HOW MOTHERS AND CHILDREN TALK ABOUT MINDS: THE RELATIONSHIP BETWEEN MENTALIZATION, ATTACHMENT SECURITY AND AFFECT REGULATION

GÖRKEM DORLACH
113637002

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How Mothers and Children Talk About Minds: The Relationship Between Mentalization, Attachment Security and Affect Regulation

Anneler ve Çocukları Zihin Hakkında Nasıl Konuşur: Zihinselliştirme, Güvenli Bağlanma ve Duygu Regülasyonu Arasındaki İlişki

Görkem Dorlach

113637002

Elif Akdağ Göçek, Yrd. Doç. Dr. : .....

Sibel Halfon , Yrd. Doç. Dr.: .....

İrem Erdem Atak, Asst. Prof: .....

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ABSTRACT

Mentalization, or the capacity to reflect on one's own and others' mental states, is important for children's psycho-social development. The development of mentalization is closely related to the quality of the early attachment bond between the mother and the child. This study explored the link between mothers' and their children's mentalization in relation to the maternal attachment pattern and children's affect regulation capacity. The study is based on a clinical sample of 53 mother-child dyads, who were referred for play therapy to the Psychological Counseling Center of İstanbul Bilgi University, Turkey. The hypotheses were tested by partial correlation analysis. Regarding the interaction between mother and child mentalization, this study found significant positive relationships between the mother's use of *other-related* mental state words and the child's use of *self-related* mental state words, and between the mother's use of *self-related* mental state words and the child's use of *other-related* mental state words. Qualitative analysis of transcripts suggests that mothers' and children's use of mentalization terms may have to be regarded as an earlier form of mentalization, one mainly based on pre-symbolic action-based language and the joint attention need. Regarding the interactions between both mother and child mentalization with child affect regulation, this study found that both the mother's and the child's use of *self-related* mental state words predict the child's affect regulation. Qualitative analysis suggests that mother's self-mentalization might be more important to the child's

mentalization development and affect regulation than the mentalization of her child's mind. For the clinical work, these findings imply, inter alia, that mothers' self-understanding may be an important step toward understanding their children.

ÖZET

Zihinselleştirme, yani kişinin kendi ve diğer kişilerin zihinsel durumları üzerine düşünebilme kapasitesi, çocukların psiko-sosyal gelişimi açısından önemli bir beceridir. Zihinselleştirme becerisinin gelişimi anne ve çocuk arasında erken dönemdeki bağlanma ilişkisinin niteliği ile yakından ilişkili olduğu görülmektedir. Bu çalışmada, annelerin bağlanma şekli ve çocukların duygularını düzenleme kapasiteleriyle ilişkili olarak, anneler ve çocuklarının zihinselleştirme becerisi arasındaki bağlantı araştırılmıştır. Bu çalışmada oyun terapisi için İstanbul Bilgi Üniversitesi'nin psikolojik danışmanlık merkezine yönlendirilmiş 53 anne-çocuğu içeren klinik örneklem kullanılmıştır. Hipotezler kısmi korelasyon ile test edilmiştir. Anne ve çocuk zihinselleştirme becerisi arasındaki ilişkiyle ilgili olarak bu çalışmada annenin *ötekine yöneltilmiş* zihin durumu kelime kullanımı ile çocuğun *kendine yöneltilmiş* zihin durumu kelime kullanımı arasında ve annenin *kendine yöneltilmiş* zihin durumu kelime kullanımı ile çocuğun *ötekine yöneltilmiş* zihin durumu kelime kullanımı arasında pozitif bir ilişki bulunmuştur. Nitelik analizinin göstergeleri sonucunda anneler ve çocuklarının zihinselleştirme kelime kullanımının zihinselleştirmenin sembolizasyon öncesi, hareket bazlı dile dayanan ve ortak dikkat ihtiyacını içeren erken dönem formuna işaret ettiği görülmüştür. Anne ve çocuk zihinselleştirme becerisiyle çocuğun duygu regülasyonu arasındaki etkileşime ilişkinse bu çalışmada hem anne hem de çocuğun *kendine yöneltilmiş* zihin durumu kelime kullanımının çocuğun duygu

düzenlemesini yordadığı görülmüştür. Nitelik analizinin göstergelerine göre annenin *kendine yönelttiği* zihinselleştirme, çocuğa yönelttiği zihinselleştirmeye kıyasla çocuğun zihinselleştirme ve duygu düzenleme becerilerinin gelişimi açısından daha önemli olabileceği görülmüştür. Klinik çalışma açısından bu sonuçlar annenin kendini anlamasının çocuğu anlaması konusunda önemli bir adım olabileceğini gösterebilir.

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I dedicate this thesis to my late grandmother Meliha. She taught me that, to enjoy life, it should be treated as simple as possible.

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CHAPTER 1:
INTRODUCTION

The capacity to reflect on one's own and others' mental states and to regulate one's own mental state according to the insights of this reflection is crucial in the context of interpersonal interaction (Fonagy, Gergely, Jurist, & Target, 2002). This capacity, also known as *mentalization*, allows one to find other people's behavior meaningful and predictive. Mentalization is an important coping skill for children's psychosocial development, as it is linked to affect regulation, impulse control, self-monitoring, and self-agency (Fonagy & Target, 1998). The development of mentalization is closely related to the quality of the early attachment bond, which refers to the close affectional and social relationship between the mother and the infant (Bowlby, 1960). The mother's ability to reflect on the child's internal world and to communicate the meaning she finds back to the child gives rise to the development of the child's sense of self and mentalization (Fonagy, Gergely, Jurist & Target, 2002; Slade, 2005; Gergely & Watson, 1998). The mother's mentalization of her child, also called "Maternal Reflective Function", gives the child an initial mentalistic model of self and other (Slade, 2005). This initial model of the self and other, which is presented to the child by the mother, is influenced by the mother's own attachment history. A mother with a history of secure attachment is more

likely to accurately and sensitively reflect on the child's mental states, which leads to the development of attachment security and mentalization in the child (Main, Kaplan & Cassidy, 1985; Fonagy, Steele, Steele, Moran & Higgitt, 1991; Meins, et al., 2002).

The purpose of this study is to explore the link between the mother's and their children's mentalization in relation to both the mother's attachment pattern and the child's affect regulation capacity. There is a rich literature on the dyadic links between any two of these four variables: between the mother's attachment style and mother's mentalization (Bouchard, et al., 2008; Fonagy et al., 1991; Slade et al., 2005; Arnott & Meins, 2007), between the mother's mentalization and the child's mentalization (Ruffman, Slade & Crowe, 2002; Taumoepeau & Ruffman, 2008; Dunn, et al., 1991; Meins et al., 1998), and between the child's affect regulation and both the child's and the mother's mentalization (Kelly, et al., 2005; Taumoepeau & Ruffman, 2008; Gottman, Katz & Hooven, 1996; Garner, Dunsmore & Southam-Gerrow, 2008). However, missing in the literature are analyses that simultaneously study the links between the mother's attachment pattern, the mother's mentalization level, the child's mentalization level, and the child's affect regulation capacity.

To contribute to this under-researched area, this study provides a direct measurement of how the mother's and the child's mentalization interact to influence the affect regulation capacity of the child. More specifically, the study has three goals. The first goal is to explore the interaction of mother and child

mentalization. The second goal is to find out if the mother's attachment security is related to her mentalization level. The third and final goal is to understand how the mentalization uses of the mother and the child are related to the child's affect regulation. Play is chosen as a context for mother-child interaction. Play has been suggested to provide an intermediate area for the acquisition of symbolic thinking which is crucial for mentalization (Fonagy & Target, 1996a; Fonagy & Target, 1996b; Tessier et al., 2016; Lillard, 1993; Leslie, 1987). Although play provides a rich context for symbolization, only few studies chose mother-child play as context to explore mentalization (Symons, Fossum & Collins, 2006; Gocek, Cohen & Greenbaum, 2008). The findings of this study may enhance our understanding of how mothers' mentalization skills, in relation to their attachment history, relate to the child's mentalization development and affect regulation skills.

This thesis is organized as follows. Chapter two presents a review of the theoretical and empirical literature on attachment theory and mentalization. Chapter three outlines the methodological approach of the current study. Chapter four presents the results of the empirical tests of the hypotheses. Lastly, chapter five discusses how the results of the empirical study can be interpreted and how they relate to existing literature.

CHAPTER 2:
LITERATURE REVIEW

Attachment Theory

Bowlby (e.g. 1969, 1973, 1980; Ainsworth, & Bowlby, 1991) defined attachment as a strong affectional bond formed with a significant other with the objective of "security". Security in attachment relationships, at any developmental level, refers to the trust that one will be taken care of both emotionally and physically by someone who is capable of protection in times of need (Bretherton, & Munholland, 2008). While the significance of the attachment bond continues its influence throughout the entire life, in Bowlby's words (1982) "from cradle to grave", in various relationships (e.g. parent-child relationship, romantic relationships, and friendships), Bowlby emphasized that the early relationship between infant and caregiver lays the foundation of the child's attachment security. In infancy, the main function of attachment is survival and the maintenance of affect regulation by keeping sufficient proximity to an attachment figure. Successful repetition of proximity and affect regulation gives the infant a sense of security, which allows it to explore and confidently engage with the outside world (Bowlby, 1988; Bretherton, 1992). The need for physical proximity declines when the infant can use the caregiver as a secure base for exploration. However, the attachment system is most active in times of high affective arousal, especially due to fear and danger

(Sroufe & Waters, 1997). The absence of the attachment figure especially in situations of novelty puts the infant in stress and thus reduces its exploratory behavior and increases its need for physical contact (Bowlby, 1969; Bretherton, 1992). Bowlby claimed that the quality of attachment is determined by the caregiver's sensitive approach to the infant's signals of emotional distress caused by separation from the caregiver.

Following Bowlby, Mary Ainsworth focused on the attachment behavior of infants during separation from their mothers and their ability to use the mother as a secure base for reducing distress, caused by separation, during reunion (Ainsworth, 1979). By observing the mother-infant couple in the home setting, Ainsworth concluded that maternal sensitivity in the first months predicts later harmony between the mother and the baby. She described *maternal sensitivity* as treating the child as a separate agency, being able to interpret signals coming from the child, responding to them accurately and not intervening with the child's ongoing activity (Ainsworth, 1971). She developed a laboratory procedure known as the *Strange Situation* to categorize individual differences in attachment-related behavior. The Strange Situation is a laboratory procedure that is designed to examine the attachment-related separation and reunion behavior of the baby in an unfamiliar environment. Her observations led her to conceptualize three types of attachment organization in infants: *secure*, *insecure/anxious* and *insecure/avoidant*. Infants with *secure* attachment were found to be able to use their mother as a secure base for exploration

during the pre-separation phase, showed an increase in attachment behavior and an decrease in exploratory behavior during separation, and sought physical contact or proximity with the mother during reunion. Infants with *insecure/anxious* attachment showed signs of anxiety in pre-separation, were highly distressed during separation, and showed an ambivalent reaction to the reunion with the mother, in that they both sought proximity but also resisted contact. Lastly, infants with *insecure/avoidant* attachment, unlike the infants in the other two groups, rarely cried during separation and showed avoidance of close contact in the reunion period (Ainsworth, 1979). Ainsworth's classification of infant attachment was later expanded by Main and Solomon to include a fourth category: infants with a *disorganized/disoriented* attachment style (Main & Solomon, 1990). The descriptor "disorganized" derives from the definition of this attachment pattern, as resulting from "inexplicable, odd, or conflicted behavior patterns [which manifest themselves in the] lack of a readily observable goal, purpose, or explanation" (Main & Solomon, 1990, p. 132).

While Ainsworth's "strange situation" and infant attachment classification contributed significantly to the understanding of precursors and behavioral outcomes of attachment security, her method did not answer how the attachment relationship is formulated as secure and how the attachment figure becomes a secure base. Secure attachment develops as a relationship representation through the interaction with the caregiver. Bowlby (1991) called

these mental representations *internal working models of attachment* and explained that their function was to predict the behavior of others and organize the environment in a meaningful way. Working models include the representations of "self", "other" and "relationship" in relation to attachment (Van IJzendoorn, 1995; George & Solomon, 1996). As a result of early interpersonal interaction, the evaluation of "self", "other" and "relationship" is formed and this sets up a prototype for future relationships. If the "other" is perceived as accepting the needs of the child and providing care while at the same time allowing space for independence and exploration, then the child perceives the self as valued and the relationship as secure. In contrast, if the needs of the child are frequently rejected, the child may develop the model of self as unworthy and the relationship as insecure (George & Solomon, 1996).

