

The Effects of Maternal Socialization and Temperament on Children's
Emotion Regulation

by

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STATEMENT OF AUTHORSHIP

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ABSTRACT

The aim of the present study was to investigate the effects of maternal socialization and temperament on preschool children's emotion regulation. The participants included 145 4-6 year-old Turkish preschool children, their mothers and day-care teachers. The children were recruited from childcare centers serving middle- and upper-middle-class families in Istanbul. Multiple methods were used to evaluate different aspects of emotion regulation: The Emotion Regulation Checklist was completed by the child's mother and teacher. Emotion regulation was also assessed individually with a delay of gratification task, which evaluated children's coping with negative emotions while waiting for a desired object. Mother's parenting practices and emotion socialization behaviors were measured with the Child Rearing Questionnaire and the Coping with Negative Emotion Scale, respectively. Temperamental characteristics of children were assessed by the Short Temperament Scale for Children completed by mothers. To evaluate different aspects of parenting, links between parents' specific emotion socialization behaviors and parenting practices were examined. MANOVA was used to assess sex differences in emotion regulation, temperament and parenting. Hierarchical regression analysis was conducted to examine the predictive power of maternal socialization, temperament, and parenting-temperament interactions on emotion regulation, and this analysis showed that emotion regulation was significantly predicted by maternal responsiveness and child reactivity. The interaction of responsiveness and approach also significantly predicted emotion regulation. Accordingly, high approaching children whose mothers used medium levels of responsiveness showed the

highest levels of emotion regulation. The delay of gratification ability was significantly predicted only by child's temperamental characteristics (i.e., approach and persistence). An important implication of the study was that, although responsiveness is an important positive socialization practice in emotion regulation, higher levels of responsiveness may not be beneficial for low approaching children, since it may have similar aspects with overprotectiveness. Another finding that deserves attention is about the relations between emotion regulation and delay of gratification. Results of the present study suggested that emotion regulation and delay of gratification may have different features, and delay of gratification task provides information about children's behavioral regulation rather than emotion regulation.

Keywords: Emotion Regulation, Maternal Socialization, Temperament

ÖZET

Bu çalışmanın amacı anne sosyalizasyonu ile çocuğun mizaç özelliklerinin çocuğun duygu düzenleme becerisine olan etkisini incelemektir. Katılımcılar, 4-6 yaşlarında 145 okul öncesi çocukla, onların anneleri ve anaokulu öğretmenlerinden oluşmaktadır. Çalışmaya katılan çocuklar, İstanbul'da yaşayan orta ve yüksek sosyo-ekonomik düzeydeki ailelerin çocuklarıdır. Çocukların duygu düzenleme becerisi, anneler ve öğretmenler tarafından doldurulan Duygu Düzenleme Becerileri Ölçeği (Emotion Regulation Checklist) ve çocuklara uygulanan Zevki Erteleme Becerisi Testi (Delay of Gratification) ile ölçülmüştür. Annelerin duygu sosyalizasyonunu ölçmek için Negatif Duygularla Başedebilme Ölçeği (Coping with Negative Emotions Scale), ve çocuk yetiştirme tutumlarını değerlendirebilmek için de Çocuk Yetiştirme Envanteri (Child Rearing Questionnaire) kullanılmıştır. Çocukların mizaç özelliklerini ölçmek için ise anneler tarafından bir mizaç ölçeği (Short Temperament Scale for Children) doldurulmuştur. Anne sosyalizasyonunu farklı yönleriyle değerlendirmek amacıyla, annelerin duygu sosyalizasyonu ve çocuk yetiştirme tutumları arasındaki ilişki incelenmiştir. Duygu düzenleme becerisi, mizaç özellikleri ve anne sosyalizasyonuna göre cinsiyet farkının olup olmadığını değerlendirebilmek için MANOVA kullanılmıştır. Anne sosyalizasyonunun ve mizaç özelliklerinin duygu düzenleme becerisi üzerindeki yordayıcı etkisini incelemek için hiyerarşik regresyon analizi yapılmıştır. Sonuçlara göre, annelerin olumlu ebeveyn davranışları, tepkisel mizaç ve olumlu ebeveyn davranışları ile sıcakkanlı mizaç arasındaki etkileşim, duygu düzenleme becerisi anlamlı olarak yordamıştır. Olumlu ebeveyn davranışı orta düzeyde

ve sıcakkanlılık en yüksek düzeyde olduđu zaman duygusal düzenleme becerisinin en yüksek düzeyde olduđu bulunmuştur. Zevki erteleme becerisi, sebatkarlık ve sıcakkanlılık mizaç özellikleri tarafından anlamlı olarak yordanmıştır. Bu çalışmanın önemli bir sonucu, annenin olumlu ebeveyn davranışlarının çocuğun duygu düzenleme becerisine önemli bir etkisi olduğunu göstermektedir. Olumlu ebeveyn davranışı çok yüksek düzeyde olduđu zaman yüksek düzeyde korumacı ebeveyn davranışı ile benzer bazı özellikler gösterdiğinden, düşük sıcakkanlılık gösteren çocuklara olumsuz bir etkisi olduğu bulunmuştur. Araştırmanın diğeri bir bulgusu, duygu düzenleme becerisi ile zevki erteleme becerisi arasında bir ilişki olduğuna dikkati çekmektedir. Bu çalışmanın sonuçları, duygu düzenleme becerisi ile zevki erteleme becerisinin çocuğun farklı becerilerini ölçtüğü göstermiş ve bu testin çocuğun duygu düzenleme becerilerinden daha çok davranış düzenleme becerileri ile ilişkili olduğu bulunmuştur.

Anahtar Sözcükler: Duygu Düzenleme Becerisi, Anne Sosyallezasyonu, Mizaç

DEDICATION

To my mother and father

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CHAPTER 1

INTRODUCTION

1.1 General

Emotion regulation refers to the ability to maintain, inhibit or elicit appropriate positive or negative responses in different situations. Delay of gratification is the observation of children's behavior while waiting for a desired object which provides valuable information about emotional and behavioral regulation abilities of young children (Grolnick, Kurowski, McMenamy, Rivkin, & Bridges, 1996).

Emotion regulation becomes especially important during preschool years, since there is an increment in this period in the complexity of children's emotionality and the demands of the social world (Denham, 1998). Therefore, elucidating the development of emotion regulation in young children and the factors that contribute to it are very crucial to increase our knowledge about emotion regulation. Parental socialization and temperament are proposed as factors that are linked to emotion regulation.

1.2 The Scope and Purpose of the Study

The literature on child development has shown the relations between emotion regulation, parental socialization and temperament (Rubin, Coplan, Fox, & Calkins, 1995). Parental socialization refers to various aspects of parenting comprising child-rearing behaviors such as induction, warmth and punishment (Denham, Renwick, & Holt, 1991) and emotion socialization behaviors such as expressive encouragement and minimization (Fabes, Eisenberg, & Bernzweig, 1990). Child temperament which is interrelated with parenting is identified as biologically determined individual differences expressed through behavioral tendencies (Caspi, Harrington, Moffit, & Milne, 2003). Studies that have investigated the relations between emotion regulation, parental socialization and temperament focused on child-rearing practices of mothers (Parke, Cassidy, Burks, Carson, & Boyum, 1992) or examined their emotion socialization behaviors (Denham, 1998) as an aspect of parenting. However, child-rearing practices and emotion socialization behaviors are linked to each other, and form distinct but related parts of “positive” or “adverse” parenting. Examining only one aspect of parenting (e.g., child-rearing practices or emotion socialization) in relation to children’s regulatory abilities might be inadequate to capture the multi-faceted interaction between the mother and the child. Therefore, this study aimed to investigate both child-rearing practices and emotion socialization behaviors of mothers as major and interconnected constituents of parenting as linked to the emotion regulation

skills in young children. Another aim of the study was to elucidate the role of children's temperamental characteristics in their emotion regulation, both on their own and as they interact with parenting.

In this thesis, the first chapter presents the introduction that explains the general aim of the study. The second chapter presents the literature review on emotion regulation, delay of gratification, parental socialization, temperament and relations among these variables. The second chapter also gives the aims and hypotheses of the present study. The third chapter gives detailed information about the characteristics of the participants and measures of the present study. Then, the results of the statistical analyses that were performed to investigate the relations between emotion regulation, parental socialization and temperament are given. Finally, a discussion of the findings is given in chapter five where limitations of the study are considered and directions for future studies are offered.

CHAPTER 2

LITERATURE REVIEW

2.1 Emotion regulation

In the past three years, emotion regulation has received considerable attention from researchers (Bridges, Denham, & Ganiban, 2004; Chang, Schwartz, Dodge, & McBride-Chang, 2003; Cole, Martin, & Dennis, 2004; Eisenberg & Spinrad, 2004). A growing number of studies in the field have contributed to our understanding of typical and atypical socio-emotional development in young children (Cole, Mischel, & Teti, 1994; Denham, 1998; Eisenberg et al., 2001; Saarni, 1999).

Emotion regulation has been linked to various aspects of social functioning in preschoolers, including socially appropriate behaviors (Denham, Blair, Schmidt, & DeMulder, 2002), empathy (Shields & Cicchetti, 1997), socially competent peer interactions (Fabes & Eisenberg, 1999), adjustment (Eisenberg et al., 2002) and academic achievement (Raver, 2004). Initially, the development in emotion regulation studies

originated from the literature on the socially maladaptive behaviors. In the literature, some researchers (Cole et al., 1994) focus on emotion dysregulation while discussing the expression of socially maladaptive behaviors. According to them, there is number of consistent emotional dysregulatory characteristics associated with various clinical disorders, including inappropriate affect, anxiety, blunted or restricted affect, sustained sorrow, dejection or fear, mood swings, or the predominance of one emotion and the relative absence of another. Therefore, young children who have difficulties in the regulation of emotion display aggressive behaviors or problems of behavioral undercontrol (externalizing behaviors) or overcontrol (internalizing behaviors) (Eisenberg et al., 2001).

Secondly, this attention arises from the understanding of the dynamics of emotion regulation that affects the quality of children's social interactions and relationships (Garber & Dodge, 1991). Emotion regulation is necessary for effective interactions with others in stressful situations. How children learn to cope with stressful, negative interactions includes not only dealing with their own feelings of distress and anger, but also with their reactivity to the negative emotions of others (Eisenberg, Harris, & Wentzel, 1998), which is vital to the development and maintenance of social relationships. Children's competence in other domains, involving behavioral regulation and social competence, is linked to their capacity to regulate emotions (Denham, 1998). For instance, Thompson (1994) suggested that empathy feeling is related to emotion regulation. It is indicated that preschool children

who have well-developed emotion regulation abilities were both more likely to identify with the feelings of others and were more aware of their own emotional state (Shields & Cicchetti, 1997).

A study conducted by Denham et al. (2002) on preschoolers' social competence examines how young children learn to manage social situations with individuals inside and outside of the family system. In this study, it was shown that the development of emotion regulation is essential to the creation and maintenance of positive relations with peers. It was observed that the children who succeeded in social interactions with peers were particularly those who did well in negative interactions, effectively regulated their own emotions and subsequent emotion-related behaviors. Additionally, emotions are seen as regulating and regulated, or altered in social situations (Thompson, 1994). For instance, as a reaction to a frustrating event, anger may be expressed appropriately or it may be inhibited or maintained in response to changes in a situation or context. Therefore, some research focus on how emotions are regulated and how social interactions are facilitated by the process of emotion regulation.

Moreover, emotion-related problem behaviors have been associated with deficiencies in children's emotion regulation capacities (Kokkonen & Pulkkinen, 1999;

Shields & Cicchetti 1997). It is assumed that the inability to control negative emotions underlies behavioral problems. Preschoolers exhibit emotion regulation deficiencies such as inappropriate regulation of negative emotions, variability in mood (lability), and inflexibility in emotional responses (Fujiki, Brinton, & Clarke, 2002; Shields & Cicchetti 1997). It is also claimed that children who have behavioral problems display low tolerance in frustrating situations (e.g., when a desired reward is delayed) (Gilliom, Shaw, Beck, Schonberg, & Lukon, 2002).

Furthermore, the importance of the studies regarding emotion regulation in children goes far beyond the predictions and preventions of emotional or behavioral problems. It is also suggested that children's achievement in academic contexts is highly related to the early emotional adjustment skill. Researchers (Raver, 2004) defined several ways that lead children with emotional difficulties to academic failures. For instance, emotionally dysregulated children tend to spend less time on tasks and receive less feedback and instruction. Therefore, it is quite difficult to teach them the tasks. These children also appear to acquire less benefit from cooperative learning experiences with peers. Having experienced fewer rewards from teachers and peers, these children may eventually exhibit less interest in and motivation required for school success.

In sum, this brief review suggests that studies on emotion regulation provide valuable information about children's socially competent and incompetent emotions, behaviors and emotional expressivity in different situations. In order to clarify what emotion regulation specifically refers to, the definitions of this term are presented in the next section (Section 2.1.1).

2.1.1 Definition of Emotion Regulation

In spite of the fact that the research investigating the effects of emotion regulation on a range of possible social and emotional consequences increase day by day, the disagreements on the precise definition of the concept still remains. Emotion regulation, in general terms, refers to the complex processes at the physiological, cognitive and behavioral level (Rydell, Berlin, & Bohlin, 2003). It refers to the ability of initiating, maintaining and modulating either positive or negative emotional reactions. (Grolnick, McMenamy, & Kurowski, 2003).

In the literature, it is described in various ways due to its relations with other abilities, especially those in the cognitive, linguistic and social domains. Cicchetti, Ganiban and Banett (1991) provided an early definition of emotion regulation. In this definition,

emotion regulation was suggested as the intra and extra organismic factors by which emotional arousal is redirected, controlled, modulated and modified to enable an individual to function adaptively in emotionally arousing situations. This definition includes developmental and contextual considerations as well as the recognition of the multiple goals that individuals have for self-regulation and interactions with their environment. Thompson (1994) extended this definition and described emotion regulation as “the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially their intensive and temporal features, to accomplish one’s goals” (p. 28). However, Campos, Mumme, Kermoian and Campos (1994) objected Thompson’s functionalist view and argued that this perspective did not focus on emotion regulation from an intrapersonal vantage point even though the emotion regulation is an especially innate regulatory process. They also claimed that the organization and coordination of neural, cognitive and physiological processes in service of goal-directed behaviors regulate emotions.

Gross (1998) further defined emotion regulation as the set of processes that lets individuals to determine which emotions to have, when to have them, and how to experience and express them. This definition brings in the assumption that the emotion regulation includes coping, mood regulation, mood repair, defense, and affect regulation. Similarly, Denham (1998) claimed that emotion regulation is coping with aversive,

distressing emotions or situations that elicit them. It must be noted that Denham (2004) distinguishes coping and global emotion regulation by stating that coping focuses on reducing negative emotional experiences while global emotion regulation focuses on modulating (i.e., minimizing, maximizing, masking, or dissembling), rather than merely to minimize, the experience and expression of emotion.

Although a considerable amount of emphasis is put on the regulation of negative emotions, it must be kept in mind that the definition of emotion regulation has to involve the modulation of both positive and negative emotions (Bridges et al., 2004; Bronson, 2000; Tice & Bratslavsky, 2000). For example, Bronson (2000) referred to emotion regulation as the capacity to regulate arousal appropriately in order to reach the goals in addition to an ability to control the behavioral expression of emotions in socially adaptive ways. Similarly, Tice and Bratslavsky (2000) claimed that emotion regulation involves the ability to substitute an emotion expression with an incompatible emotional experience or expression. According to these researchers, an effective regulation of emotions requires one's clear standards on whether the feelings or expressions are appropriate or not; one's ability to monitor his/her own emotional status or expressivity and one's strength to override inappropriate feelings or expression.

However, Eisenberg and Zhou (2001) disagreed with this view since Tice and Bratslavsky's (2000) definition of emotion regulation includes both the regulation of the experience and expression of emotions. They believed that the definition of emotion regulation and behavioral regulation should be differentiated. From this point of view, they defined emotion regulation as the process of inhibiting, maintaining or modulating or changing the occurrence, form, and duration of behavioral concomitants of emotion and named it "emotion-related regulation". Apart from emotion regulation, behavioral regulation includes the control and modulation of facial and gestural reactions and overt behaviors that stem from or are associated with internal emotion-related psychological or physiological states. They claimed that in the case of having no attempt to regulate the emotional experience, the emotion is often expressed in undesirable ways and may cause lapses in an individual's observed behavioral regulation. Therefore, the effectiveness of emotion regulation affects behavioral regulation.

Through these definitions, it is understood that many of the processes described as emotion regulation are social-cognitive knowledge skills with emotions. In preschool children, some of the emotion regulation processes involve the role that external figures play in helping the child to regulate emotion. Over the time and with assistance from others, learned knowledge about emotions, and maturation of cognitive and language skills, regulation skills are internalized. Then, children's regulation tends to vary across contexts,

across different emotions, and according to the goals and desires of the child.

Each of these definitions suggests that emotion regulation is related not only with affective experiences, but also with cognitive and behavioral processes as well. Most of the definitions given above put stress on the importance of one's goals; and the person's ability to cope with negative emotions, and intensification of appropriate negative emotions as well as positive emotions are at the core of emotion regulation. The literature until today has aimed at giving a precise definition of emotion regulation and distinguishing emotion regulation from the other related processes such as behavioral regulation. The debate on the definition of emotion regulation is still continuing. Cole et al. (2004) suggested that the emotion regulation researchers must provide functional definitions to ground their constructs in order to increase clarity and operational strategies to form a strong empirical basis until the research methods advance to enable new definitions. Although a considerable amount of different definitions are given for emotion regulation, most researchers agree on the conceptualization of emotion regulation as the processes involved in the modulation, increase, maintain and redirection of the emotional responses (Eisenberg & Zhou, 2001; Grolnick et al., 2003; Thomson, 1994) and adaptive emotion regulation must involve initiation and maintenance of emotion states, both positive and negative, as well as the ability to reduce heightened levels of negativity (Denham, 2004). In the present study, emotion regulation is also conceptualized as the ability to maintain, enhance and

inhibit appropriate emotions in different situations and this definition of emotion regulation is utilized.

2.1.2 Delay of Gratification and Emotion Regulation

One of the definitions provided for emotion regulation suggests that it is about coping with aversive and distressing emotions, and handling pleasurable emotions or situations that elicit them (Denham, 1998). Waiting for a desired object is a troublesome experience for a young child to tolerate and a challenge to cope with the distressing emotions (Kopp, 1989). The observation of children's behaviors while waiting for a desired object is considered to provide valuable information about their emotional (Gilliom et al., 2002; Grolnick et al., 1996) and behavioral regulation abilities (Sethi, Mischel, Aber, Shoda, & Rodriguez, 2000).

The delay of gratification task was first developed by Mischel and Ebbesen (1970) to assess the ability to cope with frustration and other negative behaviors that might occur while waiting for a desired object. To the child, this experimental paradigm introduces the possibility of earning one of the two rewards. Either he/she can gain one reward that is a

small consumable item immediately (e.g., one chocolate) or he/she can gain a second reward that is larger and more preferable than the first one (e.g. two chocolates). In this task, children are taught that they can gain the immediate reward by ringing the bell, at which point someone will respond to their call and give them the small immediate reward. However, if the child can wait until the person returns, he/she gains the bigger reward. The time children wait before ringing the bell is the dependent measure. In their early research, Mischel and Ebbesen (1970) aimed at examining the factors that are proposed to affect the cognitive mechanisms which are thought to direct people's delay of gratification ability. He investigated the facts about the experimental design such as whether the rewards were visible to children during the delay period and whether children who saw the rewards during the delay period appeared to become frustrated by the waiting or not. According to the findings, when the rewards were placed out of sight of the children, their delay scores were ten times longer than children who saw the rewards in the delay period.

Rodriguez, Mischel and Shoda (1989) stated that the abilities to postpone immediate gratification considering the future consequences impose delay of rewards on oneself, and the ability to tolerate frustration is recognized as an essential component that facilitates the development of self-control, and successful socialization. They found that preschool children who predominantly chose larger, delayed rewards or goals were more oriented toward the future, they could plan carefully with more brightness and maturity,

had higher achievement motivation, and displayed less impulsivity. On the other hand, children who preferred immediate gratification were more impulsive and rather concerned with the present, and scored lower on measures of social and cognitive competence. In support, Shoda, Mischel and Peake (1990) have found that even 10 years later, adolescents who were able to delay gratification longer as preschoolers were described as more competent in academical and social domains and were better at handling frustration and temptation by their parents.

In the studies mentioned above, delay of gratification task was used to measure behavioral regulation of children (Rodriguez et al., 1989; Sethi et al., 2000). In some other studies, researchers used delay of gratification as a measure of *emotion* regulation (Havinghurst, 2003; Gilliom et al., 2002; Grolnick et al., 1996). For instance, Grolnick et al. (1996) worked on emotion regulation in 2-year-olds and investigated their modulation of negative emotions by examining expressions of these emotions and the strategies used to reduce or change these expressions during the delay of gratification task. The emotion regulation strategies described by Grolnick et al. (1996) were “active distraction” (purposeful behaviors in which the focus of attention is not on the delay object or the task; that may or may not be socially appropriate, and that include fantasy play, exploration of the room, turning lights on and off, talking to mother, singing, dancing, etc.), “passive waiting” (standing or sitting quietly, not looking at the cookie), “information gathering”

(asking questions to learn more about the waiting situation but no questions or statements indicating that the child wants to change the situation), “physical comfort seeking” (e.g., touching the mother, reclining on the mother’s lap, requesting to be held), and “focus on delay object or waiting task” (speaking about, looking at, or trying to retrieve the cookie or speaking about or trying to end the waiting period such as stating “I don’t want to wait” or requesting to leave the room). Except for focusing on the delay object, all these were emotion regulation processes that assisted children to regulate strong emotions. This study indicated that toddlers who used emotion regulation strategies such as “active distraction”, “information gathering” and “physical comfort seeking” displayed lower levels of distress in the delay period. The same emotion regulation strategies were observed by Gilliom et al. (2002) to examine low-income preschool boys’ coping with frustrations during the delay of gratification task. This study showed that “information gathering” was among the strategies that most significantly reduced frustration. In contrast, focusing on the delay object or task was associated with subsequent increases in frustration.

Thus, observing children’s behavior during the waiting period may give information about the emotional and behavioral regulation. These behaviors are believed to give significant information on children’s development. The child’s ability to manage impulsive behaviors accounts for self-control. Inhibitory control (i.e., the capacity to plan and to suppress inappropriate approach responses in uncertain or novel situations), which reflects

behavioral regulation, also appears to be related to emotion regulation (Derryberry & Rothbart, 1988). Children often have difficulty in managing frustrations, unless there are adequate resources (i.e., inhibitory control) to cope with the negative emotions. Additionally, high inhibitory control can lead to suppressing negative behaviors in a frustrating situation, which affects the internal experience of emotions, and therefore can be considered as a strategy for regulating emotions (Eiseberg et al., 2000). It is also suggested that inhibitory control can also be used to conceal the expression of negative emotions such as anger (Eisenberg & Spinrad, 2004). Thus, the processes of regulating emotion and behavior appear to be linked and both might be evaluated in the delay of gratification task.

Hence, empirical findings supported the relationship between delay of gratification and emotion regulation in young children. This task offers one of the most useful methods of eliciting children's behavioral reactions while measuring their emotion regulation strategies. As a result, in the present study, the ability to delay gratification was investigated as a sign of emotion regulation as related to behavioral regulation, and was investigated in relation to its association with parenting and child temperament.

