). In the present study, the mean score of perceived inductive reasoning found to be highest at middle school level. This is reasonable because conduct and externalizing problems of children increase from primary school to middle school years by the onset of puberty (Pellegrini et al., 2002). Therefore, they are more open to negative peer influence and tend to behave in disruptive way. Related to this, mothers may think to put more limit-setting and give more explanations for their children's inappropriate behaviors during these years. Regarding primary school children, mothers may need to use more inductive reasoning because their children do not have mature self-regulation skills in early years and need to be externally regulated by their parents. As identified in Study 1, some mothers reported the importance of being understanding including sharing and communication with the child for children's school success. Therefore, mothers who have high expectations might think that authoritative parenting style characterized by parental warmth and inductive reasoning (Baumrind, 1966) is better to for child's academic success so that their child would attain a higher educational degree.

On the other hand, the association between mothers' expectations and inductive reasoning was not significant for high school children. A possible explanation of the unexpected finding may be that during high school years, adolescents are at the stage of forming their identity and want to have autonomy so that they tend to react negatively when their parents give some advice and try to explain the consequences of theier behaviors. Adolescents may perceive parents' behaviors as intrusive behaviors that limit their autonomy and freedom. Also, they may perceive mothers' explanations as nagging. Therefore, mothers may use less inductive reasoning to decrease conflicts with their children. Thus, mothers of high school children might use less inductive reasoning despite having high level of expectations. Moreover, middle adolescence years are critical for elevated risk-taking behaviors (Steinberg, 2010). Related to this, mothers of high school children might use different discipline techniques such as power assertation and more authoritarian style instead of inductive discipline even if

it is not good for moral development (Patrick & Gibbs, 2011). Since they might not handle the problems of their adolescent children through just giving appropriate explanation or putting limit-setting. However, there are also some studies about the positive effect of maternal power assertation on Korean children's social and school adjustment (Ju et al., 2021). It can be related to the normativeness of that behavior and difference in cultural perceptions (Rudy & Grusec, 2006). For example, parental control may not be necessarily perceived as negative but can be perceived as a sign of love and caring.

With regard to ***hypothesis 3*** which was non-directional and exploratory, because the association between maternal educational expectations and perceived maternal comparison and performance pressure were not tested before. The results indicated that the association between mothers' expectations and perceived maternal comparison was not significant at any school level. In the current study, mean of maternal comparison ranged between 1.58 and 1.99 out of 4 across the school levels where score of 1 refers to never. It seems that mothers were less likely to compare their children with their peers, classmates or siblings in terms of grades and academic performance in lessons as perceived by their children. This nonsignificant result may be speculated that appropriate child-rearing practices change over time depending on the changes in adaptive life skills. Additionally, in recent years, social media is an important platform to provide mothers more insights about optimal ways of child-rearing practices. In this regard, mothers seem to have an increased awareness that autonomy is important to have success in the new urban life lifestyle. In line with this view, in the study of Kağıtçıbaşı and Ataca (2005), young generation mothers reported that being autonomous and self-confident are the characteristics they want their children to have. Similarly, the results of Study 1 also showed that mothers thought that self-confidence was important factor to have school success. Moreover, Kağıtçıbaşı (2007) emphasized that Turkish parents value the autonomy of children. Thus, it is possible that they engage in less intrusive behaviors like comparison not to limit their child's autonomy and harm their uniqueness. Since they were more likely to be aware that comparison is not good for their children's development, and every child is unique and has different capability in academic-related works. Furthermore, it should be noted that although the association between maternal educational

expectations and comparison was not significant, the direction was negative among primary and middle school children. Yet, it was positive for high school children. It seems that developmental stage of children makes a difference in the direction of association between mothers' expectations and comparison. As an underlying reason, it can be said that mothers might tend to use more comparison behaviors against their children at high school. Relatedly, the mean of perceived mother comparison was higher at high school level than at primary and middle school levels. Since high school years are an important period to shape future educational attainment. In this regard, mothers may tend to compare their children with others to encourage their children's learning and academic performance through external forces.

Although some studies found a positive association between mothers' educational expectations and performance pressure (Xu et al., 2024), it was thought that mothers with high expectations would not put pressure on their children for not harming their autonomy and negatively effecting their self-confidence, academic anxiety and stress (Deb et al., 2015; Kapıkıran, 2020). Therefore, the relationship between mothers' expectations and performance pressure was examined exploratory. Unlike previous studies indicating a positive relation (Xu et al., 2024), present results showed that mothers' expectations were negatively related to performance pressure only for middle school children. Therefore, mothers with high expectations for their children's educational attainment put less pressure on their children to perform well. As discussed earlier, mothers may prefer not to use negative and intrusive parenting behaviors (i.e., performance pressure) to inhibit the child's autonomy development and self-confidence. Instead, they show more positive parenting behaviors such as acceptance, praise and love to their children. Moreover, maternal performance pressure as an external force is associated with extrinsic motivation. However, intrinsic motivation of children is important to acquire high academic achievement and educational attainment (Areepattamannil et al., 2011). Thus, mothers with high expectations might believe that pushing their children for better performance is not good for intrinsic motivation and eventually, for their academic outcomes. The nonsignificant result at primary school may be explained with high motivation and high efforts of children in learning. Relatedly, mothers might not have high concern about academic success of their children in early school years. Since all primary school children have similar

success during these years. Regarding high school level, mothers might be aware that performance pressure is not a good solution to encourage their adolescent children who need to more autonomy and intrinsic motivation while most of them at the stage of getting ready for national university entry exam. Also, mothers might not want to increase their adolescents' stress level and conflict with them by putting high academic pressure on them (Quach et al., 2015). In this regard, Pamuk (2022) indicated that perceived academic pressure leads an increase in conflict with parents among Turkish high school children.

In relation to ***hypothesis 4,*** it was expected that maternal warmth and inductive reasoning at Time 1 would be positively associated with school engagement at Time 2. As expected, the findings indicated significant positive associations for middle and high school children. The significant finding regarding maternal warmth is in line with previous studies (Tian & Chen, 2020; Wang et al., 2019). The reason may be that responsive, caring and affectionate mothers provide a warm and supportive learning environment to enhance children's learning, self-esteem and academic self-concept, which eventually increases school engagement. Relatedly, parental warmth is found as an important indicator to improve self-esteem of middle and high school children (Krauss et al., 2020; Leung Ling et al., 2020), which is closely related to academic self-efficacy and then, academic engagement (Zhao et al., 2021). It is also consistent with the literature examining the association between self-esteem and school engagement among Turkish middle school children (Karababa, 2020).

However, for primary school children, the relationship between maternal warmth and school engagement was not significant, but there was a trend for a positive association ($p <$. 10). The reason may be that there was no strong variability in school engagement of primary school children. When we looked at the data of primary school children, it seems that most of them reported high levels of school engagement regardless of the levels of maternal warmth they perceived.

In relation to inductive reasoning, to our knowledge, this study is the first to examine a direct association between maternal inductive reasoning and school engagement across school levels. The results showed that maternal inductive reasoning had an important role to improve school engagement for middle and high school children.

Similar to maternal warmth, mothers who use inductive reasoning in discipline are more likely to provide children a supportive environment that enhances children's school engagement. Since inductive reasoning as an aspect of authoritative parenting style helps children develop self-regulation skills through proper limit settings, which is also underlying ability in cognitive aspect of school engagement focused in the current study. However, contrary to middle and high school children, there was a trend for positive association among primary school children ($p < .10$). Similar to maternal warmth, school engagement of primary school children was so high and did not have strong variability for the different levels of inductive reasoning.

As expected in the ***hypothesis 5,*** the results showed that there was a significant and negative association between maternal comparison at Time 1 and school engagement at Time 2 but for only middle school children. It is consistent with previous studies showing a negative relation between parental comparison and school effort (Camras et al., 2012). Middle school years correspond to the onset of puberty so children experience a decrease in self-esteem because they tend to view themselves in a negative way (Rhodes et al., 2004). Also, the thoughts of other people are important for them during this period. When mothers compared their children with others, it harms self-concept and self-esteem of children regarding their own abilities. In turn, it may decrease intrinsic motivation and autonomy (Fang et al., 2022) but increase negative self-schema (Pesu et al., 2016). Thus, intrusive and controlling parenting behaviors like comparison are not good for the development of autonomy and academic-related outcomes. Relatedly, a study of Turkish middle school children indicated the importance of maternal autonomy support in learning-related behaviors such as persistence, self-reliance and joy of learning contrary to controlling behaviors (Niehues et al., 2023).

On the other hand, although the association between maternal comparison and school engagement was negative, it was not significant for primary and high school children. Primary school children reported the lowest level of maternal comparison (M=1.58 for female, M= 1.67 for male). Yet, they had the highest level of school engagement (M=3.00 for female, M= 2.83 for male). It seems reasonable that mothers may not compare their children with others in terms of academic performance to encourage them in learning.

Since in early years, children tend to have a high level of motivation to engage in learning, and to gain school success as understood from the highest level of school engagement reported by primary school children. Relatedly, mothers may not need to compare their children to enhance their motivation externally. Contrary to primary school children, high school children reported the highest level of maternal comparison compared to other school levels but still not very high (*M*=1.99 for female, *M*= 1.87 for male out of 4) and the lowest level of school engagement (*M*=2.63 for female, *M*= 2.35 for male out of 4) but the association was not significant. An explanation might be that during high school years, teachers and peers play central role on adolescents' academic-related outcomes. Therefore, during these years, academic-related behaviors may be predominantly shaped due to peer competition in academic works, having future goals, self-motivation, self-discipline, self-efficacy and self-confidence. With regard to this view, in Study 1, mothers reported more frequently the themes of being self-disciplined, self-confident and having a future goal as important factors for school success for their high school children than the mothers of primary and middle school children. Thus, individual abilities and features may have more influence on academic-related outcomes of adolescents than family-related factors like maternal comparison.

On the other hand, in relation to maternal performance pressure, there was a trend for a positive association with school engagement only for high school children. Unexpectedly, the direction of it was positive. Inconsistent with prior studies (Luo & Zhang, 2018), the finding showed that maternal performance pressure was associated with a high level of school engagement among high school children. Consistent with our finding, Kim and Park (2006) also indicated a positive relation of parental pressure with academic success among South Korean students. South Korea is a collectivistic culture and put high value on education and academic success. Therefore, Korean children may not perceive parental pressure as a negative and intrusive behavior. Similarly, Turkish mothers believe that it is their primary responsibility to deal with academic-related issues of their children. They put so much effort to help their children in school-related works and encourage them to have a high academic achievement.

However, previous studies indicated that mothers' pressure may relate to children's

externally regulating learning that is negatively associated with initial level of and changes in academic achievement (Bardach et al., 2023). However, the finding of the study come from an individualistic culture, Germany. It should be noted that self-representations of Turkish children as interdependent-self may be the reason for the unexpected positive trend between maternal performance pressure and school engagement. Relatedly, when looking from the child's perspective, maternal pressure may be perceived as a positive parenting behavior and an indicator of parental involvement and care to fulfill their relatedness need and not hinder autonomy need, which in turn enhances school engagement of adolescents. Similarly, Aytac et al. (2019) concluded that Turkish children are more likely to perceive their parents' criticism as an indicator of care and interest. However, future studies are needed to achieve a deeper understanding about whether this association is positive for Turkish students.

In terms of ***hypothesis 6 and 7***, the mediating role of parenting behaviors (i.e., warmth, inductive reasoning, comparison and performance pressure) at Time 1 in the association between maternal educational expectations at Time 1 and school engagement at Time 2 was investigated at each school level by controlling the effect of maternal education on mothers' educational expectations and school engagement. The results of the study were partially supported the expectations for certain school levels. Both maternal warmth and inductive reasoning as two aspects of positive parenting behaviors significantly and positively mediated the relationship between mothers' expectations for future educational attainment and school engagement for middle school children. However, only maternal warmth had a mediating role in this association for high school children. Specifically, middle school years may be critical period to achieve a studying habit and form a base for future years. Also, it is well known that middle school years are characterized by more academic competition because academic performance and studying habits of children are important to enroll a good high school. Therefore, during middle school years, Turkish mothers may involve in their children's education and learning, and have more concern to provide an emotionally stable and supportive learning environment regarding their children's academic achievement and engagement by treating in a positive way through warmth and inductive reasoning. For high school students, in addition to family-related factors

(i.e., maternal warmth), the influence of some external factors such as peer relationship, teacher-student relationship and individual-related factors (i.e., having future goals, self-confidence), as found in Study 1, seem to be more salient. Therefore, their academic outcomes tend to be related to more individual features (i.e., studying habits, self-reliance, being organized) and peer context. Relatedly, a systematic review confirmed the importance of individual (i.e., motivation and self-efficacy) and environmental (peer relation and teacher-student relation) factors on the development of school engagement (Hu & Talib, 2023).

For the primary school children, in addition to the most of the direct relations (maternal educational expectations → parenting behaviors and parenting behaviors→ school engagement), the mediation model was also not significant. Primary school children generally have high motivation and engagement because they are at the beginning of their education journey. Additionally, mothers of younger children generally tend to show more affection, and care, and make more explanations in discipline but show less negative parenting behaviors. Relatedly, there might not be enough variability in maternal mothers' expectations and parenting behaviors to differentiate a significant association with school engagement among primary school children.