The empirical shift of measuring attachment at the level of representation started with Main, Kaplan and Cassidy (1985)'s seminal work for the development of the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985). The AAI is a semi-structured interview that includes questions about adults' attachment experiences with their own parents. Influenced by Bowlby's concept of internal working models, Main suggested that individuals' narrative organization of attachment experiences is a reflection of their internal working models of relationships, since these models influence the organization of attention and memory. Based on these individual differences in narrative organization, Main (1985) developed four different adult attachment patterns:

secure/autonomous, *dismissing*, *preoccupied* and *unresolved patterns*. Adults with a *secure/autonomous* state of mind are expected to provide a consistent, clear, relevant and reasonable narrative about early attachment experience. Adults with a *dismissing* state of mind are seen when the adult violates the narrative's quality and quantity by using unsupported or contradictory positive terms and sometimes insisting on not remembering certain parts of the memory of parents. Adults are considered to have a *preoccupied* state of mind when the narrative is violated in terms of manner (usage of non-sense words or childlike speech), relevance or quantity. Lastly, adults with an *unresolved* state of mind are seen when there is interference in reasoning or discourse, especially when talking about traumatic events (Main, 1985). The initial study done with the AAI had two important implications for attachment research (George, Kaplan, & Main, 1984). First, as Bowlby (1969) proposed earlier, there is a certain degree of stability of internal working models from infancy to adulthood. This means that there is continuity of attachment patterns from behavior to the representational level (Bretherton, & Munholland, 2008). Second, a substantial level of concordance was shown between the AAI and "the strange situation" classifications. This result again supports Bowlby's view of internal working models as being transmitted intergenerationally. Intergenerational transmission of internal working models was later confirmed by several empirical studies (Fonagy, Steele, & Steele, 1991; Van IJzendoorn 1995; Main, Kaplan, & Cassidy, 1985; Steele, Steele, & Fonagy, 1996).

Maternal Mentalization as a Mechanism for Transmission of Internal Working Models

It has been demonstrated empirically that internal working models of attachment are transmitted intergenerationally. But the mechanisms of transmission remain open to discussion. The first mechanism that was suggested by Bowlby (1973) is maternal sensitivity, bridging the parent's and the child's attachment. Supporting this premise, different studies found positive relationships between adult attachment security and maternal sensitivity (Mills-Koonce, et al., 2011; Coppola, et al., 2006; Pederson, et al., 1998; Beckwith, Cohen, & Hamilton, 1990) and also between maternal sensitivity and infant attachment (Koren-Karie, et al; Pederson, et al., 1990; Pederson, et al., 1998; Meins, et al., 2001). Based on these findings, Van Ijzendoorn (1995) conducted a meta-analysis to examine to what extent maternal sensitivity can explain the transmission of attachment between mother and infant as a mediating factor. The analysis concluded that maternal sensitivity explains only 23% of the relationship. The rest of the variance remained unexplained and Van Ijzendoorn (1995) called this the *transmission gap*.

Beyond maternal sensitivity, the parent's capacity to treat the child as a distinct *psychological agent* with its own intentions, goals and beliefs has been proposed to mediate the relationship between mother and infant attachment security (Sharp & Fonagy, 2008), and thus to close the transmission gap. This

capacity is assumed to support the person's *mentalization* ability, which is the ability to attribute mentalistic terms (e.g. thoughts, feelings, desires and intentions) to self and others in order to make behavior meaningful and predictable (Fonagy, et al., 1991). Mentalization is suggested to be related to both adult and infant attachment security, in that mothers with a secure state of mind are able to reflect on their children's psychological states and form secure bonds with their children. In turn, the attachment security of children predicts their mentalization development (Sharp & Fonagy, 2008). The link between attachment and mentalization derives from the interconnection between internal working models of attachment and the reflective quality of mentalization. Attachment security is the prerequisite of developing internal working models with reflective components, which allow understanding of self and other minds (Fonagy & Target, 1997).

Several constructs have been proposed to operationalize the mentalization capacity of mothers. *Reflective Functioning* (RF) is one of the early proposed constructs of parents' capacity of treating the child as a psychological agent (Fonagy, et al., 1991). RF is described by Slade (2005, p. 269) as the "capacity to understand one's own and others' behavior in terms of underlying mental states and intentions, and more broadly as a crucial human capacity that is intrinsic to affect regulation and productive social relationships". To measure the RF capacity of adults, Fonagy and his colleagues (1998) developed the Reflective Functioning scale based on the Adult

Attachment Interview. The RF scale evaluates adults' narratives of their early childhood experience in terms of awareness of mental states, acknowledgement of mental states' developmental aspects and understanding the underlying mental state of the behavior. The relationship between attachment and reflective functioning has been demonstrated in several studies. Bouchard and colleagues (2008) found that higher scores of mentalization based on the RF scale are negatively related to attachment insecurity based on the Adult Attachment Interview (AAI). In their London Parent-Child Project, Fonagy and his colleagues (1991) interviewed mothers' with the AAI and later evaluated their reflective functioning levels with the RF scale. They found that mothers who had high scores on the RF scale were more likely to fall into the secure attachment category in AAI. The reflective functioning capacity of the mothers based on the RF scale was found to be highly predictive of infant attachment security within the first year (Katznelson, 2014; Fonagy, et al. 1991).

A second construct of mentalization, *parental reflective functioning*, has been proposed by Slade (2005). Parental reflective functioning has a similar theoretical background as adult reflective functioning, However, Slade proposed that a better predictor of the parent's capacity to mentalize the child's internal states and the transmission of attachment security could be found by looking at the parental narratives of the relationship between themselves and their children (rather than parents' narratives about their own childhood experience). The Parent Development Interview (PDI: Aber et al., 1985), which

was developed for this purpose, is a semi-structured interview in which parents are asked to describe their relationship with their children. The parent's capacity to understand the child's mental states is measured by looking at the narrative they provided (Slade, 2005). Since intergenerational transmission does not only happen between adult state of mind and child state of mind, parental representations are an important factor for the interaction between the mother and the child. The parent's representation of parenthood is seen as a mature form of their early attachment style (George & Solomon, 1996). Thus, a secure mother is more likely to have a coherent representation of her relationship with her child, whereas an insecure mother is more likely to have a distorted representation of the relationship with her child (George & Solomon, 1996; Slade et al., 2005). Moreover, higher parental reflective functioning skills have been found to be related to infant attachment security (Slade et al., 2005). Similarly, Parental RF was reported to be positively related to the quality of mother-infant affective communication (Kelly, et al., 2005). Together these findings support the claim that parental reflective function plays a role in the transmission of attachment security.

Another construct, developed by Elisabeth Meins, is *maternal mind-mindedness* (MMM) (Meins, 1997). MMM is the mother's capacity to treat the child as a separate mental being, attributing meaning to the behavior and responding accurately to the child's ongoing needs. The difference between Ainsworth's maternal sensitivity and Meins's MMM is that MMM focuses

specifically on the mental states of the child (Meins, et al., 2001). MMM has both off-line and on-line versions of measurement. In the off-line version of MMM, mothers are asked to describe their children (Sharp & Fonagy, 2008) and the responses were coded into the categories "mental", "behavioral", "physical" and "general". On-line measurement of MMM is based on coding the mother's responses to changes in the infant's direction of gaze and the infant's object-directed action, imitation, encouragement of autonomy, and appropriate mind-related comments in 20-minute mother-child free play (Meins et al., 2001). Studies on the relationship between attachment and MMM showed that the autonomous attachment pattern of the mothers, based on AAI scores, is positively related to greater MMM performance (Arnott & Meins, 2007). Mother's appropriate and positive use of mental state comments based on MMM were found to be positively related to infant security (Demers, et al., 2010; Meins, et al., 2001). Both the on-line and off-line measures of MMM were found to be predictive of the later development of the child's mentalization (Meins, et al., 2001; Meins, Fernyhough, & Fradley, 2001; Arnott and Meins, 2007).

Development of Mentalization in Children

Mentalization was initially suggested as a concept by Fonagy and colleagues (1991) to explain how children acquire the mind reading ability in the course of their development. This mind reading ability was initially called Theory of Mind by cognitive psychologists. Initially, *Theory of Mind* (ToM), as

developed by Premack and Woodruff (1978), was used by cognitive psychologists and developmental psychologists to describe the ability to understand that others have separate minds with thoughts, ideas, and feelings and to apply this knowledge to social situations in which the anticipation of or the influencing of others' behavior is needed (Baron-Cohen, et. Al., 1985; Sharp, 2006). Children develop ToM ability around the age of 3 or 4. Development of ToM in children is usuallly measured by *false belief tasks*, in which children are given scenarios where they need to predict an adult's searching behavior of a missing and re-placed object during the absence of the adult. However, it was criticized that ToM and false belief tasks underestimate affective, regulatory processes and instead put all the emphasis on the cognitive dimension (Carpendale & Chandler, 1996). The term *mentalising* or *mentalization* is more appropriate for understanding inter- and intrapersonal mental states, because unlike ToM mentalization is specific to neither certain age levels nor cognitive tasks (O'Connor & Hirsch, 1999). Mentalization theory provides a more comprehensive framework for understanding the development of children's mind reading abilities, because it focuses on indicators of this capacity over the course of development rather than on examining if cross-section has ToM ability or not.

The present study adopts the framework of mentalization theory. To review the relevant literature, first the development of mentalization in children will be discussed. Then, the role of mother's mentalization of the child on the

development of children's self agency and mentalization is elaborated. In what follows, the role of play in mentalization development is discussed with a focus on the role of the mother's engagement in play. Lastly deficiency of mentalization skills in children with clinical level problems will be discussed.

Mentalizing Self in Children

The capacity to mentalize is acquired over the course of development (Fonagy, et al., 2002; Slade, 2005). The quality of the affective relationship, namely the attachment bond, is crucial for the development of this capacity. Within the affective relationship that is formed with the mother, the child not only gains the ability of mind reading but also organizes the self. Fonagy and his collegues (2002) argued that before becoming fully mentalizing, the self as an agent (which refers to having thoughts, feelings and intentions of its own) goes through different stances with increasing complexity, namely *physical*, *social*, *teleological*, *intentional* and *representational*. In the *physical stance*, the child's source of knowledge is his body. As the child experiences the sensory world through the interactions between its body and its environment, it can differentiate what is self and not-self. This initial physical experience forms the basis of the self (Scheemets, 2008). From the very early months, babies use their bodily self to adapt to changing environments and evoke action in the environment (Fonagy et al., 2002). These interactions with the external environment through actions include the very first interpersonal exchange

which is the infant-caregiver relationship. The actions of the infant induce behavioral or emotional reactions on the part of the parent. The causal relationship between the infant's act and the caregiver's reaction to it forms the early version of representation in the infant's psyche and thus brings the baby to the *social stance* in development of the self (Fonagy et al., 2002). In the second half of the first year, infants begin to have expectations from the physical objects around them based on simple causality. These expectations help the infant to predict other's behavior. The infant acts in a way that its expectations of other's behavior are met. For example, the infant may throw a toy away while it expects the mother to give it back, so that the infant can throw it again (Scheemets, 2008). This brings the infant to the *teleological position*, in which the infant understands intentions through physical consequences. The infant treats both living and non-living objects equally as having intentions, because here having intentions refers to the physical world, not the internal state (Scheemets, 2008). Around the second year of life, children acknowledge the self as *intentional agency* and become aware of the connections between desires, emotions and perceptions in both themselves and others (Wellman et al., 2000). By being aware of these connections, they realize that they can manipulate other people's states. For example, children learn to point at objects around this time and use this pointing to make adults attend to what they are attending to (Fonagy et al., 2002). Assuming that others have intentions behind their physical acts shows that children can attribute mental states to others.

Therefore, the ability to mentalize starts at this point (Scheemets, 2008). Between ages 3 and 4, children gain *representational* qualities to their prior causal mentalistic experiences. Children acquire a representational view of themselves as a result of the ability to think about themselves in terms of mental states. In order to develop a representational self, the child requires concepts that correspond to actual experience. In this context, the actual internal experience of the child is *primary representation*. *Secondary representation* is formed as primary representations are turned into concepts with mentalistic qualities (Fonagy, et al., 2002). The representational model of the self and others enables children to communicate intentions, feelings, and thoughts behind the actions using language skills (Tessier, et al., 2016).

Maternal Mentalization and Children's Mentalization Development

As discussed above, mentalization capacity is thought to be transmitted within the attachment relationship between the mother and the child (Slade, 2005; Fonagy et al, 1991). The mother's capacity to treat the child as a distinct psychological agent (i.e. the mother's mentalization capacity) contributes to the child's mentalization development (Sharp & Fonagy, 2008). The mother's mentalization skills are decisive in how successful the child will go through the stages of self agency and eventually to develop full mentalization capacity (Fonagy, et al,. 2002).