2.1.3 Developmental Changes, Sex Differences, and Emotion Regulation

Emotion regulation studies have explored age-related changes in children's emotion regulation capabilities (Bronson, 2000; Mangelsdorf, Shapiro, & Marzolf, 1995). It is stated that the developmental changes in the experience and display of emotions are the results of the genetic and social experience (Cole et al., 1994). Children are expected to develop emotion coping strategies and rules about the appropriate expressions of emotions to grow into competent social partners (Kopp, 1989). The development of emotions is also influenced by the child's early cognitive abilities (Gross, 2002). In preschool years, there is an increase in the capacity to regulate emotions parallel to the advances in the cognitive skills (Rydell et al., 2003). According to Cole et al. (1994), children have many emotion-based developmental tasks to manage in the first 7 years of life. Frustration tolerance, engaging and enjoying others, recognizing danger and coping with fear and anxiety, defense of self and property within the bounds of acceptable behavior, tolerating being alone for reasonable periods, interest and motivation in learning, and development of friendships can be considered as the emotion-based developmental tasks. The regulation of emotions includes all these developmental tasks. Children also become more capable in preschool years to use language effectively in order to control their actions and thoughts (Kagan, 1994). In kindergarten contexts, children find the chance to spend more time with other children, form adaptive relations, and become more skilled in managing their

emotions and behaviors (Saarni, Mumme, & Campos, 1998). A research by Carlson, Jacobvits and Sroufe (1995) showed that preschool children had clearer and more conscious goals, and they were anticipated to be able to delay, put off and adapt to different frustration situations without showing negativity or lability than younger children. Additionally, Denham (1998) claimed that emotion regulation becomes necessary during preschool ages since there is an increment in the complexity of children's emotionality and the demands of the social world. Denham (1998) also stated that in order to regulate their emotions, preschool children get assistance from their parents.

In preschool years, emotion regulated is basically "other regulated" rather than being an intraorganismic behavior. It is that regulation of emotion is largely influenced by control implemented by external agents such as parents and childcare providers. Over time and with assistance from the others, learned knowledge about the emotions, and maturation of the cognitive and language skills, regulation abilities are internalized. Children's regulation tends to vary along with contexts, among different emotions, and according to the goals and desires of the child (Denham, 1998).

Sex differences are also evident in the emotion regulation strategies of preschool children. Studies on the sex differences in emotion regulation processes suggest that anger is more socially acceptable for boys compared with girls (Lopez & Todd, 1996; Zahn-

Waxler, Cole, & Smith, 1994). Zahn-Waxler et al. (1994) claimed that emotion regulation is associated with behavior problems in gender-specific ways in 4- to 5-year-old children in USA. The findings of this study showed that in a disappointment situation where an unattractive reward was given at the end of a task, the boys at-risk (boys who displayed high levels of externalizing behaviors) displayed negative emotions (e.g., anger) more frequently and for longer periods than low-risk boys. Contrary to this finding, under the same condition, at-risk girls (girls who displayed high levels of externalizing behaviors) were significantly less likely to display negative emotions than low-risk (girls who displayed lower levels of externalizing behaviors). These results suggested that while at-risk boys have difficulties inhibiting anger, at-risk girls tend to minimize the emotion of anger. The findings from this study indicate that individual variation in preschoolers' expressive control during a disappointment task is associated with behavior problems in gender-specific ways. This study showed at-risk boys having problems in inhibiting their anger, while at-risk girls tending to minimize their angry emotions which restrain them from displaying appropriate emotions even in frustrating situations.

In support of this finding, A study conducted by Lopez and Todd (1996) found that boys used negative coping strategies more than girls in the presence of frustration, especially in situations which required handling anger. In these contexts, boys showed overt anger more than girls who were more likely to deal with the thing or person that

caused their anger through resistance, and less likely to seek adult help. Fijuki et al. (2002) further showed that girls scored lower on lability (i.e., mood changes) and negativity dimensions of emotion regulation, and displayed more empathy and socially competent behaviors than boys did in preschool years.

In general, although children's emotion regulation strategies display a general increase with age, individual differences are evident in each age group. In addition to age and gender, emotion regulation varies also according to the cultural group. Studies examining the relations between emotion regulation and culture are presented in the next section (Section 2.1.5).

2.1.4 Culture and Emotion Regulation

Emotion regulation has been investigated among children coming from different socioeconomic and cultural backgrounds. As an aspect of socioeconomic status, income was examined in relation to emotion regulation and children coming from low-income families were found to display less competent emotion regulation (Raver, 2004). It is argued that this is basically due to prevalence of adverse child-rearing practices among parents living in disadvantaged contexts, rather than the income level itself.

It is also demonstrated that emotion regulation strategies display some differences across cultures. Eisenberg and Zhou (2001) emphasized the view that the central characteristics of western culture are accepted as individualistic- as valuing independence, self-actualization, assertion and open expression of emotion. Therefore, the pleasure principle and the computation of personal profits and losses are often keys to explain individual behavior for Western culture. Accordingly, individualists are less likely to inhibit or suppress the expression of emotions such as anger and frustration. Additionally, whether the expression or control of emotion contributes to individuals' psychological and physical well-being, and serves to accomplish one's personal goal forms the basis of standard of emotion regulation and beliefs about an optimal state. On the other hand, Eastern cultures where collectivism is central; such as Japanese or China, often are characterized with traditions that emphasize the group over the individual and cooperation over competition and dominance (Dion & Yee, 1986). It is stated that in collectivistic cultures, individual behavior often is consistent with norms and duties imposed by the society. Therefore, collectivists' standards for emotion regulation and beliefs about an optimal emotional state are based on whether the expression of emotion is consistent with social norms and expectations, and promotes an individual's connectedness to his or her collective.

Developmental studies on children have yielded findings consistent with the

aforementioned arguments about the role of culture in emotional experience and expression. For example, in response to hypothetical conflict and distress dilemmas, US preschool children, in comparison to their Japanese counterparts, showed more under-regulation of emotion such as anger and aggressive behaviors (Zahn-Waxler, Friedman, Cole, Mizute, & Hiruma, 1996).

Cole and Tamang (1998) investigated the emotion expressions of first grade children's feelings and acts in emotionally challenging situations (e.g. peer conflict, family conflict) in two different Nepali cultures (Tamang and Chhetri). They found a significant difference among responses of children in two cultural groups to emotionally challenging situations. In this study, it was observed that in emotionally challenging situations, Tamang children did endorse negative emotions and rarely mentioned masking these emotions. Chhetri first graders also reported negative emotions, particularly anger, but they also reflected a wish to mask negative emotions. Tamang and Chhetri children both acted on negative emotions, but the Chhretti children's tendency to mask these emotions may reflect their values of respect to authority and social norms in Eastern cultures in which they live. This finding reflected that these children may not show appropriate emotions in emotionally challenging situations because of their cultural characteristics. Another study conducted by Cole, Bruschi and Tamang (2002) investigated the descriptions that children give for their emotional responses in difficult interpersonal situations (e.g., "How would

you feel when you are accused of stealing some money when you had not?") and the influence of culture on these descriptions in 9-11 years old U.S., and Nepali (Brahman and Tamang) children. They concluded that there were three distinct cultural patterns such as group harmony, shame and self-expression which influenced children's emotional reactions in difficult interpersonal situations. Findings of this study revealed that children from Tamang were more likely to evaluate difficult situations in terms of shame than Brahman and U.S. children who endorsed anger. The responses of U.S. children appeared more problem focused (e.g., "If I don't display my anger, they will stop teasing me.") and action-oriented (e.g., "I would say, 'it's not nice to laugh at me'") than those of Brahman and Tamang children.

These findings suggest that the appropriateness of emotions in different situations varies according to culture. As both theory and empirical evidence suggest the existence of cross-cultural differences in children's emotion control; how culture shapes the development of emotion regulation is of considerable importance. Parents in different subcultures differ in the degree to which and how they teach children the expression and regulation of emotion (Eisenberg, Cumberland, & Spinrad, 1998). The degree that socializers encourage or discourage specific emotional responses involved in emotion regulation to appears to be influenced by the socialization process which includes cultural beliefs, values and goals about emotions and social behaviors.

In the literature, within-child characteristics such as temperament (Eisenberg et al., 1993; Eisenberg et al., 2002) and external factors like parenting (Colwell, Mize, & Pettit, 2000; Denham, 1998; Eisenberg et al., 2001) have been investigated as the predictors of emotion regulation in young children. The role of each factor in emotion regulation is examined in the following sections.

2.2 Maternal Socialization and Emotion Regulation

How parents affect their children's ability to control emotions is a question that has been investigated widely especially in the last decades. It has been suggested that emotion regulation involves maintaining, eliciting or inhibiting appropriate negative and positive emotions in different situations, it is a positive independent approach to others and requires practice and guidance in interaction with other people (Bronson, 2000). In this process, children learn much from socializing agents about the nature of emotional expressions, the appropriate expressions of emotions, means of coping with emotions and potential reactions to others' positive and negative emotions. (Denham, 1998). Mothers are usually the primary care-givers of young children and mother-child interactions are the main contexts where children are socialized. Accordingly, mothers appear to be important agents who influence regulatory abilities in children. Therefore, most of the theoretical and

empirical work on the role of social experiences in emotion regulation has focused on maternal influences (Denham et al., 1991; Parke et al., 1992).

During the preschool period, although they enter peer context, most preschoolers continue to enjoy close contact with their mothers (Denham, 1998). Therefore, it might be claimed that children's achievement of regulation skills is mostly shaped by parent-child interactions, mothers' child rearing practices (Denham et al., 1991; Dennis, 2006; Gottman, Katz, & Hooven, 1996) and emotion socialization behaviors (Bronson, 2000; Colwell et al., 2000; Denham, 1998; Havinghurst, 2003; Garner & Estep, 2001).

2.2.1 Child-Rearing Behaviors and Emotion Regulation

One of the most important resources that influence the developmental outcomes of children -especially for young children- is parental characteristics and the quality of parent-child relationship (Grolnick et al., 1998). In the Western literature, Baumrind (1970) described the global parenting characteristics as authoritative, authoritarian and permissive parenting with respect to two dimensions, which are warmth/responsiveness and control. In this typology, authoritative parenting refers to the parenting behaviors that are characterized by high levels of warmth and control. For example, these parents stress social

constrains, set sensible and realistic standards for their child, explain reasoning for rules and also support the independent self-will of the child. On the other hand, authoritarian parents form, control and evaluate the behaviors and attitudes of the child with a set of standards of conduct. They respect obedience and favor punitive, forceful procedures where the child's behaviors disagree with what parents think are right behaviors. They are low in warmth/responsiveness dimension of parenting but high in the control dimension of the parenting style. The third parenting style, which is permissive parenting, describes behaviors of parents that permit the child to regulate their own activities as much as possible, exercise only limited control, and do not encourage the child to obey externally standard rules. Rather than being an active agent, they see themselves as a resource to be used by the child. (Baumrind, 1970). Hence, these parents are low in both warmth/responsiveness and control dimension of parenting style. Further, Maccoby and Martin (1983) have extended Baumrind's (1970) definition and added another parenting style, which was described as rejecting-neglecting parenting. In this style, parents are neither responsive to their child nor demanding. Neglectful parents do not provide any structure for understanding the social rules, nor do they monitor the child's activities.

Darling and Steinberg (1993) argued that in order to understand the processes through which parenting style influences child development it is necessary to disentangle three different aspects of parenting: the goals toward which socialization is directed; the

parenting practices used by parents to help children reach those goals; and the parenting style, or emotional climate within which socialization occurs. They stated that parenting style is most usefully conceptualized as a characteristic of the parent that alters the efficacy of the parent's socialization efforts by moderating the effectiveness of particular practices and by changing the child's openness to socialization. Therefore, the influence of parenting styles varies depending on the social environment in which the family is embedded. Since the global parenting styles define parental characteristics rather than their relationship with the children, Darling and Steinberg (1993) claimed that there should be a difference between parenting styles that are the general attitudes toward children and specific parenting behaviors that more directly affect parent-child interactions. Therefore, most of the further studies focused on the child-rearing practices rather than focusing on the general attitudes of parents (Calkins, Smith, Johnson, & Johnson, 1998; Scaramella & Conger, 2003).

In Baumrind's study, (1970) authoritarianism was related to high control and low warmth in family environment. However, in her early study, Kagitcibasi (1970) found that authoritarianism was related to higher control but not lower affection in the Turkish culture. Moreover, a research (Chen & Luster, 2002) which was conducted in the Chinese culture showed that Chinese parents who practice authoritarian parenting could be identified as warm and caring. In this study, mothers who used verbal and physical

punishment at moderate levels were likely to show characteristics of ‘authoritative parenting’ at the same time. Therefore, it might be argued that the concept of parenting style is more useful in western cultures but does not necessarily apply to other cultural groups. Specific ideas, thoughts, beliefs and goals of the parents, which are affected by the culture, influence the parenting styles (Darling & Steinberg, 1993). Hence, examining socialization behaviors of parents (e.g., in the social and emotional domains) is more useful than studying styles of parenting.

Empirical findings showed that child-rearing practices involving high levels of inductive reasoning and warmth, and low levels of power assertion (obedience demanding and punitive discipline) are linked to emotional competence of preschool children, such as the abilities to self-soothe and regulate negative emotions (Denham et al., 1991; Gottman et al., 1996; Scaramella & Conger, 2003). On the other hand, an authoritarian parenting style, which is characterized by high levels of power assertion was found to predict emotionally incompetent behaviors, such as the inability to regulate one’s own emotions (Chang et al., 2003; Eisenberg, Fabes & Murphy, 1996).

As demonstrated in several studies, parenting behaviors influence children’s emotion regulation. An early research conducted by Denham et al. (1991) showed that mothers who displayed positive parenting strategies such as higher levels of support,

allowance of autonomy and lack of anger and negativity during mother-child interaction had children who revealed emotionally competent behaviors in their peer interactions in preschool years. It is also claimed that children of mothers who displayed responsiveness and warmth, and who attempted to regulate children's behaviors by inducing positive emotions were more socially competent and independent, and had higher levels of self-esteem and emotional control (Denham, 1993).

While some parenting practices (e.g., supportiveness) positively contribute to the development of emotion regulation, some other practices (e.g., parental punitiveness and maltreatment) have negative effects on the child's ability to regulate his/her emotions. For example, Shields, Cicchetti and Ryan (1994) reported that maltreated children showed situationally inappropriate and nonadaptive emotions more than children who did not receive maltreatment. When hurt by a peer, maltreated children exhibited fear instead of anger which is a more inappropriate emotion for the situation. It is claimed that (Denham, 1998) if children's displays of anger are reacted with scorn and punishment by the mother, children may not learn about ways of effective control of their emotions to express or resolve their anger. Negative reactions such as harsh and punitive parenting behaviors adversely affect the ability to regulate emotions. Parents who exhibit hurtful and hostile negative emotions frequently may model dysregulated behavior for their children to imitate

(Eisenberg, 1999). So another means through which power-assertive parenting negatively influences emotion-regulation is modeling.

Similarly, Chang et al (2003) found that hostile and punitive child rearing was positively associated with lower levels of emotion regulation in Chinese preschool children. In this study, they utilized mother report to measure emotion regulation of these children. They found that children whose mothers used harsh disciplining and punitive behaviors exhibited inappropriate emotions such as feeling sad, angry or mad, or easily frustrated in different situations.

As described earlier, one of the definitions of emotion regulation include children's coping with aversive or distressing emotions or situations (Section 2.1.3) (Denham, 1998). Numerous studies examining children's responses to frustrations have identified a number of parenting variables that predict positive child adjustment in such situations including parental warmth, responsiveness, induction and consistency. Children who showed the most problematic adjustment in coping with frustrations, in contrast, were more likely to have parents who were rejecting, ignoring, inconsistent, or punishing (Calkins et al., 1998). Additionally, measures of maternal negative emotion, especially anger, predicted poorer emotion regulation. For example, Calkins and colleagues (1998) examined the relation between maternal interactive styles (mother's strategies for child behavioral management

such as negative controlling and positive guidance) and emotion regulation of children (aggression, distraction and focusing on the denied object in emotion eliciting tasks). The results of this study showed that negative maternal control was positively associated with less adaptive emotion regulation (i.e., children's anger emotions during tasks). They also found that maternal positive guidance during teaching, play, and compliance tasks positively predicted children's use of distraction and "constructive coping" (i.e., problem solving) in their frustration tasks. Furthermore, Garner and Estep (2001) found that maternal anger directed towards the child was positively associated with their measure of unconstructive anger responses toward peers (i.e., tattling, venting, and verbal and physical retaliation). Similarly, Spinrad, Stifter, Donelan-McCall and Turner (2004) found that mothers who yielded their children's wishes during a frustration task at 18 months (i.e., did not allow their children to continue to try to solve the problem on their own), had children who showed poorer emotional regulation (i.e., more negative affect) in a disappointment task (the child is told that he or she will receive one of several prizes and receives his or her least favorite prize) 3½ years later.

As demonstrated earlier, examining mother's socialization behaviors is more useful than examining parenting styles in elucidating the effects of parents on children's development (Eisenberg et al., 1999; Paterson & Sanson, 1999). Therefore, in this study, rather than general parenting styles, specific child-rearing behaviors related to emotion

regulation of children such as inductive reasoning (e.g. teaching problem-solving or inductive guidance strategies), warmth (e.g. being responsive and emotionally supportive) and power assertion (e.g. punishment and obedience demanding behaviors) were investigated. The next section presents findings the links between children's emotion regulation and parents' emotion socialization behaviors in particular.

2.2.2 Maternal Emotion Socialization and Emotion Regulation

Emotion regulation has an interpersonal nature. Researchers (Cole et al., 2004) who conduct studies on emotion regulation usually emphasize that emotions do regulate and are regulated in social interactions. Denham (1998) suggests that parental socialization of emotion contributes significantly to the development of emotion regulation through the parent-child interaction.

In broad terms, parental socialization of emotion involves beliefs, goals and values of parents concerning children's experience, expression, and modulation of emotion (Eisenberg et al., 1998). In specific, parental emotion socialization refers to the parental awareness of child's emotions, parents' acceptance of the child's emotions, and the degree to which parents provide instruction to the child on managing his/her emotions (Gottman et

al., 1996). Therefore, it includes parental behaviors like modeling (how parents show own emotions to their children), coaching (how parents teach their children about emotions), contingency (how parents react to the emotions of their children) (Denham, 1998), and expression encouragement (how parents teach their children to express a large range of emotions within the family context) (Eisenberg et al., 1994; 1998). As evident in this description, parental emotion socialization refers to more specific emotion-related behaviors of parents rather than general disciplining styles.

The literature on emotion regulation of children shows that the ways that mothers model emotions, they react to their children's emotions, and teach or coach their children about emotions have a significant impact on children's emotional regulatory behaviors (Colwell et al., 2000). It is also suggested that mothers' efforts to regulate their children's emotions may not only result in altering their immediate emotional arousal but also may provide opportunities for supporting the existing emotion regulation as well as teaching new methods for self-regulation (Kopp, 1989). Eisenberg et al. (1998) suggested that mothers' reaction to children's emotions is a way in which children's emotional competence is shaped.

Mother's use of coaching strategies would be expected to enhance children's abilities to deal with emotions. Children who are provided with explanations may learn to

clarify, interpret, and understand their emotional states as well as responding to feelings in appropriate ways (Denham, 1998). It is also claimed that children may learn more sophisticated strategies to regulate emotions by using and practicing these strategies (i.e., mother's direct commands and instructions about emotions) in interactions with others (Denham, 1998; Kopp, 1989; Thomson, 1994).

According to Fabes, Eisenberg and Bernzweig (1990), coaching strategies of mothers which support children in emotionally arousing situations are emotion focused responses, expressive encouragement and problem focused responses. Emotion focused responses are the parent's attempts to help the child feel better. While expressive encouragement is the parent's encouraging behaviors to help the child to express his or her emotions, problem focused responses include helping the child to solve problems around the cause of the emotionally difficult situation. These supportive strategies are topics of many studies (Eisenberg et al., 1993; Gottman et al., 1996). In a study, parents of 5-years-old children who used emotion coaching (e.g., who were aware of children's emotions; who accepted them, and guided the child for managing his/her emotions) had children who displayed less negative play with peers and had fewer behavior problems at the age of eight (Gottman et al., 1996). In support, using verbal discourse and direct command are also emphasized as an important aspect of coaching which helps children to understand where and why emotions occur (Denham, 1998).

Garner and Estep (2001) who conducted a study with 4-5-year old Caucasian preschoolers found that children of mothers who showed more warmth to their children, who accepted their children's emotional reactions and used problem-focused responses were more likely to regulate their emotions during emotionally charged interactions with peers. These children showed less anger and more prosocial behaviors, and had less conflict during pretend play with a friend.

On the other hand, unsupportive strategies such as 'questioning the child's emotion' (i.e., 'why are you crying?') and minimizing legitimacy of the child's emotional experience (i.e. 'don't cry like a baby') have an adverse influence on emotion regulation (Gottman et al., 1996). Critical or dismissive reactions, without resolving the feeling, might be leading to suppression of the emotion (Gottman et al., 1996; Roberts & Strayer, 1987). Empirical findings (Fabes, Leonard, Kupanoff, & Martin, 2001) revealed that minimizing reactions of mothers were linked to children's lower levels of socially appropriate behaviors; children of these mothers were more likely to use avoidant coping (i.e. avoidance and/or denial of the problem) and were prone to frequent or intense negative emotions. Moreover, in the study with 5 year-old children in U.S., Gottman et al. (1996) found that parents who were not aware of expressions of emotions and who were not supportive about their children's emotional responses had children who exhibited inappropriate emotions during emotionally arousing situations (i.e., fear, distress and anxiety). Similarly, Spinrad et al. (2004) carried

out a study with 5-year-old children in US and found that mothers, who minimized their children's emotional responses such as questioning their emotions during disappointment task, had an adverse effect on the children's emotion regulation strategies such as child's distraction or seeking physical comfort. These children may not reach the learning tools for regulating their emotions which may cause lack of emotion regulation skills.

In sum, empirical studies indicate that mothers use a variety of strategies in displaying emotions and responding to their children's emotion displays, and these strategies significantly contribute to emotion regulation abilities of young children. Creating a secure emotional environment, helping children understand emotions throughout the day, modeling appropriate emotional responses, encouraging children to engage in pretend play to provide them opportunities to understand and respond to various feelings, supporting regulation of emotions, and recognizing and praising children's efforts to regulate their emotions are among the practices parents may use to support their children's emotional competence (Blair, Denham, Kochanoff, & Whipple, 2004).

2.3 Temperament

The term temperament describes individual differences in children's behavioral style, and is seen as constitutionally based (Sanson, Hemphill, & Smart, 2004). It refers to the person's relatively enduring biological makeup and is a relatively stable attribute (Pedlow, Sanson, Prior, & Oberklaid, 1993). Temperament has been examined since ancient times but great attention on temperament has started with the empirical study which was carried out by Thomas and Chess in their pioneering New York Longitudinal Study (Thomas & Chess, 1977 as cited in Prior, 1992).

In the New York Longitudinal Study, Thomas and Chess (1977 as cited in Prior, 1992) analyzed the content of interviews of 22 parents of infants (2-3 months and older) about their infants' reactions to everyday situations. A large number about developmental changes, continuity in their behaviors were collected periodically from the parents. According to statistical analysis (e.g. content analysis, factor analysis), researchers adopted nine temperament dimensions. These were Activity level prevailing positive or negative mood, Intensity of response; Threshold to respond, Persistence, Approach versus Withdrawal tendencies to new stimuli, Adaptability over time to new experiences, Distractibility or ease of soothing, and Rhythmicity or regularity of biological functions.

They also identified behavioral patterns that described “difficult” and “easy” infants in terms of these dimensions of temperament (Thomas & Chess, 1977 as cited in Prior, 1992).

“Difficultness” includes negative mood, withdrawal, low adaptability, high intensity, and low regularity. The opposite pole of this dimension was described as “easiness”. Easy children were higher in regularity, adaptability and positive mood while being lower in withdrawal and intensity. There was also a third category, which was made up of slow-to-warm up children. These children who were defined by a mixture of negative responses or easygoing intensity to new stimuli also showed slow adaptability after repeated contact (Thomas & Chess, 1977 as cited in Prior, 1992).

Nine temperamental dimensions of Thomas and Chess (1977 as cited in Prior, 1992) were widely accepted but also criticized by some researchers. The reason for criticism was the fact that a smaller number of dimensions best represents the structure of temperament. In addition, questions had arisen about the extent to which scales measuring the dimensions showed conceptual overlap with one another, or were not internally consistent. Factor analytic work also suggested that a nine-dimensional model was not supported by the behavioral style measurement tools (Else-Quest, Hyde, Goldsmith, & Hulle 2006). Therefore, some used the NYLS dimensions, while some others used their own measures,

which they also created from the NYLS dimensions (Buss, Plomin, & Willerman, 1973; Prior, Sanson, Smart, & Oberklaid, 2000; Rothbart, 1981).