Thus, the results confirmed that mothers' educational expectations shape some parenting behaviors such as warmth and inductive reasoning and in turn, improves school engagement for middle and high school children. Noteworthy, the findings contributed to the relevant literature predominantly examining the mediating role of parenting behaviors in the relationship parental educational beliefs and academic achievements (Davis-Kean, 2005; Halle et al., 1997). When the mothers held high expectations for their children's educational attainment, they showed more warmth which in turn enhanced school engagement of children at middle and high school. Consistent with previous studies (Lowe & Dotterer, 2013), it can be concluded that positive parenting behaviors (i.e., warmth) are important to provide a supportive home environment and in turn, encourage children to be intrinsically motivated and have high engagement in learning. Similarly, a study of Turkish native and immigrant middle school children found a positive association between maternal warmth and school commitment defined as school motivation and perceived school competence

(Köz, 2018). In the mediation model, maternal education was controlled for both school engagement and mothers' educational expectations. In line with previous studies (Erol & Turhan, 2018; Spera et al., 2009), it was expected that a high level of maternal education would be positively related to both a high level of mothers' educational expectations and the child's school engagement. As expected, there was a positive and significant relationship between mothers' educational expectations and their education for all school levels in line with previous studies (Davis-Kean, 2005). However, unexpectedly, the association between mothers' education level and school engagement was negative for all school levels. It means that children of lower educated mothers reported higher school engagement than children of higher educated mother contrary to relevant literature (Erol & Turhan, 2018). An explanation of this negative direction might be that sample predominantly consisted of families from low socioeconomic status. Mothers reported their perceived economic status as 4.25 at mean out of 10 when comparing with the society they lived in. Therefore, Turkish children from these families may think that they have to engage in school and achieve high success in order to change their living conditions in a better way through a vertical social mobility. Thus, education is a good way to achieve an upward mobility (Çevik, 2015). On the other hand, children from low economic families might not have enough resources and a rich home learning environment to improve their academic outcomes. Therefore, these children might have to use their own resources by regulate their learning and showing high effort. Also, these children may come from large families with more than one sibling. Related to this, mothers' might not allocate enough resources and time to support their child's education. On the other hand, children whose mothers had high education have rich resources to enhance their learning. For example, their mothers were more likely to have necessary knowledge to support their children's learning. Also, they might provide more stimulating learning environment. Moreover, these children easily reach external support through private lessons or tutoring. Thus, children of high educated mothers might not have to regulate their own learning. In the ***hypothesis 8***, it was examined whether the mediation model would operate similarly across gender for each school level (i.e., primary, middle and high school). In primary school level, all associations among the variables and their intercepts were equal across females and males except the intercept of maternal

inductive reasoning, suggesting a partial scalar invariance. Given variance in the intercept of inductive reasoning, males perceived a higher inductive reasoning from their mothers than females. An explanation may be that mothers used more inductive reasoning in discipline because boys generally behaved in an inappropriate way. Males tend to engage in more risk-taking behaviors and not obey rules in school setting or home setting compared to females. They also frequently show harmful behaviors against their peers and classmates in early ages. Since they are not mature enough to regulate properly themselves and use their inhibitory control skills. Previous studies confirmed that males have lower levels of self-regulation than females in early years (Matthews et al., 2009). Thus, the mothers gave more explanations to their boys about why their boys should do appropriate behaviors and not do inappropriate ones. On the other hand, there was no invariance in terms of the associations among variables in the model. Thus, the mediation model operated similarly across females and males in primary school level.

Similarly, in middle school level, all associations and intercepts were equal across gender except for the intercepts of maternal performance pressure and school engagement, indicating a partial scalar invariance. Relatedly, there was no gender difference regarding the mediating roles of maternal warmth and inductive reasoning in the association between maternal educational expectations and school engagement. However, there was a gender difference in at mean level of school engagement in favor of females, which is consistent with the literature (Lam et al., 2016). Moreover, males reported more performance pressure than females as indicated with a non-invariance of the intercept in performance pressure. It may be related that males need more external encouragement to study compared to females. Since females are more likely to be intrinsically motivated and academically engaged than males. In this regard, the mothers of boys might show more academic pressure to their children to encourage them to be academically motivated to learning.

With regard to high school level, similar to middle school level, a partial scalar invariance was supported that suggests all paths and intercepts except for the intercept of school engagement were equal across gender. Results confirmed an invariance of the mediation model through maternal warmth across females and males in high

school. Taken together the results of all school levels, it can be concluded that the proposed mediation model in the relationship between maternal educational expectations and school engagement operated similarly for both males and females with some variances in the intercepts (i.e., school engagement, inductive reasoning and performance pressure). Relevant literature indicated gender differences in terms of mean levels of parental educational expectations and school engagement in favor of females (Öztürk & Sertaş, 2021; Wood et al., 2007). However, in line with the results of our study, previous studies found no gender difference for the association between school engagement and maternal pressure and warmth (Lowe & Dotterer, 2013; Raufelder et al., 2015). The present study contributed to the literature by providing a deeper understanding about how the association between maternal educational expectations and school engagement though parenting behaviors operated across gender.

CHAPTER 4

GENERAL DISCUSSION AND CONCLUSION

The main aim of this thesis was to understand the associations between family-related factors (i.e., maternal educational beliefs, expectations and parenting behaviors) and academic outcomes, particularly school engagement across gender and school levels. The thesis includes two consecutive studies conducted with Turkish mothers and their children at different school levels (i.e., primary, middle and high school). ***Study 1*** qualitatively examined mothers' beliefs about important factors for school success and how these beliefs differed by child's gender and school level. It also investigated how these beliefs of mothers were related to children's school engagement at Time 1 and Time 2. ***Study 2*** longitudinally examined a mediation model exploring the association between mothers' expectations for the child's future educational attainment at Time 1 and the child's school engagement at Time 2 through parenting behaviors at Time 1, namely perceived maternal warmth, inductive reasoning, comparison and performance pressure. In addition, a multi-group comparison was conducted to understand whether the mediation model differed by gender at each school level. In this model, maternal education was controlled for school engagement and maternal educational expectations.

This thesis made important contributions to the literature. First, Study 1 made important contributions to the literature examining maternal beliefs about factors related to school success. Although prior studies investigated the factors related to school success (Sarıer, 2016 for a meta-analysis), they focused on only one school level (i.e., primary or middle school) and had a sample from a certain region of Türkiye. However, Study 1 had a nationwide sample including 5841 mothers across 61 cities of Türkiye. Moreover, it increased our understanding about maternal beliefs related to important factors to be successful in school for all school levels. Furthermore, Study 1 was a qualitative study so it provided a rich data to examine the maternal beliefs about important factors for school success. Relatedly, asking an open-ended question to the mothers increased the variabilities of the answers unlike to

multiple choice questions. For example, we identified 22 main themes and 65 subthemes in addition to one "other" theme with 13 subthemes. Thus, to the best of our knowledge, it should be noted that Study 1 is the first study conducted in Türkiye with a nationwide sample across gender and all school levels in a qualitative way. Therefore, it provides a great contribution to relevant literature to increase our understanding about parental beliefs about academic outcomes in a Turkish context.

The results of Study 1 point out the importance of child-related, school-related and family-related factors to increase school success. More importantly, majority of mothers believed that child-related factors are the most important one. More specifically, with regard to child-related factors, Turkish mothers reported the importance of motivation, studying, reading books, liking school, self-discipline and self-confidence as individual characteristics to increase school success. Mainly, they were aware that internal resources such as child's own effort, investment and intrinsic motivation are crucial to achieve academic achievement in addition to other environmental factors such as school and family-related ones. Related to this, they also emphasized school climate, school quality and safety, classroom environment and teacher regarding school-related factors while they indicate family environment, family support and trust, as well as family caring for children's school success. The study also found some differences in themes across gender and school levels. For example, the mothers of boys more often reported teacher's caring and activities to improve learning compared to the mothers of girls. Across school levels, mothers of primary school children were more likely to believe that teacher and family-related factors are important than mothers of middle and high school children. Finally, mothers of high school children more frequently indicated the importance of school discipline, being self-disciplined and having future goals compared to mothers of primary and middle high school children. Thus, based on the answers of mothers, the importance of individual or environmental factors (i, e., family and school) can change due to developmental stage of children. More specifically, it can be noted that mothers thought that contributions of environmental factors on school success decrease but the effect of individual factors such as motivation, showing effort and self-confidence increase from early school years to later. Study 2 examined the association between mother-related antecedents and school engagement across gender at all school levels. Prior studies found that school engagement is a crucial antecedent of academic

achievement and other school-related factors such as school retention and school dropout (Gandra & Cruz, 2021; Janosz et al., 2008; Karababa, 2022). Based on these previous studies, it can be noted that intervention and prevention programs on school engagement can be important to increase academic achievement and decrease school retention and dropout of children. In this regard, Study 2 contributed to relevant literature to by providing insights about the mother-related predictors of school engagement in a nationwide sample of Türkiye. Moreover, unlike to previous studies, it includes data from all school levels. Also, the data came from two different time points (e.g., mothers-related factors at Time 1 and school engagement at Time 2), which increases the degree of predictability of the model. Furthermore, child reports about parenting behaviors were used so it increased the validity of the results. Thus, to the best of our knowledge, Study 2 is the first study comprehensively examining a mediation model to understand the maternal antecedents of school engagement of children and adolescents with a nationwide sample of Türkiye across gender at each school level. Contrary to prior studies (Fan &Williams, 2010), the model of Study 2 investigated the path from maternal educational expectations for child's attainment to school engagement through parenting behaviors across gender. Since mothers' educational expectations shapes their behaviors and in turn, influence child's academic outcomes (Eccles et al., 1983). Consequently, Study 2 is important to decrease the gap about the association between maternal factors and school engagement which is rarely focused on in previous studies from Türkiye and other countries.

In Study 2, the findings of primary school children point out that maternal factors did not significantly contribute to school engagement of primary school children. Specifically, inconsistent with previous studies showing a positive association between parents' academic expectations and learning behaviors among elementary school children (Loughlin-Presnal & Bierman, 2017), the current study did not find a significant relationship between mothers' expectation and school engagement. The reason may be related that in the current study, primary school children were already highly engaged. In terms of parenting behaviors, possible explanation may be that in the current study, positive and negative parenting behaviors as well as mothers' expectations for their children's attainment were investigated. However, due to developmental stage of children, specific parental involvements such as homework

help and communication with teacher and school are more effective in academic outcomes of primary school children. Contrary to primary school, at middle school, most of maternal antecedents (maternal educational expectations, maternal warmth, inductive reasoning and comparison) were significantly associated with school engagement of children as expected. Also, maternal warmth and inductive reasoning had the mediating roles in the association between maternal educational expectations and school engagement. Some studies showed that some aspects of parental involvement decrease from elementary to middle school such as parent-school relation (Singh et al., 1995). However, the same study found that parents' expectations are related to achievement of 8th graders as also found in the current study. In this regard, parental support and involvement may be critical during middle school years to improve academic outcomes of children. Since middle school is a transition period when children form their study habits and increase their self-regulation in learning. Middle school children encounter a different education system composed of many teachers for different courses, different curriculum and exam style. Also, academic competition increases in these years because middle school children take an exam to attend a high school at the end of middle school. Therefore, mothers' academic socialization including sharing their own expectations with their children and providing a supportive home environment may be effective to encourage them in education and learning as well as to achieve a higher degree for both males and females instead of home and school-based involvement as in elementary school years (Hill & Tyson, 2009).

At high school, similar to middle school, mother-related factors (maternal educational expectations, maternal warmth and inductive reasoning) were significantly related to an increase in school engagement. This is line with previous studies indicating that parental involvement composed of academic socialization positively influence academic achievement through academic engagement among European and African American high school children (Wang & Sheikh-Khalil, 2013). With regard to multigroup comparison, there was no gender difference in the mediation model. Unlike middle school, only maternal warmth mediated the association between maternal educational expectations and school engagement. As mentioned earlier, academic socialization and positive parentings are important for adolescents' academic

outcomes. When mothers share their aspirations and expectations about education attainment of their children, mothers' expectations can be motivated and influence children's aspirations and academic self-concept in adolescence years (Buchmann et al., 2022).

Lastly, it can be concluded that mother-related factors are important for academic outcomes of children across school levels. Parenting expectations directly and indirectly through positive parenting behaviors (i.e., warmth and inductive reasoning) have influence on school engagement of Turkish children, especially for middle and high school children. However, developmental stage of children may influence the associations in such a mediation model even if there is no gender difference.

4.1. Limitations and Future Suggestions

The thesis, which includes two consecutive studies, despite its strengths also has some limitations. First, the data of the studies were taken from a large project, so the measurement of school engagement is limited in scope. School engagement is a multidimensional construct with three sub-dimensions (i.e., behavioral, affective and cognitive) (Fredericks et al., 2004). However, only one sub-dimension of school engagement, namely cognitive engagement, was examined in this thesis. It is important to investigate all sub-dimensions of school engagement in order to deepen the understanding of the relationship between family-related factors and school engagement. Nevertheless, the findings of the two studies shed light on the important role of Turkish mothers in fostering their children's school engagement.

Similarly, some aspects of parenting behaviors (e.g., warmth, inductive reasoning, comparison, and performance pressure) were examined in this thesis. However, the relevant literature has generally focused on how specific parental involvement is associated with academic outcomes. Therefore, it appears that future studies should examine both parenting behaviors (e.g., warmth, inductive reasoning, comparison, and performance pressure) and specific school-related parenting behaviors (e.g., home and school-based involvement) to deepen understanding of the relationship of family-related factors to school engagement.

Second, the studies in this thesis focused only on the role of mothers. However, fathers'

beliefs, educational expectations and parenting behaviors may also be related to children's and adolescents' academic outcomes. Moreover, mothers and fathers may influence each other in terms of educational expectations and schooling of their children. Therefore, as a further study, it is aimed to examine the relationship between fathers' parenting behaviors and school engagement because the project also had data of fathers' parenting behaviors. Thus, the separate and joint effects of mothers and fathers on children's school engagement will be investigated.