The origins of the self and other representations go back to early phases of mother and infant interaction (Beebe, Lachmann & Jaffe, 1997). Before the

infant gains intentionality, the mother already treats the infant as if having intentions starting at birth. By talking and observing, the mother tries to bring an intentional quality to the infant's behavior, to have a better understanding of this behavior. These interactions create a pattern for the infant, which shows what to expect from the mother based on its actions. In the early months, based on the affective exchange between the mother and the infant, the infant develops a pre-symbolic representation of the relationship (Beebe, Lachmann & Jaffe, 1997). Starting from the second half of the first year, the infant starts to differentiate its mental states from the mothers and as a result starts to gain sense of self (Scheemets, 2008). For the differentiation of the self and other in infant's psyche, the mother plays a crucial role. It is the mother's capacity to attend to the affective states and *mirror* them back to the infant which successively results in the development of the infant's sense of self (Fonagy et al., 2002). Winnicott's (1971) term *mirroring* refers to the mother's non-conscious reflecting of the mental state of the infant and mirroring back to the infant what she sees or feels in the affective interaction (Scheemets, 2008). The mother's affective *mirroring* enables the infant to link the initially unknown affective experiences to meaningful self states, and this consequently promotes the organization of the self around these self states (Gergely & Watson, 1996). In this mirroring process, the mother perceives the primary experience of the infant (e.g. hunger or pain) and gives this experience back to the infant. The infant uses the mother as a mirror to recognize his self state. The affective

communication between the mother and the child forms a representational loop, in which the infant gives the primary affective state to the mother and the mother returns the infant the secondary representation of its primary affective experience (Scheemets, 2008).

The shift from teleological position to mentalizing position happens gradually as the mother metabolizes the primary experience of the child and gives it back as secondary representation. In order to achieve a successful integration and organization of affective experience around cognitive structures, and consequently reaching to a mentalizing model of mind, the child should be able to coordinate self and other representations. This coordination is called *representational mapping* and it is crucial for sharing affect, attention, and higher order cognitive components like belief (Fonagy, et al., 2002). For representational mapping, it is crucial for the child to be able to differentiate what belongs to him and what does not. The quality of mirroring matters for differentiation of affective experiences. The mirroring of the affect by the parent is not like a simple look in the mirror. The infant must be able to differentiate the owner of the *secondary representation* (here the *primary representation* is the actual experience of the infant and the *secondary representation* is the representation of the infant's experience in the mind of the mother) before linking this to its self-state. So how does a baby know that it is not an angry mother looking at her but an attentive mother who is mirroring the infant's negative self-state? Gergely (1996) answered this question by referring

to the maternal mirroring as *marked mirroring*. Marked mirroring by the mother makes it possible for the infant to understand the difference between the self and other mental states by exaggeration of the real emotional experience of the infant. In adaptive affective communication, the use of marked mirroring by the mother makes it easier for the infant to separate the affective display from the mother's own and link it to the self. The marked emotional experience will not only be represented in the infant's mental world but will also provide information for its possible future behavior when a similar affective state will experienced (Gergely & Watson, 1996). Mirroring and affective communication between the mother and the infant can be disrupted because of either mirroring too accurately or misrepresenting the affect. In the first case, in which the mother is representing the actual emotion rather than first metabolizing and re-presenting it, the child cannot distinguish the self and other's psychological borders, therefore the primary representation cannot be linked to the secondary representation. In the second case, which happens if the mother misrepresents the affect coming from the infant, the primary emotional state will be mislabeled due to non-contingence, although the secondary representation is formed (Slade, 2005).

Given the importance of the mother's mentalization of the child's mind for the development of child's mentalization capacity, studies have examined this relationship by comparing mother's mental state talk referring to child's mind and child's mentalization level. Studies differ in terms of their design

(longitudinal or cross-sectional design) and the components of mentalization they are tapping in children (cognitive, affective or both). The cognitive aspect of mentalization, as mentioned earlier, has been widely studied by using ToM and false belief tasks. On the other hand, affective component of mentalization in children has been studied via *affective labeling* and *affective perspective taking* tasks. The affective labeling task requires children to identify facial expressions of "happy", "sad", "angry" and "afraid" drawn faces. The affective perspective taking task uses puppets to enact different emotion-evoking scenarios, in which children are asked to describe how the puppet would feel in certain situations (Denham, 1986). Lastly, *mental state talk* is often used to measure a child's mentalization skills, as it includes both the cognitive and affective components therefore providing a more comprehensive measurement of mentalization. Longitudinal studies mainly focused on how early exposure to the mother's early mental state talk is related to the child's later ToM performance, affective understanding and mental state talk. In a longitudinal study by Ruffman, Slade and Crowe (2002), mother's early use of mental state utterances were found to be positively related to both children's later mental state talk and theory of mind performance. They claimed that the mother's early use of mental state talk is the cause of the child's later mental state talk and ToM performance, because the earlier, and not the later, use of mothers' mental state talk predicted children's later performance. Similarly, Taumoepeau and Ruffman (2008) found that even the mother's talk about the child's mental

states before the child becomes verbal predicted the child's later level of mental state talk and emotion understanding. Taumoepeau and Ruffman were also interested in how the direction (to self or other) and type (desires and thoughts) of mental state words were developmentally more appropriate for children. They found that initially talking about child's desires (at 15th month) and later talking about other's feelings and thoughts (at 24th month) were predicting children's use of mental state talk. Jenskins et al., (2003) found that children's early exposure to cognitive and feeling state talk in families improve their later mental state talk in cognitive and feeling categories as well. Few studies have investigated the relationship of mental state word use in familial conversations and children's later social understanding. Both the child-sibling and child-mother interactions in daily life regarding mental states predicted the child's later emotion understanding (Dunn, Brown, & Beardsall, 1991; Dunn, Brown, Slomkowski, Tesla, & Youngblade, 1991). Regarding the attachment and mentalization relationship, Meins et al., (1998) found that the mothers of securely attached children, compared to mothers with insecurely attached children, were using more mentalistic terms when asked to describe their children. Moreover, securely attached children showed superior skills of mentalization at the age of 5, which indicates the potential role of the mother's use of mental state talk. In another study, the mother's appropriate use of mental state talk regarding the child's mental states predicted the child's ToM performance at 45 and 48 months, accounting for 11% of the variance (Meins,

Fernyhough, Wainwright, Das Gupta, Fradley, & Tuckey, 2002). Gottman, Katz and Hooven (1996) developed a similar concept of parental reflective functioning, called *parental meta-emotion*. The concept refers to a positive parenting style in which the parent helps the child to name emotions and show strategies for regulation. In their longitudinal study it was found that meta emotion coaching of parents helps the child to physiologically regulate the affective arousal (measured at the age of 5) and children who gained this down-regulation capacity were found to be better at emotion regulation skills, academic achievement and social relationships with their peers (measured at the age of 8). Other studies used cross-sectional designs to study the mother-child mentalization relationship. For instance, Garner, Dunsmore and Southam-Gerrow (2008) compared mothers' use of emotion words during a picture story telling task with children's understanding of emotions and their social competence level and found a positive relationship. Ruffman, Perner and Parkin (1999) reported advanced ToM performance results of children whose mothers reported that they reflect on victim's feelings to explain disciplinary acts to their children. Lastly, De Rosnay, Pons, Harris, and Morrell (2004) used emotion attribution and false belief tasks to measure mentalization levels of children between the age of 4 and 6. They used Maternal MM for coding the mother's use of mental state words. They found that maternal mental state talk contributed even more than general language ability to belief-based emotion attribution and false belief understanding of children.

Play and Mentalization

Play serves as an important context for mentalization development in children (Fonagy & Target, 1996a; Fonagy & Target, 1996b). A child can form representations of real-life experiences during play. The "as if" attitude in play allows the child to safely explore the symbolic quality of thoughts. Play not only makes it possible for the child to form new representations of the actual experience by integrating emotional experience and thinking but also to partially disconnect representations from the real experience and to modify it to gain a more flexible mode of thought (Fonagy & Target, 1996b). As mentioned before, a child initially needs the other's mind to recognize its own mind. Mentalization in that sense requires a dyadic relationship between the child and the caregiver. Similarly, the child needs the caregiver to "play along" in order to make meaningful connections between the internal and the external world. Around the age of 2 or 3 the child can engage in pretend play and start using symbols and representations in an "as if" attitude to understand self and other's psychological states (Tessier et al., 2016). However, understanding the self and the other in terms of feelings, desires and thoughts differs for very young children around the ages of 2 or 3 and children around 4 or 5 year, the age group which is known to pass theory of mind tasks and to show established mentalization skills. Fonagy and Target (1996a) explained this difference developmentally in terms of *psychic reality*. *Psychic reality* is the subjective experience of the internal and the external world which is influenced by

unconscious processes (Fonagy & Target, 1996a). Before experiencing fully developed psychic reality, which is about being aware of the fact that thoughts and desires are just representations and that they can be changed from the perspective of others, psychic reality operates differently for children younger than 4 (Slade, 2005). The psychic reality of the child around this time has a dual characteristic, consisting of *psychic equivalence* and *pretend modes* (Fonagy & Target, 1996a; Verheugt-Pleiter & Zevalkink, 2008).

In the *psychic equivalence* mode, the child perceives the thoughts and intentions not as representations but as the objective reality itself. Thus, younger children behave in a way as if the inner experience is equal to the outside reality. The psychic equivalence mode is developmentally necessary for the young child because the child is not ready to regulate the tension that is created by the difference between appearance and reality (Fonagy & Target, 1996a; Verheugt-Pleiter & Zevalkink, 2008).

The second mode of experiencing psychic reality is the *pretend mode*. In this mode children are able to use play for forming representations. They use play to be in the pretend mode and to experience things that are not objectively real in the external world, but that are still real enough to play with them. For example, in the pretend mode the child can hold a stick and call it a sword and play with it as a sword. In this stage the child can build up a play based on representations. However, one important point is not to bring together the two worlds of pretend and objective reality. There should be no correspondence

between the pretend world and the real world. At this age, the explicit correspondence of internal and external world may be threatening for the child because it is still not capable of understanding the realistic consequences of many events. At times, children even play in an exaggerated way to establish a clear line between real and pretend states. For some children it takes long time to set up the play and distribute roles before playing. This may be an indication of setting a clear limit between play and reality (Fonagy & Target, 1996a; Verheugt-Pleiter & Zevalkink, 2008).

The integration of these modes brings the child to the level of mentalization. The integration of pretend and psychic equivalence modes happens through the experience of secure play with an adult or older sibling (Fonagy & Target, 1996b; Verheugt-Pleiter & Zevalkink, 2008). Playfulness enables the child to see its own mental states in the other's mind and to also realize that because the ideas or feelings are just representations which depend on the perspective of the object, they can be changed or distorted in the play. An adult or an older sibling brings a frame to the child's play by allowing a play space to which the child can project its fantasy or idea and re-introject this to self. In this play area, the good-enough mother meets the spontaneous gestures of the child in repeated manner, and the needs of the infant are symbolized within this relationship and become a meaningful experience to the infant self. The development of a mentalizing stance and a true self become possible if the parent's capacity to bridge play and reality is sufficient. The

space between play and reality was called “transitional space” by Winnicott (1965). Transitional space keeps the inner and outside reality interrelated. In this intermediate area the child’s reality testing develops through combining the fantasies and objective reality. In this special area the child can safely discover what belongs to self and to the other (Winnicott, 1953). The sensitive or good-enough mother scaffolds the child to develop the self and other representations as well as the symbolization capacity by entering the transitional area of the child by playing or talking, by marking the self-state of the child by having an “as if” attitude (Slade, 2005).

Given the importance of play for affect regulation and mentalization development, studies have examined the psycho-social benefits of play for children. As suggested by Bretherton and Beeghly (1989), play offers an infinite number of scenarios in which children can enact different characters with different emotional experiences in a safe environment and through these experiences children can develop emotional mastery (Galyer & Evans, 2001). To test the premise that pretend play contributes to emotion regulation ability, Galyer and Evans (2001) conducted a study in which they looked at the individual differences among children’s play behavior during a high arousal event. They found that children who could spend more time in pretend play after arousal of negative emotions had better emotion regulation skills compared to children who could not continue to engage in pretend play. Moreover, better emotion regulation skills were also seen in children whose

parents reported that they engage in pretend play at home with their children. Kaugars and Russ (2009) explored the link between the quality of preschoolers' pretend play and teachers' reports of their emotion regulation skills, daily play behavior and social competence. The results showed that children who showed more affect (both the frequency and the variety) were also rated by their teacher as participating in more pretend play.

Harris (1989) proposed that imagination in play contributes to the child's understanding of mental states and affective experiences in self and others. Play and more specifically pretend play are precursors of understanding mental states because pretending requires the same skills as understanding the mind (Lillard, 1993; Leslie, 1987). Taylor and Carlson (1997) looked at this proposed link by examining the relationship between early pretense in children and theory of mind development. The pretense qualities of children were measured with an interview including questions about imaginary companions and impersonation of imagined characters. Theory of mind tasks included tests of appearance-reality, false belief, representational change and perspective taking. The authors found a positive relationship between all aspects of the pretense world of children and theory of mind tasks. Similarly, Schwebel, Rosen and Singer (1997) found that children who spent more time in joint constructive pretend play showed superior performance in false belief tasks. Studies have examined the relationship between play and mentalization development not only in terms of cognitive aspects (theory of mind tasks) but

also in terms of affective understanding. Seja and Russ (1999) examined the relationship between fantasy play and emotion understanding among first- and second-year school children by using the Affect in Play Scale. Composite scores for fantasy play factors (quality of fantasy, frequency of affect, affect intensity, variety of affect categories, and comfort) and emotion understanding variables (recalling emotional experience, understanding own and other's emotions) were calculated. The results showed that fantasy play was positively related to emotion understanding, and fantasy play even accounted for a significant variance in emotion understanding (5%).