A study of Buss et al. (1973) which modified Thomas and Chess's model, described five criteria for temperamental traits. They specified these criteria to be heritable, relatively stable during childhood, retained into adulthood, evolutionarily adaptive, and present in our phylogenetic relatives, and consequently suggested four broad temperament traits that met these criteria. These traits are emotionality (i.e., intensity of emotion), activity (i.e., quantity of motor activity), sociability (i.e., closeness to others), and impulsivity (i.e., quickness vs. inhibition of response). Like Buss and Plomin (1973), Rothbart (1981) also argued that there should be smaller number of dimensions and suggested reactivity or soothability, fear or distress to novelty, attention focusing and (purposeful) shifting, and perceptual sensitivity (i.e., awareness of subtle changes in the environment) as the basic temperamental characteristics. In her work with Derryberry (Derryberry & Rothbart, 1988), Rothbart examined these temperamental characteristics in terms of three dimensions as positive emotionality, negative emotionality, and persistence or effortful control. Positive emotionality involves smiling, laughter, pleasure, and sensitivity to positive environmental cues whereas negative emotionality includes irritability and frustration combined with fearfulness, tendencies to discomfort, and sadness. The dimension of effortful control was described as tendency toward attentional focusing, persistence, inhibitory control and/or

perceptual sensitivity. Further, The Australian Temperament Project (ATP), which was based on the NYLS (Thomas & Chess, 1977 as cited in Prior, 1992), analyzed the temperament profiles of children across the age of 3 to 7, and derived a shorter form of the scale (Prior et al., 2000). In this study, factor analysis showed that three wide aspects of temperament were more obvious than others. One of them was reactivity or negative emotionality, which is described by high levels of irritability, negative mood and high-intensity negative reactions. This dimension involves two basic aspects which are distress to limitations (irritability, anger) and distress to novelty (fearfulness). The second dimension is self-regulation, which includes two subcomponents, the effortful control of attention (e.g., persistence, nondistractibility) and of emotions (e.g., self-soothing). The third dimension was variously labeled as approach-withdrawal or sociability-inhibition, and refers to the tendency to approach novel situations and people or conversely to withdraw and be suspicious. In the Australian Temperament Project (Prior et al., 2000) rhythmicity and activity level appeared as the other basic temperamental dimensions which were narrower.

Research findings have revealed that children's temperamental characteristics vary with their age and gender (Pedlow et al., 1993; Sanson, Smart, Prior, Oberklaid, & Pedlow, 1994). In the New York Longitudinal study, (Thomas & Chess, 1977 as cited in Prior, 1992) investigated the stability of temperament of children between the ages of 1 to 5.

They found stability for activity, rhythmicity, adaptability, threshold, intensity, and mood dimensions while they did not find a significant stability for approach and persistence (Sanson & Rothbart, 1995). Further, a study (Sanson et al., 1994) which investigated temperament using maternal reports of children from 3-to-7-years-olds showed that there was continuity in different aspects of temperament over time and, in general, children were becoming more persistent, sociable, rhythmic, and active/cheerful/sensitive in these four years.

Studies have also reported sex differences in temperamental characteristics of children who are in the same age group (Sanson et al., 1994; Simpson & Stevenson-Hinde, 1985). It is believed that sex-related temperamental differences emerge from toddlerhood on and increase in size as children mature (Prior, 1992). In the Australian Temperament Project, boys were found to be more inflexible, less persistent, less sensitive to environmental changes, and less active/cheerful than girls were in preschool years (Prior et al., 2000). Recently, Else-Quest et al. (2006) conducted a meta-analytical study to examine the magnitude of gender differences temperament and analyzed 35 dimensions and three factors of temperament in children aged between 3 months and 13 years. Findings of this study showed that girls were more persistent and less approaching than boys.

In conclusion, after Thomas and Chess' (1977 as cited in Prior, 1992) pioneering work, researchers' focus on children's temperamental characteristic has increased. Recently, nine-dimensional model is not supported by the temperament research. Rather, it is the four-dimensional model (persistence, reactivity, sociability and rhythmicity) categorization of which is mostly adopted in the developmental literature. In the present study, this model (Prior et al., 1989) is used to investigate temperamental characteristics of preschool children.

2.3.1 Temperament and Emotion Regulation

The literature indicates that in addition to parenting, temperamental characteristics of children also influence emotion regulation abilities significantly (Denham, 1998; Eisenberg & Fabes, 1992; Rubin et al., 1995). Researchers addressing the link between temperament and emotion regulation have found that temperament and emotion regulation jointly predict numerous aspects of social functioning, such as prosocial behavior, adjustment and peer acceptance (Eisenberg et al., 2002).

Understanding interactions between temperament and emotion regulation skills is important for two reasons. First, understanding this interaction could assist identifying the

reasons why a child is emotionally adjusted or maladjusted. Second, it could assist researchers to develop strategies to aid the children who have difficulties in social and emotional competence (Blair et al., 2004).

Studies about the interactions between children's temperament and their emotion regulation strategies point out the link between reactivity, persistence and approach dimensions of temperament and regulation of emotion (Eisenberg & Fabes, 1992; Eisenberg, Fabes, & Murphy, 1995; Fox, 1989; Grolnik et al., 2003). Reactivity or negative emotionality is the degree to which irritability and uncooperativeness are displayed (Prior et al., 2000). This aspect of temperament has been shown as an important factor that contributes to children's behavior problems (Caspi & Silva, 1995; Rubin et al., 1995). Higher rates of negative emotion increases the likelihood that a child may have difficulties in interpersonal interactions, and give more intense responses (Thompson, 1994). For instance, Fox (1989) found that highly reactive children (who react to a particular stimulus or event with high levels of irritability and a negative mood) needed caregiver assistance for regulating their emotions more than their less reactive counterparts. These children were less competent in self-regulation and their temperament restricted possible opportunities to enhance emotion regulation strategies.

Denham (1998) further claimed that intensity of emotional reactivity was significantly associated with difficulties in emotion regulation of preschool children. It is that, preschool children who showed higher levels of negative reactivity such as sadness, anger, irritation, and anxiety displayed less empathic behavior, which is considered to be one of the aspects of emotion regulation. While high negative reactivity has these negative impacts on children's emotional regulatory skills, high persistence are found to be positively associated with emotion regulation of preschool children (Eisenberg et al., 1995).

Persistence (also called effortful control) is the ability to attend and remain focused on tasks and is an important factor affecting a child's social competence and socioemotional development (Rothbart & Bates, 1998). Eisenberg and Fabes (1992) suggested that in addition to reactivity, children's relative standing on persistence dimension is related to socioemotional competence and self-regulation. The authors argued that both aspects of persistence that are attentional focusing and shifting are related to children's emotion regulation capacities.

Approach or sociability, which refers to the tendency to approach novel situations and people are also related to emotion regulation. Eisenberg et al. (1995) found that high persistence and high approach/sociability predicted better emotion regulation (i.e.,

inhibiting or maintaining appropriate emotional responses) and socially appropriate behaviors in preschool children in U.S. On the other hand, Rubin and his colleagues (1995) claimed that emotional capacities and social interaction styles combined to predict distinct patterns of over control (i.e., internalizing behaviors) or under control (i.e., externalizing behaviors). It is that poorly regulated preschool children with high levels of social interaction (low regulation- high sociability) showed under-controlled behaviors such as externalizing problems and the low regulation- low sociability group showed more under-controlled behaviors like internalizing. This study displayed the interaction between emotion regulation, behavioral regulation and psychosocial adjustment.

Other studies focused on the relations between temperament and children's ability to wait for a desired object. A study which was carried out by Rothbart, Ahadi and Hershey (1994) showed that inhibitory control, which reflects an aspect of self-regulation, was closely related to the delay of gratification. According to this study, preschool children who show higher inhibitory control (i.e., the capacity to plan and to suppress inappropriate approach responses uncertain or novel situations) show better performance in inhibiting frustrations while waiting for a desired object. Additionally, Zimmerman and Stansbury (2003) investigated the temperamental dispositions of 3-year-old children and their emotion regulation strategies (i.e., comforting, distractive and instrumental) to frustrations during delay of gratification task. They found that children who were highly reactive used

more comforting behaviors (i.e., seeking a parent for comfort), and less persistent children used more distractive strategies (i.e., playing with toys) while waiting for a desired object.

In summary, persistence, approach, and reactivity have been shown to be associated with emotion regulation in young children, although there is no evidence to suggest that other traits, such as, have an important role in socio-emotional abilities. In line with these findings, the present study investigates the aspects of temperament that have been indicated to have a link with emotion regulation in young children.

2.4 Emotion Regulation, Temperament and Maternal Socialization

Although until recently there is a little research that examines the cumulative effects of the internal and external factors that contribute to emotion regulation, recently some researchers (Dennis, 2006; Havinghurst, 2003) began to investigate the relations between temperament, parenting, and emotion regulation.

In a study, Havinghurst (2003) investigated emotional competence and the factors contributing to it in 4-6- year-old Australian children with and without behavior problems. This research showed that preschool children with behavior problems (i.e., externalizing

behaviors) had poorer emotional competence than children who were without behavior problems. Children who had behavioral problems showed higher rates of negative emotionality, poorer emotional knowledge, and difficulties in regulating emotions (i.e., lower levels of socially appropriate emotional displays and empathy). The parents of these children were more likely to respond with harsh and critical responses to their emotions, and did not provide children with coaching about ways of managing and understanding their strong negative emotions.

In her current research, Dennis (2006) examined the temperamental and parenting predictors of emotional competence in young children. She conducted a study with 3 and 4 years-old U.S. children and examined maternal behaviors (i.e., warmth, encouraging for appropriate behaviors, and control) during free play and a waiting task (a task which was designed to elicit frustration in the child and it allowed observation of parenting behaviors). Emotion regulation of children was assessed by observing levels of frustration during an emotionally evocative task. Temperamental characteristics of these children were assessed by temperamental questionnaire. The findings of this study showed that low-approaching children whose mothers used higher levels of warmth displayed the highest levels of frustration during the waiting task.

In conclusion, a review of the literature showed that there is a relation between maternal socialization, temperament and emotion regulation. To my knowledge, there no studies which examined the effects of temperament and maternal socialization on emotion regulation of Turkish preschool children. Therefore, the main goal of the study was to investigate the relations between temperamental characteristics, maternal socialization and emotion regulation (including delay of gratification ability) in Turkey. The aims and predictions of the study are presented in detail in the following section (Section 2.5).

2.5 The Present Study

The literature reviewed in this chapter gives information for the development of emotion regulation in young children. The chapter summarizes empirical findings for the relations between emotion regulation and delay of gratification (Gilliom et al., 2002; Grolnick et al., 1996), and influences from maternal child-rearing behaviors (Denham et al., 1991; Gottman et al., 1996) socialization of emotion (Bronson, 2000; Colwell et al., 2000; Denham, 1998; Garner & Estep, 2001), and child temperament on emotion regulation (Denham, 1998; Eisenberg et al., 1995; 1996; Mangelsdorf et al., 1995). Except from some recent studies (Dennis, 2006; Havinghurst, 2003), this review shows that previous findings have revealed a relationship between emotion regulation, parenting and temperament

separately, and, recent research mostly focused on the effects of these constructs on children adjustment (Eisenberg & Spinrad, 2004; Rydell et al., 2003). It is also evident in this review that delay of gratification has rarely been investigated as an emotional aspect of regulation, together with other measures of this ability. Therefore, the main aim of the present study was to investigate the role of parental socialization (i.e., mothers' child-rearing behaviors and emotion socialization), temperament (reactivity, persistence, approach), and their interactions in emotion regulation of Turkish preschool children, involving their ability to delay gratification.

Predicted relations between parenting and temperament, and the outcome measures (i.e., the ability to regulate, maintain, elicit or inhibit emotions in an appropriate way, and to inhibit frustrations while waiting for a desired object) are described in the following section.

2.5.1 Hypotheses of the Study

Based on previous findings, it was expected that mothers who displayed more responsive socialization practices (i.e., used more inductive reasoning and warmth, displayed more supportive responses such as problem-emotion focused responses and

expressive encouragement) and lower levels of power assertive socialization behaviors (e.g., mothers who used less punishment, obedience demanding behaviors and who engaged in more nonsupportive responses such as minimization and punitive reactions) would have children who displayed better emotion regulation. (e.g., maintained, inhibited or elicited positive and negative emotions appropriately in different situations, and inhibited frustrations while waiting for a desired object). In terms of temperament, it was predicted that children who were more persistent, more approaching and less reactive were expected to elicit, maintain or inhibit appropriate positive and negative emotions appropriately in different situations. It was further predicted that more persistent, approaching and less reactive children would be better at inhibiting frustration while waiting for a desired object (i.e., delay of gratification ability).

The major purpose of the present study was to investigate the relations between emotion regulation, parental socialization (child-rearing and emotion socialization behaviors), and temperamental characteristics of Turkish children. However, previous findings suggest that there is a significant bidirectional relation between child temperament and mother's emotion socialization (Prior et al., 1989) and child-rearing practices (Calkins et al., 1998; Boratav, 2003). Therefore, the present study also aimed to examine the link between parent socialization and child temperament. Mothers of more persistent and approaching children were expected to use higher levels of responsiveness (used more

induction, warmth and engaged in more supportive responses such as problem-emotion focused responses and expressive encouragement) and mothers of more reactive children were predicted to use higher levels of power assertion (used more punishment and obedience demanding behavior and displayed more nonsupportive responses such as minimization and punitive reactions). No specific predictions were made for child rhythmicity, since this temperamental characteristic was not of special theoretical interest in the present study.

In the literature, few studies have examined the combined effects of parent socialization and temperament on children's emotion regulation (Dennis, 2006; Havinghurst, 2003). Rather, they exclusively focused on the separate effects of temperament (Blair et al., 2004; Rubin et al., 1995; Rydell et al., 2003) or maternal socialization (Denham, 1998; Eisenberg et al., 1999; Roberts & Strayer, 1987) on emotion regulation. In the present study, the combined and separate effects of parent socialization and temperament are investigated to observe whether each variable independently predict emotion regulation.

Finally, in contrast to the previous studies which emphasized only maternal child rearing behaviors or emotion socialization behaviors while examining emotion regulation, the present study investigates both aspects of maternal socialization at once and examines

the predictive value of parenting as it includes both maternal child rearing behaviors and emotion socialization. This issue is elaborated in Chapter 5.

CHAPTER 3

METHOD

In this chapter, information about characteristics of the participants and measures used in the present study are presented.

3.1 Participants

Preschool period is recognized to be critical for the development of socio-emotional abilities (Bronson, 2000). Therefore, this study mainly focused on emotion regulation abilities of preschool children and investigated their relations with socialization behaviors of mothers, rather than fathers, since mothers are more significant figures especially in early socialization of children (Bronson, 2000).

3.1.1 Child Characteristics

The participants of the study were composed of 145 four-and five-year-old Turkish children, their mothers and preschool teachers living in Istanbul. Children were

all recruited from day-care centers serving families coming from a middle or middle–high socioeconomic background. The mean age for children ($N = 145$) was 5 years 2 months ($SD = 7$ months) ranging from 46 to 70 months (see Table 3.1). Fifty-five percent of the children ($n = 79$) were boys and 45 % ($n = 69$) were girls. The mean age for boys was 58.3 months ($SD = 6.79$) and the mean age for girls was 57.4 months ($SD = 6.70$)

3.1.2 Parent Characteristics

Mean for mothers' age was 35 years (ranging from 25 to 48 years) and mean for fathers' age was 38.6 years (ranging from 28 to 54 years). Parents on average had 1 child ($SD = 0.85$) (see Table 2.1). Descriptive statistics showed that 91 % of mothers were married, 6 % were divorced, 1 % were remarried, 1 % had a defacto, 1 % were single, and 1 % were widowed. Descriptive statistics for fathers revealed that 93 % of them were married, 6 % were divorced, 1 % had a defacto, and 1 % were single. A description of parents' marital status is presented in Table I.1 in Appendix I.

Descriptive statistics for mothers further displayed that 18 % had a graduate degree, 50 % had university education, 12 % started but did not complete, university education, 3 % completed trade school or a certificate program, 10 % had a high school degree and 4 % attended but did not complete high school. Among mothers, 22 % had

top status occupations (i.e., professors, lawyers), 29 % were working in established professions (i.e., high school teachers), 22 % were managers in big organizations (i.e., bank servants), 7 % were skilled people (i.e., primary school teacher, artists), 20 % had jobs that required less expertise and training (i.e., housewives without another occupation) (see Table I.2 in Appendix I).

Descriptive statistics for fathers showed that 27 % of them had a graduate degree, 45 % had a bachelor's degree, 9 % started but did not complete university, 1 % had a certificate from university, 2 % completed trade school, 8 % completed high school and 8 % did not complete high school. Occupations of fathers were as follows; 49 % had top status jobs 27 % were working in established organizations, 11 % were managers in big organizations (i.e. secondary school teachers), 10 % were skilled people, 4 % were working in lower level jobs. Percentages of mothers and fathers in each education level and occupational category are presented in Table I.2 in Appendix I. These information regarding education levels and occupations of parents revealed that mothers and fathers of children were mainly affluent people coming from an advantaged background in Turkey.

Monthly household income of the participants ranged from 450-750 YTL to above 4000 YTL. Majority (45 %) of the families were in the 'above 4000 YTL' income category (Percentages for each income category are presented in Table I.3, in Appendix I). Educational levels and occupations of mothers and fathers, and the

household income were taken as indicators of socioeconomic status (SES) of the family. Accordingly, an SES score was composed by taking the mean of standardized maternal and paternal education, maternal and paternal occupation, and household income values. A higher SES value indicated a more advantageous socioeconomic background.

Table 3.1

Demographic Statistics for Demographic Variables

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	Min	Max
Age of child (months)	145	57.88	6.74	46.0	70.0
Number of children	145	1.40	0.85	.00	4.0
Age of mother (years)	144	35.06	4.12	25.0	48.0
Age of father (years)	144	38.63	4.78	28.0	54.0
Education of mother (1 = low, 7 = high)	144	5.33	1.66	1.0	7.0
Education of father (1 = low, 7 = high)	144	5.38	1.87	1.0	7.0
Occupation of mother (1 = low, 6 = high)	144	4.28	1.41	2.0	6.0
Occupation of father (1 = low, 6 = high)	144	5.07	1.14	2.0	6.0
Household income (1 = low, 6 = high)	144	5.36	0.90	2.0	6.0

3.2 Materials

In this section, a detailed description of the scales, which were utilized to measure children's emotion regulation, temperamental characteristics and mothers' child-rearing behaviors and emotion socialization is given as well as a summary of the behavioral assessment task that was used to measure children's ability to delay gratification. The questionnaires which assessed emotion regulation were completed both by children's mothers and teachers to obtain information about children in preschool context as well as in home context.

3.2.1 Parent Questionnaires

Mothers were requested to fill in the background information form and a set of questionnaires which measured emotion regulation, temperament and maternal emotion socialization and child-rearing behaviors.

3.2.1.1 Background Information Form

Mothers of children were given the background information form (see Appendix A) on which they were asked to provide information about the child (e.g., date and

place of birth, sex, child-care type, presence of siblings) and other members of the family (e.g., parents' age, education, occupation, marital status, and income).

Education was rated on a 7- point scale, 1 indicating 'not completed high school' and 7 indicating 'completed a graduate degree'. Occupational status was rated on a 6-point scale, 1 representing 'top status, leaders of institutions' and 6 representing 'the least prestigious'. Occupational ratings were reverse scored so that a high score represented more prestigious occupations. The household income was also rated on a 6-point scale, 1 indicating the lowest range 'below 450 YTL' and 6 indicating 'above 4.000 YTL'.

3.2.1.2 Emotion Regulation Checklist

In order to measure children's emotion regulation (the ability to maintain, elicit or inhibit appropriate positive or negative emotions in different situations), mothers were given the Emotion Regulation Checklist (ERC; Shields & Cicchetti, 1999). The ERC is a 24-item parent and teacher report questionnaire (Appendix B) which involves two subscales. The Lability-Negativity subscale consists of items of arousal, reactivity, anger dysregulation, and mood lability such as "Exhibits wide mood swings" and "Is prone to angry outbursts". The Emotion Regulation subscale consists of items central to adaptive regulation (socially appropriate emotional displays and empathy) such as "Is

empathic toward others” and “Can say when s/he is feeling sad, angry or mad, fearful or afraid”. Each item on this questionnaire is rated on a 4-point Likert scale (1 = “Never” and 4 = “Always”). Internal consistency of the Emotion Regulation Checklist, as provided by Shields and Cicchetti (1997), was high, with a Cronbach’s alpha of .96 for Lability/Negativity and .83 for Emotion Regulation. There was a negative and moderate correlation between the two subscales, $r = -.50$ $p < .001$. Research (Shields & Cicchetti, 1997) on the discriminant validity of this measure has shown that it could differentiate children who were maltreated from those who were not in terms of their emotion regulation abilities.

In the present study, since the main purpose was to investigate children’s ability to regulate emotions by maintaining, eliciting or inhibiting positive and negative emotions appropriately in different situations, the specific features of emotion regulation (i.e., negativity/lability and emotion regulation) were not distinguished. However, all negatively weighted items were reverse-scored so that higher scores reflected higher levels of emotion regulation in general. In the literature, a number of studies (Ramsden & Hubbard, 2002) using this measure have also used a total score by combining the Lability/Negativity and Emotion Regulation subscales. By combining these two subscales, authors of the ERC (Shields & Cichietti, 1997) have also used a total score of emotion regulation in some of their studies. In the present study, the internal consistency value for the ERC was found as .75.

3.2.1.3 Coping with Negative Emotions Scale

In order to measure maternal socialization of emotion, mothers completed the Coping with Children's Negative Emotions Scale (CCNES) (Fabes, Eisenberg, & Bernzweig, 1990). This measure was a self-report scale that presents parents with twelve scenarios depicting times the child experienced negative emotions (see Appendix C). Mothers were given six ways of responding and asked to rate how likely that they would respond to each scenario using these possible ways. For example, "If my child becomes angry because he/she is sick or hurt and can't go to his/her friend's birthday party, I would; a) send my child his/her room to cool off, b) get angry at my child; c) help my child think about ways that he/she can still be with friends; d) tell my child not to make a big deal out of missing the party; e) encourage my child to express his/her feelings of anger and frustration; f) soothe my child and do something fun with him/her to make him/her feel better about missing the party". Each of the six mother behaviors represented a theoretically different way of responding to children's negative emotions.

'Problem-Focused Responses' reflected parents' attempts to help their child problem solve around the cause of the emotion (e.g., "Tell my child that I'll help him/her practice so that he/she can do better next time."), 'Emotion-Focused Responses' reflected the parents' attempts to help the child feel better (e.g., "Comfort my child and try to make him/her feel better."), The 'Expressive Encouragement

Expressions' involved parental behaviors which encourage the child to express his or her emotions (e.g., "Encourage my child to talk about his/her feelings embarrassment."). These first three subscales measure supportive parenting that includes coaching and teaching children about emotions. Three additional methods of responding reflected parental reactions to children's emotions. The 'Minimization Reaction' dimension reflected the degree to which parents discount the importance of their child's emotional reactions (e.g., "Tell my child to quit over-reacting and being a baby."), 'Punitive Reactions' indicated the degree to which parents respond to their child's expression of emotions with verbal or physical punishment (e.g., "Tell my child that if he/she doesn't stop then he/she won't be allowed to go out any more."), The sixth dimension, 'Distress Reactions', reflected the degree to which parent responds to the child's emotions in a distressing way (e.g., "Feel uncomfortable and embarrassed myself."). While the first five dimensions of the scale assessed parent's specific emotion socialization behaviors, the sixth one was linked more to the parents' own feeling states rather than indicating acts directed to the child. Therefore, this dimension (Distress Reaction) was not included in the analysis in the present study.

Fabes et al. (2001) provided psychometric validation of this measure in a study conducted with 101 parents (mostly mothers) of preschoolers and then with a further 36 parents. The internal consistency scores obtained by Fabes et al. (2001) for these six dimensions were as follows: A Cronbach's alpha of .78 for Problem-Focused

Responses, .80 for Emotion-Focused Responses, .85 for Expressive Encouragement, .78 for Minimization Responses, .69 for Punitive Reactions, and .70 for Distress Reactions.