Third, the model of Study 2 examined a mediation model from mothers' educational expectations to parenting behaviors and in turn, to school engagement. However, in expectancy-value theory (Eccles et al., 1983), child's own expectations are also included in this model as expectations that precede academic outcomes. In this context, a pathway from mothers' expectations and parenting behaviors to children's own expectations was not taken into consideration in the Study 2. Future studies should include this pathway in their models to examine how parent-related factors shape the child's own expectations and subsequently academic outcomes. Moreover, the proposed mediation model includes two time points. However, three time points should give more information about the mediating role of parenting behaviors on the maternal educational expectations and school engagement.

Lastly, Study 1 had a nationwide sample of Turkish students because it included only the data collected at Time 1. However, some participants could not be followed up at Time 2 because they dropped out due to the earthquake and other individual reasons. Therefore, although Study 2 was also a nationwide study, the variability of it compared to Study 1 decreased due to the inclusion of data from Time 2 (i.e., school engagement at Time 2). Moreover, the calculations of representativeness of sample are in progress.

4.2. Strengths, Implications and Conclusion

Besides the limitations discussed earlier, the thesis also has several strengths and contributions to the related literature. First, the main focus of the studies is to increase knowledge on how parental beliefs, expectations and behaviors are related to academic outcomes, especially school engagement in the Turkish context. In particular, Study 1 contributed to the literature by qualitatively examining Turkish mothers' educational beliefs about important factors for success in school. To the best of our knowledge,

this is the first study to comprehensively examine Turkish mothers' educational beliefs.

In addition, the fact that the sample of Study 1 represented Turkey at the national level increased the generalizability of the findings to Turkish culture. Moreover, in Study 1, the themes and sub-themes related to mothers' educational beliefs were compared across gender and school levels. This increased our understanding of whether mothers' educational beliefs change depending on gender and children's school levels.

As for Study 2, this study made important contributions to the school engagement literature. This is because Study 2 focused on school engagement as an academic outcome rather than academic achievement or success, which has been predominantly examined in previous studies (Sy & Schulenberg, 2005). This study is important for increasing knowledge about school engagement and its family-related antecedents. Another strength of Study 2 is that school engagement is taken from Time 2, while family-related indicators (i.e., mother's educational expectations and parenting behaviors) come from Time 1. The longitudinal nature of the study increased its predictability, suggesting that family-related indicators predicted children's school engagement across school levels. Previous studies mostly have cross-sectional design (Davis-Kean, 2005) and do not provide insight into cause-and-effect relationships. Furthermore, Study 1 examined a mediation model across gender and school levels in a Turkish sample. It contributed to relevant literature for Turkish context because the literature predominantly depends on Western and Asian cultures (Li et al., 2024; Sy & Schulenberg, 2005). Similar to Study 1, the sample of Study 2 was nationally representative to some degree. Additionally, in the current study, the children reported their mothers' behaviors. It strengthens the validity of the findings because the mothers' reports could be misleading depending on social desirability bias that refers to minimize negative ways and present mostly in a positive way. In addition to the child-reports for school engagement and parenting behaviors, mothers' report about their own expectations was taken.

To conclude, both studies are important in emphasizing the importance of family-related factors on children's academic outcomes across school levels. Also, they emphasize some risk and protective factors related to academic outcomes of students across different school levels. As a take-home message, mothers' educational

expectations about their child's future attainment and maternal warmth play an important role in the development of school engagement.

However, maternal comparison should be a risk factor. Future implications can be designed based on increasing awareness of the importance of positive parenting rather than negative and intrusive parenting. Moreover, some different prevention and intervention programs focusing on family and positive parenting can be formed based on the develeopmental stages of students to improve their academic outcomes. The thesis contributed to literature to indicate the crucial role of mothers in child education and learning.

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APPENDICES

A. APPROVAL OF THE METU HUMAN SUBJECTS ETHICS COMMITTEE

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER

ORTA DOĞU TEKNİK ÜNİVERSİTESİ
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Sayı: 28620816 /

09 ARALIK 2021

Konu : Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi : İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Prof.Dr. Sibel KAZAK BERUMENT ve Dr.Öğr.Üyesi Başak Şahin ACAR

"Ebeveynlik Tutumlarının ve Ebeveyn-Çocuk İletişim Özelliklerinin Çocuk ve Ergen Gelişimine Etkisi" başlıklı araştırmanız İnsan Araştırmaları Etik Kurulu tarafından uygun görülmüş ve **498-ODTU-2021** protokol numarası ile onaylanmıştır.

Saygılarımızla bilgilerinize sunarız.

Prof.Dr. Mine MİSIRLISOY
İAEK Başkan

B. APPROVAL OF MINISTRY OF EDUCATION

T.C.
MİLLÎ EĞİTİM BAKANLIĞI
Strateji Geliştirme Başkanlığı

Sayı : E-49614598-605.01-36250976 04.11.2021
Konu : Araştırma Uygulama İzni

DAĞITIM YERLERİNE

İlgi: a) Orta Doğu Teknik Üniversitesi Rektörlüğünün 04/08/2021 tarihli ve 48502539-604.01.03-E.8 sayılı yazısı.
b) Millî Eğitim Bakanlığının 21/01/2020 tarihli ve 2020/2 Nolu Araştırma Uygulama İzinleri Genelgesi.

İlgi (a) yazı ile Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi, Psikoloji Bölümü Öğretim Üyelerinden Prof.Dr. Sibel Kazak BERUMENT'in "Ebeveynlik Tutumlarının ve Ebeveyn-Çocuk İletişim Özelliklerinin Çocuk ve Ergen Gelişimine Etkisi" konulu araştırmasına veri sağlamak amacıyla daha önce 13/09/2019 tarihinde alınmış anket çalışması onay izin süresinin 2021-2022 eğitim - öğretim dönemini kapsayacak şekilde uzatılması talebine ilişkin ilgi yazı ve ekleri Başkanlığımız tarafından incelenmiştir.

Bakanlığımıza bağlı resmi/özel okul ve kurumlarda öğrenci ve öğrenci velilerinin katılımıyla yapılması planlanan uygulamanın covid-19 tedbirlerine uyulması ve denetimi il/ilçe millî eğitim müdürlükleri ve okul/kurum idaresinde olmak üzere, kurum faaliyetlerini aksatmadan, gönüllülük esasına göre; onaylı bir örneği Bakanlığımızda muhafaza edilen ve uygulama sırasında da mühürlü ve imzalı örnekten çoğaltılan, veri toplama araçlarının online olarak;

1.ve 2. sınıf öğrencilerine,
https://boun.fra1.qualtrics.com/jfe/form/SV_5h7WoLH4TZlGsaq
3, 4, 5, 6, 7, 8, 9, 10 ve11. sınıf öğrencilerine,
https://boun.fra1.qualtrics.com/jfe/form/SV_af4ujAjf6NTjLQa
annelere,
https://boun.fra1.qualtrics.com/jfe/form/SV_bjUhpI4kMgvrdMG
babalara,
https://boun.fra1.qualtrics.com/jfe/form/SV_2ive4ZiHW9zzOOW

adreslerinden 2021-2022 eğitim - öğretim yılında uygulanmasına ilgi (b) Genelge doğrultusunda izin verilmiştir.

Gereğini bilgilerinize rica ederim.

Mehmet Fatih LEBLEBİCİ
Bakan a.
Başkan

Bu belge güvenli elektronik imza ile imzalanmıştır.
Belge Doğrulama Adresi : https://www.turkiye.gov.tr/meb-ebys
Bilgi için: Ceyla AYGÜN Koordinatör
Unvan : Öğretmen
İnternet Adresi: Faks:3124186401

Bu evrak guvenli elektronik imza ile imzalanmıştır. https://evraksorgu.meb.gov.tr adresinden 0f97-66c4-35d2-a6ff-ff32 kodu ile teyit edilebilir.

T.C.
MİLLÎ EĞİTİM BAKANLIĞI
Strateji Geliştirme Başkanlığı

Sayı : E-49614598-605.01-67219543 30.12.2022
Konu : Araştırma Uygulama İzni

DAĞITIM YERLERİNE

İlgi: a) Bakanlığımızın 21/01/2020 tarihli ve 2020/2 Nolu Araştırma Uygulama İzinleri Genelgesi.
b) Orta Doğu Teknik Üniversitesi Rektörlüğü'nün 22/11/2022 tarihli ve 48502539-010.06.99-E.1889 sayılı yazısı.

İlgi (b) yazı ile Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi Psikoloji Bölümü Öğretim Üyelerinden Prof.Dr. Sibel Kazak BERUMENT'in "Ebeveynlik Tutumlarının ve Ebeveyn-Çocuk İletişim Özelliklerinin Çocuk ve Ergen Gelişimine Etkisi" konulu araştırmasına veri sağlamak amacıyla daha önce 04/11/2021 tarihinde alınmış anket çalışması onay izin süresinin 2022-2023 Eğitim-Öğretim dönemini kapsayacak şekilde uzatılması talebine ilişkin ilgi yazı ve ekleri Bakanlığımız tarafından incelenmiştir.

Bakanlığımıza bağlı resmi/özel okul ve kurumlarda öğrenci ve öğrenci velilerinin katılımıyla yapılması planlanan uygulamanın denetimi il/ilçe millî eğitim müdürlükleri ve okul/kurum idaresinde olmak üzere, kurum faaliyetlerini aksatmadan, gönüllülük esasına göre; onaylı bir örneği Bakanlığımızda muhafaza edilen ve uygulama sırasında da mühürlü ve imzalı örnekten çoğaltılan, veri toplama araçlarının online olarak;

2 ve 3. Sınıf Ölçekleri (Geçen yıl 1. ve 2. sınıf katılımcılar):
https://boun.fra1.qualtrics.com/jfe/form/SV_djmFAjdvhUpEvvE

4-12. Sınıf Ölçekleri (Geçen yıl 3. sınıftan 11. sınıfa kadar tüm sınıf düzeyleri):
https://boun.fra1.qualtrics.com/jfe/form/SV_exiEjLVgWmt0U3c

Anne Ölçekleri:
https://boun.fra1.qualtrics.com/jfe/form/SV_3jGwzU6UIP4UiIC

Baba Ölçekleri:
https://boun.fra1.qualtrics.com/jfe/form/SV_4VhN83IZaYMveHc

adreslerinden 2022-2023 eğitim ve öğretim yılında uygulanmasına ilgi (a) Genelge doğrultusunda izin verilmiştir.

Gereğini bilgilerinize rica ederim.

Mehmet Fatih LEBLEBİCİ
Bakan a.
Başkan

Bu belge güvenli elektronik imza ile imzalanmıştır.
Belge Doğrulama Adresi : https://www.turkiye.gov.tr/meb-ebys
Bilgi için:
Unvan : Şube Müdürü
İnternet Adresi: www.meb.gov.tr Faks:3124186401

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C. MEASURES ACROSS TIME POINTS

Measures	Time 1	Time 2
Mothers' beliefs about important factors for school success	**X**	
Mothers' expectations for child's education attainment	**X**	
School Engagement	**X**	**X**
Maternal Warmth	**X**	**X**
Maternal Inductive Reasoning	**X**	**X**
Maternal Performance Pressure	**X**	**X**
Maternal Comparison	**X**	**X**

D. CURRICULUM VITAE

EZGİ AYDOĞDU SÖZEN
Middle East Technical University
Developmental Psychology
ANKARA-TÜRKİYE

EDUCATION		
2009-2014	:	**B.A., Psychology, Koç University, Istanbul, Turkey** (Full merit scholarship)
2014-2017	:	**M.A., Developmental Psychology, Koç University, Istanbul, Turkey** (Full merit scholarship)
2018 – Ongoing	:	**Ph.D. Candidate, Developmental Psychology, Middle East Technical University (METU), Ankara, Turkey**

WORK EXPERIENCE	
2014-2016	Koç University, Department of Psychology, Research Assistant
2016-2017	İstanbul Gelişim University, Department of Psychology, Research Assistant
2017-March 2018	Çanakkale Onsekiz Mart University, Department of Psychology, Research Assistant
November 2018-present	Middle East Technical University, Department of Psychology, Research Assistant

ACHIEVEMENTS & SCHOLARSHIP

2011- 2012	Vehbi Koç Scholar
2010- 2012	Dean's Honor Roll
2009-2014	The Scientific and Technological Research Council of Turkey, Undergraduate Scholarship
2014-2016	The Scientific and Technological Research Council of Turkey, MA Scholarship
2019-2023	The Scientific and Technological Research Council of Turkey, PhD Scholarship

PUBLICATIONS

Peer reviewed journal articles

İplikçi, B., Ilgun, Y., Memişoğlu-Sanlı, A., **Aydoğdu Sözen, E.**, Şahin-Acar, B., Tahiroğlu, D. & Doğan, A. Berument, S. K., (2024). Role of pandemic-related experiences and maternal psychological distress in maternal rejection. *Family Relations, 73(1), 74-94*. **https://doi.org/10.1111/fare.12984**
(SSCI/Q1)

Kagitcibasi, C., Kisbu-Sakarya, Y., & **Aydogdu, E.** (2017). Intercultural engagement and relatedness: Examining mediation effects. *International Journal of Intercultural Relations*, 61, 21–28. https://doi.org/10.1016/j.ijintrel.2017.09.002 ***(SSCI/Q1)***

Translated book chapters

Siegler, R., Saffran, J. R., Gershoff, E. T., & Eisenberg, N. (2024). Chapter 8: Intelligence and Academic Achievement - How Children Develop, Sixth ed. (**Aydoğdu Sözen, E.** Trans.). Worth Publishers. (Original work published 2020).