As mentioned previously, mental state talk is often used to measure child mentalization because it provides a more comprehensive understanding of mentalization by combining the cognitive and affective representations through an examination of narratives. The premise that mental state talk is enhanced during pretend play derives from the natural structure of pretend play. Pretense requires joint construction of scenarios and this joint collaboration requires understanding the pretending other's mind and therefore exchanging mental states via language (Brown, Donelan-McCall, & Dunn, 1996). Nielsen and Dissanayake (2000) empirically examined the relationship between preschool children's use of pretense and mental state talk. They found a significant positive relationship between the use of mental state words and pretend play categories, which indicates the representational quality of play (object substitution, imaginary play and role assignment). Similar results were obtained

by Dunn and Hughes (1997), who found that the frequency of mental state words was higher in pretend play than in non-pretend play,

It is suggested that play with an advanced partner increases the complexity and representation level of play (O'Connell & Bretherton, 1984). With the help of adult, children can learn to shift between the self and other's minds to interpret the representational nature of communication (Leslie, 1993). The mother's role for the child's symbol development through playing is crucial. Feldman and Greenbaum (1997) looked at the effect of mother-infant face-to-face play at 3 and 9 months on symbolization development at the age of 2. They found that the face-to-face mother infant play interaction at 3 months predicts all three elements of symbolic competence, namely symbolic play, verbal capacity and internal state talk of children at the age of 2. In a longitudinal study, Slade (1987) found that the level and duration of symbolic play among toddlers is positively affected by the maternal availability in the play (which was operationalized as the active interaction and usage of verbal comments). Similarly, toddlers were found to be involved in more complex symbolic play when they played with their mother compared to when they were playing alone. As expected, maternal intrusion was negatively correlated with symbolic play (Fiese, 1990). Another study, conducted by Youngblade and Dunn (1995), showed that early social pretend play with the mother, to which the mother brings the qualities of responsiveness, attention and affection, was

positively related to the child's later understanding of other people's mental states.

Mentalization and Clinical Problems

Development of mentalization in children proceeds well as long as the child successfully passes through the aforementioned stages aided by a secure attachment relationship to its mother. However, disruptions to a normal development of mentalization may occur for biological or psycho-social reasons. Since mentalization enables children to understand self and other minds, any deficiency of mentalization affects the level of children's adaptive functionality in daily life. The case of autism represents a clear example of this. It is suggested that children on the autism spectrum have biologically impaired attribution mechanisms for understanding the intentions of others (Fonagy et al., 2002). The lack of a mentalizing stance in children on the autism spectrum has been studied empirically mainly through the Theory of Mind tasks. Studies show that, when compared to normally developing children, children on the autism spectrum fail to interpret others' behavior in terms of intentions (Baron-Cohen, Leslie, & Frith, 1985; Frith & Happe, 1995).

Although not as fundamental as the case of autism, children with internalizing and externalizing problems were found to show deviant mentalization skills, compared to a normal population. Since mentalization is related to impulse control, attention regulation and self-monitoring in children (Fonagy & Target

1998), it is not surprising to find a relationship between behavioral problems and mentalization skills. Externalizing problems in children exist on a broad spectrum, from mild aggressive behavior to conduct disorder. Overall, children with externalizing problems tend to have poor relationships with both their parents and peers (Vitaro, et al., 2001, as cited in Sharp & Venta, 2012). It is suggested that this poor relationship quality is because of the mentalization style these children acquired. Sharp and Venta (2012) suggested that children with an externalizing problem use *distorted mentalizing* which leads to the attribution of hostile intentions to others when there is an ambiguity. This in turn leads to aggressive behavior of the children, as they expect an aggressive act from the other, even when there is no evidence for it. However, when children with conduct disorder interpret others' thoughts that are related to them, they acquire another distorted mentalization style, namely *overly positive mentalization* (Ha, Sharp & Goodyer, 2011). Regarding the link between externalizing problems and the ToM abilities of children, studies have found that children with behavior problems (measured by parent and teacher reports) showed poorer ToM performance compared to non-clinical groups (Hughes, Dunn & White, 1998; Fahie & Symons, 2003). Internalization problems in children and their link to mentalization have been studied for the case of anxiety problems (Sharp & Venta, 2011). Banerjee (2008, as cited in Sharp & Venta, 2011) explained the problem of anxious children's mentalization deficiency with reference to the problem of social cognition. Children with

anxiety tend to be hypervigilant in social situations and have negative evaluations. It is suggested that this experience of threat in social situations might be related to mentalization deficiency. Children with social anxiety were found to be experiencing hypervigilance when they do not have knowledge about the other's mind (Banarjee & Watling, 2010).

Aims and Hypotheses

The aim of the current study is to explore the interplay between mothers' and children's mentalization use in relation to mothers' attachment security and children's affect regulation capacity. The literature provides many insights on dyadic relationships between these variables, usually generated by using combinations of measures that focus on individual's representations of their attachment background (i.e. "off-line" measures) and of measures that focus on interactions between the mother and the child (i.e. "on-line" measures). However, there is a need for studies that investigate the interaction between the mother's mentalization, the child's mentalization and the child's affect regulation, based exclusively on on-line measures. To address this issue, this study explores the mentalization use of mother-child dyads and affect regulation level of children in play sessions.

The findings of this study may enhance our understanding of the inter-relatedness of mentalization, the attachment relationship and the psychosocial development of children. While formulating the hypotheses, the conceptualization of mentalization was kept relatively general, that is, during

this phase, it was not differentiated between the category of mental state words (emotion, cognition, perception, physiological and action-based), the referent of the mental state words (self, other and character related) and the context (pretend play and non-pretend play). This allowed this study to leave room to explore the unique links between mothers' and children's mentalization, mothers' attachment security, and children's affect regulation. Since mentalization and affect regulation are measured within the same session, the category, referent and context of mental state talk can provide a better understanding of what aspects of mentalization promote affect regulation in children. As a result, this study may provide clinicians who work with mothers and children with a more elaborate understanding of how to enhance interventions that aim at promoting mentalization skills.

Building on theoretical and empirical findings of the existing mentalization literature, the current study aims to find (1) a positive correlation between mothers' attachment security and their mentalization level during mother-child play; (2) a positive correlation between mothers' mentalization levels in mother-child play and children's affect regulation in mother-child play; (3) a positive correlation between children's mentalization level and their affect regulation in mother-child play; and (4) a positive correlation between mothers' and children's mentalization levels during mother-child play.

CHAPTER 3:
METHOD

Participants

Participants were 53 children (54.7% male) and 53 mothers. All participants initially applied to the psychological counseling unit of İstanbul Bilgi University. The majority of the families belong to low-middle socioeconomic status (SES) *(n=20)*. The rest was reported to be in the range of low SES *(n=9)*, middle SES *(n=17)* and middle-high SES *(n=7)*. 91% *(n=48)* of the mothers were married and only 9% *(n=5)* were divorced. Ages of the children were between 2 and 10 (*Mean= 7)*. All of the children were going to either kindergarten *(n=12)* or elementary school *(n=41)*. 53% of the children had one sibling *(n=28)*, 19% had two siblings *(n=10)*, 2% had three siblings *(n=1)* and 26% had no siblings *(n=10)*.

The majority of the children were referred to the psychological counseling unit due to behavioral problems *(n=24)*. Other reported problems were cognitive problems *(n=10)*, anxiety related problems *(n=4)*, relational problems *(n=3),* and other problems *(n=12)*. More than half of the children *(n=28, %53)* were reported to have a history of psychological or psychiatric help and 4 children *(%8)* had been diagnosed with ADHD.

Setting

The therapy and research center was located in the campus of Istanbul Bilgi University. Therapists were second- and third-year students in the clinical psychology masters program who were in their clinical practicum year. All of the therapists were receiving individual and group supervisions from experienced clinicians. In some of the play therapy room, there were cameras and microphones for research and supervision. The therapy rooms were fully equipped with appropriate toys for play therapy.

Procedure

Each therapy session lasted 45 minutes. The first four sessions were designed as assessment sessions. In the first intake session parents were asked questions about the developmental history of their children. In this session, consents were taken from parents who are willing to participate in the research. Parents were also asked to sign two different consent forms: one for the video and audio recording of their sessions, and the other for the anonymous use of information provided by the family. At the end of the first session, parents were given various scales, including the Experiences in Close Relationships Inventory (ECR-R) and the Child Behavior Checklist (CBCL) to be completed until the next session. The second and third sessions were designed as mother-child and father-child play. In the first part of these sessions, the parent was given the instruction to play in the therapy room as if they played at home. In

the second part of these sessions, the parent left the room and the therapist continued with only the child. In the fourth session, parents were given feedback for the results of the assessment. The therapy course began if parent(s) agreed to continue with the therapy of children.

Measures

The Child Behavior Checklist (CBCL)/4-18.

The Child Behavior Checklist was developed by Achenbach (1991) to assess emotional and behavioral problems of children in eight different behavioral domains: Withdrawn, Somatic Complaints, Anxious/depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Behavior and Aggressive Behavior. The CBCL is a checklist that is usually completed by parents or other care-givers who know the child well. The respondents rate 120 problem behavior items in terms of their frequency of occurrence in the last 6 months on a 3-point scale, on which "0" means "not true", "1" means "somewhat or sometimes true", and "2" means "very true or often true". The severity of the problem is evaluated as "non-clinical", "borderline clinical" or "clinical" level. The CBCL measures three broad-band scores of problem behavior: *internalizing, externalizing* and *total*. The "internalizing problems" score consists of the syndromes *anxious/depressed*, *withdrawn/depressed* and *somatic complaints*. The "externalizing problems" scores consists of the syndromes *delinquent behavior* and *aggressive behavior*. Besides these two

broad categories (internalizing and externalizing) of the CBCL, the scale has also "total problems" score, which comprises all items. Moreover, the CBCL has three competency scales, which assess *activity*-, *social*- and *school*-related issues.

The CBCL is highly reliable. The test-retest reliability of main scorings are as follows: a= .94 for the externalizing score, a=.90 for the internalizing score and a=.97 for the total problem score (Achenbach & Rescorla, 2001). Erol, Arslan, and Akçakın (1995) adapted the checklist to the Turkish context and found a good level of test-retest reliability (a=.84) and a good level of internal consistency (a= .88) for the total problem scale.

The Experiences in Close Relationships Inventory (ECR-R).

The Experiences in Close Relationships Inventory is a self-report adult attachment measure developed by Brennen and colleagues (1998). The ECR was revised by Fraley and colleagues (2000) as the Experiences in Close Relationships Revised (ECR-R) questionnaire. A reliability study for the scale was conducted by Sibley and colleagues (2005). Both the anxiety scale and the avoidance scale provided excellent reliability scores (*a= .93, a= .94*, respectively). The ECR-R includes 36 items and two dimensions. The first dimension of the scale is "anxiety" (18 items), which is operationalized as fear of abandonment, excessive need of approval and excessive distress in the absence/unresponsiveness of the partner, and the second dimension is the "avoidance" scale, which is defined as fear of dependency and excess need for

self-reliance (18 items). Each item is rated on a 6-point Likert scale (1=strongly disagree, 6=strongly agree). People who score high on one or both of the scales are considered to have insecure attachment. In contrast, people who score low on anxiety and avoidance scales are considered to have secure attachment. Adaptation and reliability studies for the Turkish context were conducted by Selçuk et al. (2005). The test-retest reliability of the anxiety and avoidance scales of YIYE II (Turkish version of The Experiences in Close Relationships) was a= .82 and a= .81 respectively. The internal reliability of the scales was a= .86 for anxiety and a= .90 for avoidance.

The Children's Play Therapy Instrument (CPTI).

