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INVESTIGATING THE LINKS BETWEEN CHILDREN'S PRETEND PLAY AND EMOTION REGULATION IN A TURKISH CLINICAL SAMPLE

GÜLSÜN ÜNAL YARAR
115639009

ELİF AKDAĞ GÖÇEK, FACULTY MEMBER, Ph. D

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Investigating the Links Between Children's Pretend Play and Emotion Regulation in a Turkish Clinical Sample

Çocukların Sembolik Oyun Özellikleri ve Duygu Düzenleme Becerileri Arasındaki İlişkinin Klinik Türk Örnekleminde İncelenmesi

Gülsün Ünal Yarar

115639009

Thesis Advisor: Elif Akdağ Göçek, Dr. Öğr. Üyesi : .....
İstanbul Bilgi Üniversitesi

Jury Member: Sibel Halfon, Dr. Öğr. Üyesi : .....
İstanbul Bilgi Üniversitesi

Jury Member: İpek Güzide Pur Karabulut, Dr. Öğr. Üyesi : .....
Maltepe Üniversitesi

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ABSTRACT

The development of emotion regulation is one of the important requirements in healthy child development. The disturbances in emotion regulation have been linked with adjustment problems in children. Engagement in pretend play, which is characterized by the use of symbolism, fantasy and make-believe, contributes to the emotional development of children. However, the research on pretend play and emotion regulation is relatively scarce, particularly in the Turkish literature. The current study examines the relationships between children's pretend play characteristics and emotion regulation abilities. The study examined 99 children who were referred to Istanbul Bilgi University Psychological Counseling center, aged between 3 and 11. Children were assessed on their affective and cognitive processes in pretend play and emotion regulation prior to psychotherapy. Children were presented five-minute pretend play tasks and their plays were videotaped and audio-recorded for coding. The mothers rated the 'Emotion Regulation Checklist' for their children's emotion regulation. The results of the statistical analysis showed that affective and cognitive processes in pretend play were not significantly associated with children's emotion regulation. Exploratory analysis revealed that aggression expressed during the pretend play was significantly related to children's emotion regulation. In addition, affective and cognitive processes occurring during the pretend play were significantly related with each other. The findings of the study were discussed in the light of existing literature.

Keywords: emotion in children, emotion regulation, pretend play, cognition in play, affect in play

ÖZET

Duygu düzenleme becerilerinin gelişmesi sağlıklı çocuk gelişiminin önemli gerekliliklerinden bir tanesidir. Duygu düzenlemedeki aksaklıklar çocuklarda uyum problemleri ile ilişkilidir. Sembollerin, fantezinin ve hayal gücünün kullanıldığı sembolik oyunlar çocuğun duygusal gelişimine katkıda bulunur. Fakat alan yazında, özellikle de Türkiye alan yazınında sembolik oyun ve duygu düzenleme arasındaki ilişkiyi inceleyen çalışmaların sayısı azdır. Bu çalışma çocukların sembolik oyun özellikleri ve duygu düzenleme becerileri arasındaki ilişkiyi incelemektedir. Yaşları 3 ve 11 arasında olan ve çeşitli duygusal ve davranışsal problemlerden ötürü psikoterapiye yönlendirilen 99 çocuk çalışmaya katılmıştır. Çocukların sembolik oyundaki bilişsel ve duygusal süreçleri ve duygu düzenleme becerileri çocuklar psikoterapiye başlamadan önce yapılmıştır. Çocuklar 5 dakikalık sembolik oyun uygulamasına tabii tutulmuştur ve oyun süreçleri daha sonra kodlanmak üzere görsel ve işitsel kayıt altına alınmıştır. Çocukların anneleri çocuklarını duygu düzenleme ölçeğini üzerinde değerlendirmiştir. İstatiksel analiz sonuçları sembolik oyundaki duygusal ve bilişsel süreçlerin duygu düzenleme ile anlamlı olarak ilişkili olmadığını göstermiştir. İleri analiz sonuçlarına göre ise sembolik oyunda ifade edilen saldırganlığın duygu düzenleme becerisi ile anlamlı olarak ilişkili olduğu görülmüştür. Ayrıca sembolik oyunun duygusal ve bilişsel süreçlerinin birbiriyle anlamlı ölçüde ilişkili olduğu bulunmuştur. Çalışmanın sonuçları alan yazındaki diğer çalışmaların bulguları ışığında tartışılmıştır.

Anahtar Kelimeler: çocuklarda duygu, duygu düzenleme, sembolik oyun, oyundaki biliş, oyundaki duygulanım

CHAPTER 1

INTRODUCTION

Emotion regulation is defined as "the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially their intensive and temporal features, to accomplish one's goals" (Thompson, 1994, pp. 27–28). One of the key features of healthy emotional development is acquisition of emotion regulation skills, and inability to regulate emotions is linked to development of psychopathology during childhood (Blair & Diamond, 2008). A body of research has documented strong links between difficulties in emotion regulation and psychological symptoms such as depression, anxiety and aggressive behavior in children (Cicchetti, Ackerman, & Izard, 1995; Rothbart & Bates, 1998; Eisenberg, Fabes, Guthrie, & Reiser, 2000; Kim & Cicchetti, 2013).

Negative emotionality, which is defined as individual differences in vulnerability to experience and reacting with negative emotions like sadness, anxiety, fear and anger, has been consistently linked with the disturbances in emotion regulation and development of psychopathology during childhood (Eisenberg et al., 2005). In particular, anger and frustration were linked with delinquency and aggressive behavior, and dysphoric affect such as fear and sadness were linked to depression, anxiety, social withdrawal and somatic complaints (Eisenberg, et al., 2005; Oldehinkel, Hartman, De Winter, Veenstra, & Ormel, 2004; Lengua, 2003).

Pretend play which is a certain kind of children's play, is characterized by pretense use of symbolism, fantasy and make-believe (Fein, 1989). Engaging in pretend play gives children a chance to act out emotional experiences; therefore, an association between child's pretend play and emotion regulation ability was suggested by various researchers (Fein, 1989; Russ & Schafer, 2002). As children symbolically create and then manipulate emotionally overwhelming situations in play, they develop and improve their emotion regulation skills (Galyer &Evan, 2001).

In support with this view, both cognitive and affective processes occurring during pretend play were linked with children's emotion regulation skills (Fein, 1989; Russ, 2004). For example, children who expressed both positive and negative emotions and affect themes in play as well as who displayed an organized and imaginative pilot had better emotion regulation skills and lower adjustment problems (D'Angelo, 1995; Kuagars &Russ, 2009).

In the scope of the literature mentioned above, the present study aims to investigate the relationship between children's pretend play and emotion regulation abilities. It aims to provide a better understanding of the affective and cognitive processes occurring in pretend play and, how they would associate with emotion regulation skills in children. In the following literature, first emotion regulation during childhood will be explained. Second, conceptualization of pretend play and assessment of pretend play will be explained. Third, research findings on the relationship between pretend play and emotion regulation will be presented and finally, hypothesis of the current study will be stated.

1.1. EMOTION REGULATION IN CHILDREN

1.1.1 Emotion in Children

Research provided different definitions of emotion. From a psychosocial/biological point of view Ciompi (1991) suggested that emotions play a role in organizing and integrating human cognition by enhancing the elements of cognition synchronically and diachronically, and contribute to their storage and demonstration according to context. Similarly, Dodge (1991) conceptualized emotions as underlying elements of many aspects of mental functioning. He suggested "all information processing is emotional, in that emotion is the energy that drives, organizes, amplifies and attenuates cognitive activity and in turn is the experience and expression of this activity" (Dodge, 1991, p.159). Saarni and

collegues (1998) highlighted the transactions between person and event in the social world in describing emotion. They defined emotion as the person's attempt or readiness to establish, maintain, or change the relation between the person and the environment on matters of significance to that person. Significance of an event may be determined by the person's goals and schemas in memory.