Relations between the CCNES and other parental indexes of emotion

socialization were also investigated to establish construct validity of the measure. 'The Empathic Concern' dimension of the Interpersonal Reactivity Index (Davis, 1983), which is a measure of self-reported empathic concern and perspective taking, was positively and moderately related to the Expressive Encouragement ($r = .45$), Emotion-Focused Responses ($r = .23$) and Problem-Focused Responses ($r = .43$) subscales, and was inversely related to the subscales of Minimization Responses ($r = -.32$) and Punitive Reactions ($r = -.30$). It was further revealed that the Punitive Reactions ($r = .34$) and Minimization Responses ($r = .34$) subscales of CCNES were positively and the Expression Encouragement scale was negatively ($r = -.32$) related to the Power Assertion dimension of the Parental Control Scale (Greenberger, 1988).

In the current study, the central issue was mothers' positive and negative attempts while coping with children's negative emotions in different situations which reflected their socialization practices in general rather than mothers' specific responses as examined in Fabes et al. (1990) study. Therefore, mothers' responses which reflected their attempts to help children feel better, to solve their emotional problems and to encourage children express their negative emotions were examined together as

supportive maternal responses; and mothers' reactions which reflected their power assertive behaviors and tendency to ignore children's negative feelings were examined together as nonsupportive maternal responses. The structure of the scale was examined by varimax rotated method in which the items were sorted in two factors (Factor structure of the scale is presented in Appendix J). The items of Emotion-Problem Focused Responses and Expressive Encouragement subscales loaded on one factor (Supportive Maternal Responses) and the items of Minimization and Punitive Reactions loaded on the other factor (Nonsupportive Maternal Responses). Accordingly, the Supportive Maternal Responses scale was composed from 25 items and displayed high reliability with a Cronbach's alpha of .84. The Nonsupportive Maternal Responses scale was composed from 22 items and had an internal consistency of .87. One item which cross-loaded and three items which did not display a significant loading in the factor matrix were not included in these scales.

3.2.1.4 Child Rearing Questionnaire

In order to assess parenting behaviors, the Child Rearing Questionnaire which was developed by Sanson et al. (1994) was completed by the mothers (Appendix D). The Child Rearing Questionnaire (CRQ) consisted of 30 items where the parent showed the frequency of each behavior on a 5-point scale (1= "Never" and 6= "Always"). The

Child Rearing Questionnaire involved four subscales that measured Inductive Reasoning (e.g., “I try to explain to my child why certain things are necessary.”), Punishment (e.g., “I use physical punishment, e.g., smacking, for very bad behavior.”), Obedience-Demanding Behavior (e.g., “I expect my child to do what he/she is told to do, without stopping to argue about it.”), and Warmth (e.g., “My child and I have warm, intimate times together.”). The Turkish version of the CRQ was formed by Boratav (2003) via the translation–back translation process, and given to mothers of 58 Turkish children living in Australia. Internal consistency for the Turkish version of the CRQ was acceptable, with a Chronbach’s alpha of .84 for Punishment, .78 for Obedience-Demanding Behavior, .76 for Inductive Reasoning, and .68 for Warmth (Boratav, 2003).

In the current study, scale structure of the CRQ was examined by Varimax rotated factor analysis. This analysis revealed four distinct factors which included items similar to those identified in the Boratav (2003) study. The first factor, Inductive Reasoning included 5 items and the internal consistency value (Cronbach’s alpha) for this scale was .79. The second factor, Punishment involved 5 items and had a Cronbach’s alpha of .71. The third factor Obedience Demanding Behavior was composed of 3 items with a Cronbach’s alpha of .79. Warmth, which was the fourth factor of CRQ, involved 4 items and had a Cronbach’s alpha of .64. Six items which

cross-loaded in the factor matrix were not included in the scales (see Appendix K for the factor structure of CRQ).

3.2.1.5 Short Temperament Scale for Children

To measure temperamental characteristics of the child, The Short Temperament Scale for Children (STSC) (Prior et al., 1989) was completed by the mothers (Appendix E). The STSC involved 30 items where each behavior was rated on a 6-point scale, 1 indicating 'Almost never' and 6 indicating 'Almost Always'. The scale taps four temperamental dimensions which are Reactivity (e.g., "When upset or annoyed with a task, my child throws it down, cries slams doors, etc."), Persistence (e.g., "My child likes to complete one task or activity before going on to the next."), Approach (e.g., "My child is shy when first when first meeting new children."), and Rhythmicity (e.g., "My child asks for or takes a snack about the same time each day."). A high score on each dimension respectively shows reactive, persistent, withdrawing and arrhythmic temperamental traits. The Turkish version of the STSC was formed by Boratav (2003) via the translation-back translation process, and given to mothers of 58 Turkish children in Australia. In this study (Boratav, 2003), internal consistency values for the scales were as follows: A Cronbach's alpha of .71 was reported for Approach, .66 for both Reactivity and Persistence, and .48 for Rhythmicity.

In the current study, the scale structure of STSC was examined by Varimax rotated factor analysis. This analysis revealed four factors: The Reactivity subscale was composed of 8 items, Approach involved 4 items, Persistence was made up of 6 items, and the Rhythmicity subscale included 5 items. Internal consistency of subscales was acceptable, with a Cronbach's alpha of .69 for Reactivity, .79 for Approach, .75 for Persistence and .63 for Rhythmicity. (see Appendix L for the factor structure of the STSC). Since it was not of theoretical interest, Rhythmicity was not analyzed in relation to other variables in the present study.

3.2.2 Teacher Questionnaire

The parent version of the Emotion Regulation Checklist (ERC) (see Appendix F) was also administered to teachers to obtain teachers' ratings of children's emotion regulation in the preschool context. For this purpose, slight adaptations were made in item wordings to make the scale appropriate for teachers (e.g., 'this child' instead of 'my child').

To my knowledge, the authors of this questionnaire have not provided normative data or validity information about the teacher version of the scale. However, the teacher form of the ERC has previously been used in other studies (Havinghurst, 2003; Ramsden & Hubbard, 2002) together with its parent version.

In the present study, the main purpose was to examine the children's ability to regulate emotions by maintaining, eliciting or inhibiting positive and negative emotions appropriately in different situations. Hence, similar to the parent version of the ERC, the specific features of emotion regulation (i.e., negativity/lability and emotion regulation) were not independently examined but all negatively weighted items were reverse-scored so that higher scores reflected higher levels of emotion regulation in general. Ramsden and Hubbard (2002) also used a total score of teacher-rated emotion regulation by combining Lability/Negativity and Emotion Regulation subscales in their study. In the current study, Cronbach's alpha was .84 for teacher rated ERC.

3.2.3 Behavioral Assessment of Emotion Regulation

In the study, ERC was used to measure the children's ability to maintain, inhibit or elicit appropriate positive or negative emotions in different situations. In addition to this scale which was completed by both children's mothers and teachers, children's ability to regulate emotions was also assessed individually with the Delay of Gratification task (Mischel & Ebbesen, 1970). This way, emotion regulation was assessed via multiple informants and methods. This task assesses the child's ability to inhibit a response, and to cope with emotions of frustration, boredom and other negative emotions while waiting for a desired object. In the task, while seated, a bell and three chocolate sweets were placed in front of the child (the sweets were placed on either side

of the bell, with one on one side and two on the other). The child was told that if he/she could wait until the examiner returned to the room, he/she would receive two sweets. If the child was not able to wait, he/she could ring the bell, and the examiner returned, but then the child could receive only one sweet. Once it was established that the child understood these instructions, the examiner left the room for a period of five minutes or until the child rang the bell calling the examiner back into the room. The delay times employed usually vary with the age of the child. While a 7-8 minutes-period is generally thought to be sufficient for preschool children, this duration may go up to 14 minutes for older ones (Sethi et al., 2000).

In the original task (Grolnick et al., 1996), the child's ability to delay gratification is assessed in two ways: First, through the time duration that the child waits and second, through evaluating the behaviors the child engages in while waiting. The second part of this assessment requires video equipment and a detailed transcription and coding, which were beyond the limits of this study, both in terms of budget and time. Hence, in the present study, the child's ability to delay gratification was assessed solely according to the time duration that the child waited. If the child waited full 5-minutes, he/she received a score of 2 (highest score). If he/she rang the bell, the child received a score of 1 (medium score). And if he/she ate the chocolate sweets without any waiting or ringing the bell, the child received no points (lowest score).

3.3 Procedure

This section presents information about formation of the measures used in the study, and the data collection process.

3.3.1 Translation of Materials

The Emotion Regulation Checklist (ERC) and Coping with Children's Negative Emotions (CCNES) scales were translated into Turkish by the researcher (Özge Altan) and was backtranslated by a team of psychology researchers who were native speakers of Turkish and competent users of English language. The backtranslated version of the scales was compared with the original ones in terms of semantics, and necessary corrections were made in wordings. A pilot study was carried out at the daycare centre on Koc University campus to see whether raters (mothers and teachers) had trouble in understanding the items. This pilot study revealed that mothers and teachers understood all items with ease.

3.3.2 Data Collection

In the first phase of data collection, letters (Appendix G) which explained the purpose and procedure of the study were sent to the directors of childcare centers in middle and middle-high SES suburbs of Istanbul. Directors who agreed to participate were asked to distribute letters (Appendix H) and consent forms to mothers of children in the 4-5 year-old groups. Mothers who gave consent were sent the questionnaires through the center, and were asked to return the completed questionnaires to the center. Immediately after questionnaires were received from the mothers, the scale which assessed emotion regulation (ERC) was given to the teachers, and the children were seen at the center within the following week, without interrupting his/her daily schedule.

During the session at the day care center, the Delay of Gratification task was administered by the researcher (Özge Altan) in a quite room of the day-care centre. After the child's teacher introduced the researcher to the child, the child and the researcher sat on the table, and a bell and three chocolate sweets were placed in front of the child (the sweets were placed on either side of the bell, with one on one side and two on the other). After a brief warming-up period (e. g., the researcher asks questions like "What is your name?", "Do you have a sibling?"), the researcher told the child that if the child could wait until the examiner returned to the room, she/he would received

two sweets. If she/he was unable to wait she/he could ring the bell then, the examiner would return, but she/he would receive only one sweet. After the researcher made sure that the child understood these instructions, she left the room for a period of 8 minutes or until the child rang the bell calling the researcher back into the room. The score (ranging from 0 to 2) which reflected children's delay of gratification behaviors within this time period was recorded on a sheet. At the end of the session, (waiting 8 minutes or shorter if the child rang the bell), the child was rewarded and given all three sweets even if she/he did not wait the full duration. No video equipment or other means of recording were used in the session. There were no incidents in which children left the room because of feeling themselves uncomfortable.

CHAPTER 4

RESULTS

4.1 Introduction

The main goal of the present study was to examine the relations between emotion regulation, parental socialization (maternal child-rearing behaviors such as inductive reasoning, warmth, punishment, and obedience demanding and maternal emotion socialization such as supportive and nonsupportive maternal responses) and temperament (reactivity, approach, and persistence) in preschool children. With this aim, first, relations between variables were investigated via bivariate correlations. Then, the predictive power of parenting, temperament, and their interactions in emotion regulation were examined through multiple regression analyses. Although not among the main aims of the study, gender differences in each variable were further examined. This chapter presents results of these statistical analyses. In the first part of this chapter, preliminary analyses (e.g., data screening, transformation of variables and descriptive statistics) are described. In the following parts of the chapter, findings for sex

differences and results of bivariate statistics, and findings from multivariate analysis of variance (MANOVA) and hierarchical regression analyses are presented.

4.2 Preliminary Analysis

In the present study, all statistical analyses were performed with SPSS. Prior to the main analysis, the accuracy of data entry, missing values and distributions of all variables were examined. In the present study, no item was excluded from the data due to high number (i.e., 5 %) of missing values. An item (item 24) in the Child Rearing Questionnaire (CRQ) was excluded from this scale as it had very low range (Tabachnick & Fidel, 1996) (see Appendix D for a copy of the CRQ).

Distributions for all variables (emotion regulation, maternal child rearing behaviors and emotion socialization and temperamental characteristics) were examined for normality. Transformations were applied for non-normally distributed data. Delay of gratification, inductive reasoning, warmth, punishment, obedience demanding, nonsupportive maternal responses and approach showed non-normal distribution (Skewness and kurtosis values for all variables are presented in Table M, in Appendix M). Therefore, these variables were first transformed according to the square-root

method. Secondly, log transformation and finally inverse transformations were computed. Only after an inverse transformation, skewness values for these variables approached zero indicating a distribution closer to normality (Tabachnick & Fidel, 1996). However, the inverse transformation technique also caused deviation from another aspect of normality and increased the kurtosis values for these variables. Therefore, in the analysis, the transformed versions of the measures were not used (Tabachnick & Fidel, 1996).

4.2.1 Descriptive Statistics

Descriptive statistics (means, standard deviations and minimum-maximum scores for each variable) are shown in Table 4.1. The statistical information displayed that mean scores for mother-rated and teacher-rated emotion regulation were similar and indicated that children were relatively high in regulating their emotions. Descriptive statistics further showed that mothers who participated in the study reported that they were often engaging in inductive reasoning and warmth. Both mean and maximum values for obedience demanding indicated that this behavior was displayed more often than punishment. In addition, these mothers reported that they displayed supportive responses (i.e., problem and emotion focused responses and expressive encouragement)

quite often and used nonsupportive responses (i.e., punitive reactions and minimizing reactions) rarely as a means of emotion socialization.

Descriptive statistics for temperament also displayed that mothers usually perceived their children as quite approaching, persistent, and moderate in terms of reactivity.

4.2.2 Composite Scores

In the present study, multiple informants were used to assess children's ability to regulate their emotions since the main aim was to examine the emotion regulation of preschool children in different contexts (both in the school and home contexts). In their study which examined the children's emotion regulation, Ramsden and Hubbard (2002) also used a composite score of emotion regulation from teacher and mother ratings of emotion regulation in order to examine the general emotion regulation ability of children.

In the beginning of the present study (Section 2.1.1), as previous studies suggested (Grolnick et al., 1996; Havinghurst, 2003), the delay of gratification task was

thought as a task that elicit emotion reactions in children, hence measure their emotion regulation.

Table 4.1

Descriptive Statistics for Emotion Regulation, Delay of Gratification, Parenting Variables and Child Temperament (N = 145)

Domain	Subscale	<i>M</i>	<i>SD</i>	Min	Max
Emotion Regulation		3.15	.27	2.17	3.79
(Mothers) (1-4)					
Emotion Regulation		3.14	.35	2.29	3.96
(Teachers) (1-4)					
Delay of Gratification (0-2)		1.52	.65	.00	2.00
Parenting Variables					
Child Rearing (1-5)					
Inductive Reasoning		4.63	.39	3.40	5.00
Warmth		4.69	.36	3.50	5.00
Obedience Demanding		2.02	.74	1.00	4.25
Punishment		1.24	.37	1.00	2.60
Emotion Socialization (1-5)					
Supportive Responses		4.18	.43	3.04	4.96
Nonsupportive Responses		1.92	.63	1.00	5.00
Temperament (1-6)					
Reactivity		2.94	.85	1.29	5.43
Approach		4.27	1.10	1.00	6.00
Persistence		4.10	.90	1.67	6.00

However, the delay of gratification task showed low correlation with teacher-rated emotion regulation ($r(145) = .16, p < .05$) and did not show a significant correlation with mother-rated emotion regulation. Moreover, the approach dimension of temperament which is described as ‘the tendency to approach novel situations and

people or conversely to withdraw and be suspicious' (Prior et al., 1989) was *negatively* correlated with delay of gratification ($r(145) = -.18, p < .05$) but *positively* correlated with the composite emotion regulation scale score ($r(145) = .19, p < .05$). This finding revealed that delay of gratification ability was not significantly related to emotion regulation that is described as maintaining, inhibiting or eliciting appropriate negative or positive *emotions* in different situations. It is possible that delay of gratification is more closely related to the *behavioral* aspect of emotion regulation, as previously mentioned by some researchers in the literature (i.e., Sethi et al., 2000). (This issue is elaborated in Chapter 5, in the Discussion chapter). Since delay of gratification score was not linked to parent-rated emotion regulation and was only slightly related to teacher-rated emotion regulation, this variable was not included in the aggregate score of emotion regulation. Throughout this thesis, the composite scale score is referred to as 'emotion regulation' and delay of gratification, which possibly reflects another aspect (e.g., behavioral aspect) of regulation is referred to as is, for the sake of brevity. In order to compute the composite score for emotion regulation, first, standardized values (z scores) of the mother-rated and teacher-rated emotion regulation subscales were calculated and then their average was taken. The composite score for emotion regulation and the delay of gratification task score were examined separately in this thesis in relation to the variables of interest.

As explained in Chapter 2 (Section 2.5), the main purpose of the study was also to investigate the effects of overall parental socialization of mothers which included both maternal child-rearing behaviors and emotion socialization on emotion regulation of children. Previous studies solely focused on the general child-rearing behaviors (Mcfadyen-Ketchum, Bates, Dodge, & Pettit, 1996) or more specific emotion socialization behaviors of mothers (Colwell et al., 2000) in relation to children's socioemotional abilities. However, they did not investigate these aspects of parenting together and analyze mother's child rearing practices and emotion socialization behaviors as indicators of a broader parental style which affect children's social and emotional outcomes in positive or adverse ways. This appears important given that children's socioemotional abilities are influenced by their parents' specific emotion socialization behaviors and parenting practices in general which together comprise socialization. With this aim, links between the two aspects of parenting were examined. The parenting variables which were thought to display responsiveness dimension of parenting (i.e., warmth and inductive reasoning ($r(145) = .36, p < .01$), warmth and supportive¹ maternal responses ($r(145) = .28, p < .01$), inductive reasoning and supportive maternal responses ($r(145) = .23, p < .01$)) showed significant correlations to each other. Therefore, a composite score for responsiveness was computed from the responsiveness including warmth, inductive reasoning and supportive maternal responses. Similarly, the parenting variables which reflected different aspects of the

¹ Supportive emotion socialization included problem and emotion focused responses and expressive encouragement.

power assertion dimension of parenting significantly correlated to each other (punishment and obedience demanding ($r(145) = .24, p < .01$), punishment and nonsupportive² maternal responses ($r(145) = .18, p < .05$), obedience demanding and nonsupportive maternal responses ($r(145) = .40, p < .01$). In accordance, power assertion was created from the parenting variables including punishment, obedience demanding and nonsupportive maternal responses.

In order to compute the composite scores for responsiveness standardized values (z scores) of warmth and inductive reasoning were calculated. Then, the average of these supportive maternal response values and scores (which were already converted to z values) was taken. Similarly, for creating a composite score for power assertion, standardized values of obedience demanding behavior and punishment were calculated. Then the average of these scores and nonsupportive emotion socialization score (which was already converted to z values) was taken. These composite scores which reflected positive and adverse sides of maternal socialization were used in all statistical analyses (e.g., correlational analyses, MANOVA and hierarchical regression) in the rest of the thesis.

² Nonsupportive emotion socialization included punitive reactions and minimizing reactions.

4.3 Correlational Analysis

In order to evaluate the relations between SES, emotion regulation, delay of gratification, parenting variables and temperament, bivariate correlations (Pearson product moment coefficients) were used in the present study.

4.3.1 Associations between Emotion Regulation, Parenting and Temperament

According to the bivariate correlational analysis, SES significantly and positively correlated with delay of gratification ($r(145) = .18, p < .05$) and persistence ($r(145) = .16, p < .05$) and negatively correlated with power assertion ($r(145) = -.23, p < .01$). These associations were low and indicated that children coming from a more advantaged socioeconomic background were more capable to inhibit frustrations while waiting for a desired object, were slightly more persistent, and received adverse parenting less than children coming from lower SES (see Table 4.2).

Emotion regulation³ was positively but slightly correlated with delay of

³ Emotion regulation is used to refer to the composite scale score throughout this Chapter.

gratification ($r(145) = .19, p < .01$). It is that, children who were higher in maintaining, eliciting or inhibiting appropriate positive and negative emotions in different situations were also more likely to inhibit frustrations while waiting for a desired object. Emotion regulation was not significantly associated with responsiveness and power assertion but it was negatively correlated with reactivity ($r(145) = -.28, p < .01$) and positively correlated with persistence ($r(145) = .26, p < .01$) and approach ($r(145) = .19, p < .05$) dimensions of temperament. This finding indicated that more persistent and approaching children could regulate their emotions more successfully, that is they were better at inhibiting or maintaining of appropriate positive and negative emotions in different situations, but reactive children were less successful in this ability (see Table 4.2).

Delay of gratification was not associated with parenting variables (i.e., power assertion and responsivity). However, there was a low but significant correlation between persistence and delay of gratification ($r(145) = .23, p < .01$), showing that the tendency to stay on task increased the ability to inhibit frustrations while waiting for a desired object. Delay of gratification was also negatively and significantly correlated with approach ($r(145) = -.18, p < .05$). This finding was not predicted and it indicated that children who were less approaching were better in inhibiting frustrations while waiting for a desired object.

In addition to associations between outcome and predictor variables, those among predictor variables were also examined. Correlations for parenting variables showed that responsiveness and power assertion were not significantly related. Among temperament variables, approach was significantly and negatively correlated with reactivity ($r(145) = -.16, p < .05$). The strength of association was low and it revealed that less reactive children were slightly more likely to be approaching. Moreover, parenting variables were significantly correlated with some of the temperament variables. Responsiveness was significantly and negatively associated with reactivity ($r(145) = -.21, p < .05$). In contrast, power assertion was positively associated with reactivity ($r(145) = .30, p < .01$), and negatively correlated with persistence ($r(145) = -.19, p < .05$). It means that mothers who used more responsiveness behaviors had less reactive children while mothers who used more power assertion behaviors had more reactive and slightly less persistent children. (see Table 4.2). These relations do not of course tell us anything about the direction of influence, but basically show that some aspects of parenting and temperament are interrelated.

Table 4.2

Significant Pearson Product-Moment Correlations between Emotion Regulation Parenting and Temperament Variables (N = 145)

Variable	SES	1	2	3	4	5	6
1 Emotion Regulation			.19*			-.28**	.26**
2 Delay of Gratification	.18*	.19*					.23**
3 Responsiveness						-.21*	
4 Power Assertion	-.23**					.30**	-.19*
5 Reactivity		-.28**		-.21*	.30**		
6 Persistence	.16*	.26**	.23**		-.19*		
7 Approach		.19*	-.18*				

Note . Non-significant results in the correlation matrix are not reported.

* $p < .05$. ** $p < .01$.

4.4 Sex Differences

Although it was not the main purpose of the present study, girls and boys were compared in terms of their socio-economic background, emotion regulation, temperament, and their mothers' socialization behaviors. SES differences between girls and boys were examined by Analysis of Variance (ANOVA); which showed that girls and boys were coming from a similar SES ($F(1, 143) = 0.54, ns$). Multivariate Analysis of Variance (MANOVA) was further carried out to investigate sex differences in emotion regulation, mothers' parenting behaviors and temperament, separately.

MANOVA results showed a significant overall difference between boys and girls in terms of their general emotion regulation ability and delay of gratification (Wilks = .90, $F(2, 142) = 7.78$, $p < .01$, $\eta^2 = .10$). Girls scored higher on the composite emotion regulation scale score ($F(1, 143) = 15.59$, $p < .01$, $\eta^2 = .10$) than boys. However, delay of gratification scores of boys and girls were not significantly different. (Results of MANOVA for emotion regulation are presented in Table 4.3).

Table 4.3
Comparison of Girls and Boys on Emotion Regulation

Variable	Girls ($n = 66$)		Boys ($n = 79$)		df	F	p	η^2
	M	SD	M	SD				
Emotion Regulation					2	7.78	< .01	.10
Emotion regulation	.27	.76	.22	.73	1	15.59	< .001	.10
Delay of gratification	1.58	.63	1.46	.66	1	0.99	<i>ns</i>	.01

MANOVA results also showed that the overall difference between boys and girls in terms of parenting variables was not statistically significant (Wilks = .98, $F(2, 142) = 1.49$, *ns*). An examination of analysis for individual variables further revealed that boys and girls did not either significantly differ on responsiveness or power

assertion variables separately. The results of MANOVA for parenting variables can be seen in Table 4.4.