The Children's Play Therapy Instrument is a coding system developed by Chazan et al. (1997) to measure the play activity of the child in individual therapy. The sessions are transcribed verbatim after being videotaped or audiotaped. The first step of the coding procedure is to divide the session into segments according to their "play", "pre-play", "interruption" and "non-play" qualities. "Non-play" indicates that the child is not engaged in play-related activity. "Interruption" is coded if the play ceased abruptly, for example, when the child leaves the therapy room. If the child does activities in order to get ready to play, then the segment is coded as "pre-play". Lastly, "play" is coded when the child is engaged in a playful activity by showing obvious verbal reactions like "let's play" or non-verbal intentions and develops a narrative

involving by positive or negative affect. Coding is only conducted for the play segments of the session. Each play segment is rated according to three different parameters, namely "descriptive", "structural" and "functional". Table 1 shows the details of these parameters: *Descriptive analysis* includes the subscales (1) "Category of the Play Activity", which consists of subscales indicating the type of activity that the child is engaged in (art, gross motor, manipulative, exploratory, fantasy, traumatic, game play). (2) "Script Description" measures the contribution of the child to the play in terms of initiation, facilitation, inhibition, ending, the reason for ending the play, and overall participation (passive observer, parallel play, passive and active participant. (3) "Sphere of the Play Activity" gives information about the spatial qualities of the play in terms of autosphere (using the body), macrosphere (using the actual surrounding), and microsphere (using miniature toys). *Structural analysis* consists of the following subscales: (1) "Affective Components" include affective tone (overall hedonic tone, spectrum of the affective tone, regulation and transition between the affective states, appropriateness of the affective tone) and type of affect experienced by the child during play. (2) "Cognitive Components" consists of the level of child's mental representations created during the play (complex, dyadic, solitary, precursor to role-play), stability of these representations (i.e. is there any transformation of representations and if there is are these transformations voluntarily or involuntarily done by the child?), and style of the representations (realistic, fantasy and bizarre). (3)

"Dynamic Components" includes the theme of the play (e.g. fear of death, sexual themes, competitiveness), level of relationship between the characters interacting within the narrative (self, dyadic, triadic and oedipal), and the quality of the relationship among the characters within the play (autonomous, parallel, dependent, twinning, malevolent control, destruction, annihilation). (4) "Developmental Components" compares the level of the child's play with developmental norms of gender, age and emotional-social development by looking at developmental level (very immature to very advanced), psycho-sexual phases (oral, anal, phallic, oedipal and latency) and social level of play (isolated, playing alone, parallel play, reciprocal play, cooperative play). *Functional analysis* assesses the aim of the child's play by looking at its defensive strategies (normal, neurotic, borderline and psychotic type) and overall awareness of itself playing.

Table 1: Parameters of the Children's Play Therapy Instrument (CPTI) Coding

DESCRIPTIVE ANALYSIS
Category of the Play Activity: Sensory Activity, Exploratory Activity, Problem-Solving, Fantasy, Game Play, Art
Script Description of the Play Activity: Initiation of Play, Facilitation of Play, Inhibition of Play, Ending of Play
Sphere of the Play Activity: Autosphere, Microsphere, Macrospheres
STRUCTURAL ANALYSIS
Affective Components of the Play Activity - Child's Affective Modulation: Hedonic Tone, Spectrum of Affects, Regulation of Affect, Transition between Affects, Appropriateness of Affect to Content - Affects Expressed by the Child: Anger, Anxiety, Fear, Boredom, Pleasure, Sadness, Shame, Guilt
Cognitive Components of the Play Activity - Level of Representation: Complex Roles, Dyadic Roles, Solitary Roles - Stability of Representations: Stable / Fluid Transformations, Voluntary / Involuntary Transformations - Style of Representation: Realistic, Magical, Bizarre - Use of Play Object: Realistic, Substitution, Sensory
Narrative Components of the Play Activity - Play Themes: Aggression, Attachment (Nurture, Separation), Body, Cleaning, Competition, Construction / Destruction, Danger / Protection , Death, Rules, Sex / Reproduction and Torture
Relational Components of the Play Activity - Level of Relationship Portrayed: Self, Dyadic Relations, Triadic Relations, Oedipal Relations - Quality of Relationship among Characters: Autonomous, Parallel, Dependent, Twinning, Malevolent Control, Destruction and Annihilation
Narrative Components of the Play Activity - Play Themes: Aggression, Attachment (Nurture, Separation), Body, Cleaning, Competition, Construction / Destruction, Danger / Protection , Death, Rules, Sex / Reproduction and Torture - Use of Language by the Child: Silence, Sounds, Verbalization of Roles, Talking about the Play, Talking about Something Other than the Play, Talking about the Meaning of Play
DEVELOPMENTAL ANALYSIS
Social Level of the Play Activity: Isolated, Play Alone, Parallel Play, Reciprocal Play, Cooperative Play
FUNCTIONAL ANALYSIS
Coping and Defensive Strategies (Cluster 1: Adaptive, Cluster 2: Conflicted, Cluster3: Polarized, Cluster 4: Extreme Anxiety)
Awareness of the Child that He is in Play

A reliability study of the CPTI was conducted by Kernberg and colleagues (1998). In order to measure the inter-rater reliability of the CPTI, three independent clinicians rated eight different sessions. The kappa coefficient of agreement of the raters on segmentation (non-play, pre-play, play and interruption) was 0.72. The average kappa coefficient of the twelve categorical subscales that belong to dimensional analysis was 0.65. The average Interclass Correlation Coefficient of twenty-five ordinal subscales (script description, affective, cognitive, developmental, dynamic components, adaptive functions and awareness) was 0.71. The CPTI was translated by Sibel Halfon (Asst. Prof., Clinical Psychologist) and ratings were done with a group of 16 students in order to evaluate the language and statement comprehensibility. The scale was finalized following necessary modifications according to the feedback received during this evaluation. Two masters-level clinical psychology students who received 20 hours of training on the CPTI from Sibel Halfon rated the sessions. In order to identify the agreement level between the judges, the Interclass Correlation Coefficient (ICC) for ordinal categories was calculated, which ranged from good to excellent (ICC = 0.78 - 0.89). Likewise, inter-rater reliability was good to excellent for nominal categories of the scale (Kappa = 0.84 - 1.00). An exploratory factor analysis was conducted to uncover groupings among the CPTI categories. Five main factors were obtained, namely Isolated Relations (Factor1, *a*= .87), Complex Relations (Factor2, *a*= .72), Affect Modulation (Factor3, *a*= .74), Play Disorganization

(Factor4, *a*= .73), Play Engagement (Factor5, *a*=.63). Factor 1, "Isolated Relations", is a 5-item factor that consists of the child's scores on playing alone (social level), solitarily role representation, self code in relational level, silence (Language) and reciprocity in social level (*M*= 1.78, *SD*= .86). Factor 2, "Complex Relations", consists of 4 items, namely complex role play, verbalization of roles, oedipal and triadic relational levels (*M*= 1.61, *SD*= .72). Factor 3, "Affect Regulation", is a 5-item factor including the items of awareness in the play, adaptive defenses (cluster 1), transition of affect, appropriateness of the affect and affect regulation (*M*= 3.36, *SD*= .50). Factor 4, "Play Disorganization", includes the following 6 items: realistic style of representation, fantasy style of representation, bizarre style of representation, psychotic defensive strategies (cluster 4), borderline defensive strategies (cluster 3) and transformation of the representations (*M*= 1.56, *SD*= .56). Lastly, Factor 5, "Play Engagement", is a 3-item factor code that includes inhibition of the script, hedonic tone and facilitation of the script (*M*= 4.02, *SD*= .59)

Each mother-child play session was coded according to the Children's Play Therapy Instrument (CPTI) (Kernberg et al., 1998) coding system by an outside judge. Coders were second- and third-year students from İstanbul Bilgi University, Clinical Psychology MA program. The coders were given training for 6 weeks and coded 12 different sessions. The coders were certified by certified the CPTI trainer Asst. Prof. Sibel Halfon after reaching a sufficient

inter-rater reliability score. Eventually, 12 certified coders, who were blind to the hypothesis, coded the mother-child play sessions according to the CPTI coding system.

The Coding System for Mental State Talk in Narratives (CS-MST).

The CS-MST is a coding system developed by Bekar et al. (2014) to assess the mentalization level through the usage of mental state language within the narrative told by parents and children. Mothers and children are given a 24-page wordless picture book (named "Frog, Where are You?" and authored by Mercer Mayer). The stories told by children and parents are recorded and transcribed verbatim for further coding. The coding system looks at the mental state word counts, the causal relationship of the mental state words and the uniqueness of the mental state words for the characters in the book, for the "self" of the narrator and the for "other" of the listener. For the characters, self and other, the mental state words are counted under five different categories: emotions (e.g., happy, sad, surprised), cognitions (e.g., believe, think, understand), perception (e.g., hear, see, look), physiological states (e.g., asleep, thirsty, hurt) and action-related mental states (e.g. hide, thank, smile). The unique and causal mental words are calculated for each category under character attributed mental state words. Unlike the character scheme, calculation of causality and uniqueness for the *self-related* and *other-related* mental state words is not done for each but for the total of five categories

(emotion, cognition, perception, physiology and action). Lastly, the CS-MST has a resolution coding part where a resolution of the story by the mother is coded if the mother acknowledges the separation theme at the end of the story and either provides a conclusive result by using mental state words or putting the separation narrative in context. The inter-rater reliability of the CS-MST was measured as .90 in all categories.

Adaptation of the CS-MST for Play Therapy

For the purpose of the current study, the CS-MST was adapted to play therapy under the supervision of Özlem Bekar, PhD. Since the session structure is different to telling a story out of a story book, the number and diversity of words that could be used were more compared to the original manual of the CS-MST. The character category of the CS-MST was considered to be the equivalent of pretend play in the play session of mother and child. Similar to the original manual, the codes for self or the other are used when the child or the mother is using mental state words for the self or the other (mother or child). An additional category, "outside reality", was added due to the need of coding the mental states that were used for people who were not currently in the therapy room (e.g., in the mother child play the child talks about her teacher and uses mental state words). The subcategories and counting procedure for this outside reality category is the same with self and other categories. The resolution category was excluded from the current adaptation, as there is no

structure for storyline and resolution. Due to the grammatical and semantic differences between the English and Turkish language and also due to the diversity of mental words used in a free play session, Özlem Bekar, PhD, and the raters included new words by consensus. Similar as in the CPTI procedure, masters-level students had 9 hours of training by Özlem Bekar, PhD, the author of the CS-MST (Bekar et. al., 2014). After coding 6 verbatim transcribed sessions, Özlem Bekar compared each raters' performance with her own coding for reliability. Afterwards, each mother-child play segment was coded by one of the students who had received the training.

CHAPTER 4:
RESULTS

Data Analysis

The longest play activity segment based on the CPTI was used for analysis. However, since the duration of the longest play segment varied greatly (*minimum:* 124 seconds, *maximum:* 2700 seconds), the number of total words and total mental state words would be higher for mother-child couples who spent more time in play activity. To eliminate this effect of time on mental state talk, the mental state word count for children and mothers was divided by their own total word count within the same segment.

The distribution of mental state talk of both children and mothers was positively skewed due to many scores of zero and few high scores. Square root transformation was used to normalize the distribution of mental state talk for mothers and children and to reduce outliers (DeCoster, 2001). It has been suggested that if one of the variables is transformed, the other variables, even if they are in the range of the normal distribution, should be transformed as well (Field, 2013, p. 154). For this reason, the questionnaires and the CPTI scores were also transformed.

The square root transformation normalized the word count data for *self-* and *other*-related mental state words but not the *character*-related mental state

words in children and mothers narratives. The variance among character-related mental state words of children and mothers was low and skewness was the highest compared to other categories. Since the square root transformation could not normalize the distribution of character-related mental state word counts, this category (both for mothers and children) was excluded from the further analysis. The "outside reality" (C8) category was also excluded from the analysis, since this category is not included in the original manual and variance was low. Similarly, causal and unique categories of mental state words were also excluded since their occurrence is dependent on the other categories. Finally, cluster scores of mental state talk were calculated according to the CS-MST coding manual. Sum scores of emotion (E), cognition (C), perception (P), physiological (Phy) and action (A) for character, *self-related* and *other-related* mental state talk of both children and mothers were calculated. There were no outliers left for *self-related* and *other-related* word counts for children and mothers after the transformation. Partial correlation and simple regression were applied to analyze the relationship among variables (mother's attachment security, mental state talk and affect regulation). The relationship of age and gender with children's mentalization level was explored in order to see if they need to be controlled for in the further analysis. The sample of the study included participants with problems at both the clinical and non-clinical level according to the CBCL. In order to see if there is any significant difference

between mentalization scores of children at the clinical and non-clinical levels, a Mann-Whitney U test was used for independent samples t-test.

Descriptive Analysis

Descriptive statistics for children' and mothers' mental state talk in the play segment is provided in Tables 2 and 3 respectively. Descriptive statistics include minimum, maximum, skewness/kurtosis values, mean values and standard deviations of *self-related* and *other-related* mental state talk of children and mothers.

Table 2: Descriptive Statistics for Children's Mental State Talk Frequency

	Character	Self	Other
Minimum	0	0	0
Maximum	5.83	0.32	0.28
Mean/SD	1.26 / 1.52	0.10 / 0.07	0.10 / 0.08
Skeweness/Kurtosis	1.24 / 0.98	0.46 / 0.31	0.20 / -0.66

Note: Character= The frequency of mental state words referred to characters in pretend play, Self= the mental state words referred to self, Other= The mental state words referred to other.

Table 3: Descriptive Statistics for Mothers' Mental State Talk Frequency

	Character	Self	Other
Minimum	0	0	0
Maximum	0.72	0.27	0.3
Mean/SD	0.08 / 0.11	0.11 / 0.06	0.17 / 0.06
Skeweness/Kurtosis	3.66 / 19.41	0.41 / 0.95	-0.33 / 1.09

Note: Character= The frequency of mental state words referred to characters in pretend play, Self= the mental state words referred to self, Other= The mental state words referred to other

Table 4 shows the categorical distribution of mental state talk. In all clusters (character, self and other), mothers' numbers of mental state words exceeded the ones of children. Both for mothers and children, mental state words attributed to *other* had the highest share of total mental state words.