Interpersonal view of emotion pointed out the distinct ways in which children experience and communicate emotions within human relationships, parent-child relationship in particular (Stern, 1985; Siegel, 2003). Siegel (2003) proposed that subsequent elaborations on "primary" emotional states such as initial orientation, appraisal and orientation lead to differentiated emotional states, such as sadness, joy or fear. Stern (1985) called these externally observable states as "vitality affects" in the interpersonal view of emotion. Vitality affects do not refer to *the* behavior a child exhibits; rather, it refers to *how* the child performs the behavior. All behaviors incorporate vitality affects, and subjective inner states link to persistent changes within affect attunement. In other words, emotions reflect a fundamental process, which interconnects processes within one mind, connecting it to the processes of another's mind (Siegel, 2003).

Cole and colleagues (2004) argued that emotions are both regulated by children and have regulating functions in children. The view of emotions as regulated refers to the changes in activated emotion via changes in emotion valence, intensity or time course. This may occur both within or between individuals. For example, while an infant may try to reduce stress by sucking his thumb as a way of self-soothing, or a toddler may try to smile an unhappy parent. On the other hand, emotions have regulating function by resulting in an observable behavioral change in the interpersonal domain. For example, a child's expression of sadness may cause a change in the caregiver's discipline strategy or child's fear demonstrated by his facial expression may results in a change in the caregiver's approach (Cole, Martin &

Dennis, 2004).

In conclusion, emotions are products of value appraising processes of the mind, which are socially influenced. Emotions play an essential role in creating and regulating children's mental life since they are central to regulation and integration of energy and information in the brain (Siegel, 2003).

1.1.2. Development of Emotion Regulation

Theory and research in child psychology suggests that a core component of healthy child development is learning to regulate emotional responses and displaying behaviors in socially convenient and adaptive ways (Eisenberg, Spinrad, & Morris, 2002; Muris & Engelen, 2004). Emotion regulation is defined as "processes used to manage and change the occurrence, form and intensity of emotions and emotion-related motivational and physiological states, as well as how emotions are expressed behaviorally (Eisenberg, Spinrad & Eggum, 2010). The literature suggests a developmental sequence in understanding of emotion and emotion regulation. First, infants are born with an inherited self-regulatory capacity to manage emotions as a part of their temperament. (Goldsmith et al., 1987). Then they engage in mutually regulatory interactions with their mothers (Stern, 1985), and finally they develop a collection of regulatory strategies over the toddlerhood and preschool years (Eisenberg, 2001).

The notion of temperament refers to biologically based individual differences in motor, attention and emotional reactivity (Goldsmith et al., 1987). Individual differences in child's temperament lead to individual differences in emotion, that is, certain temperamental features may produce individual biases toward experience and expression of certain kind of emotions. (Goldsmith et al., 1987).

Eisenberg and Fabes (1992) argued that some children are inherently more prone to feel and express intense negative emotions such as anger, frustration and sadness. They called this temperamental feature as "negative emotionality" which may impair the processes of emotion regulation and lead the child to develop adjustment problems driven by negative emotions such as anger frustration and sadness. Research provided supporting evidence for the link between negative emotionality, deficiencies in emotion regulation and behavioral problems. A study by Calkins and colleagues (2000) showed that infants who are easily frustrated exhibited poorer emotion regulation characterized by more physical acting out, distractibility and less attention. In another study, expression of more negative affect and dysregulated emotion regulation behaviors were related with more aggressive and destructive symptomology among 2 years of children (Calkins & Dedmon, 2000). Furthermore, elementary school children who were high on negative emotionality dimension of temperament (especially anger) had lower emotion regulation and higher behavior problems compared to children low on negative emotionality (Eisenberg et al., 1996).

In addition to anger and frustration, temperamental sadness were found to underlie emotion regulation difficulties which are related with development of depression, anxiety and social withdrawal in different stages of the development (Eisenberg et al., 2001; Muris & Engelen, 2004; Zeman, Hipman & Suveg, 2002). In a longitudinal study temperamental sadness and anger at age six was predictive of anxious, depressive and withdrawn symptomology at age nine (Eisenberg et al., 2009). Similarly, dysregulation of anger and sadness were related with emotional and behavioral problems of children in preadolescence (Zeman, Hipman & Suveg, 2002).

It is noteworthy that, apart from the children's dispositional regulation, the interpersonal nature of emotion regulation has been well established by the research (Cole, 2004). In the interpersonal view of development of emotion regulation the emphasis shifts from child's inborn self-regulation to the advance levels in which emotions are both regulated and regulating within the social context of human

relationships, particularly parent-child relationship (Cohn & Tronick, 1988). In the next part the interpersonal nature of emotion regulation will be discussed in detail.

1.2.1. Development of Emotion Regulation in Parent-Child Relationship

Development of emotion regulation reaches back in to initial interactions between the infant and caregiver (Sander, 1977; Beebe & Stern, 1977; Fonagy, Steele, Moran, Steele, & Higgitt, 1991). Sander (1977) proposed that the organization of behaviors and emotional states in infancy should be considered mainly as the property of mother-infant dyad rather than as the property of infant himself. Development of regulatory processes begin in infancy and formation of these processes target establishment and maintenance of a homeostasis in bodily tensions, which includes optimal and stable temperature, sleep and feeding cycles (Sander, 1977). These cycles are formed in the repeated interactions between the mother and the infant. Those interactions result in creation of temporal patterns and expectancies, which enable the infant to communicate about his/her internal tension states and the mother to adapt her behaviour and the environment according to infant's signals. When those cycles become stabilized for these basic systems, a foundation is established upon which more complex emotional functioning can develop (Sander, 1977). If those cycles of sleep, feeding and temperature are not well formed and maintained successfully, emotional development, particularly emotion regulation, would be disrupted (Sander, 1977).

Following Sander's (1977) arguments, Beebe and Stern (1977) proposed a dyadic system view for the development of self-emotion regulation. In this view, the infant affect regulation develops through mutual interaction patterns between mother-infant dyads. These mutual interactions are matching of affect and arousal level within the dyad, interactive repair of mismatches in facial and visual communication, vocal rhythm matching, and negotiating particular spatial

relationships within the dyad (Beebe, Lachmann, & Jaffe, 1997). Mirroring, affective matching and coordination characterize these processes, which enable infant to have mutually regulated affective states.

According to Stern (1985) infant-parent synchrony emerges during 3 months of life, following the development of face-to-face interaction stage. Various micro interchange such as mutual gaze, co-vocalization, facial expression and physical touch provides infant a regulatory framework and forms the essentials of this synchrony. Through the second 6 months of infant's life a gradual shift from infant-lead-mother-follows pattern to mutual influence form of mother-infant synchrony occurs. Affect attunement and intersubjectivity start to emerge and this enables infant to perceive interactive intent of the other partner and attune to him/her emotional state accordingly (Stern, 1985). If those states continue to function well, a positive affective valance is mostly maintained. As the infant internalizes the structures of the relationship, mutual interaction becomes a way of preserving a sense of homeostasis not only for physiological states but also internal emotional states for the infant (Beebe, Lachmann, & Jaffe, 1997).

A body of research was conducted on early mother-infant relationship and later developmental outcomes provided evidence for the theoretical point of view introduced by Beebe& Stern (1977). Feldman and colleagues (1999) conducted research on continuity of infancy predictors of mother-child synchrony on child's emotional outcomes. They found that maternal affective synchrony with infant (infant-leads–mother-follows pattern) at 3 months and mutual synchrony at 9 months (cross-dependence between maternal and infant affect) were both predictor of children's better emotional regulative capacity at 2 years of age. Similarly, mother-infant synchrony at 3 and 9 months predicted children's better behavior adaptation and self-regulative skills across toddlerhood and preschool years (Feldman, 2007).

Furthermore, behavioral quality, affective tone and psychological involvement in the mother-infant interaction at 12 months (Feldman& Eidelman, 2004) and 20 months were predictive of lower emotional and behavioural problems of children at

24 months (Aoki, Zeanah, Heller, & Bakshi, 2002). Moreover, the relationship between quality of early mother-infant relationship and later development was investigated with a sample of adopted children and their non-biological parents. It was found that better quality of mother-child interaction measured at 12 and 18 years of age was predictive of children's emotional stability and emotion regulation at age 7 (Stams, Juffer, & van IJzendoorn, 2002).