Hofstede, G., Hofstede, G. H., & Minkov, M. (2022). Chapter 9: Pyramids, Machines, Markets, and Families: Organizing Across Nations – Culture and Organizations: Software of The Mind, Revised and expanded Third ed. (Ülkü, T. & **Aydoğdu Sözen, E.** Trans.). McGraw Hill. (Original work published 2010).

RESEARCH EXPERIENCE

2019-2024	Volunteer Research Assistant in The Scientific and Technological Research Council of Turkey (TÜBİTAK) 1003 Project (Project Code: 113K033-34-35): Türkiye, Family, Child and Adolescent Project (The Effects of Parenting Attitudes and Parent Child Interaction on Child and Adolescent Developmental Outcomes). Supervised by Prof. Dr. Sibel Kazak Berument (METU). 2018-2024
2020	Volunteer Research Assistant in The Scientific and Technological Research Council of Turkey (TÜBİTAK) 1001 Project (Project Code: 120K385): The effect of COVID-19 on Cognitive and Social Development, and Academic Lives of Children and Adolescents, Supervised by Prof. Dr. Sibel Kazak Berument (METU). 2020
2013	Volunteer Research Assistant in Project PACIFIC: A cross-cultural project **(for details https://ccadlab.umbc.edu/research/project-pacific/)**, Supervised by Prof. Dr. Ayşe Bilge Selçuk (Koç University). 2013
2011-2012	Volunteer Research Assistant in The Study of Early Childhood Developmental Ecologies in Turkey (TECGE), Supervised by Prof. Dr. Nazlı Baydar (Koç University). 2007-2012

PRESENTATIONS IN PEER REVIEWED INTERNATIONAL CONFERENCES

Aydoğdu Sözen, E., Doğan, A.., Şahin Acar B., Tahiroğlu D., & Berument S.K. (2024). SES, parental educational expectation and cognitive engagement: Multigroup comparison across school levels. (Presented as Poster Presentation), 27th Biennial Meeting of the International Society for the Study of Behavioral Development (ISSBD), 16-20 June, Lisbon, Portugal.

İplikçi, B., Ilgun, Y., **Aydoğdu Sözen, E**., Anaçali, E., Şahin-Acar, B., Doğan, A., Tahiroğlu, D. & Berument, S. K. (2023) The stability and change of school connectedness pre and during COVID-19 pandemic: The moderator role of cyberbullying. (Presented as Poster Presentation), Biennial Meeting of Society for Research in Child Development (SRCD), 23-25 March, Salt Lake City, Utah, USA.

Aydoğdu, E., Berument, S. K., Doğan, A., Şahin-Acar, B., & Tahiroğlu, D. (2021). The maternal factors affecting cognitive engagement during COVID-19 pandemic: A path analysis. (Presented as Poster Presentation), Virtual Biennial Meeting of Society for Research in Child Development (SRCD), 7-9 April.

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PRESENTATIONS IN PEER REVIEWED NATIONAL CONFERENCES

Aydoğdu Sözen, E., Doğan, A.., Şahin Acar B., Tahiroğlu D., & Berument S.K. (2024). Aileye ait özellikler ve anne psikolojik sağlık ile akademik ilgi arasındaki ilişkide anneden algılanan ebeveyn davranışlarının aracı etkisi. (Poster sunumu), 4. Gelişim Psikolojisi Sempozyumu, 10-11 Eylül, Ankara, Türkiye.

Aydoğdu Sözen, E., Doğan, A. Şahin-Acar, B., Tahiroğlu, D. & Berument, S. K. (2022). Akademik ilgi: Türkiye ulusal temsili betimleyici bir çalışma (Sözlü sunum), 21. Ulusal Psikoloji Kongresi, 13-16 Ekim, İstanbul, Türkiye.

Aydoğdu E., Doğan, A.., Şahin Acar B., Tahiroğlu D., & Berument S.K. (2022). COVID-19 pandemisi sırasında siber zorbalık ve bilişsel ilgi: Ruminasyon ve içselleştirme davranış problemlerinin aracı rolü. (Poster sunumu), 3. Gelişim Psikolojisi Sempozyumu, 8-9 Eylül, İstanbul, Türkiye.

PROFESSIONAL MEMBERSHIP

- International Society for the Study of Behavioral Development (ISSBD)
- Türk Psikologlar Derneği (TPD)
- Theraplay Oyun ve Aile Terapileri Derneği

E. TURKISH SUMMARY/TÜRKÇE ÖZET

GENEL GİRİŞ

Ebeveynlik, aile ve çocuk gelişimine ilişkin paylaşılan inançlar olarak tanımlanan ebeveyn etnoteorileri kültürel olarak şekillenir. Bu etnoteoriler ebeveyn davranışlarının oluşturulmasında önemli bir role sahiptir ve çocuğun gelişimsel sonuçlarını etkiler (Rubin ve Chung, 2006; Super ve Harkness, 1997). Özellikle, ebeveyn inançları, davranışları ve çocuk gelişim sonuçları arasındaki bu basamaklı ilişki, çocukların akademik sonuçlarında da görülmektedir. Buna bağlı olarak, ebeveynler çocuklarının eğitim, okul ve genel olarak öğrenmeye ilişkin inançlarını, beklentilerini ve davranışlarını şekillendirmede çok önemli bir role sahiptir. Akademik ilgi ebeveynlerin inanç, beklenti ve davranışlarından çocuğun akademik başarısına uzanan bir köprüdür (Pinquart ve Ebeling, 2020). Bu bağlamda, akademik başarının önemli bir öncülüdür (Lei vd., 2018; Wong vd., 2023). Bu nedenle, akademik ilginin aileyle ilgili öncüllerini anlamak, akademik başarıyı artırmaya yönelik içgörüleri artırmak için önemlidir. Bu nedenle, akademik ilgi ile ebeveyn inançları, beklentileri ve davranışları arasındaki ilişkinin Türkiye çapında bir örneklemde farklı okul düzeylerinde incelenmesi amaçlanmıştır. Bu amaçla, ebeveynlerin çocuk yetiştirme konusundaki inanç ve beklentilerinin ebeveynlik davranışlarını ve ardından çocuğun gelişimsel sonuçlarını nasıl etkilediğini araştıran boylamsal bir çalışmanın bir parçası olarak bu tez eğitimle ilgili ebeveyn inançları, beklentileri ve ebeveynlik davranışları ile okul başarısı ve akademik ilgi gibi çocuğun eğitimle ilgili çıktıları arasındaki ilişkilere iki ayrı çalışma ile odaklanmıştır.

Çalışma 1'de annelerin okul başarısı için önemli faktörlere ilişkin inançları nitel olarak incelemiştir. Bu kapsamda, Türk annelerin okulda başarılı olmak için hangi faktörlerin önemli olduğuna ilişkin inançları tematik olarak belirlenmiştir. İkinci olarak, annelerin cevaplarına bağlı olarak ana temalar ve alt temalar hem çocukların cinsiyetleri hem de okul seviyeleri üzerinden verilmiştir. Bununla bağlantılı olarak, temaların çocukların cinsiyetine ve okul seviyesine göre nasıl farklılaştığını incelemek için ki-kare analizi yapılmıştır. Ayrıca, "aile" ana teması ile birinci ve ikinci zamanlardaki akademik ilgi arasındaki ilişkiler korelasyon analizi ile incelenmiştir.

Çalışma 2'de ise, Beklenti-Değer Teorisine (*Expectancy-Value Theory*) (Eccles vd., 1983) ve Sosyokültürel Bağlamda Gelişim Modeline (*Development-in-Sociocultural-Context Model-DISC*) (Wang vd., 2020) dayanarak ebeveynlerin eğitim beklentileri ve ebeveynlik davranışlarının, çocukların ve ergenlerin eğitim çıktılarıyla ilişkisi incelenmiştir. Spesifik olarak annelerin birinci zamanda raporladığı çocuklarının eğitime devam etme sürelerine ilişkin beklentilerinin ikinci zamanda çocukların raporladığı akademik ilgileri arasındaki ilişkiye bakılmıştır. Ayrıca bu ilişkide algılanan ebeveynlik davranışlarının (anne sıcaklığı, açıklayıcı akıl yürütme, performans baskısı ve karşılaştırma) aracı rolü bir yol modeli ile araştırılmıştır. Aynı yol modeli üç ayrı okul düzeyi (ilkokul, ortaokul ve lise) için de ayrı ayrı çalıştırılmıştır. Son olarak, modelin her okul seviyesinde erkek çocuk ve kız çocukları arasında farklılaşıp farklılaşmadığını anlamak için cinsiyetler arasında çok gruplu bir karşılaştırma yapılmıştır.

ÇALIŞMA 1

Giriş

Akademik ilgi davranışsal, duygusal ve bilişsel boyutlardan oluşan çok boyutlu bir yapıdır (Fredricks vd., 2004; Jimerson vd., 2003). Davranışsal boyutu, kurallara uyma, akademik gayret gösterme, öğrenme görevlerine dahil olma, istikrarlı çalışma, öğrenme materyallerine odaklanma, soru sorma, sınıf tartışmalarına ve spor, sanat veya okul yönetimi faaliyetleri gibi okulla ilgili faaliyetlere katılma gibi olumlu davranışları içermektedir (Fredericks vd., 2004). Duygusal boyutu, okul ve öğretmeni sevme ya da sevmeme, okulda mutlu ya da mutsuz olma, okula ait hissetme ve okulla özdeşleşme gibi okula ve öğretmene yönelik duyguları kapsamaktadır (Wang vd., 2011). Son olarak, bilişsel boyutu öğrenmeye istekli olma, öğrenmeye yatırım yapma, öz düzenleme ve öğrenmenin değerini ifade eder (Fredericks vd., 2004). Ayrıca, Newman ve diğerleri (1992) bunu öğrenmeye, derinlemesine anlamaya, akademik çalışmalarda bilgi ve becerilerde ustalaşmaya yönelik psikolojik bir yatırım ve çaba olarak tanımlamıştır. Bu çalışma, Fredericks ve diğerlerinin (2004) kavramsallaştırmasına dayalı olarak akademik ilginin sadece bilişsel boyutuna odaklanmaktadır.

Giderek büyüyen bir literatür, akademik ilginin farklı sınıflara devam eden öğrencilerin akademik başarısının güçlü bir yordayıcısı olduğunu öne sürmektedir

(Balfanz ve Byrnes, 2006; Dotterer ve Lowe 2011; Estevez vd., 2021; Upadyaya ve Salmela-Aro, 2013). Akademik başarının aksine, sınıfta kalma ve okul terki akademik ilgiyle negatif ilişkilidir. Okulda kalma geçmişi olan ortaokul ve lise öğrencileri, okulda kalma geçmişi olmayan diğer öğrencilere göre daha düşük akademik ilgi raporlamışlardır (Gandra & Cruz, 2021). Sonuç olarak, akademik ilgi ve bunun öncüllerini anlamak, öğrencilerin düşük akademik başarılarını, sınıfta kalmalarını ve okulu terk etmelerini azaltmak ve önlemek için önemlidir. Bu nedenle, ebeveynlerin çocuklarının eğitimine ilişkin sosyalleşme sürecindeki rolleri, akademik ilgi ve buna bağlı olarak diğer akademik sonuçları iyileştirmek için araştırılmaya değerdir. Kültür ve aile arasındaki etkileşimlere bağlı olarak, ebeveynler çocuğun öğrenimi ve eğitimi konusunda kültüre bağlı gelişen inançlara sahiptir (Kremer-Sadlik & Fatigante, 2015). Spesifik olarak, bir kültür eğitime ve öğrenmeye değer verdiğinde, böyle bir kültürde ebeveynlerin eğitime değer verme konusunda inançlara sahip olma ve bu inançları akademik sosyalleşme yoluyla çocuklarına aktarma olasılığı daha yüksektir. Bu bakış açısıyla ilgili olarak, eğitimin yüksek değere sahip olduğu Çin ve Japon kültürleri üzerine kapsamlı araştırmalar yapılmıştır (Cheung ve Pomerantz, 2011; Wang vd., 2022; Yamamoto vd., 2006; Yamamoto, 2020). Bu kültürel değerlere dayanarak, çoğunlukla anneler, kültürel inanç ve değerleri gelecek nesillere aktaran birincil figür olarak, çocuklarının öğrenme ve eğitimini desteklemek için daha fazla zaman ve çaba harcamaktadır (Chao, 1996; Holloway, 2010).