Table 4.4

Comparison of Girls and Boys on Parenting Variables

Variable	Girls ($n = 66$)		Boys ($n = 79$)		df	F	p	η^2
	M	SD	M	SD				
Parental Socialization					2	1.38	< .10	.06
Responsiveness	1.22	.36	1.28	.38	1	0.97	<i>ns</i>	.01
Power assertion	4.57	.39	4.67	.38	1	3.44	<i>ns</i>	.02

MANOVA results showed that there was a non-significant but notable overall sex difference for children's temperamental characteristics (Wilks = .95, $F(3, 141) = 2.56$, $p = .06$, $\eta^2 = .05$). When differences for specific temperamental characteristics were examined, it was found that girls scored higher on persistence dimension of temperament ($F(1, 143) = 5.31$, $p < .05$, $\eta^2 = .04$) but sex differences for the other two temperamental variables were non-significant. The results for this MANOVA analysis can be seen in Table 4.5.

Table 4.5

Comparison of Girls and Boys on Temperamental Characteristics

Variable	Girls (<i>n</i> = 66)		Boys (<i>n</i> = 79)		<i>df</i>	<i>F</i>	<i>p</i>	η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Temperament					3	3.51	< .10	.13
Reactivity	2.84	.81	3.03	.88	1	1.73	<i>ns</i>	.01
Approach	4.39	1.09	4.17	1.03	1	1.60	<i>ns</i>	.01
Persistence	4.28	.83	3.94	.94	1	5.31	< .05	.04

4.5 Regression Analyses

In order to investigate the role of parenting and temperament in emotion regulation (as a composite scale score) and delay of gratification, hierarchical multiple regression analysis was used. In Step 1, demographic variables (i.e. sex, SES) were entered into the equation in order to reveal the predictive power of parenting variables and temperament after controlling for differences in sex and SES. In Step 2, responsiveness and power assertion were entered into the equation. In Step 3, temperament dimensions (i.e. reactivity, approach and persistence) were introduced into the equation to examine whether child's temperament predicted emotion regulation over and above demographic variables and parenting.

Firstly, the regression analysis was used to predict emotion regulation as a composite scale score. In Step 1, sex of the child significantly predicted total emotion regulation ($R^2 = .12$, $F(2, 142) = 9.58$, $p < .001$), but SES did not significantly predict emotion regulation. In Step 2, when parenting variables were entered into the equation, there was a significant change in R^2 ($R^2 = .15$, $F(4, 140) = 6.29$, $p < .001$) and both sex of the child and responsiveness significantly predicted the outcome variable. In Step 3, temperament variables were added and it resulted in a significant change in R^2 ($R^2 = .24$, $F(7, 137) = 6.10$, $p < .001$). In the final equation, sex of child, reactivity and persistence contributed to the prediction of emotion regulation (Results for regression analysis can be seen in Table 4.6), meaning that girls, and less reactive and more persistent children displayed better emotion regulation. They were better at maintaining, eliciting or inhibiting appropriate negative or positive emotions in different situations.

Then, hierarchical multiple regression analysis was used to identify predictors of the delay of gratification score. In the step, sex of the child and SES of the family did not cause a significant increment in explained variance ($R^2 = .04$, $F(2, 142) = 3.02$, $p < .10$). However, SES individually predicted delay of gratification. In the second step, parenting variables did not significantly contribute to the prediction of delay of gratification ($R^2 = .05$, $F(4, 140) = 1.80$, ns). In the third step, temperament variables were added which resulted in a significant increase in R^2 ($R^2 = .13$, $F(10, 134) = 2.84$, $p < .05$) and delay of gratification was significantly predicted by approach and

Table 4.6

*Summary of Hierarchical Regression Analysis for the Total Sample (N = 145)
in which Emotion Regulation (ER) was Predicted from Parenting
and Temperament*

Outcome

ER	Predictors	Adjusted			
		<i>R</i>	<i>R</i> ²	<i>Beta</i>	β
Step 1	Sex			.32	.50***
	SES	.35	.11	.14	.14 ^a
Step 2	Sex			.14	.22***
	SES			.11	.11
	Responsiveness			.18	.20*
	Power Assertion	.39	.13	-.02	-.02
Step 3	Sex			.14	.22**
	SES			.12	.12
	Responsiveness			.11	.12
	Power Assertion			.07	.08
	Reactivity			-.22	-.20*
	Approach			.11	.08
	Persistence	.49	.20	.17	.14*

^a*p* < .10. **p* < .05. ***p* < .01. ****p* < .001.

persistence but these were low in strength. These findings suggested that children who were less approaching and more persistent did slightly better in inhibiting frustrations while waiting for a desired object. In total, demographic, parenting and temperament variables explained %13 of variance in delay of gratification. (The result of this regression analysis can be seen in Table 4.7).

Table 4.7

Summary of Hierarchical Regression Analysis for the Total Sample (N = 145) in which Delay of Gratification (DG) was Predicted from Parenting and Temperament

Outcome

DG	Predictors	Adjusted			
		R	R ²	Beta	β
Step 1	Sex			.09	.12
	SES	.20	.03	.19	.15*
Step 2	Sex			.09	.12
	SES			.16	.13 ^a
	Responsiveness			.03	.02
	Power Assertion	.22	.02	-.08	-.07
Step 3	Sex			.09	.11
	SES			.12	.10
	Responsiveness			.04	.04
	Power Assertion			-.08	-.09
	Reactivity			.10	.07
	Approach			-.19	-.12*
	Persistence	.36	.08	.19	.13*

^a $p < .10$. * $p < .05$.

Because similar socialization behaviors may cause varying effects on child outcomes depending on characteristics of the child, another main aim of the present study was also to examine the role of additive and multiplicative effects of parenting (i.e., responsiveness and power assertion) and temperament (i.e., reactivity, persistence, approach) in emotion regulation of preschool children, in addition to separate effects of these variables.

Since the interaction between all parenting behaviors (e.g., responsiveness and power assertion) and temperamental characteristics (e.g., reactivity, approach and persistence) might be important in predicting emotion regulation and delay of gratification, six interaction terms (e.g., responsiveness and reactivity, responsiveness and approach, responsiveness and persistence, power assertion and reactivity, power assertion and approach, power assertion and persistence) were computed from these variables. Interaction terms were calculated by multiplying one of the parenting variables and one of the temperamental characteristics. In the first step, demographic variables (e.g., sex of the child and SES) were introduced in the equation. In the second step, one of the parenting variables and one of the temperament variables which composed the interaction term were entered into the equation (e.g., power assertion and persistence). In the third step, the interaction terms, which were composed from these variables, were entered into the equation (e.g., interaction term for power assertion and persistence). These regression analyses were used to predict the emotion regulation and delay of gratification scores, separately.

Results of the hierarchical regression analyses showed that the interaction of responsiveness and approach significantly contributed to the prediction of emotion regulation. In this analysis, sex of the child and SES were found to significantly predict emotion regulation in the first step, with $R^2 = .12$ ($F = (2,142) = 9.60, p < .001$). However, when examined separately, only sex of the child significantly predicted emotion regulation. In the second step, when responsiveness and approach were entered

into the equation, emotion regulation was predicted by sex of the child and responsiveness but the strength of responsiveness was low ($R^2 = .17$, $F = (4, 140) = 7.20$, $p < .01$). In the third step, the interaction term for responsiveness and approach was entered into the equation which made a significant contribution to R^2 ($R^2 = .20$, $F = (5, 139) = 6.74$, $p < .001$). In this equation, sex of child, responsiveness and approach were the three variables which significantly predicted emotion regulation (see Table 4.8). No other interaction term significantly predicted emotion regulation and delay of gratification *over and above* demographic variables and individual variables of parenting and temperament.

In order to clarify the role of interaction between responsiveness and approach in emotion regulation, the result of this regression analysis was further examined. Three conditions of responsiveness and approach were defined in order to achieve this. In the present study, descriptive statistics showed that the mean value for the variable of responsiveness and its individual components was very high (see descriptive statistics in Table 4.2.1). For example, on a 5-point Likert scale, the minimum values were 3.40 for inductive reasoning, 3.50 for warmth and 3.04 for supportive maternal responses, and maximum values were 5 for inductive reasoning, warmth and supportive maternal responses. According to these high (maximum, minimum and mean) values, the three conditions of responsiveness were defined as medium, high and very high instead of low, medium and high. Even the lowest median value which constituted the 10th percentile was very high to be described as low. Therefore, the median value matching

with the 10th percentile was accepted as medium, and the median value matching with 50th percentile and 90th percentile were accepted as high and very high, respectively. Three levels of approach which were low, medium and high were identified by using medians. The median value that corresponded to the 10th percentile was taken as low, whereas the median value corresponding to the 50th and 90th percentiles were taken as medium and high levels of approach.

Table 4.8

Summary of Hierarchical Regression Analysis for the Total Sample (N = 145) in which Emotion Regulation (ER) was Predicted from Interactions of Responsiveness and Approach

Outcome

ER	Predictors	Adjusted		Beta	β
		R	R ²		
Step 1	Sex			.32	.50**
	SES	.35	.11	.14	.14 ^a
Step 2	Sex			.32	.50**
	SES			.13	.13
	Responsiveness			.17	.19*
	Approach	.41	.15	.14	.10 ^a
Step 3	Sex			.33	.52**
	SES			.11	.11
	Responsiveness			.78	.84*
	Approach			.12	.10
	Responsiveness X Approach	.44	.17	-.63	-.16*

^a $p < .10$. * $p < .05$. ** $p < .001$.

Therefore, in order to find the expected mean values for the emotion regulation variable, nine regression equations were computed for medium, high and very high conditions (1- medium responsiveness and low approach, 2- medium responsiveness and medium approach, 3- medium responsiveness and high approach, 4- high responsiveness and low approach, 5- high responsiveness and medium approach, 6- high responsiveness and high approach, 7- very high responsiveness and low approach, 8- very high responsiveness and medium approach, 9- very high responsiveness and high approach). The expected mean values for emotion regulation in terms of levels of responsiveness and approach are reported in Table 4.9 and Figure 1.

Table 4.9
Expected Mean Values for Emotion Regulation (N = 145)

Approach	Responsiveness		
	Medium	High	Very High
Low	-.66	-.34	-.48
Medium	-.21	-.18	-.16
High	.05	-.09	-.23

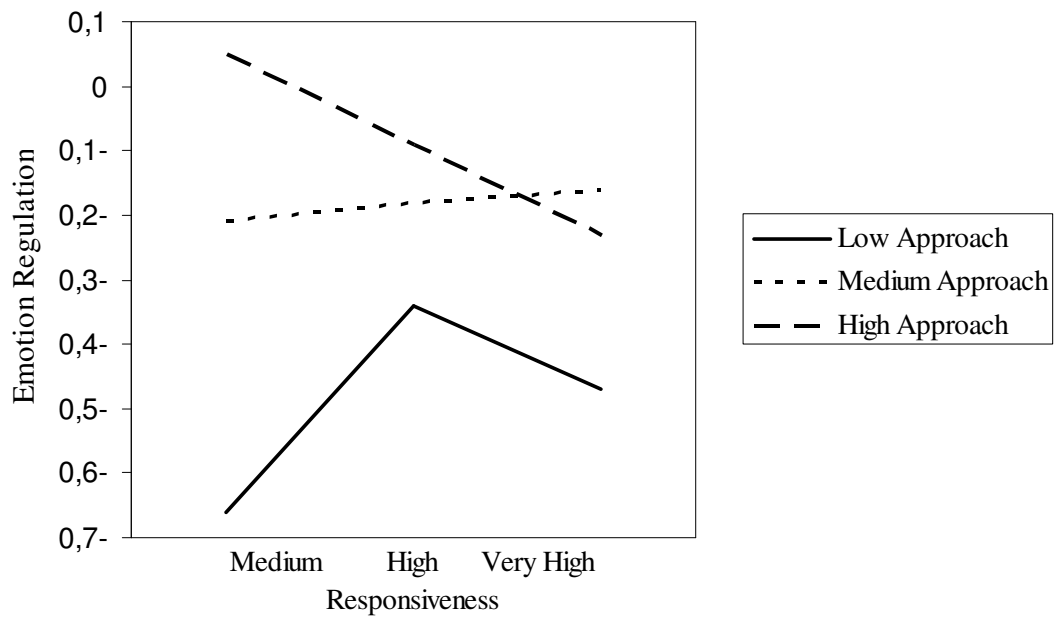


Figure 1. Levels of emotion regulation according to the levels of responsiveness and approach.

An examination of Table 4.9 and the line graph revealed that the highest levels of emotion regulation occurred when responsiveness was in the medium condition and approach was in the high condition. Thus, high approaching children whose mothers showed medium levels of responsiveness displayed the highest levels of emotion regulation. In the high approach condition, emotion regulation decreased as responsiveness increased from moderate to high and then to very high. It is that, high approaching children whose mothers used moderate levels of responsiveness showed higher levels of emotion regulation but this ability decreased when mothers of highly approaching children used higher levels of responsiveness. For children who were in the

medium–approach category, levels of responsiveness made a slight difference. In this case, emotion regulation displayed some increment when responsiveness increased. Children who were low approaching and receiving medium levels of responsive parenting showed the lowest levels of emotion regulation. Emotion regulation of these children increased significantly as parents tended to use high levels of responsiveness. However, for low approaching children, very high levels of responsiveness was not beneficial and led to a decrease in their emotion regulation ability. Overall, low approaching children displayed lowest levels of emotion regulation compared to children in other categories of the approach dimension of temperament. These findings are discussed in Section 2.3.

4.6 Conclusion

In this chapter, statistical analyses which investigated the relationships between maternal socialization, temperament and emotion regulation were reported. Firstly, preliminary analysis for the amount of missing values, distributions of all variables and descriptive statistics (means, standard deviations and minimum-maximum scores for each variable) were examined. Secondly, bivariate correlations were conducted to investigate possible relationships between predictor and outcome variables. In order to investigate the gender differences, MANOVA was used and it showed that girls had

better emotion regulation and were more persistent than boys. Finally, hierarchical regression analyses were performed to see the predictive power of parent socialization and temperament on emotion regulation over and above children's sex and socioeconomic background. These analyses showed that emotion regulation as a composite scale score was significantly predicted by positive parenting and reactivity. Moreover, delay of gratification which appeared to reflect a different aspect of regulation (i.e., behavior regulation), was significantly predicted by approach and persistence. Finally, the interaction of positive parenting and approach dimension of temperament also significantly predicted emotion regulation. Accordingly, high approaching children whose mothers used medium levels of responsiveness showed the highest level of emotion regulation. In the following section, (see Chapter 5) these findings are examined and discussed with respect to the hypotheses of the study and the extant literature.

CHAPTER 5

DISCUSSION

The main aim of the present study was to investigate the relations between parent socialization, temperament, emotion regulation (including delay of gratification ability) in Turkish preschool children. Another aim of the study was to examine the interactive effects of maternal socialization and temperament on emotion regulation. The literature reviewed earlier in this thesis (see Chapter 2) reveals the important role of emotion regulation in socio-emotional development of young children. However, there has been little research investigating the influences of parental socialization (i.e. maternal child-rearing behaviors and emotion socialization) (Blair et al., 2004; Fabes et al., 2001) and temperament (Eisenberg et al., 2000; Rubin et al., 2003) on emotion regulation together (Dennis, 2006; Havinghurst, 2003). It is important to understand these associations since such an understanding may help us think, which will be about ways to improve children's emotion regulation.

Briefly, results of the study displayed that maternal socialization (e.g., responsiveness and power assertion) and some of the temperamental variables were slightly but significantly linked to each other (i.e., responsiveness and reactivity; power assertion and reactivity; power assertion and persistence), and mother's responsiveness,

child's reactivity and persistence individually predicted emotion regulation. Although an approaching temperament did not predict children's ability to regulate emotions by itself, the interaction between responsiveness and approach significantly predicted emotion regulation. Findings of the present study further indicated that delay of gratification, which was initially thought as one of the aspects of emotion regulation, could actually be a different aspect of regulation. Delay of gratification displayed a very low positive correlation with emotion regulation scale score and was predicted by approach and persistence dimensions of temperament. In this chapter, these findings are examined with respect to hypotheses of the study and the literature. Then, the strengths and limitations of this study, and directions for further studies are discussed.

Based on previous findings, it was expected that mothers who displayed more responsive socialization practices (i.e., those who used more inductive reasoning and warmth, displayed more supportive responses such as problem-emotion focused responses and expressive encouragement) and lower levels of power assertive socialization behaviors (e.g., mothers who used less punishment, obedience demanding and who gave less nonsupportive responses such as minimization and punitive reactions to children's negative emotions) would have children who displayed better emotion regulation. (e.g., children who maintained, inhibited or elicited positive and negative emotions appropriately in different situations and inhibited frustrations while waiting for a desired object). In terms of temperament, it was predicted that children who were more persistent, more approaching and less reactive would elicit, maintain or inhibit

appropriate positive and negative emotions appropriately in different situations. It was further expected that more persistent, approaching and less reactive children would be better at inhibiting frustration while waiting for a desired object (i.e., delay of gratification ability).

The present study also aimed to examine the link between parent socialization and child temperament. Mothers of more persistent and approaching children were expected to use higher levels of responsiveness (used more induction, warmth and engaged in more supportive responses such as problem-emotion focused responses and expressive encouragement). Mothers of more reactive children were predicted to use higher levels of power assertion (used more punishment and obedience demanding behaviors and displayed more nonsupportive responses such as minimization and punitive reactions).

As mentioned earlier, the present study also aimed to examine the combined effects of maternal socialization and child temperament. With this aim, hierarchical regression analyses were performed and findings revealed that emotion regulation was predicted from mother's responsive behaviors, and child's reactivity and persistence after differences in SES and sex of child were already accounted for. Therefore, children whose mothers used more responsive behaviors were better in maintaining, eliciting or inhibiting appropriate negative or positive emotions in different situations while reactive children did not display better emotion regulation. These findings are

consistent with previous studies (Eisenberg & Fabes, 1994) which showed that children of mothers who displayed responsiveness (i.e., high levels of expressive encouragement and emotion focused behaviors), were more emotionally regulated than children of mothers who were not responsive (high levels of minimization and punitive responses) to their children. It has been suggested that positive maternal behaviors that involve positive guidance, encouragement and affection facilitate better emotion regulation, especially control of negative emotions (Calkins, Smith, Gill, & Johnson, 1998).

As expected, emotion regulation was also significantly predicted by reactivity and persistence dimensions of temperament. This finding indicated that Turkish children who were less reactive and those who were more persistent were better in emotion regulation. In the literature, it is suggested that preschoolers differ in their patterns of emotion regulation (Denham, 1998). Eisenberg et al. (1995) argued that this variation might be explained by a temperamental dimension, which is reactivity. Since reactive preschoolers with less positive moods in daily situations are more likely to cope with conflict through aggressive venting or acting out, reactivity is often associated with difficulties in emotion regulation. On the other hand, persistence which is the ability to attend and remain focused on tasks and is also an important factor affecting a child's social competence and development (Rothbart & Bates, 1998). It is possible that children who are low in persistence have difficulties in attending to cues in social environments which may further impede their emotion regulation skills.

The results also displayed that while approach did not predict emotion regulation individually, its interaction with responsiveness significantly predicted this ability; the highest level of emotion regulation appeared when approach was high and responsiveness was in medium levels. When approach was high, emotion regulation decreased as responsiveness of mothers increased. In other words, high approaching children whose mothers used moderate levels of responsiveness showed highest levels of emotion regulation but this ability decreased when mothers of highly approaching children displayed very high responsiveness. However, for children who were in the medium–approach category, levels of responsiveness made a slight difference. In this case, emotion regulation indicated only some increment when responsiveness increased. Children who were withdrawing and received medium levels of responsive parenting showed the lowest levels of emotion regulation. Emotion regulation of these children increased significantly as parents tended to display more responsiveness. However, unexpectedly, for withdrawing children, very high levels of responsiveness led to a decrease in their emotion regulation ability. Overall, these children who were low on approaching showed the lowest emotion regulation compared to children in other levels of the approach dimension of temperament.

In this study, it was shown that low approaching children exhibited lower levels of emotional regulation compared with their more sociable counterparts. In the literature, low approaching children has been defined as responding or behaving, possibly due to biological background, with anxiety, distress or wariness when

unfamiliar or challenging situations are encountered (Kagan, 1994). Therefore, it is plausible that these children experience difficulties in regulating their emotions appropriately in different situations. Researchers argue that withdrawn children reflect a negative socio-emotional nature. Since these children display submissive, timid and distressed behavioral patterns, they tend to be emotionally dysregulated such as getting upset easily and taking long to calm down (Rubin, Hastings, Stewart, Henderson, & Chen, 1997).

As mentioned above, withdrawing children whose mothers used very high levels of responsiveness (inductive reasoning and supportive responses) were found to have difficulties in regulating their emotions. It suggests that mothers' very high levels of responsive behaviors may not be beneficial for the emotional development of withdrawn children. Mothers might discourage the child's independent attempts in emotionally arousing situations and might be too responsive to let the child regulate his/her own emotions. For example, in the first day of pre-school, mothers perceiving their children as emotionally vulnerable may attempt to shield them from emotional upset by being affectionate and even take over situations of anxiety whether their children actually experience anxiety or not. Even if they believe that they are trying to protect their children, this over-responsiveness may lead to negative effects like dependency or lack of autonomy. Therefore, instead of regulating their emotions, low approaching children with over-responsive mothers, might be waiting for other's help,

support and encouragement in emotionally arousing situations. It may be speculated that very high levels of responsiveness may have similar aspects with intrusiveness and/or overprotectiveness. This argument has actually found voice in previous studies.

In the literature, very high levels of responsive maternal behaviors which involve encouragement of dependency, provision of help, restriction of children's autonomy and psychological control have been described as maternal overprotectiveness (Barber, Olsen, & Shagle, 1994; Mills & Rubin, 1998; Sim-doh & Falbo, 1999). For that reason, it might be suggested that very high levels of responsiveness show some similarities with overprotectiveness since both include excessive warmth and comforting behaviors. However, the highest levels of responsiveness, which negatively affected emotion regulation in the present study and maternal overprotectiveness are of course different concepts. While maternal overprotectiveness may include some plain power assertive behaviors such as psychological control, in the case of over-responsiveness these behaviors are not seen.

However, examining the literature findings on the relations between parental overprotectiveness and emotional competence in children may help us to explain support findings of the present study. For example, a study conducted by Rubin et al. (1997) showed that mothers' overprotectiveness maintained and exacerbated child's inhibition and social withdrawal. They found that inhibited preschool children whose mothers reported overprotective behaviors, including maternal direction and critical

behaviors, showed lower levels of emotion regulation. Similarly, in another study, Cheah, Rubin and Fox (2001) explored the influence of parenting and temperament on preschool children's socially appropriate behaviors and reported that children who displayed reticent behaviors expressed more dysregulated, inappropriate emotions (e.g., crying), and those children who displayed dysregulated emotions at age 4 showed nearly the same outcomes at age 7. Results of this study also indicated that maternal overprotectiveness makes a negative contribution to the child's ability to regulate emotions effectively; especially in the case that child is socially withdrawn. It might be speculated that overprotective mothers might do try to encourage their withdrawn children by manipulating their inhibited social behaviors in a highly directive way (Rubin, Burgess, Kennedy, & Steward, 2003). The case may, however, be somewhat different for over-responsive mothers who might be discouraging the child's independent attempts in emotionally arousing situations. However, both kinds of parental attempts do not obviously help children to develop socio-emotional abilities.

In this study, in addition to the emotion regulation total score, which was composed from mother and teacher reports, delay of gratification was examined as an aspect of emotion regulation. However, in the statistical analysis, delay of gratification was investigated separately, because this measure did not correlate with the aggregate score which was derived from mother and teacher ratings. Findings for delay of gratification indicated that this ability was significantly predicted by child's persistence. This result supported the hypothesis that persistent children would do better in the delay

of gratification task. Similar to our study, Eisenberg et al. (1997) found that more persistent children were more successful in coping with negative emotions like frustration. It is likely that the ability to regulate attention in the delay of gratification tasks helps children to control their impulses with ease. Researchers (Paterson & Sanson, 1999) suggest that preschool children's success of regulation in social situations is determined by their attentional focusing and shifting, that are indicators of a persistent temperament. Persistent children appear to be more likely to avoid acting on impulse and they display self-control even dealing with challenging situations.