The current study focuses on the relationship between children's pretend play and emotion regulation; therefore, development of emotion regulation in parent-child play becomes another focus of the current research. Winnicott (1967) highlights the importance of the mirroring function of the mother, that is, when infants are looking at their mother, they see themselves in her face. Therefore, baby interprets the mirroring provided by mother as a reflection of his/her own state but not the mother's actual state, which makes mirroring an affect-regulative process. However, one should note that looking at the mirroring expression on the mother's face is qualitatively different than the actual reflection of baby's face in the mirror. Therefore, an imperfect mirroring of the baby's expression occurs. This imperfection is called "marked affect mirroring" (Gergely 1985, as cited in Fonagy, Gergely, Jurist, & Target 2002, p. 177) and represents mother's exaggerated expressions of the baby's internal states or emotions. "Marked affect mirroring" constitutes the basis of baby's making a distinction between his/her own and others' emotions.

In infant-parent play, the parent accepts the infant's mental state and represents it to the child in relation to a third object which is symbolically held in mind by both members of the play (Fonagy & Target, 1997). Furthermore, the infant would not attribute the mother's marked affect mirroring to her real emotions but rather interpret it as a "reality-decoupled" manner (Fonagy et al., 2002, p.267). As the child becomes aware of the "markedness" of the affective expressions of the mother, the meta-representational system is activated, so that "decoupling" of the expression can occur (Fonagy et al., 2002, p.267). Gergely and Watson (1996) suggested that the child feels secure in this "decoupled" world where no realistic outcomes can occur (as

cited in Fonagy et al., 2002, p.267). In other words, as the mother mirrors the child's internal reality in a "playful" manner, the child becomes able to experience his/her own internal reality as truly representational, rather than as totally real or totally unreal (Fonagy et al., 2002, p.291). This would provide the child a sense of control over the play experience and a chance to modify the content of the experience towards increased pleasure and wish fulfillment. Therefore, caregivers may facilitate emergence of emotion regulation experiences and active use of those experiences by infants themselves by engaging in playful mirroring interactions. (Fonagy et al., 2002, p.292).

Furthermore, use of exaggerated manners, high pitched intonation and invisible imaginary objects in parent-child play help the child understand that pretend expression is different than its realistically equivalent or it is "not for real" (Slade, 2005). The reality is also "decoupled" in pretend play that is any expected realistic consequences which would follow the real, unmarked form of the same expression does not occur when the action displayed in a "marked" pretend mode. Having no realistic consequences contributes emotion regulation by enabling child to feel safe in this "decoupled" fictional world where no realistic negative outcomes may occur (Fonagy et al., 2002, p.296).

Research provided evidence for the theoretical views just mentioned above by showing how parents would contribute to development of emotion regulation by encouraging and sustaining the parent-child play (Kavanaugh & Engel,1998). For example, Gayler & Evans (2001) pointed out that parent-child play works as a social interaction improving child's ability to regulate emotions. They found that preschoolers who engaged in pretend play with their mothers frequently had better emotion regulation skills. Lindsey and Colwell (2003) showed that children who engaged in high levels of pretend play with their mothers were better at emotional understanding, emotional competence with their peers and emotion regulation skills. Similarly, children whose fathers used more emotion amplification by engaging in

smiling, laughing and voice exaggeration during parent-child play had better emotion regulation at 24 and 36 months of age (Hagman, 2014).

The ability to understand other's mind and mental states, which is an important dimension of emotion regulation, is also investigated in parent-child play. Youngblade and Dunn (1995) found that mother-child play was predictive of children's ability to understand other's mind and emotional understanding. Dunn (1986) also suggested that parents' engagement in pretend play with young children contributes to child's ability to elaborate on play narrative and help him/her become a more proficient player. In support of this view research found that toddlers' pretend play with mothers were more sustained (Dunn & Wooding, 1977), complex (Fiese, 1990) and diverse (O'Connell & Bretherton, 1984) than their solo play.

In addition, mothers' and children's engagement in self related mental talk during parent-child play was related with better emotion regulation of children. As mother-child dyad got more reflective and experimented more on mental states during the play, child's emotion regulation was promoted (Meins, Fernyhough, Fradley, & Tuckey, 2001). Supporting these findings, in another study parents' and children's engagement in mental state talk during play was related with children's affect regulation in the play and lower internalizing symptoms (Halfon, Bekar, Ababay, & Çöklü Dorlach, 2017). Moreover, in another study investigating the difference in mental state talk between clinical and nonclinical mother-child dyads, nonclinical mothers were found to refer more to their own minds when interacting with their children in the play (Gocek, Cohen, & Greenbaum, 2008). Longitudinal associations between mothers' reflections on their infant's mental states during parent-child play and child's emotional outcomes was also investigated (Meins, Centifanti, Fernyhough, & Fishburn, 2013). It was found that mother's ability to reflect on child's mental states during parent-child play in the first year of life was predictive of child's lower internalizing and externalizing problems at age 44 months, and in the first year of school (Meins et al., 2013).

1.2. PRETEND PLAY

1.2.1. Definition of Pretend Play

Play is an important activity, which facilitates both child's development and psychological well-being (Russ, 2004). Pretend play, which is a distinct kind of child's play, is characterized by pretense involving symbolism, fantasy and make-believe (Fein, 1981). According to Fein (1981), symbolic behavior characterizes the pretense in which "one thing is playfully treated as if it were something else" (p.282). He also mentions that since feelings and emotions are involved in pretense, affect is inherited and displayed in pretend play.

Singer (1981) conceptualized pretend play as "externalization of fantasy" so that child's inner fantasy is projected on the play. Since fantasy and pretend play have a common origin, similar processes are thought to be involved in both fantasy and pretend play (Sherrod & Singer, 1979). These processes are creating new images, storing and recalling formed images and recombining and integrating those images as a source of internal stimulation. In addition, divorcing those fantasy images from the reality becomes crucial in both fantasy and pretend play. Young children can differentiate between fantasy play and reality (Golomb & Galasso, 1995; Golomb & Kuersten, 1996).

In pretend play children focus on events, characters and roles created by themselves. Since pretend means to symbolize meaning, pretend play activity enable children to develop and create new modes of understanding relationships and events of the real life. By "acting as if" children can create new ways to approach real life situations (Fein, 1981).

In psychoanalytic literature, play is defined in relation with unconscious. Melanie Klein (1932) considered play as similar to dreams and free associations in which unconscious processes are involved. She suggested that children project their unconscious fantasies, wishes and internalized object relations on the play material

(Klein, 1932). Anna Freud (1965) explained play as a function of ego capacity, which allows the child to manipulate aggressive drives and use them constructively to deal with psychological distress. She also added that capacity to play in childhood would proceed as capacity to work in adulthood (Freud, 1965).

Winnicott (1971) introduced new ideas and emphasized the role of interaction while defining the play. He mentioned the existence of a potential space between the mother and the infant where the play takes place. He named this space as "transitional space". At the beginning of mother-infant relation the mother is capable of meeting almost every needs of the baby. This creates an illusion of the existence of external reality which matches exactly with the babies' inner fantasy. As baby grows up, this correspondence should gradually decrease and frustration should occur in order baby to become aware of difference between his internal reality and external reality. According to Winnicott (1971), child's engagement in fantasy play could only occur in this transitional space.

Piaget (1962) and Vygotsky attempted to define play from a cognitive development point of view. Piaget (1962) considered play as assimilation, which refers to the child's effort to make a new stimulus match his/her own concepts already exiting in cognition. In addition, he claimed that play occur just for pleasure therefore, it doesn't necessarily cause to form new cognitive structures. In Piaget's view (1962) play is a "process reflective of emerging symbolic development, but contributing little to it" (as cited in Johnsen & Christie, 1986, p. 51). In contrast, Vygotsky (1978) stated that play does really facilitate development through acquisition of social and cognitive competence. He suggested fantasy play requires child to use imagination, make up a story or situation and follow a set of rules to make the story proceed. Therefore, children become able to separate act from the reality while playing out imagined story. In addition, Vygotsky (1978) believed that make believe play encourage children to follow social rules which helps them to understand social norms and expectations and behave accordingly.