Kağıtçıbaşı'nın Aile Değişim Modeli (2002), Türk ebeveynlerin eğitim hakkındaki inançlarının arka planını anlamak için önemlidir. Bu model üç farklı aile modelinden bahsetmektedir: Karşılıklı bağımlı aile modeli, bağımsızlık aile modeli ve karşılıklı duygusal bağımlı aile modeli. İlk aile modelinde çocuğun ekonomik faydasına bağlı olarak, okula gitme ve eğitimde yüksek dereceler elde etme çoğunlukla teşvik edilmemektedir. Bu nedenle bu tür aileler eğitime daha az değer vermektedir. İkinci aile modelinde ise eğitim ve öğrenme yüksek değere sahiptir. Çünkü birey eğitim yoluyla özerk olmak ve kendini gerçekleştirmek için gerekli becerileri edinmelidir. Türkiye'de 2023 yılı istatistiklerine göre Ankara, İstanbul, Eskişehir, Kocaeli ve İzmir ortalama okullaşma oranının en yüksek olduğu illerdir (TÜİK, 2024). Diğer yandan, üç farklı kuşakta çocuğa verilen değerin karşılaştırıldığı bir çalışma, Türkiye'nin karşılıklı bağımlılığa dayalı aile modelinden karşılıklı duygusal bağımlılığa dayalı aile

modeline doğru değişimini göstermiştir (Kağıtçıbaşı ve Ataca, 2005). Bu çalışmada 1975'ten 2003'e kadar kuşaklar arasında (yani genç anneler, yaşlı anneler ve büyük anneler) ortalama okullaşma süresinin 3 yıldan 9,5 yıla çıktığı bulunmuştur. Ayrıca Kağıtçıbaşı (2007) karşılıklı duygusal bağımlılığa dayalı aile modelinin Türk kültürünün tipik aile modelini yansıttığını vurgulamıştır. Bu modelde aileler, özerk ve kendine güvenmenin yanı sıra duygusal olarak ilişkili olmanın yüksek eğitim derecesine ulaşmak, okulda başarı kazanmak ve gelecekte başarılı bir kariyer elde etmek için önemli olduğuna inanmaktadırlar. Ebeveynler eğitime daha fazla değer verdiğinde, yatırım yapmakta ve ardından çocuklarının yüksek akademik başarıya sahip olmasını ve yüksek dereceler elde etmesini beklemektedir.

Sonuç olarak, bu çalışma, Türkiye genelinde tüm okul seviyelerinde ve cinsiyetlerde annelerin okul başarısını etkileyen faktörlere ilişkin inançlarını araştırmayı amaçlamıştır. Ayrıca aile ile ilgili faktörlerin eğitim çıktıları üzerindeki etkisini anlamak için toplam aile teması ile birinci ve ikinci zaman akademik ilgi arasındaki ilişkiyi incelemeyi amaçlamıştır.

Yöntem

Katılımcılar

Bu çalışmanın örneklemi 6-17 yaş arası çocuk ve ergenlerin gelişimi, ebeveyn inançları ve davranışları arasındaki ilişkiyi inceleyen Türkiye, Aile, Çocuk ve Ergen Projesi'nden (TAÇEP) alınmıştır. Türkiye'nin 61 farklı şehrindeki toplam 180 okuldan (60 ilkokul, 60 ortaokul, 60 lise) iki ayrı zamanda veri toplanmıştır. 1. zamanda çalışmaya katılan 5988 anneden, 5841'i "Çocukların okulda başarılı olması için hangi faktörlerin önemli olduğunu düşünüyorsunuz?" sorusunu cevaplamıştır. Bu nedenle bu çalışmanın örneklemini 5841 anne ile birinci (4426 çocuk) ve ikinci zamanda (3093 çocuk) akademik ilgi ölçeğini cevaplayan bu annelerin çocukları oluşturmaktadır.

Veri Toplama Araçları

Annelerin okul başarısına ilişkin inançlarını anlamak için birinci zamanda açık uçlu bir soru ("Çocukların okulda başarılı olması için hangi faktörlerin önemli olduğunu düşünüyorsunuz?") (Simpkins vd., 2012) sorulmuştur. Annelerin yanıtları, MAXQDA 2022 programında kodlama eğitimi alan bir doktora ve iki lisans öğrencisi tarafından tematik olarak kodlanmıştır. Anneler yaş, evli olma durumu, aile yapısı, ailenin aylık geliri, çocuğun cinsiyeti ve okul seviyesi gibi demografik soruları içeren bir anket

doldurmuştur. Çocuk ve ergenlerin akademik ilgisini ölçmek için Fredericks ve diğerleri (2004) tarafından geliştirilen Akademik İlgi Ölçeği kullanılmıştır. Original halinde farklı boyutları için toplam 19 madde vardır. Bu çalışmada sadece bilişsel alt boyutuna ait maddeler sorulmuştur. Bu alt boyut, 1 (hiçbir zaman) ile 4 (her zaman) arasında değişen 4'lü Likert tipi ölçekte 8 madde ("Okuduğumu anlamazsam geri dönüp tekrar okurum") içermektedir. Birinci zamanda 3.-11. sınıf öğrencilere verilmişken, ikinci zamanda 4.-12. sınıfa devam eden aynı öğrencilere sorulmuştur. Orijinal makalede ölçeğin Cronbach alfa değeri bu alt boyut için .82 olarak bildirilmiştir. Birinci zamanda ölçeğin Cronbach alfa değeri tüm örneklem için .86 iken, ilkokul alt örneklemi (3. ve 4. sınıflar) için .86, ortaokul alt örneklemi (5 ila 8. sınıflar) için .85 ve lise alt örneklemi (9 ila 11. sınıflar) için .84'tür. İkinci zamanda ölçeğin Cronbach alfa değeri tüm örneklem için .87 iken, ilkokul alt örneklemi (4. sınıf) için .84, ortaokul alt örneklemi (5 ila 8. sınıf) için .87 ve lise alt örneklemi (9 ila 12. sınıf) için .88'dir. Akademik ilgi puanı ölçekteki 8 maddenin ortalaması alınarak hesaplanmıştır.

İşlem

Bu çalışma, "Türkiye Aile, Çocuk ve Ergen Projesi (TAÇEP)" başlıklı ülke çapında boylamsal bir araştırmanın parçası olarak yürütülmüştür. Bu nedenle, proje kapsamında veri toplanmadan önce Orta Doğu Teknik Üniversitesi İnsan Denekleri Etik Kurulu'ndan etik onayı ve Millî Eğitim Bakanlığı'ndan okullardan veri toplama izni alınmıştır. Türkiye İstatistik Kurumu (TÜİK), Türkiye'deki tüm okulları temsil etmek üzere olasılıklı-büyüklüğe orantılı örnekleme (PPS) yöntemini kullanarak rastgele 180 asıl okul (her okul düzeyi için 60 okul) ve yedek olarak 180 okul seçmiştir. Anneler anketleri cep telefonlarına gönderilen bir Qualtrics bağlantısı aracılığıyla doldurmuştur. Ancak bazı okullarda annelerin bir kısmı internete veya cep telefonuna erişimi olmadığı ya da okuma yazma bilmediği için anketleri tablet üzerinden doldurmak üzere çocuklarının okullarına gelmiştir. Annelerin anketleri doldurması bittikten sonra çocuklar okullarında ziyaret edilmiştir. Anketleri doldurmaları için araştırma ekibi tarafından her çocuğa tablet verilmiştir.

Bulgular

MAXQDA 2022 Programı Kodlama Süreci

Bir doktora öğrencisi MAXQDA kodlama eğitimi aldıktan sonra 5841 anne verisini ana ve alt temaları belirlemek için incelemiştir. Sonrasında iki lisans öğrencisi eğitim

videosunu izleyerek ve iki farklı 30 kişilik verisetini kodlayarak eğitilmiştir. Her bir kodlamacının kodlamaları üzerinden geçilip farklılaşan yerler tartışılmıştır. Daha sonrasında sırasıyla 350 kişilik ilk veriseti ve sonrasında ikinci bir 350 kişilik veriseti kodlayıcılar arası uzlaşma için kodlanmıştır. Fakat bu kodlamalar yeterli görülmeyip kodlayıcılar arası uzlaşma için toplamda 1250 kişilik anne veriseti her bir kodlayıcı tarafınd ayrı ayrı kodlanmıştır. Toplam 1250 annenin yanıtları için Kappa değeri MAXQDA programı aracılığıyla kodlayıcılar arasında kodlanan bölümlerin en az %90 örtüşmesine dayalı olarak hesaplanmıştır. Kappa (Brennan & Prediger,1981) Kodlayıcı 1 ve Kodlayıcı 2 için 0.61'dir. Landis ve Koch (1977) 0.61'in iyi veya önemli olarak değerlendirilebileceğini iddia etmiştir. Kodlayıcı 1 ve Kodlayıcı 3'ün Kappa değeri 0,57'dir. Kuckartz ve Rädiker (2019) eşik değerlerin yanıltıcı olabileceğini, bu nedenle kodlama belgelerinin içeriğiyle ilgili olarak gerekçelendirilmeleri gerektiğini vurgulamıştır. Bu nedenle, bu çalışmada annelerin cevaplarının içeriği göz önünde bulundurulduğunda 0,57 değeri kabul edilebilir bulunmuştur. Kodlayıcı 2 ve Kodlayıcı 3 için Kappa değeri 0,62'dir.

Kodlanan Tema Sıklık ve Yüzdeleri

5841 annenin cevaplarının kodlanması sonucunda 22 ana ve 65 alt tema belirlenmiştir. Ayrıca mevcut alt temalara koyulamayan bazı cevaplar “diğer” teması altında toplanmıştır. Tüm kodlama bittikten sonrasında doktora öğrencisi tarafından “diğer” teması altında oluşturulan uygun alt temalara atılmıştır. Tablo 3’te belirlenen ana ve alt temaların sıklıkları ve yüzdeleri ayrıntılı bir şekilde verilmiştir. İlgili temaya atıfta bulunma sıklığı olarak adlandırılan sütun, annelerin belirli bir temayı kaç kez kullandığını göstermektedir. Ayrıca, belirli bir temanın sıklığı toplam kodlama segmentine (N = 18304) bölünerek bir yüzde hesaplanmıştır. Örneğin, anneler 'çocuğun bireyselliğine saygı duyma' alt temasını 95 kez kullanmıştır, dolayısıyla 95'in 18304'e bölünmesiyle hesaplanan yüzde 0,52'dir. İlgili temaya atıfta bulunma başlıklı sütun, annelerin belirli bir temayı kullanıp kullanmadıklarını göstermektedir. Örneğin, 5841 anneden 89'u 'çocuğun bireyselliğine saygı' alt temasını bildirmiştir, bu nedenle 89'u 5841'e bölerek yüzdesi %1,52 olarak hesaplanmıştır. Ana temalar içindeki alt temaların yüzdesi olarak adlandırılan sütun, her bir alt temanın sadece kendi ana teması içindeki yüzdesinin ne olduğunu ifade etmektedir. Örneğin, 'aile' ana temasının bir alt teması olan 'çocuğun bireyselliğine saygı' 95 kez kullanılmıştır ve 95'in tüm

'aile' alt temalarının toplam frekansı olan 3110'a bölünmesiyle 'aile' teması içindeki yüzdesi %3,05 olarak bulunmuştur.

Okul Seviyesine Göre Ana Temalar

Ana temalarla ilgili olarak, sonuçlar 'okulu sevme' (X^2 (2, N = 5841) = 22.36, p < .001), 'motivasyon/istek/heves' (X^2 (2, N = 5841) = 6. 57, p < .05), 'kitap okuma' (X^2 (2, N = 5841) = 8.30, p < .05), 'aile/çocuk/okul/öğretmen iş birliği' (X^2 (2, N = 5841) = 16.02, p < .001) ve 'ekonomik koşullar' (X^2 (2, N = 5841) = 8.41, p < .05) temalarında okul seviyesine göre anlamlı bir farklılık olduğunu göstermiştir. Post-hoc karşılaştırmalarına göre, ilkokul çocuklarının anneleri ortaokul ve lise çocuklarının annelerine kıyasla 'okulu sevme' temasını daha sık bildirmişlerdir. Lise çağındaki çocukların anneleri 'motivasyon/arzu/heves' ve 'ekonomik koşullar' temalarını ilkokul çağındaki çocukların annelerinden daha sık bildirirken, 'kitap okuma' ve 'aile/çocuk/okul/öğretmen iş birliği' temalarını hem ilkokul hem de ortaokul çağındaki çocukların annelerinden daha az bildirmiştir.

Okul Seviyesine Göre Alt Temalar

Alt temalarla ilgili olarak, sonuçlar bazı alt temaların kullanım sıklığının okul seviyesine göre farklılaştığını göstermiştir. Bunlar şu şekildedir: *Ders çalışma ana teması* altındaki alt temalar açısından, 'derse aktif katılım' (X^2 (2, N = 5841) = 9.99, p < .01), 'test çözme' (X^2 (2, N = 5841) = 35.78, p < .001), 'derste öğrenilenleri gözden geçirme' (X^2 (2, N = 5841) = 27. 78, p < .001), 'ödev yapmak/zamanında yapmak' (X^2 (2, N = 5841) = 17.29, p < .001), 'planlı/düzenli ve verimli bir şekilde çalışmak' (X^2 (2, N = 5841) = 36.19, p < .001) ve herhangi bir alt temada sınıflandırılmayan ders çalışmaya ilişkin diğer bazı faktörler (X^2 (2, N = 5841) = 18.82, p < .001); *öğretmen ana teması* altındaki alt temalar açısından, 'öğretmen sevgisi' (X^2 (2, N = 5841) = 12.17, p < .01), 'öğretmeni sevme' (X^2 (2, N = 5841) = 33. 68, p < .001), 'deneyimli/iyi öğretmenler' (X^2 (2, N = 5841) = 21.15, p < .001) ve herhangi bir alt temada sınıflandırılmayan öğretmenle ilgili diğer bazı faktörler (X^2 (2, N = 5841) = 19.02, p < .001); *aile ana teması* altında yer alan alt temalarla ilgili olarak, 'aile sevgisi' (X^2 (2, N = 5841) = 13.74, p < .001), 'aile ilgisi' (X^2 (2, N = 5841) = 64.83, p < .001), 'aile desteği' (X^2 (2, N = 5841) = 19.28, p < .001) ve herhangi bir alt temada sınıflandırılmayan aileyle ilgili diğer bazı faktörler (X^2 (2, N = 5841) = 18.98, p < .001); *çocuğun bireysel özellikleri ana teması* altındaki alt temalar açısından, 'öğrenmeye açık olma' (X^2 (2, N

= 5841) = 8.29, $p < .05$), 'kararlılık' (X^2 (2, N = 5841) = 26.00, $p < .001$), 'öz disiplin' (X^2 (2, N = 5841) = 32.37, $p < .001$), 'hedef belirleme' (X^2 (2, N = 5841) = 87.60, $p < .001$), 'psikolojik sağlık' (X^2 (2, N = 5841) = 12.04, $p < .01$) ve 'fiziksel sağlık' (X^2 (2, N = 5841) = 9.96, $p < .01$); *sınıf, okul iklimi, arkadaşlık ve diğer ana temalarındaki* alt temalara ilişkin olarak, sırasıyla, 'kalabalık olmayan sınıf' (X^2 (2, N = 5841) = 7.52, $p < .05$), herhangi bir alt temaya sınıflandırılmayan sınıf ortamıyla ilgili diğer bazı faktörler (X^2 (2, N = 5841) = 7.97, $p < .05$), 'okul disiplini' (X^2 (2, N = 5841) = 30.70, $p < .001$), 'iyi rehberlik hizmeti' (X^2 (2, N = 5841) = 7.72, $p < .05$), 'doğru arkadaş/arkadaş çevresi/ortam seçimi' (X^2 (2, N = 5841) = 40. 81, $p < .001$), 'arkadaş sevgisi' (X^2 (2, N = 5841) = 15.14, $p < .001$) ve 'maddi ve manevi destek' (X^2 (2, N = 5841) = 7.93, $p < .05$) alt temalarında anlamlı farklılıklar bulunmuştur.