It was initially predicted that there would be a positive relation between the approach dimension of temperament and delay of gratification. However, it was unexpectedly found that delay of gratification was not positively but negatively predicted by an approaching temperament. This finding showed that approaching children were less likely to control their impulses while waiting for a desired object, and more inhibited children were better in the delay gratification task because of controlling their impulses. Therefore, the result of the present study showed that social withdrawal should not necessarily be linked to emotion dysregulation. This finding is supported by Rubin et al. (1995) who claimed that preschool children that were low in social interaction were good behavioral regulators and their lack of social interaction did not have to be a disadvantage on their behavioral control.

Delay of gratification was initially considered as an aspect of emotion regulation since it was described as the ability to cope with negative emotions (inhibit frustrations while waiting for a desired object). However, according to the results of the study, approach dimension of temperament was positively linked with emotion regulation as rated by mothers and teachers, but negatively linked with the behaviorally assessed delay of gratification ability. This finding suggested that low approaching children were better in inhibiting frustrations behaviorally, but not in regulating their emotions. Eisenberg and Fabes (1992) argued that inhibited children have biological tendencies to experience negative emotion, especially internalizing negative affect (e.g., sadness, anxiety) in social situations and they have few opportunities to learn adaptive emotion regulation strategies. Some studies in the literature suggest that delay of gratification is basically related with the behavioral aspect of regulation (Grolnick et al., 1996; Putnam, Spritz, & Stifter, 2002; Sethi et al., 2000). Therefore, some researchers claim that an observation of children's behavior, while waiting for a desired object, provides valuable information about behavioral regulation abilities which is related to emotion regulation but constitute another aspect of self-regulation in children. These finding supported that emotion regulation and delay of gratification may have distinctive features, and the delay of gratification task may be assessing the behavioral aspects of regulation. It is, however, also true that different delay of gratification tasks may assess varying aspects of regulation. In the original delay of gratification task (Grolnick et al., 1996) many different behaviors of children, such as focusing on the desired object, active distraction, passive waiting, information gathering and physical comfort seeking were

observed. It may be that some behaviors such as focusing on desired object that take place during delay of gratification task are related more closely to the emotion regulation. Other behaviors that are observed while *waiting* for a desired object reflect behavioral self-control. In the original delay of gratification task (Grolnick et al., 1996; Havinghurst, 2003), children's behaviors during the task were recorded by video equipments and interpreted by detailed transcription processes. However, in the current study, since these requirements were beyond the limits both in terms of budget and time, only children's ability to the delay of gratification could be coded even if in the task where the children decided to wait or not, the regulation of emotions (e.g., frustration, excitement while waiting) were surely visible. And since only the outcome was assessed, it is likely that this measure provided information about children's behavioral regulation ability, not emotion regulation.

Findings of the present study also revealed that children who were from higher socio-economic status were better in inhibiting frustrations while waiting for a desired object. This result is consistent with the findings in the literature which suggested that lower levels of socio-economic-status is associated with difficulties in socio-emotional skills in children (Garner, Jones, & Miner, 1994; Lengua, 2002; McLoyd, 1998; Raver, Blackburn, Bancroft & Torp, 1999). For instance, Lengua (2002) claimed that lower socio-economic background involved cumulative risks for children's development such as mother's low education level and low family income, single-parent status, density in the home; psychosocial risks like negative life events, maternal depression and family

history of problems, and environmental risk factors (e.g., the quality of the neighborhood). These cumulative risks were found to be directly predictive of children's lower levels of competent behavioral regulation (i.e., facilitating or inhibiting effective social responses) (Lengua, 2002). It has also been reported that children whose parents are low educated and have low-income level have less opportunity to have a stimulating environment which is necessary for cognitive development. Additionally, because of disadvantaged conditions such as density in the home, single parent status or low socio-economic status, parents may not display responsive behaviors, they use more power assertion, and the quality of parent-child interactions may decrease. All these reasons would surely have negative effects on children's regulatory skills. In the present study, even if children who were from higher socio-economic background population were more successful in the delay of gratification task, it should still be considered that, the participants were from middle and high socio-economic-background, and the sample of the study did not include children from low socio-economic status.

Although it was not the main aim of the study, sex differences also appeared in the findings. Girls were better in maintaining or eliciting appropriate positive and negative responses than boys were in different situations, as assessed by mother and teacher reports. This finding is supported by Fujiki et al. (2002) who found that girls showed more emotion regulatory behaviors than boys. It is that these girls showed more empathic and socially appropriate emotional displays while boys showed lack of

flexibility and anger dysregulation in different situations. Denham et al. (2003) also claimed that preschool girls were more aware of their emotions, they controlled and express their emotions in more appropriate way than boys in emotionally difficult situations.

It is evident that gender differences in emotional responses may exist as early as preschool age (Chaplin, Cole, & Zahn-Waxler, 2005). One source of influence on such gender differences may be socialization pressures that orient girls and boys toward different roles in life (Chaplin et al., 2005). Theorists argue that males and females are socialized to adopt different cultural gender roles for emotion. One possibility is that parents socialize their children to express gender role-consistent emotions through practices of which they are consciously aware (Eisenberg et al., 1998; Parke & Buriel, 1998). For example, girls are more encouraged to restrain their negative emotions by their parents. Another source of influence on sex differences might be temperament. Kagan (1994) claimed that multiple factors may influence a child's emotion regulation including his/her temperamental characteristics. In the present study, we also found sex differences in terms of temperamental characteristics. Findings of the present study revealed that girls were more persistent than boys. Girls being more persistent may have a positive impact on their emotion regulation since persistency is positively associated with emotion regulation capacity (Eisenberg and Fabes, 1992). In brief, the difference between girls and boys in emotion regulation may be influenced by both social roles and temperament.

As mentioned above, the difference between temperamental characteristics of children in the present study, were in persistence dimension. In our study, girls were found to be more persistent than boys were. It is evident that sex-related temperamental differences are present in the preschool period (Prior, 1992). In the Australian Temperament Project (ATP), parallel to our study, researchers found that in children between the ages of 3 to 7 years old, girls tended to be more persistent than boys.

Besides these findings, it also needs to be discussed that this study has some strengths and limitations. One of the strengths of this study is the use of multiple methods and raters. Firstly, emotion regulation of children was assessed by both mother- and teacher-rated questionnaires. Behavioral assessment was also used to measure children's response to frustration while waiting for the desired object. In order to evaluate maternal socialization, both child-rearing behaviors and emotion socialization of mothers were examined. In the present study, in order to increase the comprehensiveness of emotion regulation and maternal socialization variables, composite scores were used. Firstly, mother-and teacher-rated emotion regulation were combined into one composite score which reflected total emotion regulation ability of children in the home and school contexts. Additionally, maternal child-rearing practices and emotion socialization are highly related to each other. Investigating only maternal child-rearing practices or only emotion socialization would not give enough information about the mother's behaviors, which are directly related to the emotion regulation of

children. Therefore, in the present study the overall effects of maternal socialization which involved responsiveness and power assertion were examined. This way, rather than examining the effects of parenting variables separately, the general pattern of mother's responsiveness and power assertion as including practices relevant to emotion regulation in children was investigated.

This study also has a number of limitations. First of all, since the analyses in the present study were based on correlational and regression analyses, attributions of causality cannot be made. Secondly, participants of the study were coming from middle-high and high socio economic backgrounds. This sample selection limits generalizability of the findings to a larger population. Further studies should be carried out with a more representative sample of Turkish preschool children for assessing emotion regulation.

Despite the limitations, the findings implicate some directions for future studies. Firstly, findings from the present study implied that children's behaviors during the delay of gratification tasks might be related to the emotional aspects of regulation such as frustration and excitement, while investigation of the outcomes in delay of gratification might be more related to behavioral aspects of regulation. Therefore, future studies should consider the measures of delay of gratification more as depicting behavioral aspects of regulation.

The results of the present study showed that emotion regulation decreased in low approaching children whose mothers used very high levels of responsiveness, which may include aspects of overprotective parenting. Therefore, findings of the current study may offer some suggestions for a training that improves mothers' skills in emotion coaching and child-rearing behaviors, that leads to changes in children's emotion regulation. Since mothers are usually the primary caregivers of children, emotion regulation studies by and large focus on the maternal effects. There are few studies investigating father's effects on the child's socio-emotional development. Future studies may also emphasize the role of fathers as well.

In sum, the present study serves as the first attempt to investigate the influence of maternal socialization and temperament on emotion regulation of Turkish preschool children. As mentioned earlier in this thesis, the investigation of emotion regulation of preschool children is very important since it is directly related to children's social functioning (e.g., socially appropriate behaviors, social competence). Understanding the factors that contribute to the emotion regulation ability of preschool children should also be considered in order to emphasize the early interventions which target to improve children's emotional and behavioral abilities. It is hoped that further studies shall try to increase the knowledge about emotion regulation in Turkish children and how children's emotion regulation is affected by parent socialization and child's temperamental characteristics and their interactions.

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APPENDICES**Appendix A****Copy of the Background Information Form****Genel Bilgi Formu****Çalışmaya Katılan Çocuk ile İlgili Sorular:**

1. Çocuğun adı ve soyadı: _____
2. Çocuğun doğum tarihi: Gün_____ Ay_____ Yıl_____.
3. Çocuğun cinsiyeti (lütfen işaretleyiniz): Erkek_____ Kız_____

4. Çocuk Bakımının Cinsi ve Her Hafta Orada Geçirdiği Saat Sayısı: (lütfen her seçeneği “evet” veya “hayır” şeklinde cevaplayınız ve “evet” diye yanıtladıklarınız için saat sayısını yazınız):

Çocuk Bakımının Cinsi	Evet / Hayır	Saat Sayısı (yanıtınız Evetse)
Anaokulu –kreş		
Akraba/ arkadaş/ bakıcı		

5. Aynı evde sizinle sürekli yaşayan diğer yetişkinleri lütfen sıralayınız:

6. Ailedeki diğer çocuklar (eğer aynı evde yaşıyorlarsa, her iki eşin de bütün çocuklarını lütfen yazınız).

Appendix A (Cont.)

Çocukla olan yakınlığı	Çocuğun cinsiyeti	Çocuğun doğum tarihi	Aynı evde yaşıyorlarsa işaretleyiniz

Çocuğun Babası ile İlgili Sorular:

1. Babasının doğum tarihi:Gün_____ Ay_____ Yıl_____.
2. Babanın mesleği: _____(işsiz ise, lütfen her zamanki mesleğini yazınız)
3. Babanın şu anki medeni hali (uygun olan seçeneğin altındaki rakamı daire içine alınız).

Evli	Ayrılmış veya boşanmış	Yeniden evlenmiş	Birlikte yaşıyor	Bekar	Dul
1	2	3	4	5	6

4. Babanın eğitimi (geldiği en yüksek düzey; lütfen birini işaretleyiniz.)

Liseyi tamamlamamış	1	
Liseyi tamamlamış	2	
Meslek okulunu tamamlamış	3	
Diploma veya sertifika programını tamamlamış	4	
Yüksek okula başlamış ama tamamlamamış	5	
Yüksek okulu tamamlamış (örnek: Lisans diploması)	6	
Daha yüksek bir derecesi var (Uzmanlık gibi)	7	

Appendix A (Cont.)

Çocuğun Annesi ile İlgili Sorular:

1. Annesinin doğum tarihi:Gün_____ Ay_____ Yıl_____.
2. Annenin mesleği: _____(işsiz ise, lütfen her zamanki mesleğini yazınız)
3. Annenin şu anki medeni hali (uygun olan seçeneğin altındaki rakamı daire içine alınız).

Evli	Ayrılmış veya boşanmış	Yeniden evlenmiş	Birlikte yaşıyor	Bekar	Dul
1	2	3	4	5	6

4. Annenin eğitimi (geldiği en yüksek düzey; lütfen birini işaretleyiniz.)

Liseyi tamamlamamış	1	
Liseyi tamamlamış	2	
Meslek okulunu tamamlamış	3	
Diploma veya sertifika programını tamamlamış	4	
Yüksek okula başlamış ama tamamlamamış	5	
Yüksek okulu tamamlamış (örnek: Lisans diploması)	6	
Daha yüksek bir derecesi var (Uzmanlık, Doktora vb.)	7	

5. Hane halkının toplam geliri (lütfen birini işaretleyiniz; cevaplamak isteğe bağlıdır).

Ayda 450 milyonun altında	1	
Ayda 450 - 750 milyon	2	
Ayda 750 - 1 milyar	3	
Ayda 1.5 milyar-2 milyar	4	
Ayda 2 milyar- 4 milyar	5	
Ayda 4 milyarın üzerinde	6	

Appendix B

Copy of Mother Form of the Emotion Regulation Checklist

Çocukların Duygularını Değerlendirme Ölçeği

Lütfen aşağıdaki cümleleri okuyun ve çocuğunuz için en uygun olan sayıyı daire içine alın. Cevaplarınızı çocuğunuzun son 6 ay içindeki davranışlarını göz önüne alarak veriniz.

	Nadiren/ Neredeyse Hiç	Bazen	Sık Sık	Her zaman
1) Neşeli bir çocuktur.	1	2	3	4
2) Duygu hali çok değişkendir. (çocuğun duygu durumunu tahmin etmek güçtür çünkü olumlu bir duygu halinden olumsuz bir duygu haline çabucak geçer).	1	2	3	4
3) Yetişkinlerin arkadaşça veya nötr yaklaşımlarına olumlu karşılık verir.	1	2	3	4
4) Bir faaliyetten diğerine kolaylıkla geçer; sinirlenmez, endişelenmez, sıkıntı duymaz ya da aşırı derecede heyecanlanmaz.	1	2	3	4

Appendix B (Cont.)

	Nadiren/ Neredeyse Hiç	Bazen	Sık Sık	Her zaman
5) Üzüntülü ya da sıkıntılı durumların çabucak üstesinden gelebilir (örneğin, duygusal sıkıntı yaratan olaylardan sonra surat asmaz, endişeli veya üzgün durmaz).	1	2	3	4
6) Kolayca hüsrana uğrar.	1	2	3	4
7) Yaşıtlarının arkadaşça veya nötr yaklaşımlarına olumlu karşılık verir.	1	2	3	4
8) Kolayca sinir krizi/öfke nöbeti geçirmeye eğilimlidir.	1	2	3	4
9) Hoşuna giden bir şeye ulaşmayı erteleyebilir (örneğin, kendini sırasını bekleyebilir).	1	2	3	4
10) Başkalarının sıkıntılarından keyif duyar (örneğin, başka biri incindiğinde ya da cezalandırıldığında güler; başkalarıyla alay etmekten zevk alır).	1	2	3	4

Appendix B (Cont.)

	Nadiren/ Neredeyse Hiç	Bazen	Sık Sık	Her zaman
11) Heyecanıyla başa çıkabilir (örneğin, çok hareketli oyunlarda kontrolü kaybetmez ya da uygun olmayan durumlarda aşırı heyecanlanmaz).	1	2	3	4
12) Mızımız ve yapışkandır.	1	2	3	4
13) Her an ortalığı karıştıran enerji patlamaları ve büyük heyecanlar yaşayabilir.	1	2	3	4
14) Yetişkinlerin sınır koymalarına sinirlenir.	1	2	3	4
15) Üzüldüğünü, kızdığını veya korktuğunu söyleyebilir.	1	2	3	4
16) Üzgün ve sıkıntılı görünür.	1	2	3	4
17) Başkalarını oyuna katmaya çalışırken aşırı enerjiktir.	1	2	3	4
18) Duygularını göstermez (yüzü ifadesizdir).	1	2	3	4

Appendix B (Cont.)

	Nadiren/ Neredeyse Hiç	Bazen	Sık Sık	Her zaman
19) Yaşıtlarının arkadaşça veya nötr yaklaşımlarına olumsuz karşılık verir (örneğin, kızgın bir ses tonuyla konuşabilir ya da korku gösterebilir).	1	2	3	4
20) Dürtülerine kapılarak davranır.	1	2	3	4
21) Başkalarıyla empati kurar (örneğin, başkaları üzgün ya da sıkıntılı olduğunda ilgi gösterir).	1	2	3	4
22) Başkalarının rahatsızlık verici bulacağı kadar enerjik ve heyecanlı davranır.	1	2	3	4
23) Yaşıtlarının düşmanca saldırgan veya müdahaleci davranışlarına karşı uygun olumsuz duyguları (kızgınlık, korku, öfke, sıkıntı) gösterir.	1	2	3	4
24) Başkalarını oyuna katmaya çalışırken olumsuz duygular gösterir.	1	2	3	4

Appendix C

Copy of the Coping with Negative Emotions Scale

Aile Tutum ve Davranış Ölçeği

Yönerge: Aşağıdaki her maddeyi sizin için ne kadar uygun olup olmadığına göre 1(çok uygun) den 5 (hiç uygun değil)’e kadar işaretleyiniz.

Lütfen her maddeyi dikkatlice okuyarak dürüstce ve içtenlikle cevaplayınız. Eğer çocuğunuzun daha önce böyle bir durumla karşılaşmadığını düşünüyorsanız, “böyle olsaydı ne yapardım” diye düşünerek yanıtlayınız. Her cevap için 1’ den 5’e kadar olan numaraları yuvarlak içine alınız.

1	2	3	4	5
Kesinlikle Böyle Yaparım	Büyük Olasılıkla Böyle Yaparım	Belki Böyle Yaparım	Nadiren Böyle Yaparım	Hiç Böyle Yapmam

1) Eğer çocuğum hastalandığı ya da yaralandığı için arkadaşının doğum günü partisine gidemez ve bundan dolayı öfkeli olursa, ben;

a) Çocuğumu sakinleşmesi için odasına gönderirim.	1	2	3	4	5
b) Çocuğuma kızarım.	1	2	3	4	5
c) Çocuğuma arkadaşları ile birlikte olabileceği başka yollar düşünmesi için yardımcı olurum. (Örn: bazı arkadaşlarını partiden sonra davet edebilir).	1	2	3	4	5
d) Çocuğuma partiyi kaçırmayı büyütmemesini söylerim.	1	2	3	4	5
e) Çocuğumu, öfkesini ve hayal kırıklığını ifade etmesi için teşvik ederim.	1	2	3	4	5
f) Çocuğumu yatıştırırım ve partiyi kaçırmayla ilgili onu daha iyi hissettirecek eğlenceli bir şeyler yaparım.	1	2	3	4	5

Appendix C (Cont.)

2) Eğer çocuğum bisikletinden düşer, onu kırar ve sonra da üzülür ve ağlarsa, ben;

a) Sakin kalırım ve endişelenmem.	1	2	3	4	5
b) Çocuğumu rahatlatır ve kaza ile ilgili şeyleri unutmasını sağlamaya çalışırım	1	2	3	4	5
c) Çocuğuma aşırı tepki gösterdiğini söylerim	1	2	3	4	5
d) Çocuğuma bisikletin nasıl tamir edileceğini anlaması için yardımcı olurum.	1	2	3	4	5
e) Çocuğuma eğer içinden ağlamak geliyorsa rahat rahat ağlamasını söylerim.	1	2	3	4	5
f) Çocuğuma ağlamayı bırakmasını yoksa bir süre için bisiklete binmesine izin verilmeyeceğini söylerim.	1	2	3	4	5

3) Eğer çocuğum çok değerli bir eşyasını kaybeder ve ağlarsa, ben;

a) Bu kadar dikkatsiz olduğu ve sonrada ağladığı için canım sıkılır.	1	2	3	4	5
b) Çocuğuma aşırı tepki gösterdiğini söylerim	1	2	3	4	5
c) Çocuğumun henüz bakmadığı yerleri düşünmesine yardımcı olurum.	1	2	3	4	5
d) Mutlu şeylerden bahsederek çocuğumun dikkatini başka yöne çekerim.	1	2	3	4	5
e) Ona mutsuz olduğunda ağlamasının normal olduğunu söylerim.	1	2	3	4	5
f) Dikkatli olunmadığı zaman böyle olduğunu söylerim.	1	2	3	4	5

Appendix C (Cont.)

- 4) Eğer çocuğum iğneden korkuyor ve iğne olma sırasını beklerken titriyor ve ağlıyorsa, ben;

a) Ona, kendine gelmesini yoksa yapmaktan hoşlandığı bir şeye izin verilmeyeceğini söylerim (TV seyretmek gibi).	1	2	3	4	5
b) Hissettiği bu duyguları hakkında konuşması için çocuğumu teşvik ederim.	1	2	3	4	5
c) Ona, iğne olmayı büyük bir mesele haline getirmemesini söylerim.	1	2	3	4	5
d) Ona ağlayarak bizi utandırmamasını söylerim.	1	2	3	4	5
e) İğneden önce ve sonra onu rahatlatırım.	1	2	3	4	5
f) Çocuğuma ne yaparsa iğnenin daha az acıtacağını anlatırım. (Örneğin, gevşer veya derin nefes alırsa daha az acıyacağı gibi)	1	2	3	4	5

- 5) Eğer çocuğum öğleden sonrayı bir arkadaşının evinde geçirecek ve ben orada onunla kalamayacağım için bu onu keyifsiz ve sinirli yapıyorsa, ben;

a) Arkadaşıyla nasıl eğleneceğinden bahsederek onun ilgisini başka yöne çekmeye çalışırım.	1	2	3	4	5
b) Çocuğumun bensiz korkmadan durabilmesi için yapabileceği bir şeyler düşünmesine yardımcı olurum. (Örneğin, en sevdiği kitabını yada oyuncağını yanında götürmesi gibi).	1	2	3	4	5
c) Çocuğuma aşırı tepki göstermeyi ve bebek gibi davranmayı bırakmasını söylerim.	1	2	3	4	5
d) Eğer durmazsa bundan sonra dışarı çıkmasına izin verilmeyeceğini söylerim.	1	2	3	4	5
e) Çocuğumun tepkileri yüzünden keyifsiz ve sıkıntılı olurum.	1	2	3	4	5
f) Hissettiği bu duyguları hakkında konuşması için çocuğumu teşvik ederim.	1	2	3	4	5

Appendix C (Cont.)

6) Eğer çocuğum arkadaşları ile bir grup aktivitesinde, bir hata yaptığı için çok utanmış ve ağlamak üzere görünüyorsa, ben;

a) Çocuğumu rahatlatır ve daha iyi hissetmesini sağlamaya çalışırım.	1	2	3	4	5
b) Çocuğuma aşırı tepki gösterdiğini söylerim.	1	2	3	4	5
c) Kendimi rahatsız ve utanmış hissederim.	1	2	3	4	5
d) Çocuğuma düzelmesini yoksa doğruca eve gideceğimizi söylerim.	1	2	3	4	5
e) Çocuğumu hissettiği bu duyguları hakkında konuşması için teşvik ederim.	1	2	3	4	5
f) Çocuğuma pratik yapması için yardımcı olacağımı böylece bir dahaki sefere daha iyisini yapacağını söylerim.	1	2	3	4	5

7) Eğer çocuğum bir konser ya da spor aktivitesinde görünecek ve bu onu sinirli yapıyorsa, ben;

a) Çocuğuma kendi sırası geldiğinde hazır olması için bir şeyler düşünmesi konusunda yardımcı olurum. (Örneğin, biraz ısınma yapmak ve seyirciye bakmamak gibi).	1	2	3	4	5
b) Sinirinin geçmesi için çocuğuma rahatlatıcı bir şeyler düşünmesini öneririm.	1	2	3	4	5
c) Sakin kalırım ve sinirlenmem.	1	2	3	4	5
d) Çocuğuma bu konuyla ilgili bebekçe davrandığımı söylerim.	1	2	3	4	5
e) Çocuğuma sakinleşmezse buradan ayrılacağımızı ve doğruca eve gideceğimizi söylerim.	1	2	3	4	5
f) Hissettiği bu duyguları hakkında konuşması için çocuğumu teşvik ederim.	1	2	3	4	5

Appendix C (Cont.)