Cognitive and affective domains of play have been studied separately by different theoretical traditions. For example while Piaget did not consider emotions to be important in cognitive development, Freud did so (Feist, 1998). Rubin (1983) mentioned about "cognification" of play since most of the assessment tools measures cognitive processes, not affective processes of pretend play. Slade and Wolf (1994) mentioned about cognitive and affective functions of play, which are intertwined. They said "Just as the development of cognitive structures may play an important role in the resolution of emotional conflict, so emotional consolidation may provide an impetus to cognitive advances and integration" (p. 15). Russ (2004) suggested that both cognitive and affective processes are reflected in pretend play. According to her, cognitive and affective processes occur simultaneously and interact during pretend play. Therefore, the study of children's pretend play could give us information about development of these processes and how they interact.

The current study is based on Russ's (2004) view on pretend play and aims to examine both cognitive and affective processes occurring during pretend play. In the following sections first development of pretend play will be discussed. Second, affective and cognitive processes of pretend play will be presented.

1.2.2. Development of Pretend Play

Emergence of pretense is accompanied by a decrease in sensorimotor play which refers to play behaviors like shaking a rattle, splashing water or dropping objects repeatedly from high chair (Fein, 1981). Research found that sensorimotor activities with a single object decrease between 7 and 30 months of age (Fein & Apfel 1979). Play activities in which the child uses and manipulates the objects in a socially appropriate way (e.g. the child puts a cup on saucer) increase between 9 and 13 months of age (Fein, 1981).

First pretense gestures occurs at about 12 and 13 months of age and pretend play increases through preschool years (Fein & Apfel 1979). It is argued that a

developmental transition in play behavior displays around the age of 2 (Piaget, 1962; Fein, 1981; Kavanaugh, Eizenman, & Harris, 1997). This transition includes a shift from self-directed play behavior (e.g., the child drinks from an empty cup) to other-directed play behavior (e.g., the child puts the cup to a doll's mouth) (Lewis & Ramsay, 2004). On the other hand, consequential development involves only respective frequency of other-directed behavior. That is, children continue to display a mixture of self-directed behaviors and other-directed ones. For example, while pretending to have a meal with an imaginary friend, an older child would engage in both self- and other- directed pretense since he would feed both himself and his imaginary friend (Lewis & Ramsay, 2004).

Leslie (1987) and Piaget (1962) argued that pretense is an early representation of child's ability to understand his/her own and the other's mental states. Since pretense involves dual representation of the real and pretend situation, a development of self meta-representation is necessary beforehand. In other words, pretense needs a representation of self in order for the child to be able to distinguish between reality and fantasy (Leslie 1987; Piaget, 1962).

Although children begin to display play behavior from the very beginning of their life, symbolic or pretend play is thought to occur following the emergence of self and other representations (Leslie 1987; Piaget, 1962). Research has documented that ability to pretend with substitute objects appears around the second half of the age 2 and increases during preschool years and continues to improve through early school years (Fein, 1981).

1.2.3. Cognitive Processes of Pretend Play

Piaget (1962) emphasized the importance of pretend play for cognitive development. He stated that play enables the child to integrate new experiences into representations of the world already existing in cognition. Similarly, Singer (1990) mentioned pretend play supports cognitive development by providing chance to improve language, problem solving and perspective taking skills.

Later, Russ (2004) suggested a framework for categorizing cognitive processes occurring during the play. She also used this framework while developing a play assessment tool named "The Affect in Play Scale" (Russ, 1987, 1993). The first cognitive process is *organization*, which means child's ability to tell a coherent story in the play. The second one is *divergent thinking*, which is the ability to generate a number of different ideas, create scenarios and symbols. The third one is *symbolism*; namely, the ability to pretense or to use an object for representing another object (e.g. using blocks as phone). The last cognitive process is *fantasy or make-believe* which is the ability to attend to "as if" behavior or or to pretend to be in a different time and place (Russ, 2004),

1.2.4 Affective Processes of Pretend Play

Singer (1995) mentioned that pretend play provides a safe context for children to experiment with their emotions. Through pretend play children develop an affective representation network around various emotions. As the positive and negative emotions are expressed and affect-laden fantasy is fusioned in play, affect-laden network is extended (Russ, 1993).

In the light of these arguments, Russ (2004) made an attempt to define affective processes occurring in pretend play. The first affective process is *expression*

of emotion, which is the ability of expressing both positive and negative emotions in play. For example, a child can express sadness by having a doll cry and making crying sound or he/she can express nurturance by feeding and weaning the doll. The second process is *expression of affect themes*, which is "the ability to express affect-laden images and content themes in play" (as cited in Russ, 2004, p.4). For example, as an aggressive ideation, a child can store different types of weapons in order to prepare for a war. The third one is *comfort and enjoyment* in the play, the ability to enjoy and "let go" in the play. The fourth one is *emotion regulation and modulation of affect*, the ability to accommodate and regulate both negative and positive emotion in play. Last affective process is *cognitive integration of affect*, which is "the ability to integrate affect into a cognitive context" (as cited in Russ, 2004, p.4). For example, fear is expressed within a story about ghosts and zombies.

1.2.5 Assessment of Pretend Play

There are standardized instruments assessing affective, thematic and cognitive aspects of children's play. Some of these instruments are the Play Therapy Observation Instrument (Howe & Silvern, 1981), the NOVA Assessment of Psychotherapy (Faust & Burns, 1991) and the Kernberg scale (Kernberg, Chazan, & Normandin, 1998). In the current study The Affect in Play Scale (APS), which was developed by Russ (2004) to assess cognitive and affective processes occurring in pretend play, was used. The APS is a standardized instrument, which is composed of a standardized play task, instruction and coding system. There are two versions of the APS: preschool and school-age versions. Preschool version of the APS is appropriate for ages 4-5 (APS-P; Kaugars & Russ, 2009) and it was adapted from the school-aged version, which is appropriate for ages 6-10 (Russ, 2004). There are 11 affective categories, which are grouped into positive and negative affects. Positive affect categories include happiness, nurturance, and competition, oral and sexual. Negative affect categories include anxiety, sadness, frustration, aggression and oral aggression.

The APS assesses types and frequency of affective expression occurring during the play. Each unit of affective expression is coded and a total frequency of an affect category is computed. These affective units can be one verbal or nonverbal expression by a single puppet. The APS also assesses cognitive dimensions, which are organization, imagination and quality of fantasy in a 1 to 5 global rating scale. While 1 is for lower scores, 5 is for higher score (Russ, 2004).

As indicated earlier, the APS was developed to assess children's pretend play. Studies conducted by using the APS revealed the scale as an appropriate tool for measuring play characteristics of young children. Studies using the APS documented a relationship between children's divergent thinking abilities and affective and cognitive aspects of pretend play. Children who expressed a greater variety of affect in pretend play had better divergent thinking abilities (Hoffman & Russ, 2012; Russ & Schafer 2006). Moreover, a link between cognitive and affective characteristics of pretend play and children's emotional coping strategies was documented (Seja & Russ, 1999; Russ, Robins, & Christiano, 1999; Marcelo & Yates, 2014). Finally, when measured with the APS children affective and cognitive characteristics of pretend play were predictor of emotional understanding (Seja & Russ, 1999) and psychological adjustment (Fiorelli & Russ, 2012).

1.3. PRETEND PLAY AND EMOTION REGULATION

Russ (2004) considered play as a major area in which children can learn to use emotion in adaptive ways by expressing, processing, modulating and regulating emotion. Children's play abilities relates with several key domains of adaptive functioning in child development including creativity, coping and emotion regulation and psychological well-being (Bornstein & Tamis-Le Monda, 1995; Moore & Russ, 2008).

Pretend play includes use of fantasy, make-believe and the use of symbolism (Fein, 1989; Russ, 2004). According to Fein (1989) pretense allows children to

transcend real meaning. Therefore, symbols exhibited in pretend play have emotional meanings. He suggested a relationship between affective aspects of pretense and emotions arousing from child's real or imagined experiences. In support of this view, research documented that children exhibited more complex issues and showed higher emotional involvement in pretend play than non-pretend play. Activities such as altering the type or intensity of emotion and engagement in affective role were demonstrated only in pretend play (De Lorimier, Doyle, & Tessier, 1995).