Table 4: Distribution of Mental State Talk Clusters for Mothers and Children

	Mother		Child	
	Word count	Share	Word count	Share
Character	381	21%	191	28%
Self	444	24%	215	32%
Other	1017	55%	275	40%

Note. Character= The frequency of mental state words referred to characters in pretend play, Self= the mental state words referred to self, Other= The mental state words referred to other

Table 5 shows the subcategory with the highest percentage in all mental state talk clusters. The dominant subcategory of character-related mental state words for both mothers and children were *action*-based words. *Perception* had the highest percentage among other referred mental states in both children's and mothers' talk. *Cognition* was the dominant category in self-attributed mental state cluster in mothers' mental state talk, whereas it was *action* in children's mental state talk.

Table 5**:** Most Frequently Used Subcategory of Mental State Talk Clusters for Mothers and Children

	Mother		Child	
	Category	Share	Category	Share
Character	Action	43%	Action	47%
Self	Cognition	45%	Action	38%
Other	Perception	41%	Perception	65%

Note. Character= The frequency of mental state words referred to characters in pretend play, Self= the mental state words referred to self, Other= The mental state words referred to other

To obtain the percentage of most frequently used mental state words for mothers and children in all mental state clusters, the five words with the highest frequencies in the three mental state clusters were picked (five words were chosen as the cut-off point because the frequency of words dropped significantly, to values of 1 or 2, in all cases after the first five words) and divided by the total mental state word count. As shown in Table 6, mothers' and children's most frequent words are the same except for one or two words.

Table 6: The Five Most Frequent Mental State Words in Clusters for Mothers and Children

	Mother		Child	
	Word Type	Share	Word Type	Share
Character (E+C+P+PHY+A)	Sleep	2%	Sleep	3%
	Look	1%	Look	2%
	Wait	1%	Wait	1%
	Watch	1%	Watch	1%
	Want	2%	Meet	1%
Self (E+C+P+PHY+A)	Find	3%	Find	8%
	Know	4%	Know	3%
	Want	2%	Want	2%
	Look	4%	Choose	2%
	Understand	2%	Like	2%
Other (E+C+P+PHY+A)	Look	24%	Look	25%
	Find	3%	Find	3%
	Know	3%	Know	2%
	Want	12%	Want	1%
	See	3%	Think	1%

Note. Character= The frequency of mental state words referred to characters in pretend play, Self= the mental state words referred to self, Other= The mental state words referred to other, (E+C+P+PHY+A)= Cluster scores that are obtained from summation of emotion, cognition, perception, physiological and action based mental state words.

The symptom level in the sample was measured by parents' information included in the CBCL. The mean score of total problems was 64 (in comparison, the clinical level is 70). In order to check the relationship between symptom and mentalization levels of children, Mann-Whitney U t-test for independent samples was used. The result of the t-test showed no significant relationship between the total problem score of the CBCL and mentalization clusters of children. This shows that the sample was relatively homogenous in terms of clinical problem levels.

The relationship between age and gender as well as children's mentalization levels was tested by means of correlational analysis and a Mann-Whitney U t-test for independent samples. Table 7 shows the results of the correlational analysis for age and mentalization levels of children. There was no significant relationship between age and mentalization clusters. The Mann-Whitney U test that was conducted to test the relationship between gender and mentalization levels of children indicated that the character-related use of mental state terms was greater for females (*Mdn* = 1) than for males (*Mdn* = 2) (*U*= 203.5, *p*= .007). There was no significant difference between genders for *self-related* and *other-related* mental state word use. Even though the only significant result was about gender and character-related mental state words, gender and age of the children were controlled for in all further correlational analysis due to the theoretical evidence about the role of gender and age on mentalization levels of children.

Table 7: Correlational analysis for the relationship between Child Mentalization and age

	Character	Self	Other
Age of the Child	-.046	.065	-.122

Note: Character= The frequency of mental state words referred to characters in pretend play, Self= the mental state words referred to self, Other= The mental state words referred to other

*p < .05; **p < .01.

The play category of the mother-child segments were coded according to the Children's Play Therapy Instrument (CPTI). The CPTI includes the play categories *art* (engaging in an art activity like painting), *exploration* (exploration of play objects), *fantasy* (engaging in pretend play), *game play* (games with certain rules and structures), *gross motor activity* (using gross motor skills for playing, e.g. jumping, throwing), and *manipulation* (manipulation of play objects for creating something, e.g. using blocks to create something new). For each segment, the most and second-most dominant play category was coded as *category 1* and *category 2* respectively. Table 8 shows the distribution of categories of play activity for mother-child sessions. The percentages of fantasy play and exploration were found to be close to each other, while game play had the third-highest share.

Table 8: Frequency and Percentage of Type of Dominant Play Activity in Mother-Child Play

Play categories	Frequency	Share
Art	5	9.4%
Exploration	15	28.3%
Fantasy	16	30.2%
Game Play	10	18.9%
Gross Motor Activity	1	1.9%
Manipulation	6	11.3%

The descriptive analysis of mentalization clusters indicated that character-related mental state words of both children and mothers had a low level of variance and high skewness/kurtosis values even after transformation

of the data. For this reason, character-related clusters were not included in further correlational analysis.

Correlational Analysis

Hypothesis1: There will be a positive correlation between mothers' attachment security and their mentalization level during mother-child play.

Table 9 shows the values of partial correlation (age and gender of children were controlled) between the Experience in Close Relationship (ECR-R) questionnaire and mothers' self and other related mental state word scores (MMS). There was no significant relationship found between the ECR-R and MMS.

Table 9: Partial correlation between self-reported attachment security (the ECR-R) and maternal mental state talk (MMS)

	Self-Related MMS	Other-Related MMS
Total score (ECR-R)	-0.228	-0.108
Avoidance (ECR-R)	-0.142	-0.138
Anxiety (ECR-R)	-0.117	-0.240

Note. ECR-R = Experiences in Close Relationships–revised, MMS = Maternal mental state talk.

*p < .05; **p < .01.

Hypothesis 2: There will be a positive correlation between mothers' mentalization level and children's affect regulation in mother-child play

According to the second hypothesis, a significant positive correlation between mothers' mental state talk and children's affect regulation scores based

on the CPTI was expected. The results of the partial correlation were given in Table 10. According to the results, mothers' use of *self-related* mental state words was positively related to children's affect regulation in play at the significant level. There was no significant relationship for mothers' use of *other-related* mental state words and children's affect regulation.

Table 10: Partial correlation between maternal mental state talk (MMS) and children's affect regulation scores from the CPTI

	Self-Related MMS	Other-Related MMS
Affect Regulation	0.273*	-0.235

Note. MMS = Maternal mental state talk . *p < .05; **p < .01.

Hypothesis 3: There will be a positive correlation between children's mentalization level and children's affect regulation in mother-child play.

Table 11 shows the results regarding the third hypothesis. As expected, a significant relationship was found between children's affect regulation score based on the CPTI and their *self-related* mental state talk in mother-child play sessions. However, similar to hypothesis 2, there was no significant relationship for *other-related* mental state talk and affect regulation.

Table 11: Partial correlation between children's mental state talk (CMS) and children's affect regulation scores from the CPTI

	Self-Related CMS	Other-Related CMS
Affect Regulation	0.321*	0.161

Note. CMS = Children's mental state talk . *p < .05; **p < .01.

Hypothesis 4: There will be a positive correlation between mother and child's mentalization level during mother-child play.

As the fourth hypothesis indicates, Table 12 shows significant positive correlations between mother and child mentalization clusters. Mothers' *self-related* mental state word use was positively related to children's use of *other-related* mental state words. Mothers' use of *other-related* mental state words, on the other hand, was positively related to children's use of *self-related* mental state words. No significant relationship was found between mothers' and children's *self-related* mental state words. Similarly there was no significant relationship between mothers' and children's use of *other-related* mental state words.

Table 12: Partial correlation between children's (CMS) and mothers' mental state (MMS) clusters

	Self-Related MMS	Other-Related MMS
Self-Related CMS	0.232	0.347*
Other-Related CMS	0.524**	0.138

Note. ECR-R = The Experiences in Close Relationships–revised, MMS = Maternal mental state talk .

*p < .05; **p < .01.

Simple linear regression was used to assess the predictive qualities among variables. In order to predict children's affect regulation scores based on mothers' use of *self-related* mental state words, a simple linear regression was calculated and a significant regression equation was found ($F(3,49)$=9.499, P <

0.000). The equation was not significant when reversed. Similarly, prediction of children's affect regulation scores based on children's use of *self-related* mental state words was tested with a simple linear regression and the equation was significant ($F(3,49) = 10.316$, $P < 0.000$). The model was not significant when the predictor and dependent variable was reversed. Children's use of mentalization provided a slightly better prediction of affect regulation compared to mothers' use of mentalization.

Another simple linear regression was done to assess the relationship between mothers' *other-related* mental state word use and children's *self-related* mental state word use. Mothers' use of *other-related* mental state words was predicted based on children's use of *self-related* mental state words ($F(3,49)=3.827$, $P < 0.05$). When the predictor and dependent variables were reversed, the equation was not significant.

Lastly, simple linear regression was applied to mothers' use of *self-related* mental state words and children's use of *other-related* mental state words. The regression equation, in which the mothers' *self-related* mental state talk was the predictor and children's *other-related* mental state talk was the dependent variable, was found to be significant ($F(3,49)=6.419$, $P < 0.001$). The equation was also significant when the children's *other-related* mental state talk was the predictor and mother' *self-related* mental state talk was the dependent variable ($F(3,49)=6.694$, $P < 0.001$).

CHAPTER 5:
DISCUSSION

The aim of the current study was to explore the relationship between mothers' and children's mentalization levels, mothers' attachment security and children's affect regulation capacity.

The findings of this study show that as mothers mentalize their children's mind (use of *other-related* mental state words), children also mentalize their own mind (use of *self-related* mental state words). Likewise, when mothers mentalize their own mind, children also mentalize their mothers' minds. Even though mothers' mentalization of children's minds plays a predictive role of children's mentalization of their own mind, the relationship between mothers' mentalization of their own mind and children's mentalization of their mothers' mind was mutual. Children's affect regulation level in relation to mothers' and children's mentalization use was also explored. Both mothers' and children's mentalization of their own mind predicted the children's affect regulation in mother-child play session. However, unlike expected, no significant relationship was found regarding the relationship between mothers' attachment security and their mentalization level.

In this concluding section, first the general quality of the mentalization use of mothers and children will be discussed given the fact that the sample of

this study was a clinical sample. Afterwards, the significant and insignificant results of this study will be discussed.

Quality of Mentalization in the Current Sample

As mentioned earlier, the data was collected from clients who were referred to a psychological counseling unit. The sample is a clinical sample, due to referral reasons, clinical observations and high scores reported on the Child Behavioral Check List (CBCL). As shown by theory and empirical research, mentalization supports pro-social skills and affect regulation because symbolization of the actual experience enables children to have a more flexible mindset, which in turn facilitates perspective taking (Fonagy et al., 2002). Considering the reason for referral and high CBCL scores of the children, the mentalization quality of the mother-child dyads may be a major contributor to the reported problems that were mainly related to behavior and anxiety.

Since word count of mental state words would not provide a complete picture of the mentalization level, an in-depth look into the sessions and an exploration of the frequency and category of the mental state words should provide for a more comprehensive analysis. In this sample, the level of mentalization use by mothers and children points to a developmentally earlier stage of mentalization that is mainly based on *action language* and *joint attention*. From a Piagetian perspective, children are initially sensorimotor beings who experience the world through actions and reactions (Tuber &

Catflisch, 2011). In language, the sensorimotor experiences are reflected as verbal actions. Even though language itself is a symbolic structure, action-language carries a pre-symbolic quality, in which talk and action are not fully distinguished (Halfon, Fisek & Cavdar, 2016). When the narratives of children and mothers are explored closely, it can be observed that the most frequently used mental state words by children and mothers aim to describe the immediate action of the self and the other rather than carrying the aim of reflecting on the other's mind. When describing the self-state, the most frequently used mental state words are "look" and "want" (with the same share among total words) for the mothers and "find" for the children. "Look" is the most commonly used mental state word for referring to the other's mind for both mothers and children, having a large share of total words. Generally, the function of using "look" as referring to other's mind is to request other's attention for joining the current self action. For example, children often used sentences like "*Look* (other-reference) mom! I have *found* (self-reference) something" in the sessions. In mothers' cases a similar situation occurs, as illustrated by the following example: "We can build this house together. I *want* (self-reference) to organize the bedroom. *Look* (other-reference) there is even a kitchen and a living room. We can do anything here". In this context, referring to the other's mental state, especially by using perception-based mental state words is used to create shared attention. Shared attention is the prime version of communicative intent and the initial step for mentalization development (Tomasello & Todd,

1983; Frith & Frith, 2006). The mother-child dialogues during play show that both of the parties mainly use action based language and frequently request shared attention through mental state words. In that sense, the mental state words that are used for the purpose of shared attention do not necessarily include a mental reference, but they have a more communicative function (Shatz, Wellman & Silber, 1983). The presence of an earlier form of mentalization, which is mainly based on action-word use and joint attention, may be linked to lack of pretend play in the sample. As mentioned in the previous chapter, character-related mental state words were excluded from the analysis because of a low variance level. Pretense and the "as if"-attitude required in pretend play provide an intermediate space for symbolization and mentalization development (Fonagy & Target, 1996a; Fonagy & Target, 1996b). Pretend play has an important role in the transformation of the action-mode of thinking into the symbolic-mode of thinking (Leslie, 1987). Given this importance, the pre-symbolic mentalization level that is seen in mother-children dyads may be related to a lack of pretend play. It may be argued that the mother-child dyads in the sample cannot utilize pretend play for mentalization development and frequently feel the need to direct the other's attention because they may seldom interact with each other in a play setting. This manifests itself in the mother-child play sessions as the struggle to create a common interest in a new experience.