Cinsiyete Göre Ana ve Alt Temalar

Ana temalarla ilgili olarak, sonuçlar erkek annelerinin 'motivasyon/arzu/heves' temasını (X^2 (1, N = 5841) = 3.95, p = .047) kız annelerine göre anlamlı derecede daha sık bildirdiklerini göstermiştir. Öte yandan, kız anneleri 'çalışma ortamı' temasını (X^2 (1, N = 5841) = 7.76, p = .01) erkek annelerine kıyasla anlamlı derecede daha sık bildirmiştir. Alt temalar açısından, kız anneleri 'psikolojik sağlık' (X^2 (1, N = 5841) = 5.72, p = .02) ve 'işini iyi yapan okul yöneticileri' (X^2 (1, N = 5841) = 5.61, p = .02) alt temalarını erkek annelerine göre anlamlı derecede daha sık bildirmişlerdir. Ancak, erkek anneleri kız annelerine kıyasla 'öğretmenin ilgili olması' (X^2 (1, N = 5841) = 4.41, p = .04) ve 'öğrenmeyi geliştiren etkinlikler' (X^2 (1, N = 5841) = 4.16, p = .04) alt temalarını anlamlı düzeyde daha sık bildirmiştir.

Aile Teması ile Akademik İlgi Arasındaki İlişki

Aile teması içindeki tüm alt temaların ve alt temalarda sınıflandırılmayanların frekansları toplanarak *aile temasının* toplam puanı hesaplanmıştır. Tüm örneklem için, aile teması ile birinci zamandaki akademik ilgi arasındaki ilişki anlamlıdır, r = .06, $p < .001$. Okul başarısında ailenin önemine inanan annelerin çocukları birinci zamanda daha yüksek akademik ilgi raporlamışlardır. Ayrıca, bu ilişki okul seviyeleri için ayrı ayrı incelendiğinde, birinci zamandaki aile teması ve akademik ilgi sadece ortaokullardaki çocuklar için birbiriyle pozitif yönde ilişkilidir, r = .07, $p < .01$. Öte yandan tüm örneklem için aile teması toplam puanı ile ikinci zaman akademik ilgi arasındaki korelasyon marjinal olarak anlamlıdır, r = .03, p = .079.

Tartışma

Çalışmanın ilk amacına ilişkin olarak, annelerin cevaplarına göre ana temalar ve alt temalar belirlenmiştir. Genel olarak, okul başarısı için üç ana faktör belirlenmiştir: Çocukla ilgili faktörler, okulla ilgili faktörler ve aileyle ilgili faktörler. Annelerin %67,3'ü çocukla ilgili en az bir faktörden bahsederken, %40,5'i okulla ilgili ve %35,7'si aileyle ilgili en az bir faktör bildirmiştir. Temalar birbirini dışlamadığı için bu yüzdelerin toplamının %100'e ulaşmadığı unutulmamalıdır. Bu da her bir annenin aynı anda her bir faktör için farklı temalar bildirebileceği anlamına gelmektedir. Bu sonuçlar önceki çalışmalarla tutarlıdır. Costa ve arkadaşları (2024), ortaokul ve lise öğrencileriyle yapılan 35 çalışmayı inceledikleri bir derlemede, akademik başarının belirleyicilerinin cinsiyet, kişilik özellikleri, motivasyon ve özyapı gibi kişisel faktörler ile aile, okul ve akran gibi diğer faktörler olduğunu göstermiştir. Bu çalışmada çocukla ilgili faktörler çocuğun motivasyonu, ders çalışması, kitap okuması, düzenli olarak okula gitmesi, okulu sevmesi ve çocuğun öz disiplin, özgüven ve hedef belirleme gibi özelliklerine ilişkin ana temaları ve alt temaları içermektedir. Özellikle, düzenli çalışma rutini, sınıfta öğrenilen materyallerin gözden geçirilmesi ve öğretmeni dikkatle dinlemek anneler tarafından çocukla ilgili faktörler olarak bildirilen çalışma ana teması içindeki alt temalardır. İkinci olarak, anneler okul iklimi, sınıf ortamı ve öğretmen gibi ana temaları ve bunların alt temalarını içeren okulla ilgili faktörlerin önemini vurgulamışlardır. Son olarak, aile ortamı, destek, ilgi ve sevgi gibi aile alt temalarını içeren aile ile ilgili faktörlerin önemine dikkat çekmişlerdir.

Literatürle uyumlu olarak, bu çalışma temel olarak çocuğun çabası, eğitime yaptığı yatırım, azimli ve öz disiplinli olma gibi bireysel özelliklerinden oluşan çocukla ilgili faktörlerin okul başarısı için en önemli faktörler olduğunu ve okulla ilgili ve aileyle ilgili faktörlerden önce geldiğini göstermiştir. Marzano (2001) başarı için öğrenciyle ilgili faktörleri inceleyen önceki çalışmaları gözden geçirmiştir. Ancak çalışmaların örneklem özelliklerinden bahsetmemiştir. Bu çalışmada, ilgi, sahip olduğu bilgi ve yetenek gibi öğrenciyle ilgili faktörlerin başarıdaki varyansın %80'ini açıkladığını iddia etmiştir. Ayrıca, Türk öğrencilerle yapılan bazı çalışmalar, okul başarısı için aile ve okulla ilgili faktörlerin yanı sıra öğrenciyle ilgili faktörlerin de önemine işaret etmiştir. Sarıer (2016), Türkiye'de yapılan 62 çalışmayı kapsayan bir meta-analiz çalışmasında, öğrenciyle ilgili faktörlerin başarı üzerindeki etki büyüklüğünün, aile

(0,271) ve okulla ilgili faktörlerden (0,231) önce 0,324 olduğunu belirtmiştir. Benzer şekilde, Engin-Demir (2009) de Ankara'daki yoksul ilkokul öğrencileri üzerinde yaptığı çalışmada, ders çalışmak için harcanan toplam saat, cinsiyet, öğrencinin okuldaki iyi olma hali ve öğrencinin ebeveyn desteği ve öğretmen algısı gibi öğrenciyle ilgili faktörlerin akademik başarıdaki varyansın %15'ini açıkladığını bulmuştur. Aynı çalışmada, okul kalitesi gibi aile ve okulla ilgili faktörler başarıdaki varyansın %5,4 ve %4,3'ünü açıklamaktadır.

Araştırmanın ikinci amacına yönelik olarak, annelerin bildirdiği temaların okul seviyeleri ve cinsiyete göre farklılık gösterip göstermediğini anlamak için ki-kare analizi yapılmıştır. Bazı ana temalar ve alt temaların yüzdeleri açısından kız ve erkek anneleri arasında anlamlı farklılıklar bulunmuştur. Kız anneleri erkek annelerine kıyasla çalışma ortamının, okulla ilgili bir faktör olarak okul yöneticilerinin ve çocukla ilgili bir faktör olarak çocuğun psikolojik sağlığının önemine daha sık işaret etmiştir. Öte yandan, erkek anneleri kız annelerine kıyasla "diğer" ana teması altında kodlanan öğretmenin ilgisi ve öğrenmeyi artırıcı etkinlikler gibi okulla ilgili faktörleri daha sık vurgulamışlardır. Okul seviyeleri açısından, farklı okul seviyelerinden çocuk ve ergenlerin anneleri tarafından bildirilen bazı temaların yüzdelerinde önemli farklılıklar vardı. Annelerin, çocuklarının okul seviyelerini göz önünde bulundurarak bazı temaları daha sık belirttikleri ortaya çıkmıştır. Örneğin, ilkokul çocuklarının anneleri öğretmen ve aile ile ilgili temaları ortaokul ve lise çocuklarının annelerine kıyasla daha sık bildirmiştir. Daha spesifik olarak, öğretmenle ilgili temalar olarak öğretmenin önemi, öğretmenin çocuğu sevmesi, öğretmenin niteliği ve aileyle ilgili temalar olarak aile sevgisi, desteği ve ilgisinin yanı sıra okulu sevme ve kalabalık olmayan sınıfları daha sık belirtmişlerdir. Aile ile ilgili temalarla ilgili olarak, bir meta-analiz çalışması kentsel ilkokul çocukları arasında ebeveyn katılımı ile akademik başarı arasında pozitif bir ilişki bulmuştur (Jeynes, 2005). Öte yandan, lise çağındaki çocukların anneleri, ilkokul ve ortaokul çağındaki çocukların annelerine kıyasla okulda disiplini, öz disipline sahip olmayı ve gelecek için hedef belirlemeyi daha sık vurgulamaktadır. İlkokul ve ortaokul çocuklarının aksine, lise çocukları ebeveynlerinin kontrolü olmadan kendilerini düzenleyebilmektedir. Bu yıllarda öz disiplin ve hedef belirleme gibi dışsal faktörlerden ziyade bireysel özellikler daha önemlidir. Bununla bağlantılı olarak, Avcı ve Özgenel (2024) de Türk lise öğrencilerinin akademik başarılarını ve

ödevlerini tamamlamalarını artırmada öğretmen ve ebeveyn uygulamalarından ziyade motivasyon, saygı ve özerklik desteğinin önemli faktörler olduğunu göstermiştir.

Son olarak, mevcut çalışmanın üçüncü amacına yönelik olarak, genel aile teması ile hem Zaman 1 hem de Zaman 2'deki akademik ilgi düzeyleri arasındaki kesitsel ve boylamsal ilişkiyi incelemek için bir korelasyon analizi yapılmıştır. Bulgular, genel aile teması ile akademik ilgi arasında Zaman 1'de anlamlı bir korelasyon olduğunu, ancak Zaman 2'de olmadığını göstermiştir. Ancak, korelasyon analizi her okul seviyesi için ayrı ayrı yapıldığında sadece ortaokul çocukları için anlamlı bir korelasyon bulunmuştur. Bunun nedeni, ortaokul çocuklarının ilkokul ve lise çocuklarına kıyasla akademik sonuçlarla ilgili aile desteği ve katılımından daha fazla fayda sağlaması olabilir. Sonuç olarak, annelerin raporlarına göre üç ana faktör (aile ile ilgili faktörler, okul ile ilgili faktörler ve çocuk ile ilgili faktörler) okul başarısı ile ilişkilendirilmiştir. Geleceğe yönelik öneriler ve politika çıkarımları genel tartışma bölümünde ele alınacaktır. Bir sonraki bölümde (Çalışma 2), annelerin eğitim beklentileri ve ebeveynlik davranışlarının akademik ilgi üzerindeki rolleri incelenmiştir.

ÇALIŞMA 2

Giriş

Akademik ilgi özellikle okulla ilgili olmak üzere önemli sonuçlarla ilişkili bir kavramdır. Bu nedenle, akademik ilginin akademik başarı (Chase vd., 2014; Karababa, 2022), akademik dayanıklılık (Finn ve Rock, 1997), sınıfta kalma (Gandra ve Cruz, 2021) ve sınıfta kalmanın bir sonucu olarak okul terki (Archambault vd., 2009; Janosz vd., 2008) gibi okulla ilgili sonuçlar üzerindeki öncül rolünü inceleyen artan bir literatür vardır. Ayrıca, akademik ilgi bağlamsal özelliklere ve çevredeki değişikliklere bağlı olarak artar veya azalır (Fredricks vd., 2004). Bu nedenle, akademik ilgiyi artıran öncülleri anlamak çok önemlidir. Daha da önemlisi, akademik ilgideki bu artış akademik başarı gibi olumlu sonuçları artırabileceği gibi okul terki gibi olumsuz sonuçları da engelleyebilir. Daha önceki çalışmalar genellikle akademik ilgi ile öğretmen-öğrenci ilişkisi (Hofkens ve Pianta, 2022), akran ilişkileri (Li vd., 2011) veya okul iklimi (Lombardi vd., 2019) gibi okulla ilgili faktörler arasındaki ilişkiye odaklanmaktadır. Aile veya ebeveynle ilgili faktörler ile akademik ilgi arasındaki ilişkiye yönelik artan bir ilgi olmasına rağmen (Simons-Morton ve Chen,

2009; Tian ve Chen, 2020), ebeveynlerin eğitim beklentileri ile akademik ilgi arasındaki ilişkide ebeveynlik davranışlarının aracı rolü konusunda hala bir anlayış eksikliği bulunmaktadır. Dahası, akademik ilgi üzerine yapılan çalışmaların çoğu Batılı, eğitimli, sanayileşmiş, zengin ve demokratik (WEIRD) kültürlerde (Fernández-Zabala vd., 2016; Widlund vd., 2021) veya Asya kültürlerinde (Liu vd., 2024; Wang vd., 2019) gerçekleştirilmiştir. Bildiğimiz kadarıyla, Türk kültüründe akademik ilgi üzerine yapılmış az sayıda çalışma bulunmaktadır (Erdoğdu, 2019; Ergüç Şahan ve Özgenel, 2021; Kızıldağ vd., 2017). Bu boşluğu doldurmak için, bu çalışma Türk kültüründe aile ile ilgili faktörler ve akademik ilgi arasındaki ilişkiyi araştırmayı amaçlamıştır. Özellikle, algılanan ebeveynlik davranışlarının anne eğitim beklentileri ve akademik ilgi arasındaki ilişkide aracı rolünü incelemiştir. Ayrıca, anne eğitim beklentileri ve akademik ilgi arasında ebeveynliğin aracı rolünün her okul düzeyinde cinsiyete göre farklılık gösterip göstermediğini incelemeyi amaçlamıştır.