Children, who are able to access and organize their fantasy and emotions in play, are also likely to recall and organize memories belonging to emotional events (Seja & Russ, 1999). Through play, children not only recall emotional experiences but also gain access to affect-laden content of the experience (Russ, 1993). Therefore, pretend play has been conceptualized as an arena in which children could process, demonstrate and modify the experiences containing high level of emotional arousal (Fein 1989; Russ, 1993).

Similar to Fein's and Russ's conceptualization, Bretherton (1989) considered pretend play as a medium in which children could gain emotional mastery on emotionally arousing situations in a safe environment. Some children would organize the pretense around the outcomes of emotionally arousing events. Therefore, resolutions of a negatively arousing event could be an indicator of emotional mastery during the pretend play. On the other hand, emotional issues are not always resolved in pretend play context. Some children could enact negative event repeatedly and could not reach a successful resolution of it during the play (Fein, 1989). Therefore pretense may not be necessarily organized around the outcomes of negatively valance events. Rather, pretense is primarily concerned with approach, appraisal and transformation of the arousal resulting from emotionally significant situations (Fein, 1989).

In her conceptualization of pretend play Russ (2004) mentioned cognitive and affective processes occurring simultaneously during pretend play. She emphasized the importance of investigating both process since they interact and

influence children's emotional outcomes. Wolf (1994) stated "Just as the development of cognitive structures may play an important role in the resolution of emotional conflict, so emotional consolidation may provide an impetus to cognitive advances and integration" (p. 15). The present study focuses on the relationship between affective and cognitive processes and children's emotion regulation abilities. In the next part, research findings about the process occurring during pretend play and emotion regulation will be presented.

1.3.1 Cognitive Processes in Pretend Play and Emotion Regulation

Individual differences in comfort engaging in play and cognitive processes of pretend play, which are imagination, organization, and elaboration, were related with variations in children's emotion regulation ability (Russ, 2004). Gilpin and colleagues (2015) suggested that high levels of fantasy and imagination in pretend play enable children to take perspectives of play characters who have personalities, thought and emotions. As children engage in those activities, they would have an opportunity to develop perspective taking skills and would acknowledge that others' have different thoughts and feelings, both of which are necessary for development of emotion regulation (Gilpin, Brown, & Pierucci, 2015).

During the pretend play, which is rich in fantasy, children often switch in and out of the pretense. This would contribute to the development of executive function skills, such as inhibition and attention shift, which are necessary for development of emotion regulation (Pierucci et al., 2013). Similarly, flexible use of mental representations that occur in more complex forms of fantasy play (with more dialogue, flexible mental representations and highly imaginative theme) fosters both neurological development of frontal lobe and emotion regulation skills (Carlson & Wang, 2007). Supporting this view, a study documented that children who engaged in complex forms of pretend play showed earlier and better regulation skills in adolescence (Berk, Mann, & Ogan, 2006). Similarly, in a longitudinal study

conducted with children aged between 4-5, higher levels of symbolization and sustained role-play during pretend play were predictive of emotion regulation later on (Elias & Berk, 2002). Furthermore, children who were more comfortable engaging in pretend play and displayed higher imagination and organization in play were rated better on emotion regulation by their parents (Hoffmann & Russ, 2012). Finally, better imagination and organization of the plot during pretend play were related with better emotional understanding of children aged between six and eight (Seja & Russ, 1999).

Galyer and Evans (2001) examined the relationship among frequency and duration of child's pretend play and emotion regulation skills. Children were presented a 20-minutes structured pretend play task in which an emotionally arousing situation occurred after 10 minutes. Researcher presented a crocodile puppet, which was "hungry enough to eat all the toys", so it could end the game. While some children ended the game after the crocodile appeared, some other killed it and pretended that it came back to life so that they could continue playing. Authors concluded that while being exposed to the same emotionally arousing event continuously, children had an opportunity to experience variations in the same emotional issues companied with variations in responses. Those children were likely to develop response flexibility, which is core in learning to regulate emotions (Galyer & Evans, 2001).

Associations between cognitive processes of pretend play and expression of negative emotions, aggression in particular, were documented in the literature. Imagination and fantasy during pretend play has been linked with control of aggressive behavior in daily life (Fehr & Russ, 2013). At the earlier times, Biblow (1973) conducted an experimental study in which children were assigned either to high fantasy or low fantasy group with respect to their fantasy ability. Then children were presented with an activity aiming to elicit frustration in children. The results showed that high fantasy children showed lower levels of aggressive behavior than low fantasy children. In support with these findings, Goldstein and Russ (2000-2001)

found that expression of higher fantasy and imagination in play were predictive of children's use of more adaptive coping strategies and better control of impulsive aggressive behavior during negatively arousing situations. Similarly, expression of aggression in pretend play was related with less aggressive behavior and more prosocial behavior in the classroom (Fehr &Russ, 2013).

1.3.2 Affective Processes in Pretend Play and Emotion Regulation

Symbolic play provides children a space to study negative feelings and express themselves regarding their emotional experiences with others in a safe environment (Palmer, 2011). As they express their negative affect they become able to regulate it in a safe environment, which in turn helps them to understand their negative affects and try to manage them (Watson, 2000). Watson (2000) suggested three processes about how expressions of negative affects during pretend play enhance a child's emotional outcomes. Firstly, play is an arena in which children organize unfocused affects and display them. Second, creation of imaginative characters and plots enable children to express unfocused negative affects in a pretend way, which in turn helps them to distance themselves from those affects. Finally, instead of being a victim or sufferer, children can act on negatively arousing events or stimuli and gain a sense of control over them through pretend play (Watson, 2000).

Expression of affect in play is considered to be beneficial for emotional outcomes, even when negative affect is expressed. Seja and Russ (1998) documented that children who showed higher positive emotions in daily life were more likely to express higher frequency of overall emotions in their play, including negative emotions. Similarly, aggression expressed during pretend play was related with lower aggressive behaviors and higher prosocial behaviors in classroom context among preschoolers (Fehr & Russ, 2013). Therefore, it could be concluded that expression of

negative themes in play could refer to a different construct than expression of negative emotional states in daily life.

The relationship between affective processes of pretend play and emotional outcomes begin at an early age (Denham, 1986). However, there is a lack of research examining the relationship between affect expression in play and emotion regulation. Only two studies found direct correlation between these two constructs; Denham (1986) conducted a study with children aged between 2 and 3, and found that children who displayed higher positive emotion expression in play had better emotional understanding. In another study children who expressed emotions more frequently and who used a wider range of emotions were found to be better at emotion regulation (Hoffman & Russ, 2012).

According to Cicchetti's conceptualization and research on children's adjustment problems, internalizing symptoms such as depression and anxiety, and externalizing symptoms such as aggressive and under-controlled behaviors, both stem from deficiencies in emotion regulation (Cicchetti, Ganiban, & Barnett, 1991; Cicchetti, Ackerman, & Izard, 1995; Kim & Cicchetti, 2010). Although the evidence for the relationship between affect expression in play and adjustment problems of children is not enough in the literature, there are few studies documenting the relationship.

Grossman-McKee (1989) found that first and second grade children who expressed more affect in play had lower anxious and somatic symptoms. Furthermore, studies provided evidence that play would reduce anxiety in children. A study by Barnett and Storm (1981) study, preschool children were randomly assigned to a play intervention group or a control group. Children in the intervention group were shown an anxiety provoking scene from a child's movie, then assessed on anxiety and then offered 10 minutes to play freely and then assessed on anxiety again. During the interval between the movie and play, intervention group exhibited higher levels of anxiety and expressed more negative feelings than controls. Results showed that intervention group played for longer duration than controls. They also reported

decreased anxiety and increased positive feelings while controls reported no changes. A later study by Bernett (1984) examined the relationship between pretend play and anxiety. He found that children who engaged in pretend play following an anxious mood induction had decreased anxiety levels after the play. Finally, a recent study in the Turkish literature (Takış, 2018) documented that expression of negative affect during pretend play was predictive of lower anxiety levels of children aged between 6 and 10. Moreover, expression of competition and aggression in play were related with higher affective quality of children's representations of interpersonal relationships (Takış, 2018).