From the perspective of a developmental spectrum, mothers' and children' use of mentalization as identified in the present study should be regarded as an earlier form of mentalization with less symbolic features.

Even though it is an early form, the level of mentalization use by mothers and children seems useful for understanding mind and affect regulation in children. This issue will be discussed in the following section.

Hypotheses

Relationship Between Maternal Mentalization and Child Mentalization

Previous studies have demonstrated a significant relationship between mothers' and children's mentalization levels (Ruffman, Slade & Crowe, 2002; Taumoepeau & Ruffman, 2008; Dunn et al., 1991; Meins et al., 1998). Given these findings, a significant relationship was expected in this study. Regarding the hypotheses, two significant relationships were found, namely (1) between mother's use of *other-related* mental state words and child's use of *self-related* mental state words, and (2) between mother's *self-related* mental state word use and child's *other-related* mental state word use. In this section, first the relationship between the use of *other-related* mental state words and child's use of *self-related* mental state words will be discussed and later the significant relationship that was found between mother's *self-related* mental state word use and child's *other-related* mental state word use will be discussed.

The initial finding showed that in terms of the mentalization relationship between mother and child, the mother's mentalization of the child's mind (*other-related*) was found to be both related to and predictive of the children's mentalization of their own mind (*self-related*). This finding supports the importance of the existence of the "other" for mentalization development. Even though mentalization is an innate mechanism, the way in which children will make use of this capacity depends on their experience in the attachment relationship with their mothers (Gergely & Unoka, 2008). Both previous research (Fonagy & Target, 2006; Sugarman, 2006; Ensink, et al., 2015) and the finding of the current study support a developmental model where the mother's role in the child's mentalization development is that of an experienced tutor. Here, the mother's role can be explained through Vygotsky's (1978) concept of *Zone of Proximal Development* and *scaffolding*. By being always one step ahead, the mother uses her mind to scaffold the child to enhance his understanding of internal states (Fonagy et al., 2002). Rather than seeing this contribution of the mother to the child's mentalization development as being limited to the infancy period, scaffolding should be considered as a mechanism that is continuously enhancing the child's understanding of minds until he develops a mature mentalizing stance (Lillard, 1993). An illustrative example from a play session is provided below:

> *Mother:* What did you *find* (other-related) there?
>
> *Child:* We will play bowling. Hold this ball. I will *find* (self-related) something.

Mother: Okay, *find* (other-related) something.

Child: Look, I have *found* (self-related) one here!

Mother: Yes. Are there more? Will you *look* (other-related) *for* more?

Child: I am *looking for* (self-related) more. I have *found* (self-related) one more!

As can be seen in this example, the child is trying to organize his play by looking for play material. The mother realizes this and attends to the child's ongoing activity by referring to his act by using a mental state word. In return, the child uses this referral of the mother and uses it to mentalize his own state. One important issue here is that initially the mother uses the mental state word "find" as referring to the child and the child then acquires this and uses it to describe his own mental state. Similarly, only after the mother uses the term "to look for" the child also uses this term. This mother-child dialogue illustrates how the mother may accurately identify the child's mental state and scaffolds the child for externally mentalizing (verbalization) his own mental state.

Other than the scaffolding function, mothers' use of *other-related* mental state words often served the functioning of getting the child's attention. As mentioned earlier, "look" was the most frequently used mental state word to refer to the other, for both mothers and children. In the case of mothers, "look" was generally used to regulate the child's attention. However, mothers' requests for joint attention, by directing the child's attention, often failed. Research shows that mothers who try to regulate children's attention by initiation rather

than by following the child's focus are less likely to establish joint attention (Tomasello & Todd, 1983; Akhtar, Dunham & Dunham, 1991). An illustrative example of this from a play session is the following:

Mother: Let's tighten the screws here. *Look* (other-related)!

Child: I will *repair* (self-related) the house.

Mother: *Look* (other-related)! We can connect these two things.

Child: Yes, but wait, mother, I will still *repair* (self-related) the house.

Rather than attending to what the child is focusing on, the mother is trying to direct the child's attention to something new. But this attempt of the mother does not lead to joint attention. The frequent occurrences of this type of interaction between mothers and children in the study sample may point to a clinically relevant issue. Joint attention has been suggested to be the precursor of mentalization (Frith & Frith, 2003), and frequent failure of establishing joint attention in mother-child dyads may have an influence on the reported psychosocial problems of the children in the sample. There is one more interesting issue to consider in this example: even though the mother uses "look" as a referral to the child, this mental state word does not seem to be used with the aim of mentalizing the child's internal state. On the contrary, it fails to target the child's focus. Given the importance of accuracy of the mother's mentalization for the child's mentalization development (Meins, et al., 2003; Meins, et al., 2002), it is interesting to see that the mother's mentalization that does not exactly represent the child's mental state still leads to the child's

mentalization of his own mind. This can be explained by Sharp, Fonagy and Goodyer's (2006) suggestion that as long as the mother does not hold a destructively inaccurate mentalization stance, in which the child's subjective experience is denied, average maternal accuracy may still contribute to healthy development.

The second finding of the current study related to the mentalization relationship between mothers and children is the reciprocal relationship between mothers' mentalization of their own mind and children's mentalization of their mother's mind. When this relationship is examined by means of the session transcripts of mother-child play, the child's *other-related* mental state word use and the mother's *self-related* mental state word use are, in contrast to previous findings, more likely to produce joint attention between the mother and the child. This relationship can be illustrated by the following example:

> *Child*: *Look* (other-related) mom, what is this?
>
> *Mother*: Hmm I don't *know* (self-related) what this is, but it is up to you. This can be whatever you *want* (other-related). *Look* (other-related), this can be a lamp like this.
>
> *Child*: Can we *find* (other-related) something else? What is this?
>
> *Mother*: I also don't *know* (self-related) what this is. Can it be a theatre stage? This is the curtain; there is the stage for the puppets. Do you *want* (other-related) to play with the puppets?

Rather than directing the child's attention to something new, the mother joins the child's ongoing activity and this promotes the joint attention between child and the mother. "Look" is the most frequently used *other-related* mental state

word for children, and an evaluation of the sessions shows that when mothers respond to their child's request for attention by referring to their own mental state, it is more likely that they will follow the child's mental state rather than directing the child's focus their her own. Successful communication is crucial for interpersonal relationships and this requires an understanding of intentionality. In order to maintain communication, it is important that the listener is receptive and represents the mental states of the speaker (Frith & Frith, 2006). Here, the child (speaker) sees that he can alter the mental state of the mother (listener) and create shared attention.

Moreover, it is important to discuss the mother's use of the mental state word "know", which is a cognitive mental state word, and its role in the child's mentalization level. As illustrated in the example, the mothers in the sample often use "know" to describe their own process of thinking. This allows them to signal their intention to form joint attention with the child. It allows the mothers to share their beliefs and thoughts, which may function as a model of self-reflection that the child can gradually internalize.

Relationship between Maternal Mentalization and Child's Affect Regulation

Although only limited research exists that shows a direct relationship between maternal mentalization and affect regulation, studies have shown a significant relationship between maternal mentalization and attachment security of the child (Fonagy, Steele, & Steele, 1991; Van IJzendoorn 1995; Main, Kaplan, & Cassidy, 1985; Steele, Steele, & Fonagy, 1996), which is an

indicator of affect regulation capacity. The current study's finding regarding the hypothesis demonstrates a significant relationship between maternal mentalization and child affect regulation, more specifically, the mother's *self-related* mental state word use was found to be predictive of affect regulation. Gocek et. al.(2008) found that mothers in the non-clinical sample used more self-referred cognitive words, compared to mothers in the clinical sample. She argued that mothers who can reflect on their own internal states (*self-related* mental state words) are also sensitive to their children's emotional signals. As Dimaggio and colleagues (2008) have shown, knowing oneself provides a model for understanding the other. Being able to reflect on the internal state increases the complexity of self-knowledge, and in turn may allow the mothers to regulate their behavior, which allows them to be more responsive to the emotional signals of the child (Gocek, Cohen & Greenbaum, 2008). The following example illustrates how mothers' use of *self-related* mental state words may contribute to children's affect regulation:

> *Child*: We will put the doll here. Now you extinguish the fire.
>
> *Mother*: Where should the doll stand?
>
> *Child*: Extinguish the fire now! There is a fire!
>
> *Mother*: Oh fire! I *apologize* (self-related); I did not *understand* (self-related) that. Where is the fire? Let's go with the firefighters.

In this example, the mother uses *self-related* mental state words to signal explicit engagement in the child's conflict. Considering the *self-related* mental

state words that were used by mothers, it can be concluded that the mothers in the sample prefer action-based language to signal their attentiveness. The child's affect regulation may improve due to the realization that its mother is attentive to its mental state and actively engaging for regulation. This interaction between the mother and the child in the context of the child's affect regulation is referred to as co-regulation. Co-regulation in mother-child relationships includes temporal coordination, contingency as well as mutuality, and it gives rise to affect regulation (Lunkenheimer, et al., 2011). The importance of co-regulation for children's psycho-social adjustment has been demonstrated by several studies (Mize & Pettit, 1997; Atzaba-Poria & Deater-Deckard, 2004; Cole, et al., 2003).

Relationship between Children's Mentalization Level and Affect Regulation

Like research on the link between maternal mentalization and child affect regulation, research regarding the link between the child's mentalization level and affect regulation is also relatively limited (Taumoepeau & Ruffman, 2008; Gottman, Katz & Hooven, 1996; Garner, Dunsmore & Southam-Gerrow, 2008). In agreement with previous findings, children's use of *self-related* mental state words is found to be both positively related to and to be predictive of their affect regulation in play. However, children's affect regulation is predicted slightly better by children's mentalization of their mind than by mothers' mentalization of their mind. As discussed in the case of the

relationship between mother's self-reflection and child's affect regulation, it might be argued here that child's self-reflection can be more relevant to his regulatory process compared to other-reflection since self-reflection provides more insight to the child's internal states. It can be suggested that as the child perceives himself as thinking and feeling, his sense of agency improves. Gross and Barrett (2011) claimed that high affective arousal occurs when no sense of agency in labeling the internal state is experienced. Understanding the internal world may allow the child to self-regulate these experiences, as the child perceives itself as a distinct agent (Efklides, 2008). Children in the sample used the terms "find" and "know" most frequently when they engaged in self-reflection. The frequency of these words depends on the nature of play that children engaged in. In the sample of the current, children used a high ratio of playtime for exploratory play. In the framework of attachment theory, the feeling of security and exploration are related, and the former often leads to existence of the latter. Given this, it can be argued that children are more likely to gain a sense of self-agency by exploring their internal states and their correspondence in the external world when mothers provide them with a sense of security, which originates in the mothers' ability to engage in self-reflection. The child's self-agency and its contribution to regulatory processes can be illustrated by the following example:

> *Mother:* Let me *see* (self-related). Hmm… This one is broken, though.
>
> *Child:* I *want* (self-related) to put this in the firefighter's car. It can be attached again, mom.

Mother: Yes.

Child: I *know* (self-related) how to attach it mom.

Mother: Okay, do it.

Child: This will be here… *Look* (other-related) mom! It was attached easily.

As seen in the example, when a child perceives itself as a psychological agent who is aware of its own desire and acts to attain it, then this contributes to the child's affect regulation more than the mother's use of self-reflection words. This becomes meaningful when one considers the developmental part, which suggests that children engage in more self-regulation than co-regulation as they mature (Gallimore & Tharp, 1999, as cited in Hadwin & Oshige, 2011). The mother's engagement in the child's regulatory process through self-reflection (using self-reflection primarily to show that they actively help the child) carries a quality of co-regulation. However, the child's engagement in self-reflection carries a quality of self-regulation, as he acts upon his own needs.