Bu çalışma, *Beklenti-Değer Teorisi* (Eccles vd., 1983) ve *Sosyokültürel Bağlamda Gelişim (DISC) Modeline* (Wang vd., 2020) dayanmaktadır. Genel olarak, beklenti-değer teorisi, çocukların başarı ile ilgili seçimlerinin ve performanslarının sosyalleştiricilerin inanç ve davranışlarıyla dolaylı olarak ilişkili olduğunu öne sürmektedir. Sosyalleştiriciler çoğunlukla ebeveynleri ve özellikle de anneleri ifade etmektedir. Dolayısıyla teori, annelerin eğitimle ilgili inanç ve davranışlarının çocukların algılarını şekillendirdiğini, bunun sonucunda da çocukların kendi hedeflerini ve yetenekleriyle ilgili öz şemalarını oluşturduğunu vurgulamaktadır. Wang ve arkadaşları (2020) tarafından önerilen sosyokültürel bağlamda gelişim modeline göre çocuğun içinde yaşadığı sosyokültürel bağlamlar (yani kültürel, aile, okul ve akran bağlamları) ile akademik ilgi arasında doğrudan bir ilişki olduğunu ve bu ilişkide bireysel özelliklerin aracı rolü olduğunu vurgulamaktadır.

Bu teori ve modele dayanarak ailesek faktörlerden annenin çocuğun eğitimine dair beklentisi ile akademik ilgi arasındaki ilişkide ebevynlik davranışlarının aracı rolü incelenmiştir. Önceki çalışmaların çoğunda ebeveyn eğitim beklentileri, ebeveynlerin çocuklarından bekledikleri en yüksek eğitim seviyesi olarak kavramsallaştırılmıştır (Rimkute vd., 2011; Weir vd., 2023). Benzer şekilde, bu çalışmada da ebeveyn eğitim beklentileri, ebeveynlerin çocuklarının ulaşmasını bekledikleri en yüksek eğitim düzeyi olarak kavramsallaştırılmıştır. Ebeveynlerin eğitim beklentilerine ilişkin

literatür ağırlıklı olarak Amerikan kültürü veya Batı kültürleri (Davis-Kean, 2005; Jacob, 2010; Rimkute vd., 2011) ve Asya kültürlerinden (Spera vd., 2009; Zou vd., 2013) gelmektedir. Bununla birlikte, Türk ebeveynlerin eğitim beklentileri ve bunun çocuklarının akademik sonuçları, özellikle de akademik ilgi ile ilişkisi hakkında çok az şey bilinmektedir (Lindberg vd., 2019). Ebeveynler çocukları için yüksek eğitim beklentilerine sahip olduğunda, çocuklar daha fazla motive olabilir ve ebeveynlerinin beklentilerini karşılamak için daha fazla çaba gösterme eğiliminde olabilir. Bu bağlamda, bazı çalışmalar ebeveyn eğitim beklentisi ile akademik başarı arasında pozitif bir eşzamanlı ilişki olduğunu gösterirken (Hu vd., 2024), diğerleri pozitif bir boylamsal ilişki bulmuştur (Rutchick vd. 2009). Ebeveynler eğitime ve öğrenmeye yüksek değer verdiğinde, çocuklarının eğitimsel kazanımları için yüksek beklentilere sahip olma olasılıkları daha yüksektir. Bu da ebeveynlerin çocuklarının öğrenimine ve eğitimine daha fazla dahil olmalarına yol açabilir (Ng & Wei, 2020). Buna karşılık, yüksek düzeyde ebeveyn katılımı, çocukların başarı (Parmar ve Nathans, 2022) ve akademik ilgi (Xiong vd., 2021) gibi akademik sonuçlarına katkıda bulunur. Bununla birlikte ebeveyn eğitim beklentilerinin ebeveynlik davranışları üzerindeki öncül rolü yeterince araştırılmamıştır (Wang ve ark., 2016). Bu nedenle, bu çalışma ebeveyn eğitim beklentilerinin algılanan anne sıcaklığı, açıklayıcı akıl yürütme, algılanan performans baskısı ve karşılaştırma ebeveynlik davranışları üzerindeki yordayıcı rolünü incelemeyi amaçlamıştır. Bildiğimiz kadarıyla, ebeveyn eğitim beklentileri ile ebeveyn sıcaklığı arasındaki doğrudan ilişkiyi araştıran nadir çalışmalar vardır (Davis-Kean, 2005). Benzer şekilde, ebeveynlerin eğitim beklentileri ile ebeveynlerin açıklayıcı akıl yürütme arasındaki ilişki konusunda da literatürde bir boşluk bulunmaktadır. Öte yandan, olumsuz ebeveynlik davranışları olarak ebeveyn karşılaştırması ve performans baskısı ile ilgili olarak yüksek beklentilere sahip ebeveynler çocuklarını başkalarıyla karşılaştırarak ve çocuklarına en iyi olma ve en iyisini yapma konusunda yüksek baskı uygulayarak çocuklarının akademik performansıyla ilgili endişelerini olumsuz bir şekilde yansıtabilirler (Xu ve ark., 2024). Yüksek beklentilere sahip ebeveynlerin daha az olumsuz ebeveynlik yapmaları ve müdahaleci ebeveynlik davranışlarıyla destekleyici olmayan bir ortam yerine destekleyici bir öğrenme ortamı sağlamaları da mümkündür (Tamayo Martinez ve ark., 2022). Ayrıca ebeveyn eğitim beklentileri ile akademik ilgi arasındaki ilşkide bu

ebevynlik davranışlarınınaracı rolü incelnmiştir. Bu ilişkiyi inceleyen az çalışma vardır. Örneğin, Weir ve meslektaşları (2023) çoklu regresyon analizinde not ortalamasının yordayıcıları olarak ebeveyn sıcaklığı, baskısı ve beklentilerini incelemiştir. Ayrıca amaçlanan modelde annenin eğitim seviyesi, çocuğun cinsiyeti ve okul seviyesinin rolüne bakılmıştır.

Çalışma 2 Hipotezleri

1) Annelerin 1. Zamandaki çocuklarının okula devam etme süresine ilişkin beklentileri bir yıl sonraki akademik ilgi ile olumlu yönde ilişkili olacaktır.

2) Anne eğitim beklentileri hem algılanan anne sıcaklığı hem de açıklayıcı akıl yürütme ile pozitif ilişkili olacaktır.

3) Önceki çalışmalar ebeveynlerin eğitim beklentileri ile karşılaştırma ve performans baskısı arasında pozitif bir ilişki olduğunu göstermiştir (Deb ve ark., 2015; Lu ve ark., 2021; Xu ve ark., 2024). Bununla birlikte, yüksek beklentilere sahip anneler, çocuklarının özerklik ihtiyaçlarını engellememek için daha müdahaleci ebeveynlik davranışlarında bulunmayacaktır. Bu nedenle, anne eğitim beklentileri ile olumsuz ebeveynlik davranışları (yani, karşılaştırma ve performans baskısı) arasındaki ilişki keşifsel bir şekilde test edilmiştir.

4) Zaman 1'de algılanan anne sıcaklığının ve açıklayıcı akıl yürütmenin Zaman 2'de akademik ilgiyle olumlu yönde ilişkili olması beklenmektedir.

5) Zaman 1'de algılanan anne karşılaştırması ve performans baskısının her ikisinin de Zaman 2'de akademik ilgiyle negatif ilişkili olması beklenmektedir.

6) Ebeveynlik davranışlarının aracılık rolüne ilişkin olarak, 1. Zamandaki ebeveynlik davranışlarının (anne sıcaklığı, açıklayıcı akıl yürütme, karşılaştırma ve performans baskısı) 1. Zamandaki anne eğitim beklentileri ile 2. Zamandaki akademik ilgi arasındaki ilişkiye aracılık edeceği varsayılmıştır. Spesifik olarak, anne eğitim beklentileri ile akademik ilgi arasında pozitif bir ilişki beklenmektedir.

7)) Okul düzeyiyle ilgili olarak akademik ilgiyle ilgili karışık bulgular vardır. Ancak, bildiğimiz kadarıyla ebeveynlik davranışlarının (algılanan anne sıcaklığı, açıklayıcı akıl yürütme, karşılaştırma ve performans baskısı) anne eğitim beklentileri ve akademik ilgi arasındaki ilişkideki aracılık rolünü okul düzeyleri arasında inceleyen bir araştırma henüz yapılmamıştır. Keşifsel olarak analiz edilmiştir.

8) Cinsiyet açısından bakıldığında, önceki literatürde ebeveyn eğitim beklentileri ve

akademik ilginin kızlar lehine yüksek bir ortalamaya sahip olduğuna dair destekleyici kanıtlar bulunmuştur. Ancak, bildiğimiz kadarıyla, ebeveynlik davranışlarının (algılanan anne sıcaklığı, açıklayıcı akıl yürütme, karşılaştırma ve performans baskısı) anne eğitim beklentileri ve akademik ilgi arasındaki ilişkideki aracı rollerini çok gruplu bir yaklaşımla inceleyen bir araştırma henüz yapılmamıştır. Keşifsel olarak analiz edilmiştir.

Yöntem

Katılımcılar

Çalışmanın örneklemi Çalışma 1'deki gibi Türkiye, Aile, Çocuk ve Ergen Projesi'nden (TAÇEP) alınmıştır. Mevcut çalışma birinci zamanda 3. ila 11. sınıfa devam eden çocukları ve annelerini kapsamaktadır. Çalışmada ilkokul (n = 382), ortaokul (n = 1444) ve lise (n = 1155) düzeylerinden toplam 2981 çocuk ve ergen bulunmaktadır. Öğrencilerin yaşları yedi ile on dokuz arasında değişmektedir (Ort = 12.46) ve katılımcıların %53'ü kız öğrencilerden oluşmaktadır. Çalışma 2 katılımcılarının demografik özelliklerine ilişkin detaylı bilgiler Tablo 6'da verilmiştir.

Veri Toplama Araçları

Çalışma 1'de olduğu gibi akademik ilgiyi ölçmek için öğrencilere 8 maddelik Akademik İlgi Ölçeği verilmiştir (Fredericks vd., 2004). İkinci zamanda 4. ila 12. sınıf öğrencilere verilen akademik ilgi ölçeği puanları bu çalışmada kullanılmıştır. Ölçeğin Cronbach alfa değeri tüm örneklem için .87 iken, ilkokul alt örneklemi (4. sınıf) için .84, ortaokul alt örneklemi (5 ila 8. sınıflar) için .87 ve lise alt örneklemi (9 ila 12. sınıflar) için .88'dir. Ebeveynlik davranış ölçekleri öğrenciler tarafından doldurulmuştur. Bu ölçeklerin birinci zaman puanları bu çalışmada kullanılmıştır. Bu ölçeklerin hepsi 4'lü Likert ölçeklerdir. Anne algılanan sıcaklığı ölçmek için Ebeveyn Kabul-Red Ölçeği'nin sıcaklık alt boyutu (8 madde) (PARQ) (Rohner ve Khaleque, 2005a) kullanılmıştır. Ölçek Angel (1993) tarafından Türkçe'ye uyarlanmıştır. Sıcaklık alt boyutunun Zaman 1'de Cronbach alfa değeri tüm örneklem için .87 iken, ilkokul alt örneklemi için .81, ortaokul alt örneklemi için .86 ve lise alt örneklemi için .91'dir. Açıklayıcı akıl yürütmeyi ölçmek için Türkçe adaptasyonu yapılan Yagmurlu and Sanson (2009) ve çocuk versiyonu olan (Yavaslar, 2016) Çocuk Yetiştirme Anketi (Paterson ve Sanson, 1999) kullanılmıştır. Açıklayıcı akıl yürütme 6 madde ile ölçülmüştür. Bu ölçeğin Cronbach alfa değeri tüm örneklem için .86 iken, ilkokul ve ortaokul alt örneklemleri için .85, lise alt örneklemi için ise .88'dir. Karşılaştırma

ebeveynlik davranışını ölçmek için Ebeveynlik Davranışları Ölçeği (PBS, Sümer ve ark., 2009) kullanılmıştır. 5 madde ile ölçülmüştür. Bu ölçeğin Cronbach alfa değeri ilkokul alt örneklemi için .79, ortaokul alt örneklemi için .87, lise alt örneklemi için .89 ve tüm örneklem için .87'dir. Performans baskısını ölçmek için Algılanan Ebeveyn Özerklik Desteği Ölçeği'nin (P-PASS) 4 maddelik performans baskısı alt ölçeği (Mageau ve ark., 2015) kullanılmıştır. İlkokul seviyesinde 2. madde güvenirlik katsayısını düşürdüğü için bu madde çıkarılmış ve 3 madde olarak sorulmuştur. Ölçeğin Cronbach alfa değeri ilkokul alt örneklemi için .58 (3 madde), ortaokul alt örneklemi için .66 ve lise alt örneklemi için .72'dir. Ayrıca annelerin çocuğunun eğitimine devam etme süresine dair beklentilerini ölçmek için 1 (ilkokul) ile 6 (lisansüstü) arasında değişen 6'lı Likert tipi açık uçlu bir soru sorulmuştur "Çocuğunuzun eğitimine ne kadar süre devam edeceğini düşünüyorsunuz?" (Dweck, 1999). Ayrıca anneler demografik bilgiler formunu cevaplamışlardır.