Another predictor of successful adjustment is children's coping skills, which share several core elements with emotion regulation. According to Eisenberg and colleagues (1997) "coping is motivated by the presence or expectation of emotional arousal and many forms of coping are very similar to types of regulation discussed in the emotion regulation literature" (p. 288). Christiano and Russ (1996) suggested a link between quality of fantasy and affect expression in pretend play and children's think of and use of coping strategies. They found that children who display more fantasy and affect during pretend play used more successful coping strategies in a stressful condition. Moreover, effectiveness of pretend play activities on enhancing children's coping and emotion regulation was documented by research. In two studies, children who expressed more affect and fantasy during pretend play had better coping skills and emotion regulation (Christiano & Russ, 1996; Hoffman & Russ, 2012).

Turkish literature also lacks of studies examining the relationship between play characteristics and emotional outcomes of children. Only one study investigated this phenomenon; Koçyiğit and colleagues (2015) examined relationships among levels of aggression and anxiety-withdrawal and play skills of preschoolers. They found that children who play more frequently, generate new ideas, and display higher levels of socialization and leadership during the play had lower aggression and anxiety-withdrawal scores. In a study in which the APS was used to measure pretend

play, expression of negative affect during the play task was related with lower anxiety scores of children aged between 6 to 10 years old (Takış, 2018). The present study would be important in the sense that it would make a contribution to the Turkish literature by examining the details of children's pretend play in relation to emotion regulation.

1.4. PLAY CHARACTERISTICS OF CHILDREN WITH BEHAVIORAL AND EMOTIONAL PROBLEMS

Inability to regulate emotions was linked to children's adjustment problems, which are conceptualized in two categories: internalizing and externalizing problems (Cicchetti, Ackerman, & Izard, 1995; Kim & Cicchetti, 2013). According to Achenbach's (1991) conceptualization, internalizing symptoms generally display as social withdraws, anxiety, depression and psychosomatic reactions. Externalizing symptoms include delinquency and aggressive behavior. In the last decade, strong associations between emotion regulation difficulties and both internalizing and externalizing problems have been documented by research (Clark, Watson, Mineka,1994 ; Rothbart & Bates, 1998; Eisenberg et al., 2001; Kim & Cicchetti, 2010; Zeman, Shipman & Suveg, 2002).

Children with internalizing and externalizing symptoms were found to have difficulties in engaging symbolic play, affect regulation and keeping organized during symbolic play (Christian, Russ, & Short, 2011; Butcher & Niec, 2015). Internalizing and externalizing children were also found to have different play characteristics. Russ (1993) argued that children with disruptive and aggressive behaviors had difficulties in regulating affect, especially when it is negative affect, during creative activities such as problem solving and pretend play. She also argued that although these children were able to express affect in their play, they were likely to do that in an aggressive or disorganized manner. This would be displayed as one puppet's hitting another severely and repeatedly during the play. In support of Russ's (1993)

argument, some research found that children with externalizing problems expressed more negative affect and they were less organized in pretend play (D'Angelo, 1995; Butcher & Niec, 2015). Therefore, it can be argued that children with externalizing problems may able to access affect laden material during the play; however, they fail to modulate and integrate their affect adaptively (Butcher & Niec, 2015). Finally, impulsive children displayed strong expressions of negative affect, anger in particular, and themes of competition, winning and losing dominated their play's story (Chazan, 2012).

Children with internalizing difficulties were also found to have certain characteristics of pretend play. Highly anxious children were more likely to engage in solitary play rather than interactive play, and they were less organized during their play (Christian, Russ, & Short, 2011). One explanation for these results could be that anxiety leads to difficulties in children's organizing their thought or they may feel anxious since their thinking is disorganized (Christian, Russ, & Short, 2011). Furthermore, the links between children's depressive symptoms and play characteristics were documented by the research (Mol Lous, De Wit, De Bruyn, Riksen-Walraven, & Rost, 2000). Depressive symptoms such as psychomotor agitation and retardation were observable in depressed preschoolers' play (Kazdin, 1990).

Depressive children were less likely to engage in fantasy play (Field et al., 1987) and more likely to display a disorganized play narrative (Mol Lous et al., 2000). In a study conducted with 3 to 6 years old children it was found that depressed children showed less symbolic play behaviors than non-depressed children (Mol Lous, De Wit, De Bruyn, Riksen-Walraven, 2002). Instead, they exhibited more non play behaviors such as exploration and shifting from one play to another. The fact that depressed children has difficulties in engaging symbolic play may be explained by disturbances of affect regulation, which characterizes depressive functioning (Cicchetti & Toth, 1998; Mol Lous et al., 2002). Negative thoughts and feelings

elicited in pretend play could be threatening for depressed children, who usually experience uncontrollable negative life events (Ryan, 1999).

In the Turkish literature Halfon and colleagues examined affective characteristics of play of children with internalizing and externalizing problems. They documented that children with internalizing problems, especially children with depressive symptoms, were displayed constricted affect expression in their play (Halfon, 2017) and, internalizing problems were predictor of higher levels of negative affect expression and lower levels of affective arousal in children's play (Halfon, Oktay & Salah, 2016). On the other hand, child's aggressive behaviors which is clustered in externalizing problems, were associated with child's disorganized play profile characterized by certain play features such as inhibition of play, inappropriate affect expression, and unawareness of being in a pretend mode (Halfon, 2017).

Furthermore, effects of trauma exposure on children's play characteristics were studied in the literature. Wershba-Gerson (1996) described the features of children's Post Traumatic Play (PTP). PTP is defined as being driven, serious and lacking joy. This type of play is consisted of compulsively repeated themes which do not get resolved in the play (Nader & Pynoss, 1991). DSM-V (APA, 2013) also considers occurrence of repetitive play themes with traumatic experience as representations of re-enactment symptoms which are determinants of post-traumatic stress disorder in children (Chazan & Cohen 2010).

In addition, other researchers stated that trauma leads to defensive reduction in symbolic expression during the play and increase in concrete thinking (Drewes, 2001; Terr, 1990). PTP is characterized by use of simple defenses such as identification with the aggressor or victim, displacement, undoing and denial during play (Rafman, Canfield, Barbas, & Kaczorowski, 1996). Affective and cognitive characteristics of PTP were investigated among children who were exposed to terrorism and violent attacks. Exposure to a terror event, loss or injury of a parent was associated with overly negative affect expression, less fantasy, more play inhibition, lower awareness of the child of him/her as a player, more play inhibition and re-

enactment of the traumatic experience without soothing (Cohen, Chazan, Lerner, & Maimon, 2010; Chazan & Cohen, 2010).

In conclusion, the literature provides a good amount of evidence for the associations between internalizing and externalizing difficulties and play characteristics of children. Moreover, trauma exposure leads to display of certain affective and cognitive features in child's play. The current study was conducted with children who had emotional and behavioral problems, and trauma history. Therefore, this study would contribute to the literature in clinical child psychology.

1.5. AIM AND HYPOTHESES OF THE PRESENT STUDY

The literature suggested that affective and cognitive processes of pretend play were related with emotional outcomes of the children (Berk, Mann, & Ogan, 2006; Christiano & Russ, 1996; Hoffman & Russ, 2012). However, there is still need for further studies in order to have a better understanding of the relationship between pretend play and emotion regulation (Christian, Russ, & Short, 2011). Thus, the aim of the current study was to investigate the relationship between affective and cognitive processes occurring during pretend play and children's emotion regulation skills in an attempt to fill this gap in the literature. The hypotheses of the study can be listed as follows:

H1: There will be a positive correlation between total affect expressed in play and emotion regulation.

H2: There will be significant positive correlation between positive affect expressed in play and emotion regulation.

H3: There will be a significant positive correlation between negative affect expressed in play and emotion regulation.

H4: There will be a significant positive correlation between cognitive processes of play (imagination, organization, elaboration) in play and emotion regulation.

H5: There will be a significant positive correlation between affect integration (interaction of affect scores and cognitive scores) and emotion regulation.

CHAPTER 2

METHOD

2.1. Participants

Participants were 99 children (40.4% female, 59.6% male) who were referred to the Psychological Counseling Center of Istanbul Bilgi University by their parents, school counselors, or the mental health workers.