8) Eğer çocuğum bir arkadaşından beğenmediği bir doğum günü hediyesi aldığı için hayal kırıklığına uğramış hatta darılmış görünüyorsa, ben;

a) Çocuğumu hissettiği hayal kırıklığını ifade etmesi için teşvik ederim.	1	2	3	4	5
b) Çocuğuma bu hediye onun istediği başka bir şeyle değiştirilebileceğini söylerim.	1	2	3	4	5
c) Kabalığı yüzünden çocuğuma darılmam.	1	2	3	4	5
d) Çocuğuma aşırı tepki gösterdiğini söylerim.	1	2	3	4	5
e) Çocuğumu, arkadaşının hislerine karşı duyarsız olduğu için azarlarım.	1	2	3	4	5
f) Eğlenceli şeyler yaparak, çocuğumun daha iyi hissetmesini sağlamaya çalışırım.	1	2	3	4	5

9) Eğer çocuğum televizyonda bir korku filmi seyrettikten sonra panik içinde ve uyku uyuyamıyorsa, ben;

a) Çocuğumu, onu korkutan şey konusunda konuşması için teşvik ederim.	1	2	3	4	5
b) Aptalca davrandığı için ona öfkelenirim	1	2	3	4	5
c) Çocuğuma aşırı tepki gösterdiğini söylerim.	1	2	3	4	5
d) Çocuğuma uyumasını sağlayacak bir şeyler yapmasını düşünmesi için yardımcı olurum.(Örneğin, yatağa bir oyuncak alması, ışığı açık bırakması gibi).	1	2	3	4	5
e) Ona yatağa gitmesini yoksa bundan sonra bir şey izlemesine izin verilmeyeceğini söylerim.	1	2	3	4	5
f) Çocuğumla eğlenceli bir şeyler yaparak korktuğu şeyi unutması için ona yardımcı olurum.	1	2	3	4	5

Appendix C (Cont.)

10) Eğer parktayken, diğer çocuklar oyunlarına katılmasına izin vermedikleri için çocuğum ağlamak üzere görünüyorsa, ben;

a) Keyfimi kaçırmam.	1	2	3	4	5
b) Çocuğuma, ağlamaya başlarsa doğruca eve gideceğimizi söylerim.	1	2	3	4	5
c) Çocuğuma, kendini kötü hissettiğinde ağlamasının normal olduğunu söylerim.	1	2	3	4	5
d) Çocuğumu rahatlatırım ve mutlu şeyler hakkında düşünmesini sağlamaya çalışırım.	1	2	3	4	5
e) Başka şeyler yapmayı düşünmesi için ona yardımcı olurum.	1	2	3	4	5
f) Çocuğuma kendini kısa zamanda daha iyi hissedeceğini söylerim.	1	2	3	4	5

11) Eğer çocuğum diğer çocuklarla oynarken, onlardan biri çocuğumla alay attığı için bir anda titremeye ve gözleri yaşarmaya başlarsa, ben;

a) Çocuğuma bunu büyütmemesi gerektiğini söylerim.	1	2	3	4	5
b) Keyfim kaçır.	1	2	3	4	5
c) Çocuğuma doğru davranmasını yoksa doğruca eve gideceğimizi söylerim.	1	2	3	4	5
d) Çocuğuma, diğer çocuklar onunla alay ederken, daha yapıcı bir şeyler yapmayı düşünmesi için yardım ederim.	1	2	3	4	5
e) Onu, oyun oynaması ve keyfini kaçıran şeyi unutması için rahatlatırım.	1	2	3	4	5
f) Alay edilmenin onu nasıl incittiği hakkında konuşması için onu teşvik ederim.	1	2	3	4	5

Appendix C (Cont.)

12) Eğer çocuğum etrafında yabancılar olduğunda devamlı olarak utanıyor ve korkuyorsa yada aile dostları ziyarete geldiği zaman, gözyaşları içinde yatak odasında oturmak istiyorsa, ben;

a) Çocuğuma, arkadaşlarımla buluştuğu zaman daha az korku duyması konusunda yapabileceği bir şeyler düşünmesi için yardımcı olmaya çalışırım.	1	2	3	4	5
b) Böyle hissetmesinin normal olduğunu söylerim.	1	2	3	4	5
c) Arkadaşlarımızla yaptığımız eğlenceli şeylerden konuşarak, onu mutlu etmeye çalışırım.	1	2	3	4	5
d) Çocuğumun tepkileri yüzünden kendimi sıkıntılı hisseder ve rahatsızlık duyarım.	1	2	3	4	5
e) Çocuğuma oturma odasında bizimle oturmak ve arkadaşlarımızla görüşmek zorunda olduğunu söylerim.	1	2	3	4	5
f) Çocuğuma bebek gibi davrandığını söylerim.	1	2	3	4	5

Appendix D

Copy of Child Rearing Questionnaire

ÇOCUK YETİŞTİRME ANKETİ

Aşağıdaki maddeler, çocuk yetiştirmeye ait bazı durumları anlatmaktadır. Lütfen her soruya, size ne kadar uygun olduğuna göre cevaplayınız. Örneğin, bir davranışı “çok seyrek” olarak yapıyorsanız veya öyle hissediyorsanız, 2’yi işaretleyiniz. Eğer her zaman yapıyorsanız, 5’i işaretleyiniz.

Doğru veya yanlış cevap yoktur. Amacımız, yalnızca anne ve babaların çocuk yetiştirme konusundaki düşüncelerini öğrenmek.

Vereceğiniz tüm bilgiler tamimiyle gizli tutulacaktır. Bu nedenle, lütfen olabildiğince dürüst ve doğru cevap veriniz.

	Hiçbir Zaman	Çok Seyrek	Bazen	Çoğu Zaman	Her Zaman
1. Çocuğumun kendisine söyleneni açıklamasız yapmasını beklerim	1	2	3	4	5
2. Tokat atmanın, çocuğumun daha iyi davranmasını sağlayacak iyi bir yol olduğunu düşünüyorum.	1	2	3	4	5
3. Çocuğum korkmuş ya da üzüntülü olduğu zaman, onu rahatlatır ve ona anlayışlı davranırım.	1	2	3	4	5

Appendix D (Cont.)

	Hiçbir Zaman	Çok Seyrek	Bazen	Çoğu Zaman	Her Zaman
4. Çocuğumun, cezalandırılma veya kısıtlanma konusunda duygularını ifade etmesine izin veririm.	1	2	3	4	5
5. Çocuğuma disiplin verirken, onu beş dakikalığına odaya gönderirim.	1	2	3	4	5
6. Çocuğuma sevgimi, onu kucaklayarak,öperek ve. sarılarak ifade ederim	1	2	3	4	5
7. Çocuğumun, anne ve babasına sorusuz itaat etmesini beklerim.	1	2	3	4	5
8. Çocuğumun davranışını kontrol etmek için ona tokat atar veya vururum.	1	2	3	4	5
9. Belirli bir neden olmaksızın, çocuğumu kucaklar veya sarılırım.	1	2	3	4	5
10. Çocuğuma, davranışlarının sonuçlarını açıklarım.	1	2	3	4	5
11. Çocuğum olmadan bir yerlere gitmeyi veya bir şeyler yapmayı tercih ederim.	1	2	3	4	5
12. Çocuğuma disiplin verirken, ona bağırırım.	1	2	3	4	5
13. Çocuğuma bazı şeylerin neden gerekli olduğunu açıklamaya çalışırım.	1	2	3	4	5

Appendix D (Cont.)

	Hiçbir Zaman	Çok Seyrek	Bazen	Çoğu Zaman	Her Zaman
14. Çocuğuma, onun beni ne kadar mutlu ettiğini söylerim.	1	2	3	4	5
15. Çocuğuma disiplin verirken, az açıklama yaparak veya hiç açıklama yapmadan, onu odasına gönderirim.	1	2	3	4	5
16. Çocuğumun, kendisine söyleneni tartışmasız yapmasını isterim.	1	2	3	4	5
17. Çocuğumla benim, sıcak ve çok yakın olduğumu anlar vardır.	1	2	3	4	5
18. Yanlış davrandığı zaman, çocuğuma tanıdığım ayrıcalıkları geri alırım.	1	2	3	4	5
19. Çocuğumu dinlemek ve onunla bir şeyler yapmaktan zevk alırım.	1	2	3	4	5
20. Çocuğuma, kurallara neden uyması gerektiğini açıklarım.	1	2	3	4	5
21. Canımı sıktığı zaman, kendimi ondan uzaklaştırırım.	1	2	3	4	5
22. Çok kötü davrandığında, çocuğuma fiziksel ceza veririm; örnek, tokat atarım.	1	2	3	4	5
23. Çocuğuma, neden cezalandırıldığını veya kısıtlandığını açıklarım.	1	2	3	4	5

Appendix D (Cont.)

	Hiçbir Zaman	Çok Seyrek	Bazen	Çoğu Zaman	Her Zaman
*24. Çocuğumu kucaklamayı ve öpmeyi severim.	1	2	3	4	5
25. Fiziksel cezalandırmanın, çocuğumu disipline sokmada en iyi yol olduğuna inanırım.	1	2	3	4	5
26. Çocuğuma, kuralların nedenini açıklarım.	1	2	3	4	5
27. Çocuğum mutlu olduğunda da, neşeli olduğunda da kendimi ona yakın hissederim.	1	2	3	4	5
28. Çocuğum itaatsiz davrandığı zaman, ona tokat atarım.	1	2	3	4	5
29. Çocuğum, yanlış davrandığı zaman, onunla mantıklı bir şekilde konuşur ve olayın üzerinden geçerim.	1	2	3	4	5
30. Çocuğumla şakalaşır ve oyun oynarım.	1	2	3	4	5

Note. indicates the item excluded due to low range*

Appendix E

Copy of the Short Temperament Scale for Children

COCUKLAR İÇİN KISA MİZAC ÖLÇEĞİ**HER SORU İÇİN, ÇOCUĞUN SON ZAMANLARDAKİ VE ŞİMDİKİ DAVRANIŞINI EN İYİ ANLATAN NUMARAYI LÜTFEN YUVARLAK İÇİNE ALINIZ.****SORULARDAN HİÇBİRİ ÇOCUĞA UYMUYORSA VEYA CEVAPLANAMAZSA, ÜZERİNİ ÇİZİNİZ:**

	Hemen Hiç	Sık Değil	Değişken, Genelde Olmaz	Değişken, Genelde Olur	Sık	Hemen Her Zaman
1. Çocuğum, yabancı yetişkinlere karşı utangaçtır.	1	2	3	4	5	6
2. Çocuğum bulmaca çözmek veya yap- boz (lego) gibi bir işe başladığı zaman, uzun zaman alsa bilebitirinceye kadar üzerinde çalışır.	1	2	3	4	5	6
3. Çocuğum her gün hemen hemen aynı zamanda kakasını yapar.	1	2	3	4	5	6
4. Çocuğum yeni çocuklarla ilk defa tanıştığında utangaçtır.	1	2	3	4	5	6
5. Çocuğum yeni bir işe geçmeden önceki işini tamamlamayı sever.	1	2	3	4	5	6
6. Çocuğum her gün, hemen hemen aynı zamanda bir şeyler atıştırmak ister.	1	2	3	4	5	6

Appendix E (Cont.)

	Hemen Hiç	Sık Değil	Değişken, Genelde Olmaz	Değişken, Genelde Olur	Sık	Hemen Her Zaman
7. Çocuğum bir işle uğraşırken, üzüldüğü ya da canı sıkıldığında, onu yere atar, ağlar, kapıları çarpar.	1	2	3	4	5	6
8. Alışveriş yaparken çocuğum oyuncak, ya da şeker gibi sevdiği bir şey istediğinde, onun yerine kolayca başka bir şeyi kabul eder.	1	2	3	4	5	6
9. Çocuğumu gece yatağa yatırdığımda, uykuya dalması aşağı yukarı aynı zamanı alır.	1	2	3	4	5	6
10. Çocuğum tamamladığı bir oyunu ya da aktiviteyi bırakmayı istemez.	1	2	3	4	5	6
11. Çocuğum saçının taranması gibi bir işe karşı çıkarsa, buna aylarca direnmeyi sürdürür.	1	2	3	4	5	6
12. Çocuğum bulmaca, yap-boz ve okuma gibi bir aktiviteyle uzun zaman uğraşır.	1	2	3	4	5	6
13. Parkta ya da ziyaretteyken, çocuğum yabancı çocukların yanın gider ve onların oyununa katılır.	1	2	3	4	5	6

Appendix E (Cont.)

	Hemen Hiç	Sık Değil	Değişken, Genelde Olmaz	Değişken, Genelde Olur	Sık	Hemen Her Zaman
14. Çocuğum, her gün farklı sürelerde uyur.	1	2	3	4	5	6
15. Çocuğum yabancı bir yetişkine karşı utangaçsa, bunun üstesinden yarım saat kadar bir sürede, hemen gelir.	1	2	3	4	5	6
16. Çocuğum bir şeye kızgınsa, bunu geçiştirmek zor olur.	1	2	3	4	5	6
17. Çocuğum, her gün farklı zamanlarda acıkır.	1	2	3	4	5	6
18. Bir okul gezisine gittiğimizde, çocuğum yeni ortamına hemencecik, evindeymiş gibi alışır.	1	2	3	4	5	6
19. Beraber alışveriş yaparken, çocuğumun istediğini almazsam (örnek: şeker, giysi gibi) ağlar ve bağırır.	1	2	3	4	5	6
20. Çocuğum üzüntülü ise, onu rahatlatmak zordur.	1	2	3	4	5	6
21. Yabancı yetişkinler evimizi ziyaret ettiğinde, çocuğum hemen dostca davranır ve onlara yaklaşır.	1	2	3	4	5	6

Appendix E (Cont.)

	Hemen Hiç	Sık Değil	Değişken, Genelde Olmaz	Değişken, Genelde Olur	Sık Sık	Hemen Her Zaman
22. Çocuğum, her gün aynı miktarda yemek yemek yerine, bir gün fazlasıyla, ertesi gün de çok az yemek yer.	1	2	3	4	5	6
23. Bir oyuncak ya da oyun zor geldiği zaman, çocuğum hemen başka bir aktiviteyle ilgilenir.	1	2	3	4	5	6
24. Sevdiği bir oyun ya da oynadığı çalışmadığı zaman, çocuğum belirgin şekilde üzülür.	1	2	3	4	5	6
25. Çocuğum bir kıyafeti giymek istemediğinde, bağırarak tartışır ya da ağlar.	1	2	3	4	5	6
26. Haftasonu ve tatillerde, çocuğum her sabah aynı saatte uyanır.	1	2	3	4	5	6
27. Çocuğum bir şeyi iyice öğreninceye kadar (bulmaca, yeni şarkı veya yazmak gibi), o işin üzerinde çalışır.	1	2	3	4	5	6

Appendix E (Cont.)

	Hemen Hiç	Sık Değil	Değişken, Genelde Olmaz	Değişken, Genelde Olur	Sık Sık	Hemen Her Zaman
28. Çocuğum, annesinin olmadığı yeni bir ortama (yuva, okul ya da müzik dersi gibi) ilk kez bırakıldığı zaman, üzülür.	1	2	3	4	5	6
29.Çocuğum bir şeyle oynamaya başladığında, bunu durdurmasını istersem, ilgisini başka bir şeye çevirmek zordur.	1	2	3	4	5	6
30. Çocuğum, kitap okumak ya da kitaplara bakmak ve el işi yapmak gibi sessiz aktivitelerle uğraşır.	1	2	3	4	5	6

Appendix F

Copy of Teacher Form of the Emotion Regulation Checklist

Çocukların Duygularını Değerlendirme Ölçeği

Lütfen aşağıdaki cümleleri okuyun ve çocuk için en uygun olan sayıyı daire içine alın. Cevaplarınızı çocuğun son 6 ay içindeki davranışlarını göz önüne alarak veriniz.

	Nadiren/ Neredeyse Hiç	Bazen	Sık Sık	Her zaman
1) Neşeli bir çocuktur.	1	2	3	4
2) Duygu hali çok değişkendir. (çocuğun duygu durumunu tahmin etmek güçtür çünkü olumlu bir duygu halinden olumsuz bir duygu haline çabucak geçer).	1	2	3	4
3) Yetişkinlerin arkadaşça veya nötr yaklaşımlarına olumlu karşılık verir.	1	2	3	4
4) Bir faaliyetten diğerine kolaylıkla geçer; sinirlenmez, endişelenmez, sıkıntı duymaz ya da aşırı derecede heyecanlanmaz.	1	2	3	4

Appendix F (Cont.)

	Nadiren/ Neredeyse Hiç	Bazen	Sık Sık	Her zaman
5) Üzüntülü ya da sıkıntılı durumların çabucak üstesinden gelebilir (örneğin, duygusal sıkıntı yaratan olaylardan sonra surat asmaz, endişeli veya üzgün durmaz).	1	2	3	4
6) Kolayca hüsrana uğrar.	1	2	3	4
7) Yaşıtlarının arkadaşça veya nötr yaklaşımlarına olumlu karşılık verir.	1	2	3	4
8) Kolayca sinir krizi/öfke nöbeti geçirmeye eğilimlidir.	1	2	3	4
9) Hoşuna giden bir şeye ulaşmayı erteleyebilir (örneğin, kendini sırasını bekleyebilir).	1	2	3	4
10) Başkalarının sıkıntılarından keyif duyar (örneğin, başka biri incindiğinde ya da cezalandırıldığında güler; başkalarıyla alay etmekten zevk alır).	1	2	3	4

Appendix F (Cont.)

	Nadiren/ Neredeyse Hiç	Bazen	Sık Sık	Her zaman
11) Heyecanıyla başa çıkabilir (örneğin, çok hareketli oyunlarda kontrolü kaybetmez ya da uygun olmayan durumlarda aşırı heyecanlanmaz).	1	2	3	4
12) Mızız ve yapışkandır.	1	2	3	4
13) Her an ortalığı karıştıran enerji patlamaları ve büyük heyecanlar yaşayabilir.	1	2	3	4
14) Yetişkinlerin sınır koymalarına sinirlenir.	1	2	3	4
15) Üzüldüğünü, kızdığını veya korktuğunu söyleyebilir.	1	2	3	4
16) Üzgün ve sıkıntılı görünür.	1	2	3	4
17) Başkalarını oyuna katmaya çalışırken aşırı enerjiktir.	1	2	3	4
18) Duygularını göstermez (yüzü ifadesizdir).	1	2	3	4

Appendix F (Cont.)

	Nadiren/ Neredeyse Hiç	Bazen	Sık Sık	Her zaman
19) Yaşıtlarının arkadaşça veya nötr yaklaşımlarına olumsuz karşılık verir (örneğin, kızgın bir ses tonuyla konuşabilir ya da korku gösterebilir).	1	2	3	4
20) Dürtülerine kapılarak davranır.	1	2	3	4
21) Başkalarıyla empati kurar (örneğin, başkaları üzgün ya da sıkıntılı olduğunda ilgi gösterir).	1	2	3	4
22) Başkalarının rahatsızlık verici bulacağı kadar enerjik ve heyecanlı davranır.	1	2	3	4
23) Yaşıtlarının düşmanca, saldırgan veya müdahaleci davranışlarına karşı uygun olumsuz duyguları (kızgınlık, korku, öfke, sıkıntı) gösterir.	1	2	3	4
24) Başkalarını oyuna katmaya çalışırken olumsuz duygular gösterir.	1	2	3	4

Appendix G

Copy of Letter for Directors

___ / ___ / 200__

Sayın Yönetici,

Okul öncesi dönemdeki çocukların duygusal gelişimini (ör., uyumlu sosyal davranışlar, empati, negatif ve tutarsız duygu ve davranışlar, arzu edilen bir nesnenin ertelenmesi karşısında verilen tepkileri) inceleyen bir proje yürütmekteyiz. "Annenin sosyalizasyonu ve çocuğun mizacı, duygusal gelişimi nasıl etkiliyor?", bu soruya cevap bulmayı amaçlıyoruz. Bu yaşlardaki duygu gelişimi ve kontrolü, çocukların akademik hayattaki başarıları ve ilerideki sosyal hayat becerileriyle çok yakından ilişkilidir. Mevcut çalışma da, bu amaçla Türkiye’de yürütülen en belli başlı çalışmalardan biridir.

Araştırmanın ilk aşamasında annelere araştırmanın amacı hakkında bir mektup yollanacak ve araştırmaya katılıp katılmayacaklarına dair bir cevap kağıdı doldurmaları istenecektir. Araştırmada yer almak isteyen annelere, çocukların duygusal becerilerini saptamak amacıyla yurt dışında geliştirilmiş ve Türkçe’ye uyarlanmış değerlendirmeleri içeren bir kitapçık kullanılacaktır. Bu kitapçık duygusal kontrolü içeren bir, annenin çocuk yetiştirme ve tutum davranışlarını ölçen iki ve çocuğun mizacını ölçen dört formdan ibarettir. Çocuk ve aile ortamıyla ilgili genel soruları içeren bir bilgi formu da bu değerlendirmeler ile birlikte size verilecektir. Duygusal kontrol becerilerinin sınıfta ne kadar gösterildiğini anlamak amacıyla duygusal kontrolü ve çocuğun mizacını ölçen formlar çocuğun sınıf öğretmeni tarafından da cevaplandırılacaktır.

Appendix G (Cont.)

Bunun yanında, araştırmacımız (Psk. Özge Altan) yuva programını aksatmayacak, sizin belirlediğiniz uygun bir zamanda çocuğu görece ve çocuğun, arzu edilen bir nesneyi bekleyebilme davranışını kısa bir aktiviteyle değerlendirecektir. Bu aktivitede, çocuk üzerinde bir zil ve üç adet bonibon çikolatası bulunan bir masada oturacaktır. Araştırmacı, bir süre için odadan ayrılacağını ve geri gelene kadar çikolataları yemeden beklerse çocuğa iki bonibon vereceğini, bekleyemezse zili çalmasını, bu durumda bir bonibon verileceği söyleyecektir. Bu açıklama çocuk tarafından iyice anlaşıldıktan sonra araştırmacı odadan ayrılacak, beş dakika ya da çocuk zili çaldıktan sonra odaya geri dönecektir. Bu aktivitelerin hepsi, toplam 5-10 dakika sürecektir. Çocukların büyük çoğunluğu, bu gibi aktivitelerde bulunmaktan zevk almaktadır. Bu aktivite basit görünmekle birlikte, okul öncesi dönemde gelişmesi beklenen temel becerilerden duygu ve davranış kontrolünü ölçmektedir.

Çalışmamızda yer alacak olan çocukları sağlamada, yuvanızdan yardım alabilirsek size müteşekkire kalacağız. Sizden ricamız, ekte yollamış olduğumuz 'Veli Mektubu'nu 4-5 yaş grubundaki çocukların annelerine ve öğretmenlerine ulaştırmanız şeklinde olacaktır. Bundan sonraki aşamada, araştırmaya katılmayı kabul eden velilere ve bu çocukların öğretmenlerine ulaştırılmak üzere değerlendirme kitapçıklarını yollayacağız. Bu önemli çalışmaya vereceğiniz destek bizim için çok değerlidir.

Bize yardımcı olup olmayacağınızı bildirmek için, lütfen ekteki bölümü doldurunuz ve bu mektupla birlikte gönderilmiş olan zarfa koyarak veya faks ile bize geri yollayınız. Bundan sonraki düzenlemeler için daha sonra sizinle temasa geçeceğiz. Çalışmanın herhangi bir bölümüyle ilgili olarak sorularınız olursa, lütfen bizimle irtibat kurmaktan çekinmeyiniz. Telefon numaralarımız aşağıda verilmiştir. Bu önemli çalışmadaki yardımlarınız ve katkılarınız için şimdiden teşekkürlerimizi sunarız.

Appendix G (Cont.)

Saygılarımızla,

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CEVAP KAĞIDI

Çocukların duygu kontrolü ile ilgili olan bu çalışmaya katılmak

☐

istiyorum

istemiyorum

☐

Yuvanın ismi: _____

Adres: _____

Telefon numarası: _____

Faks numarası: _____

Yuvadaki 4-5 yaş grubu çocuk sayısı: _____

Yöneticinin ismi: _____

İmza: _____

Tarih: _____

Bu kağıdı doldurarak en kısa zamanda lütfen bize ulaştırınız.

Teşekkür ederiz!