Even though a significant relationship between mothers' mentalization, children's mentalization and affect regulation is found, this finding should be interpreted cautiously. Considering the frequency and category of *self-related* mental state words of mothers and children, which were found to be related to affect regulation of children, it must be noted that both mothers and children used only few emotion words. The labeling of the affective experience in terms of feeling talk is important for self-regulation. Affects and high affective

arousal occur mainly automatic and outside of conscious experience. Feelings and emotions allow the conscious evaluation of these affective experiences. In this regard, having feelings transfers the affective states to the cognitive arena, which in turn allows one to reflect on them and communicate them interpersonally (Fonagy, et al., 2002). Affect regulation, which includes awareness of the feelings that are triggered by affective arousal, should provide a space where affect and cognition interact, but not eradicate, each other (Jurist, 2005). Without this conscious connection, the type of affect regulation can be spontaneous, non-reflective behavioral reaction against high affective arousal (Fonagy, et al., 2002). This type of affect regulation is called *basic affect regulation* and it aims to modulate affective arousal by outward expression of the affect, often in the form of action (Jurist, 2005). The action-based language that is used by children in the sample as a general style of mentalization seems to meet the needs of this kind of basic affect regulation. However, action-based language by itself may be insufficient to provide the awareness what affective states (which may be related to past, present or anticipated future experiences) motivate the behavior. In this sense, a disconnection between the affective and cognitive parts of the experience in the form of lack of emotion words is observed among the children in the sample. As a regulatory process, mentalization develops through the steps of attention regulation, affect regulation and finally mentalized affectivity (Verheugt-Pleiter, 2008). In order to understand the disconnection within the children's affect regulation, it is

important to evaluate mothers' contribution to children's affect regulation development in terms of their use of mentalized affectivity. Mentalized affectivity is the ultimate version of affect regulation and mostly seen as an adult capacity of affect regulation (Verheugt-Pleiter, 2008). The difference between mentalized affectivity and basic affect regulation is that mentalized affectivity does not aim at direct reduction of tension by avoiding the arousal that evokes the situation, but it allows one to consciously think about the affective state while at the same time staying within the affective state (Jurist, 2005; Fonagy, et al., 2002). Even though mentalized affectivity is not expected to fully develop in young children, the mother's capacity to apply mentalized affectivity to herself would provide the child with a model that it can gradually internalize. The findings of this study support this premise by showing that the mother's self-reflection seems to be important for both the child's understanding of others and its affect regulation capacity. The lack of affective communication between the mother and the child (in which the mother reflects on the affective states of the child and engages in mentalized affectivity) may be an important obstacle to the development of complex affect regulation skills in children.

Relationship between Mothers' Attachment Security and Maternal Mentalization

As mentioned earlier, unlike expected, there was no significant relationship between mothers' attachment security and mentalization use. Given the significant findings in the relevant literature, most of the studies used the Adult Attachment Interview (AAI) for the attachment measure to investigate the relationship between adult attachment and mentalization (Bouchard, et al., 2008; Fonagy et al., 1991; Slade et al., 2005; Arnott & Meins, 2007). For this reason, the insignificant finding between mothers' attachment security and mentalization may be related to the type of adult attachment measure. In the current study, the Experience in Close Relationship (ECR) inventory was used. Having good reliability and validity results, ECR is a self-report adult attachment measure, which focuses on the romantic adult relationship style. Since mentalization covers a representational model of affective and cognitive states, ECR, being a self-report measure with a Likert scale, may miss the representational link between adult attachment and mentalization.

Regarding the question if self-reported and AAI measures of different aspects of attachment security correspond, Roisman and colleagues (2007) have shown that there is only little correlation between AAI and self-reported adult attachment measures (r= .09). Given the high concordance between the categories of the AAI and infant attachment style (van Ijzendoorn, 1995), it may be inappropriate to use the ECR-R (a self-reported measure focusing on

attachment security in adult romantic relationships) to investigate the link between the mother's attachment security and the mother's representational mind regarding the self and the child.

Limitations and Future Research

This study has several limitations. To begin with, the sample size of the study was relatively small. This created the problem that certain subcategories of mentalization had to be removed from the analysis, due to low levels of variance. Future research with larger samples may provide more significant results regarding the hypotheses of the study. Studies with a larger sample could provide significant results regarding the relationship between the CBCL scores and mentalization level of children. There, it would be interesting to compare the difference in mentalization between children with internalizing problems and children with externalizing problems based on the CBCL scores.

The fact that the sample of the current study consisted only of children with clinical-level problems is a further limitation. Considering that Gocek and colleagues (2008) found a significant difference between the clinical and non-clinical samples in terms of mothers' use of cognition-based *self-related* mental state words, future studies that compare the mentalization and affect regulation relationship of clinical and non-clinical groups may be useful for assessing the links between clinical problems, mentalization and affect regulation.

There also are important limitations regarding the measurement of mentalization. For once, the measurement of mentalization was done via the Coding System for Mental State Talks in Narratives (Bekar et al., 2014). The CS-MST was originally developed to measure mental state talk by using a picture story book. Adaptation of the CS-MST to the play therapy context may have failed in covering unique aspects of mentalization in play. Relatedly, the low variance levels among the subcategories of the scale may have occurred because of this divergence in contexts. A mentalization measure specifically developed for the play context may be more useful for understanding the nature of mentalization in the play context. It may have better to check the contextual appropriateness/accuracy of mental state words. Although coded as mental state words, some mental state words may not appropriately represent the mental state of the self or other. Previous studies have demonstrated the importance of the accuracy and the appropriateness of the mental state talk of mothers when referring to their children. These studies have concluded that age- and context-appropriate use, rather than just any use, of mental state words is crucial for the psycho-social development of the child (Bernier & Dozier, 2003; Meins, et al., 2001). The addition of an accuracy measure may therefore be useful for detecting such deviant mentalization use, and would thus be informative for future research.

Another limitation of the present study is that linguistic factors related to the Turkish language were not considered, even though a Turkish sample

was used to measure mentalization. Aksu-Koç and colleagues (2005, as cited in Kaysili & Acarlar, 2011) showed that when the False Belief Tasks were presented by using „suppose“ (*sanmak* in Turkish) instead of „think“ (*düşünmek*), Turkish-speaking children showed earlier success in ToM tasks compared to English-speaking children. Moreover, since the CS-MST only counts mental state verbs, any adaptation of this measure to the Turkish language fails to count children's ability to use and understand Turkish modality suffixes that indicate the source of knowledge (e.g. *-mış*, *-dır*). Aksu-Koç and colleagues (2005, as cited in Kaysili & Acarlar, 2011) also found that understanding and using these modality suffixes predicts later ToM performance of Turkish-speaking children. These findings show the importance of developing a mentalization measure that is more appropriate for the Turkish language.

Even though the correlational analysis controlled for age and gender differences, a more comprehensive analysis of children's executive functioning, verbal abilities, and attachment styles should be conducted to increase the reliability of the results. Measuring mentalization capacity of children by mental state talk requires controlling for children's language ability. For this reason, future research may use the Turkish Expressive and Receptive Language Test (TIFALDI) (Berument & Güven, 2010) to measure children's language/verbal abilities. Executive functions of children could be measured with the Wisconsin Card Sorting Test (Heaton, et al., 1993) or with the

Wechsler Intelligence Scale for Children–Fourth Edition (WISC–IV; Wechsler, 2003). Lastly, the Child Attachment Interview (Target, Fonagy & Shmueli-Goetz, 2003) could be used to assess children's attachment style.

A more comprehensive measurement of mothers' attachment style, reflective functioning, and parenting style would also improve the analysis of the links between attachment, mentalization and affect regulation. For instance, instead of using a self-report measure for assessing mothers' attachment, the Adult Attachment Interview (George, Kaplan, & Main, 1985) may be a better option. In addition to maternal mental state talk, using the Parent Development Interview (PDI; Aber, Slade, Berger, Bresgi, & Kaplan, 1985) may allow for a more comprehensive analysis of maternal mentalization. Lastly, parental attitude could also be measured by using the Child Rearing Questionnaire (CRQ; Paterson & Sanson, 1999).

Conclusion and Implications

This study aimed to investigate the relationship between mother and child mentalization in relation to mother's attachment security and child's affect regulation. It explored the unique links between mothers' and children's mentalization, mothers' attachment security, and children's affect regulation, by keeping the conceptualization of mentalization relatively general during the formulating of the hypotheses.

The findings of this study regarding the proposed hypotheses can be summarized as follows. With regard to the link between mother and child mentalization, two significant relationships were found. These two relationships were (1) between the mother's use of *other-related* mental state words and the child's use of *self-related* mental state words, and (2) between the mother's use of *self-related* mental state words and the child's use of *other-related* mental state words. While the mother's use of *other-related* mental state words as found to be predictive of the child's use of *self-related* mental state words in the first relationship, a mutual interaction was discovered in the second relationship. As for the hypotheses regarding the relationships between maternal mentalization and child affect regulation, and between child mentalization and child affect regulation, it was found that both the mother's and children's use of *self-related* mental state words were related to and predictive of the child's affect regulation. No significant relationship was found between the mother's attachment security and mother's mentalization.

To gain a better understanding of the findings, it was important to interpret the quality of mental state talk between mothers and children, given the fact that the study used a clinical sample. A closer look at the sessions of mother-child play showed that the mothers' and children' use of mentalization that was identified in this study may have to be regarded as an earlier form of mentalization, one mainly based on pre-symbolic action-based language and the joint attention need (Tuber & Caflisch, 2011; Tomasello & Farrar, 1986). Given

the importance of pretend play for mentalization development, it was remarkable to see that both mothers and children used so few mental state words during pretend play that this category even had to be excluded from analysis. Overall, the frequency and category analysis of mental state words showed that mothers and children used similar words for the categories of character referral, *self-related* and *other-related*, that the word "look" dominated the *other-related* mental state talk of both mothers and children, and that mothers and children mainly used cognitive and action-based words (with the exception of the case of "look" which is a perception-based mental state word) and only very few emotion-based words.

Based on the qualitative and quantitative analysis of mental state talk between mothers and children, it can be concluded that mother's self-mentalization might be more important to the child's mentalization development and affect regulation than her mentalization of the child. As Gocek and colleagues (2008) argued, the mother's ability to understand her own internal states may also increase her understanding of her child's mental states, since she may be more sensitive and responsive to the signals coming from the child once she has established self-regulation. This argument is in agreement with the reflective functioning and the parental reflective functioning literatures, which show that the mother's capacity to reflect on her internal states is related to maternal sensitivity and attachment security (Kelly, et al., 2005; Fonagy, et al., 1991). The difference between mother's self-mentalization

and other-mentalization (i.e. mentalizing the child) in terms of its contribution to the child's mentalization and affect regulation can be best observed through the success of joint attention between mother and child. It was observed that when mothers use *other-related* mental words (mainly the term "look"), they often try to regulate the child's attention by directing its focus to something new rather than by attending to the child's state, thus failing to form joint attention with the child. On the other hand, when mothers were attentive to the child's joint attention request (again, mainly by using the term "look"), they did this by introducing their own internal state (using *self-related* mental state words like "look", "know" and "find") to explicitly show their responsiveness. One could argue that the mother's self-reflection also contributes to the child's affect regulation because being responsive to the child's internal state cues may create the opportunity for mothers to be actively engaged in the down-regulation of the child's affective states. Even though the mother's self-understanding was more significant for the child's affect regulation than for the mother's understanding of the child (by using *other-related* mental state words), the mother's use of *other-related* mental state words was still found to predict the child's use of *self-related* mental state words. In some instances, this manifested itself in the mother's request for joint attention and the child's response by using *self-related* mental state words. However, in other instances, mothers were able to use *other-related* mental state words for scaffolding children's mentalization development. For clinical practice, it may be important

to work towards replacing the mother's dominant style of using *other-related* mental state words to direct the child's attention with a more scaffolding-oriented style.

The importance of self-understanding, in terms of using mental state words referred to self, was even more obvious for the case of children, since child's self-mentalization was found to be a slightly better predictor of child affect regulation. Given that self-regulation is developmentally a more mature form of co-regulation (Gallimore & Tharp, 1999, as cited in Hadwin & Oshige, 2011), the benefit of self-regulation for child's affect regulation may be higher, since it provides the child with an increased sense of agency. A final issue to consider regarding the link between mentalization and affect regulation is that both the child's and mother's affect regulation strategy for the child seem to be action-oriented rather than aiming to reflect on emotions. Considering the role of mother's self-reflection on child's affect regulation, an improvement of child's affect regulation capacity may be provided by mother's use of mentalized affectivity during interaction with the child.

The findings of this study hold important lessons for clinicians who work with children and their families. The findings indicate that, in addition to the existing emphasis on the mother's reflection on the child's mind via the use of mental state talk, the *mother's self-understanding* may be the first step toward *understanding the child*. The findings also demonstrate the importance of teaching mothers how to *follow* their child's leads in play rather than

directing their child's attention to something new. However, these findings should be read with caution when applied to a clinical setting in Turkish culture. After all, mentalization as a concept was developed in the context of individualistic cultures. Given that Turkish culture is closer to collectivistic culture (Kagitcibasi & Ataca, 2005), parenting approaches (i.e. if parents foster dependence or independence in children) may differ from parenting approaches in individualistic cultures. For this reason, it is important to keep in mind cross-cultural differences when evaluating the communication patterns of mothers and children. In sum, an assessment of mentalization levels of mothers and children may provide an important perspective for clinicians' work, by helping them to link this capacity to children's psychosocial development.

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