Age range of the clinical sample was 3 to 11 years old (M=6.91, SD=2.12). Majority of the participants were from middle socioeconomic status (SES) (n=40). The rest was in the range of low SES (n=16), low-middle SES (n=27), middle-high SES (n=14) and high SES (n=2). Majority of the participants were attending to primary school (n=60), others were attending to secondary school (n=12) and preschool (n=17). Some were attending no school (n=10).

The reason for children's referral were as follows: behavioral problems (n=39), school or learning problems (n=19), anxiety (n=23), somatic problems (n=6), separation anxiety (n=4), relationship problems (n=2), loss (n=2), and adjustment problems (n=1). A trauma history was reported for 33 children by their parents, including domestic violence, divorce, physical abuse, sexual abuse, loss, early separation and serious illness/hospitalization. Only four children were referred to psychiatric help and three of them were diagnosed with Attention Deficit Hyperactivity Disorder and prescribed drug. According to Achenbach's (1991) classification emotional and behavioral problems of children are clustered in two groups on the Child Behavior Checklist (CBCL; Achenbach, 1991): externalizing and internalizing. Internalizing group is comprised of Anxious/Depressed, Withdrawn/Depressed, and Somatic Complaints syndromes. Externalizing group is comprised of Rule Breaking Behavior and Aggressive Behavior syndromes. Sum of scores on all problem items refer to Total Problems. The cut-off points for borderline

and clinical labels are based on t-scores formed on a clinical population. In addition to reason of referral, frequencies of participants' designations on the CBCL are represented in Table 2.1.1.

Table 2.1.1 Frequencies of Participants' Designations on the CBCL

	CBCL Total Complaints Score	CBCL Internalizing Score	CBCL Externalizing Score
Non-Clinical	40	38	45
Border	14	20	12
Clinical	42	41	42
N	96	99	99

Note. CBCL= The Child Behavior Checklist

2.2. Measures

2.2.1. The Emotion Regulation Checklist

The Emotion Regulation Checklist (ERC; Shields & Cicchetti, 1997) was developed to assess emotion regulation of children. The ERC has 24 items assessing emotionality and emotion regulation in children, such as affective lability, intensity, valence, flexibility and situational appropriateness (Shields & Cicchetti, 1997, 1998). Items are rated on a 4-point Likert scale assessing the frequency of behaviours (from 1= almost always to 4= never). The ERC has two subscales: The Emotion Regulation and The Lability/Negativity. The Emotion Regulation subscale was used in the current study. Emotion regulation is evaluated by 8 items, which describe appropriate affective displays, empathy and emotional self-awareness. Higher scores on the

subscale indicate better ability to manage and modulate one's emotional arousal such that an optimal level of engagement with one's environment is reached and maintained.

The ECR is a parent reported measure which was found to be a reliable measure of emotion regulation with α = .89 (Suveg & Zeman, 2004). Kapçı and colleagues (2009) done Turkish Standardization of the ERC with α= .84. The Emotion Regulation subscale was found to be a reliable measure with α= .59 to .66 (Blandon, Calkins, Keane, & O'Brien, 2008) and α= .59 in a Turkish sample (Kapçı, Ri, Akgün & Acer, 2009).

2.2.2. The Affect in Play Scale

The Affect in Play Scale (APS; Russ, 2004) is a standardized measure of pretend play. The APS assesses cognitive and affective processes of pretend play with a standardized play task, instructions and coding system. There are two versions of the APS: preschool version is appropriate for ages 4-5 (APS-P; Kaugars & Russ, 2009) and it was adapted from the school-aged version, which is appropriate for ages 6-10 (Russ, 2004). Both versions were used in the current study.

In the school-aged version of the APS play task, the child is instructed to play with two human puppets, a boy and a girl, and three blocks for 5 minutes. The instructions are as follows:

> *"I'm here to learn about how children play. I have here two puppets and would like you to play with them any way you like for five minutes. For example, you can have the puppets do something together. I also have some blocks that you can use. Be sure to have the puppets talk out loud. The video camera will be on so that I can remember what you say and do. I'll tell you when to stop. Go ahead, put the puppets on, and start."* (Christian, Russ, & Short, 2011, p. 183)

The preschool version of the APS has a similar play task in which different toys and a small warm-up task is included. The toys are a hippopotamus, shark, bear, giraffe, lion, zebra, elephant, three plastic cups, a plastic car, and a "hairy" rubber ball. In the warm-up the child is asked to name some of the toys and their characteristics like color and shape. Then the child is instructed to play and make up a story with the toys for 5 minutes. The instructions are as follows:

"That's all the toys in the basket. Now we're going to make up a story using the toys on the table. See how you can play with the toys (exaggerate voice tones). This is the bear. He says, "I am really hungry! Where can I find some food? (goes over to cups) Oh look, I found some cookies. I love cookies. Yum!Yum! Here's another cup. Oh yucky! I don't like what's inside there! Yuck! Now, you can play with the toys any way that you like. Be sure to talk out loud so I can hear you. The video camera will be on so that I can remember what you say and do. You will have five minutes to play with the toys. I'll tell you when to stop. Now remember to play with the toys and make up a story" (Kuagars & Russ, 2009, p.141).

The children are expected to play for five minutes and the play is videotaped and the video is coded by different coders according to a manual developed by Russ (2004). After accomplishing the inter-rater reliability, scoring a videotaped play takes about 15 minutes. Inter-rater reliability for the coding manual were reported to be between α=.80 and α=.90 by studies (Christiano, & Russ 1996; Seja & Russ 1999; Russ, 2004).

The child's play is rated on three cognitive dimensions on a 1-5 scale. First dimension is *imagination*, which measures pretense, symbolism and novelty in the play. The second one is *organization* measuring the complexity and quality of the play narrative. Third one is *elaboration* assessing the amount of details and embellishment in the play. Then a *quality of fantasy score* is calculated by having mean of those three scores on cognitive dimension. In addition, *comfort in play* measuring extends of child's involvement and enjoyment in the play is scored on a 1-5 scale (Russ, 2004).

The APS assesses types and frequency of affective expression in children's pretend play. Each unit of affective expression is coded and a total frequency of an affect category is computed. Frequency of affect themes and expressions in the play are coded on 11 affective categories which could be divided into subsets of positive and negative affect categories. The positive affect category includes happiness/pleasure, nurturance/affection, competition, oral, sexual. The negative affect category includes anxiety/fear, sadness/hurt, frustration/disappointment, aggression, oral aggression and anal. At the end, a frequency score on each categories and scores of positive affect, negative affect and total affect are calculated (Russ, 2004).

In the current study, three clinical psychology graduate students coded children's five minutes of videotaped play sessions initially. The coders were trained with the APS coding manual for each age group. Then they rated a sample protocol and discussed on it. After consensus was made on the coding system, they scored 15 different play assessment protocols independently and calculated the inter-rater reliability. When the consistency is set, two coders continued to rate the rest of the play assessment protocols. Inter-rater reliabilities for the data were as follows: total frequency of affect, r= .89; negative frequency of affect, r= .90; positive frequency of affect, r= .97; imagination, r= .92; organization, r= .91; elaboration, r= .92; comfort, r=. 92.

In order to provide a better understanding of the play assessment, examples from play dialogues of two children are presented below. The first child is a six-year-old male who was referred because of behavioral problems. His quality of phantasy score was 1.75, which was the mean of organization, elaboration and imagination in the play. The second child was a five years old female who was also referred because of behavioral problems. Her quality of fantasy score was four. These two children were different in terms of affect expression.