İşlem

Örneklem Çalışma 1 ile aynı projeden alındığı için aynı işlem süreçleri uygulanmıştır. Farklı olarak sadece okulu değişen 229 öğrenci ikinci zamanda ölçekleri kendilerine gönderilen online bağlantı üzerinden doldurmuşlardır.

Bulgular ve Tartışma

Bu çalışmada annenin eğitim beklentileri ile akademik ilgi arasında doğrudan pozitif bir ilişki beklenmekteydi (hipotez 1). Sonuçlar bu hipotezi ortaokul ve lise çağındaki çocuklar için destekler niteliktedir. Ortaokula ve liseye devam eden ergenlerde annelerin eğitim beklentisi ile çocukların akademik ilgileri arasında pozitif bir ilişki vardır. Bu bulgu, 10. sınıf öğrencileri arasında annelerin beklentileri ile akademik ilgi arasındaki ilişkiyi inceleyen önceki çalışmalarla uyumludur (Fan ve Williams, 2009). Türk ortaokul ve lise çocukları, annelerinin beklentilerini gerçekleştirmek için öğrenimleriyle daha fazla ilgileniyor olabilir. Bu çalışmada, çocuklarının okul seviyesinden bağımsız olarak neredeyse tüm anneler, ortaokul ve lise çağındaki çocuklarla yapılan önceki çalışmalarla tutarlı olarak, çocuklarının en az üniversite veya daha yüksek bir dereceye ulaşmasını beklediklerini bildirmiştir (Dockery vd., 2022; Lindberg vd., 2009). Ayrıca, annelerin beklentileri çocuklarının akademik çalışmalarda özgüvenlerini ve benlik kavramlarını olumlu yönde etkileyebilir ve sonuç olarak çocukların öğrenme çabalarını artırabilir. Fakat bu ilişki ilkokul seviyesi için

anlamlı değildir. Bunun nedeni, erken yaşlarda her çocuğun akademik ilgisinin ve öğrenme motivasyonunun yüksek olması olabilir. Buna bağlı olarak, mevcut çalışmada ilkokul çağındaki çocukların akademik ilgi ortalamaları ortaokul ve lise çağındaki çocuklardan daha yüksek çıkmıştır. Diğer yandan annenin eğitim beklentileri ile olumlu ebeveynlik davranışları (sıcaklık ve açıklayıcı akıl yürütme) arasında da olumlu bir ilişki beklenmekteydi (hipotez 2). Sonuçlar tüm okul seviyelerindeki çocuklar ve ergenler için annelerin beklentileri ile anne sıcaklığı arasında pozitif bir ilişkiye işaret eden bu hipotezi desteklemiş, ancak annelerin beklentileri ile açıklayıcı akıl yürütme arasındaki ilişki yalnızca ilkokul ve ortaokul çocukları için anlamlı bulunmuştur. Bu bulgular, ebeveynlerin çocuklarının eğitim başarılarına yönelik beklentilerinin 8-12 yaş grubundaki çocuklar için ebeveyn sıcaklığıyla olumlu yönde ilişkili olduğunu gösteren önceki çalışmalarla tutarlıdır (Davis-Kean, 2005). Yüksek beklentilere sahip annelerin çocuklarının eğitim başarılarını teşvik etmek için sıcak ve destekleyici bir öğrenme ortamı sağlaması ve çocuklarına karşı sevgilerini göstermesi muhtemeldir. Açıklayıcı akıl yürütme rasyonel bir açıklama yaparak ve kuralları sözlü olarak hatırlatarak uygun sınırlar koymayı içerir ve bu da çocukların erken okul yıllarında uyumunu artırır (Pettitt vd., 1997). Öte yandan lise çocukları için annelerin beklentileri ile açıklayıcı akıl yürütme arasındaki ilişki anlamlı bulunmamıştır. Beklenmedik bulgunun olası bir açıklaması ergenlerin lise yıllarında kimlik oluşturma aşamasında olmaları ve özerkliğe sahip olmak istemeleri, dolayısıyla ebeveynleri onlara tavsiyelerde bulunup bu davranışın sonuçlarını açıklamaya çalıştıklarında olumsuz tepki verme eğiliminde olmaları olabilir. Diğer yandan anne eğitim beklentileri ile olumsuz ebeveyn davranışları (performans baskısı ve karşılaştırma) açıklayıcı (keşifsel) olarak incelenmiştir (hipotez 3). Sonuçlar, annelerin beklentileri ile algılanan anne karşılaştırması arasındaki ilişkinin hiçbir okul düzeyinde anlamlı olmadığını gösterdi. Bu çalışmada anne karşılaştırma ortalaması okul seviyeleri genelinde 4 üzerinden 1,58 ile 1,99 arasında değişmekte olup, 1 puanı hiçbir zaman anlamına gelmektedir. Annelerin çocuklarını notlar ve derslerdeki akademik performans açısından akranları, sınıf arkadaşları veya kardeşleriyle karşılaştırma olasılıklarının daha düşük olduğu görülüyor. Mevcut sonuçlar, annelerin beklentilerinin yalnızca ortaokul çocukları için performans baskısıyla olumsuz yönde ilişkili olduğunu gösterdi. Bu nedenle, çocuklarının eğitim düzeyine ilişkin yüksek beklentileri olan anneler çocuklarının üzerinde daha iyi

performans göstermeleri için daha az baskı oluşturduğu görülmektedir. Daha önce tartışıldığı gibi anneler, çocuğun özerklik gelişimini ve kendine güvenini engellemek için olumsuz ve müdahaleci ebeveynlik davranışlarını (yani performans baskısı) kullanmamayı tercih edebilir. Bunun yerine çocuklarına kabul, övgü, sevgi gibi daha olumlu ebeveynlik davranışları gösterebilirler.

Pozitif ebeveynlik davranışları sıcaklık ve açıklayıcı akıl yürütme ile akademik ilgi arasında boylamsal pozitif bir ilişki beklenmekteydi (hipotez 4). Bu ilişki ortaokul ve lise çağındaki ergenler için desteklenmiştir. Anne sıcaklığına ilişkin önemli bulgu önceki çalışmalarla uyumludur (Tian ve Chen, 2020; Wang vd., 2019). Bunun nedeni, duyarlı ve şefkatli annelerin çocukların öğrenmesini, özsaygısını ve akademik benlik kavramını geliştirmek için sıcak ve destekleyici bir öğrenme ortamı sağlaması ve bunun sonucunda akademik ilgisini artırması olabilir. Açıklayıcı akıl yürütmeyle ilgili olarak bildiğimiz kadarıyla bu çalışma, annenin açıklayıcı akıl yürütmesi ile akademik ilgi arasındaki doğrudan ilişkiyi okul seviyelerinde inceleyen ilk çalışmadır. Sonuçlar, annenin açıklayıcı akıl yürütmesinin ortaokul ve lise çocuklarının akademik ilgisi artırmada önemli bir role sahip olduğunu gösterdi. Anne sıcaklığına benzer şekilde, disiplinde açıklayıcı akıl yürütmeyi kullanan annelerin çocuklarına akademik ilgilerini artıran destekleyici bir ortam sağlama olasılıkları daha yüksektir. Hipotez 5'te beklendiği gibi sonuçlar, anne karşılaştırması ile akademik ilgi arasında sadece ortaokul çocukları için anlamlı ve negatif bir ilişki olduğunu gösterdi. Bu, ebeveyn karşılaştırması ile okul çabası arasında negatif bir ilişki olduğunu gösteren önceki çalışmalarla tutarlıdır (Camras vd., 2012). Ortaokul yılları ergenlik çağının başlangıcına denk geldiğinden çocuklar kendilerine olumsuz bakma eğiliminde oldukları için benlik saygısında azalmalar yaşarlar (Rhodes vd., 2004). Hipotez 6 ve 7'de birinci zamandaki annenin eğitimsel beklentileri ile ikinci zamandaki akademik ilgi arasındaki ilişkide birinci zamandaki ebeveynlik davranışlarının (yani sıcaklık, açıklayıcı akıl yürütme, karşılaştırma ve performans baskısı) aracılık rolü her okul seviyesi için ayrı ayrı incelenmiştir. Ayrıca, anne eğitiminin annelerin eğitim beklentileri ve akademik ilgi üzerindeki etkisi kontrol edilmiştir. Sonuçlara göre olumlu ebeveynlik davranışlarından hem anne sıcaklığı hem de açıklayıcı akıl yürütme, annelerin eğitim beklentileri ile ortaokul çocukları için akademik ilgi arasındaki ilişkiye anlamlı ve olumlu bir şekilde aracılık etmiştir. Ancak lise çocukları için bu ilişkide yalnızca anne sıcaklığı aracılık rolü üstlenmiştir. Lise öğrencileri için

aileyle ilgili faktörlerin (anne sıcaklığı gibi) yanı sıra akran ilişkisi, öğretmen-öğrenci ilişkisi gibi dış faktörlerin ve bireyle ilgili faktörlerin (gelecekle ilgili hedeflere sahip olmak, kendine güven) etkisi Çalışma 1'de de görüldüğü gibi daha belirgin görünüyor. Son olarak Hipotez 8'de aracılık modelinin her okul düzeyi (ilkokul, ortaokul ve lise) için cinsiyete göre farklılaşıp farklılaşmadığı incelenmiştir. Sonuçlar amaçlanan aracı modelin tüm okul seviyelerinde cinsiyete göre farklılaşmadığını göstermiştir.

Sınırlılıklar ve Gelecek Çalışmalara Öneriler

Bu tezdeki çalışmaların sonuçlarını sınırlılıkları dahilinde yorumlamak önemlidir. Bu tez kapsamında akademik ilginin sadece bilişsel alt boyutuna odaklanılmıştır. Fakat gelecek çalışmaların amaçlanan aracı modeli her üç alt boyutu da baz alarak test etmesi alanyazınına daha önemli bir katkı sunacaktır. Ayrıca, bu tez kapsamında sadece belli ebeveynlik davranışlarına (sıcaklık, açıklayıcı akıl yürütme, performans baskısı ve karşılaştırma) odaklanılmıştır. İlgili literatür genel olarak ebeveyn katılımının akademik sonuçlarla nasıl ilişkili olduğuna odaklanmıştır. Bununla ilgili olarak sonraki çalışmalar akademik gelişimsel sonuçlarla ilgili olarak hem ebeveyn katılımını hem de belirli ebeveynlik davranışlarını birlikte alabilirler. Bu tezdeki çalışmalar kapsamında çocuk ve ergenlerin akademik sonuçlarında sadece annelerin etkisi incelenmiştir. Fakat babalar da çocukların eğiminde önemli bir role sahiptir. Bu nedenle sonraki çalışmalar hem annelerin hem de babaların çocukların eğitim hayatları üzerindeki etkileri incelenmelidir. Son olarak test edilen modelde çocuk ve ergenlerin kendi beklentilerine yer verilmemiştir. Fakat daha önceki çalışmalar çocukların beklentilerinin de önemli olduğuna vurgu yapmaktadır. Bu nedenle Çalışma 2'de test edilen aracı modelde çocukların kendi beklentileri de incelenmelidir.

Güçlü Yanlar ve Uygulamaya Yönelik Çıktılar

Bu tezdeki niteliksel ve niceliksel olarak yapılan iki çalışma da ilgili literatüre önemli katkılar sunmuştur. Öncelikle, Çalışma 1, Türk annelerin okul başarısı için önemli faktörlere ilişkin eğitim inançlarını niteliksel olarak inceleyerek literatüre katkıda bulunmuştur. Bildiğimiz kadarıyla bu çalışma, Türk annelerin eğitim inançlarını kapsamlı bir şekilde inceleyen ilk çalışmadır. Ayrıca Çalışma 1'in örnekleminin Türkiye'yi ulusal düzeyde temsil etmesi bulguların Türk kültürüne genellenebilirliğini artırmıştır. Öte yandan, Çalışma 2'de akademik ilginin aileyle ilgili öncülleri hakkındaki bilgilerin arttırılması açısından önemlidir. Ayrıca bildiğimiz kadarıyla

annenin eğitim beklentilerini ve ebeveynlik davranışlarının akademik ilgi ile ilişkisini boylamsal olarak Türk kültüründe ulusal çapta inceleyen ilk çalışmadır.

Sonuç olarak, bu tez kapsamında yapılan iki çalışma, farklı okul seviyesinden gelen ve farklı cinsiyete sahip öğrencilerin okul başarısı ve akademik ilgilerini etkileyen ailesel faktörlere dair risk ve koruyucu faktörlere dikkat çekmiştir. Bu sonuçlar ışığında öğrencilerin akademik çıktılarını iyileştirmek için gelişim aşamalarına göre aile ve olumlu ebeveynlik odaklı farklı önleme ve müdahale programları oluşturulabilir.

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