Appendix H

Copy of Letter for Parents

___ / ___ / 2004

Sayın Veli,

Okul öncesi dönemdeki çocukların duygusal gelişimini (ör., uyumlu sosyal davranışlar, empati, negatif ve tutarsız duygu ve davranışlar, arzu edilen bir nesnenin ertelenmesi karşısında verilen tepkileri) inceleyen bir proje yürütmekteyiz. "Annenin sosyalizasyonu ve çocuğun mizacı, duygusal gelişimi nasıl etkiliyor?", bu soruya cevap bulmayı amaçlıyoruz. Bu yaşlardaki duygu gelişimi ve kontrolü, çocukların akademik hayattaki başarıları ve ilerideki sosyal hayat becerileriyle çok yakından ilişkilidir. Mevcut çalışma da, bu amaçla Türkiye'de yürütülen en belli başlı çalışmalardan biridir.

Bu mektubu, sizden bu önemli çalışmaya katılmanızı rica etmek için yazıyoruz, ve mektuba ek olarak, çalışmamıza katılmayı kabul edip etmediğinizi belirtebileceğiniz kısa bir cevap formu yolluyoruz.

Bu çalışmada 4-5 yaş grubundaki çocuklar, anneleri ve yuvadaki öğretmenleri yer alacaktır. Bu çalışmaya katılmayı kabul ederseniz, sizden bazı anketleri cevaplamanızı isteyeceğiz. Araştırmamızda çocukların çeşitli duygu durumları ile ilgili davranışları, çocuğunuzun mizacı ve sizin çocuğunuzun duygu durumlarına ilişkin tutumlarınızla ilgili, yurt dışında geliştirilmiş ve Türkçe'ye uyarlanmış değerlendirmeleri içeren bir kitapçık kullanılacaktır. Bu kitapçık duygusal kontrolü içeren bir, annenin çocuk yetiştirme ve tutum davranışlarını ölçen iki ve çocuğun mizacını ölçen dört formdan ibarettir. Çocuk ve aile ortamıyla ilgili genel soruları içeren bir bilgi formu da bu değerlendirmeler ile birlikte size verilecektir. Duygusal kontrol becerilerinin sınıfta ne kadar gösterildiğini anlamak amacıyla aynı formlar çocuğunuzun sınıf öğretmeni tarafından da cevaplandırılacaktır.

Appendix H (Cont.)

Bunun yanında, araştırmacımız (Psk. Özge Altan) yuva programını aksatmayacak, sizin belirlediğiniz uygun bir zamanda çocuğunuzu görecektir ve çocuğun, arzu edilen bir nesneyi bekleyebilme davranışını kısa bir aktiviteyle değerlendirecektir. Bu aktivitede, çocuk üzerinde bir zil ve üç adet bonibon çikolatası bulunan bir masada oturacaktır. Araştırmacı, bir süre için odadan ayrılacağını ve geri gelene kadar çikolataları yemeden beklerse çocuğa iki bonibon vereceğini, bekleyemezse zili çalmasını, bu durumda bir bonibon verileceği söyleyecektir. Bu açıklama çocuk tarafından iyice anlaşıldıktan sonra araştırmacı odadan ayrılacak, beş dakika ya da çocuk zili çaldıktan sonra odaya geri dönecektir. Bu aktivitelerin hepsi, toplam 5-10 dakika sürecektir. Çocukların büyük çoğunluğu, bu gibi aktivitelerde bulunmaktan zevk almaktadır. Bu aktivite basit görünmekle birlikte, okul öncesi dönemde gelişmesi beklenen temel becerilerden duygu ve davranış kontrolünü ölçmektedir.

Araştırmadan elde edilen bilgiler kesinlikle gizli tutulacak ve sadece bu araştırma çerçevesinde kullanılacaktır. İstedığınız zaman projeden ayrılabilir ve önceden verdiğiniz bilgiyi geri alabilirsiniz. Araştırma bittiğinde, özel bir durumun tespit edilmesi dışında, size annenin çocuk yetiştirme ve tutum davranışları ile çocuğun mizacının, çocuğun duygusal gelişimini nasıl etkileyeceği konusunda bulgular ile ilgili bilgi verilecektir. Bu araştırma geniş çapta yürütüldüğü için bulguların 2005 yılı bahar döneminde raporlanması planlanmaktadır.

Bu önemli çalışmada bize yardımcı olmak isterseniz, lütfen ekteki "İzin Formu"nu doldurunuz ve çocuğunuzun kreşine geri veriniz. Çalışmaya katılmak istemiyorsanız, lütfen İzin Formunu doldurmadan çocuğunuzun yuvadaki öğretmenine ulaştırınız.

Appendix H (Cont.)

Okul öncesi dönemdeki çocukların duygusal gelişimi üzerine yürüttüğümüz bu önemli çalışmaya katılarak vereceğiniz destek bizim için çok değerlidir. İlginiz için simdiden teşekkür ederiz. Saygılarımızla,

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Appendix H (Cont.)

VELİ KATILIM FORMU

Proje başlığı: Okul Öncesi Dönemdeki Çocuklarda Duygu Kontrolünün Gelişimi, Çocuk Mizacının ve Annenin Sosyalleşmesinin Rolü.

Araştırmacı ismi: Psk. Özge Altan

Detayları açıklanmış olan yukarıdaki projeye katılmayı

Kabul ediyorum

☐

Kabul etmiyorum

☐

Velinin ismi: _____

İmzası: _____

Adres: _____

Telefon Numarası: _____

Tarih: _____

LÜTFEN FORMU ÇOCUNUZUN KREŞİNE GERİ VERİNİZ.
Teşekkür Ederiz!!

Appendix I

Table I.1

Percentage of Parents in Each Marital Status

Marital status	Mother (n = 144)	Father (n = 144)
(1) Married	91.0	92.4
(2) Seperated or divorced	6.2	6.3
(3) Remarried	0.7	-
(4) Defacto	0.7	0.7
(5) Single	0.7	0.7
(6) Widowed	0.7	-

Note. Dashes indicate no cases for the group on that variable

Appendix I (Cont.)

Table I.2

Percentage of Parents in Each Education Level and Occupation Category

	Mother (n = 144)	Father (n = 144)
Education Level		
(1) Not completed	3.5	8.3
(2) Completed high school	10.3	7.6
(3) Completed trade school	2.8	2.1
(4) Completed a diploma or certificate	2.8	0.7
(5) Started but not completed tertiary	11.7	9.0
(6) Completed tertiary	50.3	45.1
(7) Completed a higher degree	17.9	27.1
Occupation category		
	Mother (n = 144)	Father (n = 144)
(1) Top status, leaders of institutions	22.4	49.0
(2) Established profession	29.4	26.0
(3) Managers in big organizations	21.7	11.2
(4) Skilled people	7.0	9.8
(5) Less expertise and training	19.6	3.5
(6) Least prestigious	-	-

Note. Dashes indicate no cases for the group on that variable

Appendix I (Cont.)

Table I.3

Percentage of Income Distributions (N = 145)

Household Income Level

Below 450 YTL	-
450-750 YTL	%8
750-1000 YTL	%16
1500-2000 YTL	%14
2000-4000 YTL	%25
Above 4000 YTL	%45
Missing	%13

Note. Dashes indicate no cases for the group on that variable

Appendix J

*Results of Factor Analysis of Coping with Negative Emotions Scale for the Total Sample (N = 145). Subscales were compiled from items in **bold**.*

		Factors	
		1	2
Factor 1-Supportive Maternal Responses			
12a	Çocuğuma, arkadaşlarımla buluştuğu zaman daha az korku duyması konusunda yapabileceği bir şeyler düşünmesi için yardımcı olmaya çalışırım	.61	
4e	İğneden önce ve sonra onu rahatlatırım	.59	
5b	Çocuğumun bensiz korkmadan durabilmesi için yapabileceği birşeyler düşünmesine yardımcı olurum	.59	
6e	Çocuğumu hissettiği bu duyguları hakkında konuşması için teşvik ederim.	.58	
10e	Başka şeyler yapmayı düşünmesi için ona yardımcı olurum	.57	
10d	Çocuğumu rahatlatırım ve mutlu şeyler hakkında düşünmesini sağlamaya çalışırım	.57	
7b	Sinirinin geçmesi için çocuğuma rahatlatıcı bir şeyler düşünmesini öneririm	.56	
9f	Çocuğumla eğlenceli bir şeyler yaparak korktuğu şeyi unutması için ona yardımcı olurum	.54	
7a	Çocuğuma kendi sırası geldiğinde hazır olması için bir şeyler düşünmesi konusunda yardımcı olurum (Örneğin, biraz ısınma yapmak ve seyirciye bakmamak gibi)	.54	
7f	Hissettiği bu duyguları hakkında konuşması için çocuğumu teşvik ederim	.53	
12c	Arkadaşlarımızla yaptığımız eğlenceli şeylerden konuşarak, onu mutlu etmeye çalışırım	.53	

Appendix J (Cont.)

		Factors	
		1	2
11e	Onu, oyun oynaması ve keyfini kaçıran şeyi unutması için rahatlatırım	.52	
6f	Çocuğumun, cezalandırılma veya kısıtlanma konusunda duygularını ifade etmesine izin veririm	.49	
5a	Arkadaşlarıyla nasıl eğleneceğinden bahsederek onun ilgisini başka yöne çekmeye çalışırım	.47	
9a	Çocuğumu, onu korkutan şey konusunda konuşması için teşvik ederim	.46	
5f	Hissettiği bu duyguları hakkında konuşması için çocuğumu teşvik ederim	.41	
11f	Alay edilmenin onu nasıl incittiği hakkında konuşması için onu teşvik ederim	.40	
9d	Çocuğuma uyumasını sağlayacak bir şeyler yapmasını düşünmesi için yardımcı olurum.(Örneğin, yatağa bir oyuncak alması, ışığı açık bırakması gibi)	.40	
1f	Çocuğumu yatıştırırım ve partiyi kaçırmayla ilgili onu daha iyi hissettirecek bir şeyler yaparım	.38	
3d	Mutlu şeylerden bahsederek çocuğumun dikkatini başka yöne çekerim	.38	
4b	Hissettiği bu duyguları hakkında konuşması için çocuğumu teşvik ederim	.37	
2b	Çocuğumu rahatlatır ve kaza ile ilgili şeyleri unutmasını sağlamaya çalışırım.	.35	
6a	Çocuğumu rahatlatır ve daha iyi hissetmesini sağlamaya çalışırım	.35	
8f	Eğlenceli şeyler yaparak, çocuğumun daha iyi hissetmesini sağlamaya çalışırım	.35	

Appendix J (Cont.)

		Factors	
		1	2
2e	Çocuğuma eğer içinden ağlamak geliyorsa rahat rahat ağlamasını söylerim	.34	
4f	Çocuğuma ne yaparsa iğnenin daha az acıtacağını anlatırım (örneğin, gevşer veya derin nefes alırsa daha az acıtacağı gibi)	.30	
10c	Çocuğuma, kendini kötü hissettiğinde ağlamasının normal olduğunu söylerim	.29	
3e	Ona mutsuz olduğunda ağlamasının normal olduğunu söylerim	.27	
1c	Çocuğuma arkadaşları ile birlikte olabileceği başka yollar düşünmesi için yardımcı olurum. (Örn: bazı arkadaşlarını partiden sonra davet edebilir)	.27	
3c	Çocuğumun henüz bakmadığı yerleri düşünmesine yardımcı olurum	.25	
1e	Çocuğumu öfkesini ve hayal kırıklığını ifade etmesi için teşvik ederim.	.24	
8a	Çocuğumu hissettiği hayal kırıklığını ifade etmesi için teşvik ederim.	.23	
2d	Çocuğuma bisikletin nasıl tamir edileceğini anlaması için yardımcı olurum	.23	
12b	Böyle hissetmesinin normal olduğunu söylerim	.22	
11d	Çocuğuma, diğer çocuklar onunla alay ederken, daha yapıcı bir şeyler yapmayı düşünmesi için yardım ederim	.20	
11e	Onu oyun oynaması ve keyfini kaçıran şeyi unutması için rahatlatırım	.18	
Eigenvalue		7.18	
Percentage of explained variance		12.17	
Scale Reliability		.84	

Appendix J (Cont.)

		Factors	
		1	2
Factor 2- Nonsupportive Maternal Responses			
2c	Çocuğuma aşırı tepki gösterdiğini söylerim		.61
6b	Çocuğuma aşırı tepki gösterdiğini söylerim		.60
9c	Çocuğuma aşırı tepki gösterdiğini söylerim		.60
7d	Çocuğuma bu konuyla ilgili bebekçe davrandığımı söylerim		.59
10b	Çocuğuma, ağlamaya başlarsa doğruca eve gideceğimizi söylerim		.58
4c	Ona, iğne olmayı büyük bir mesele haline getirmemesini söylerim		.57
11a	Çocuğuma bunu büyütmemesi gerektiğini söylerim		.56
1d	Çocuğuma partiyi kaçırmayı büyütmemesini söylerim		.56
6d	Çocuğuma düzelmesini yoksa doğruca eve gideceğimizi söylerim		.56
9e	Ona yatağa gitmesini yoksa bundan sonra birşey izlemesine izin verilmeyeceğini söylerim		.55
12f	Çocuğuma bebek gibi davrandığımı söylerim		.54
8d	Çocuğuma aşırı tepki gösterdiğini söylerim		.53
5d	Eğer durmazsa bundan sonra dışarı çıkmasına izin verilmeyeceğini söylerim		.52
5c	Çocuğuma aşırı tepki göstermeyi ve bebek gibi davranmayı bırakmasını söylerim		.51
3b	Çocuğuma aşırı tepki gösterdiğini söylerim		.50
7e	Çocuğuma sakinleşmezse buradan ayrılacağımızı ve doğruca eve gideceğimizi söylerim		.49

Appendix J (Cont.)

		Factors	
		1	2
12e	Çocuğuma oturma odasında bizimle oturmak ve arkadaşlarımızla görüşmek zorunda olduğunu söylerim.		.47
11c	Çocuğuma bunu büyütmemesi gerektiğini söylerim.		.47
2f	Çocuğuma ağlamaya bırakmasını yoksa bir süre için bisiklete binmesine izin verilmeyeceğini söylerim		.46
1b	Çocuğuma kızarım. doğruca eve gideceğimizi söylerim.		.32
8e	Çocuğumu, arkadaşının hislerine karşı		.34
1a	Çocuğumu sakinleşmesi için odasına gönderirim.		.33
4a	Ona kendine gelmesini yoksa yapmaktan hoşlandığı birşeye izin verilmeyeceğini söylerim.	-.33	.49
8b	Çocuğuma bu hediyenin onun istediği başka bir şeyle değiştirilebileceğini söylerim.		.19
3f	Dikkatli olunmadığı zaman böyle olduğunu söylerim.		.18
10f	Çocuğuma kendini kısa zamanda daha iyi hissedeceğini söylerim.		.12
Eigenvalue		6.96	
Percentage of explained variance		11.81	
Scale Reliability		.87	

Appendix K

*Results of Final Factor Analysis of Child Rearing Questionnaire for the Total Sample (N = 145). Subscales were compiled from items in **bold**.*

	Factors			
	1	2	3	4
<u>Factor 1 - Inductive Reasoning</u>				
26 Çocuğuma kuralların nedenini açıklarım	.78			
10 Çocuğuma, davranışlarının sonuçlarını açıklarım.	.71			
23 Çocuğuma, neden cezalandırıldığını ve kısıtlandığını açıklarım	.68			
13 Çocuğuma bazı şeylerin neden gerekli olduğunu açıklamaya çalışırım.	.63			
20 Çocuğuma, kurallara neden uyması gerektiğini açıklarım	.60			
29 Çocuğum, yanlış davrandığı zaman, onunla mantıklı bir şekilde konuşur ve olayın üzerinden geçerim	.39	.36		
18 Yanlış davrandığı zaman, çocuğuma tanıdığım ayrıcalıkları geri alırım		.49		
4 Çocuğumun, cezalandırılma veya kısıtlanma konusunda duygularını ifade etmesine izin veririm				.37
Eigenvalue	3.4			
Percentage of explained variance	11.8			
Scale Reliability	.79			

Appendix K (Cont.)

	Factors			
	1	2	3	4
<u>Factor 2- Punishment</u>				
22 Çok kötü davrandığında, çocuğuma fiziksel ceza veririm; örnek, tokat atarım.		.80		
8 Çocuğumun davranışını kontrol etmek için ona tokat atar veya vururum.		.73		
2 Tokat atmanın, çocuğumun daha iyi davranmasını sağlayacak iyi bir yol olduğunu düşünüyorum.		.51		
28 Çocuğum itaatsiz davrandığı zaman, ona tokat atarım.		.43		
25 Fiziksel cezalandırmanın, çocuğumu disipline sokmada en iyi yol olduğuna inanırım.		.34		
Eigenvalue	3.2			
Percentage of explained variance	11.1			
Scale Relability	.72			
<u>Factor 3-Obedience Demanding</u>				
7 Çocuğumun, anne ve babasına sorusuz itaat etmesini beklerim			.83	
16 Çocuğumun, kendisine söyleneni tartışmasız yapmasını isterim			.79	
1 Çocuğumun kendisine söyleneni açıklamasız yapmasını beklerim.			.72	

Appendix K (Cont.)

	Factors			
	1	2	3	4
15 Çocuğuma disiplin verirken, az açıklama yaparak veya hiç açıklama yapmadan, onu odasına gönderirim.		.35	.60	
5 Çocuğuma disiplin verirken, onu beş dakikalığına odaya gönderirim.	.30		.55	
12 Çocuğuma disiplin verirken, ona bağırırım.		.51	.33	
Eigenvalue	2.9			
Percentage of explained variance	10.1			
Scale reliability	.77			
<u>Factor 4-Warmth</u>				
19 Çocuğumu dinlemek ve onunla bir şeyler yapmaktan zevk alırım.				.67
30 Çocuğumla şakalaşır ve oyun oynarım.				.60
3 Çocuğum korkmuş ya da üzüntülü olduğu zaman, onu rahatlatır ve ona anlayışlı davranırım				.58
6 Çocuğuma sevgimi, onu kucaklayarak, öperek ve sarılarak ifade ederim.				.44
27 Çocuğum mutlu olduğunda da, neşeli olduğunda da kendimi ona yakın hissederim				.41

Appendix K (Cont.)

		Factors			
		1	2	3	4
9	Belirli bir neden olmaksızın, çocuğumu kucaklar veya sarılırım.	.37			.31
14	Çocuğuma, onun beni ne kadar mutlu ettiğini söylerim.	.30		.35	.53
17	Çocuğumla benim, sıcak ve çok yakın olduğumuz anlar vardır.	.44	.31		.43
21	Canımı sıktığı zaman, kendimi ondan uzaklaştırırım		.39		.42
11	Çocuğum olmadan bir yerlere gitmeyi veya bir şeyler yapmayı tercih ederim.				.12
Eigenvalue		2.8			
Percentage of explained variance		9.6			
Scale reliability		.61			

Appendix L

*Results of Final Factor Analysis of Short Temperament Scale(N = 145).
Subscales were compiled from items in **bold** .*

		Factors			
		1	2	3	4
Factor 1 - Reactivity					
16	Çocuğum bir şeye kızgınsa, bunu geçiştirmek zor olur	.67			
29	Çocuğum bir şeyle oynamaya başladığında; bunu durdurmasını istersem, ilgisini başka birşeye çevirmek zordur	.67			
20	Çocuğum üzüntülü ise onu rahatlatmak zordur	.67			
11	Çocuğum saçının taranması gibi bir işe ka çıkarsa, buna aylarca direnmeyi sürdürür	.61			
19	Beraber alışveriş yaparken, çocuğumun istediğini almazsam (örnek; şeker, giysi gibi) ağlar ve bağırır	.55			
24	Sevdiği bir oyuncak ya da oyun zor geldiğ zaman çocuğum hemen başka bir aktiviteyle ilgilenir	.54			
8	Alışveriş yaparken, çocuğum oyuncak ya da şeker istediğinde onun yerine kolayca başka bir şeyi kabul eder	.51			
7	Çocuğum bir işle uğraşırken, üzüldüğü ya da canı sıkıldığında, onu yere atar, ağlar, kapıları çarpar	.49			
25	Çocuğum bir kıyafeti giymek istemediğinde, bağırarak tartışır ya da ağlar	.61	.38		
Eigenvalue		3.7			
Percentage of explained variance		12.4			
Scale reliability		.72			

Appendix L (Cont.)

		Factors			
		1	2	3	4
<u>Factor 2 - Approach</u>					
1	Çocuğum, yabancı yetişkinlere karşı utangaçtır		.81		
21	Yabancı yetişkinler evimizi ziyaret ettiğinde, çocuğum hemen dostca davranır ve onlara yaklaşır	.	.78		
4	Çocuğum, yeni çocuklarla ilk defa tanıştığında utangaçtır		.71		
13	Parkta ya da ziyaretteyken, çocuğum yabancı çocukların yanına gider ve onların oyununa katılır		.63		
15	Çocuğum yabancı bir yetişkine karşı utangaçsa, bunun üstesinden yarım saat kadar bir sürede, hemen gelir		.57		.37
28	Çocuğum, annesinin olmadığı yeni bir ortama (yuva, okul ya da müzik dersi gibi) ilk kez bırakıldığı zaman üzülür		.56		.37
18	Ailece yolculuğa çıktığımızda, çocuğum yeni ortamına hemencecik, evindeymiş alışır	.38	.45		
Eigenvalue		3.5			
Percentage of explained variance		11.7			
Scale reliability		.79			
<u>Factor 3 - Persistence</u>					
2	Çocuğum bulmaca çözmek veya yap-boz (lego) gibi bir işe başladığı zaman, uzun zaman alsa bile bitirinceye kadar üzerinde çalışır			.79	
27	Çocuğum bir şeyi iyice öğreninceye kadar(bulmaca, yeni şarkı veya yazmak gibi), o işin üzerinde çalışır			.76	

Appendix L (Cont.)

		Factors			
		1	2	3	4
5	Çocuğum, yeni bir işe geçmeden önceki işini tamamlamayı sever			.75	
12	Çocuğum, bulmaca, yap-boz ve okuma gibi bir aktiviteyle uzun zaman uğraşır			.69	
23	Bir oyuncak ya da oyun zor geldiği zaman, çocuğum hemen başka bir aktiviteyle ilgilenir			.54	
30	Çocuğum, kitap okumak ya da kitaplara bakmak ve el işi yapmak gibi sessiz aktivitelerle uğraşır.			.42	
10	Çocuğum tamamladığı bir oyunu ya da aktiviteyi bırakmayı istemez			.09	
Eigenvalue		3.0			
Percentage of explained variance		10.0			
Scale reliability		.76			
<u>Factor 4 - Rythmicity</u>					
17	Çocuğum her gün farklı zamanlarda acıkır			.76	
6	Çocuğum her gün, hemen hemen aynı zamanda bir şeyler atıştırmak ister			.59	
22	Çocuğum, her gün aynı miktarda yemek yemek yerine, bir gün fazlasıyla, ertesi gün de çok az yemek yer			.58	
26	Haftasonu ve tatillerde, çocuğum her sabah aynı saatte uyanır			.55	

Appendix L (Cont.)

		Factors			
		1	2	3	4
9	Çocuğumu gece yatağa yatırdığımda, uykuya dalması aşağı yukarı aynı zamanı alır				.53
14	Çocuğum her akşam farklı sürelerde uyur	.32			.60
3	Çocuğum her gün, hemen hemen aynı zamanda kakasını yapar				.29
Eigenvalue		2.8			
Percentage of explained variance		9.4			
Scale reliability		.63			

Appendix M

Skewness and Kurtosis Values for the Total Sample (N = 145)

Domain	Subscale	Skewness	Kurtosis
Emotion Regulation (Mothers)		-1.05	.26
Emotion Regulation (Teachers)		-.50	.97
Delay of Gratification		-1.00	-.10
Parenting Variables			
Inductive Reasoning		-.85	-.24
Warmth		-.98	.25
Obedience demanding		.75	.23
Punishment		1.64	2.46
Responsiveness		-.19	-.48
Power assertion		1.89	6.67
Temperament			
Reactivity		.55	.19
Approach		-.76	.34
Persistence		-.36	-.24