Child #1 Low Quality of Fantasy in Play	**Type of Affect**
"Oh, will I stay here alone?"	Anxiety/Fear
"Shall we play?"	Nurturance
"Shall we play building tower?"	Nurturance
"How could I get it"	Frustration/Dislike
"Oh! I can not get it!"	Frustration/Dislike
(The child tries to makes the puppet take a block)	
" Oh I could not put it!"	Frustration/Dislike
(The child tries to put all the blocks up but they fall down)	

Child #2 High Quality of Fantasy in Play	**Type of Affect**
" The lion ate it up nam nam nam"	Oral
(The lion comes and finds a cup full of food)	
"Then the dinosaur beat beat beat!"	Aggression
(The dinosaur beats the lion)	
"And then it (the dinosaur) peed"	Anal
"Then the shark hamm…" (The shark bites the dinosaur's head)	Oral Aggression
"Miyiiii!"	Aggression
(The shark and dinosaur are fighting)	
"They are fighting"	Aggression
"It (the shark) died"	Aggression
"Then the giraffe stood up and came closer to the shark by saying "I was scared, I was scared, I was scared"	Anxiety/Fear
"It was scared"	Anxiety/Fear

"It ate the shark hamm!"	Oral Aggression
"Then the sheep came and it was scared"	Anxiety/Fear
"Then the sheep played ball, played ball"	Nurturance
"Come on buddies! Lets band together!"	Nurturance
"Ahh! I can't make it!"	Frustration/Dislike

The second child displayed affect expression on a wider range. She was freer to express different types of aggression. She was also able to use play properly to reflect her internal conflicts.

2.2.3. Turkish Expressive and Receptive Language Test (TIFALDI)

Verbal ability was found to be an important factor affecting children's performances on the APS (Russ, 2004). Therefore, a measure of language ability was included in the current study to control expressive language ability of the participants. TIFALDI is a standardized measure in Turkish language assessing receptive and expressive language abilities of children aged between two and 12 years old (Kazak-Berument & Güven, 2013). It includes two subscales: the Receptive Language subscale which consists of 104 items, and the Expressive Language subscale which consists of 95 items. The scale was found to be reliable measure of language ability with $\alpha = .99$ (Kazak-Berument & Güven, 2013).

2.2.4. Raven's Progressive Matrices Test

Russ (2004) suggested that general cognitive ability was another important factor affecting children's performances on the APS. Therefore, The Progressive Matrices Test (RSPM; Raven, 1981) which was developed to assess nonverbal, abstract reasoning ability, was included to control cognitive ability in the current study. The test assessed two main components of cognitive ability. The first

component is, eductive ability, which refers to ability to generate high-level and nonverbal schemata in order to handle complexity. The second component is reproductive ability, which refers to ability to recall and reproduce the information, which has been made explicit and communicated among persons (Raven, 2000). The test found to be reliable measure of general cognitive ability of children with Cronbach's α ranging between .76 and .88 in different age groups (Cotton et al., 2005). In addition, correlation between the scores on the Raven Test and the Wecshler Intelligence Scale for Children's full scale was highly correlated (Walker et al., 2000; Raven, 2000).

2.3. PROCEDURE

This study was conducted in the Psychological Counseling Center of Istanbul Bilgi University Campus. The data had been already collected in the scope of a bigger research project (TUBITAK number 215K180) carried by the Child and Adolescent Unit of Istanbul Bilgi University Psychological Counseling Center.

In the project, the research assistants, 2nd and 3rd year clinical psychology master program students have worked in the assessment of children and coding of data. All of the measures were administered before the children have started psychotherapy in the counseling center.

The Ethical approval of the study was obtained from Istanbul Bilgi University Ethics comittee. Parents of the participants were informed that a research examining the effectiveness of psychotherapy process was being carried out at the Counseling Center. They were also informed that participation in the research was voluntary and they could stop the assessment any time they felt uncomfortable. Their written consents for participation and audio- video recording of the assessment sessions were obtained. Oral consents from all children were also taken.

Parents rated their children's emotion regulation with The Emotion Regulation Checklist. Children's play were recorded in a private room equipped

with audio and video recording devices. The Affect in Play Scales were coded by clinical psychology graduate students who were trained on the scales.

The Turkish Expressive and Receptive Language Test (TIFALDI) and the Raven's Progressive Matrices Test had been already administered to participants. Scores on these measures were used to control the verbal ability and general cognitive ability of children.

CHAPTER 3

RESULTS

3.1. DATA ANALYSIS

Prior to main analysis the data was screened carefully. The data was investigated in terms of outliers and missing values. It was seen that no outliers were present in the data. It should be stated that almost all variables those were included in the statistical analysis were not normally distributed. According to Tabachnick & Fidell (2007), skeweness and kurtosis values exceeding +/- .90 should be transformed to meet normality assumptions. However, logarithmic transformations to succeed normality did not decrease skeweness and kurtosis values.

Descriptive and quantitative analyses were run in order to analyze the data. Means and standard deviation of the measures of the study are presented in Table 1. Pearson Product-Moment Correlations were calculated in order to explore the relations between The Emotion Regulation Checklist (ERC) and subscales of The Affect in Play Scale (APS). Age, verbal ability and cognitive ability found to be important predictors of the APS' subscales by previous research (Russ, 2004). Therefore, associations between the APS's subscales and age, verbal ability and cognitive ability were also examined and the results were presented in Table 2. In order to tests the hypotheses partial correlations were calculated.

3.2. RESULTS

3.2.1. Descriptive Analyses for the Measures of the Study

Descriptive analyses for the ERC and subscales of the APS are shown in Table 3.1. Means, standard deviations, minimum and maximum scores were

calculated for ERC, subscales of the APS, TIFALDI Expressive Language Subscale and Raven Test of Progressive Matrices.

3.2.2. Correlation Coefficients between the Measures of the Study

Bivariate correlation analysis showed that among all variables only expressive language ability was significantly correlated with total affect expressed in play (r =.24, p<.05). There were no other significant correlations among the rest of the variables. All correlation results are given in Table 3.2.

Table 3.3 shows the correlations between the APS's subscales and age, expressive verbal ability and cognitive ability. Unlike previous studies there were no significant correlations between age and the APS subscales, cognitive ability and APS subscales. Only a significant correlation between expressive verbal ability and total affect subscale of the APS was found (r= -.24, p<.05).

3.2.3 Hypothesis Testing

Partial correlations between the variables of each hypothesis were calculated in order to investigate the relationships between subscales of the APS and emotion regulation. Since expressive verbal ability was significantly correlated with total affect scores on the APS, bivariate correlation was calculated in the first hypothesis testing.

Hypothesis 1: *There will be a significant positive correlation between total affect expressed in play and emotion regulation.*

The first hypothesis assumed a positive relationship between affect expression in play and emotion regulation. When controlled for expressive verbal ability, there was no significant correlation between total affect expressed in play and emotion regulation ($r=.10$, $p=.32$). Therefore, the first hypothesis was not confirmed.

Hypothesis 2: *There will be significant positive correlation between positive affect expressed in play and emotion regulation.*

In the second hypothesis, a positive relationship between positive affect expressed in play and emotion regulation was expected, however, results revealed no significant correlation between two variables ($r=-.01$, $p=.85$). Thus the second hypothesis was not confirmed.

Hypothesis 3: *There will be a significant positive correlation between negative affect expressed in play and emotion regulation.*

In the third hypothesis a positive correlation between positive affect expressed in play and emotion regulation was expected. This hypothesis was not confirmed since there was no significant relationship between ($r=.16$, $p=.10$) two variables.

Hypothesis 4: *There will be a significant positive correlation between cognitive processes of play (imagination, organization, elaboration) and emotion regulation.*

In the fourth hypothesis, a significant positive correlation was expected between cognitive subscales of the APS, which were imagination, organization and elaboration, and emotion regulation. However there was no significant correlation between imagination and emotion regulation ($r=-.08$, $p=.42$), organization and emotion regulation ($r=-.07$, $p=.44$), elaboration and emotion regulation ($r=-.10$, $p=.29$).

Hypothesis 5: *There will be a significant positive correlation between affect integration (interaction of total affect score and quality of fantasy score) and emotion regulation.*

In the fifth hypothesis it was assumed that affect integration in pretend play would significantly correlate with emotion regulation. However, no significant correlation was found between two variables (r=.02, p=.83). Therefore, the fifth hypothesis was not supported. Table 3.4 shows the results of hypothesis testing.

3.2.4 Exploratory Analysis

The results of the current study did not reveal any significant association between affective and cognitive processes of pretend play and emotion regulation. In exploratory analyses, various correlations between specific affect dimensions of the APS and emotion regulation were investigated. Figure 3.1 shows the frequencies of each affect dimension in negative and positive affect categories. Correlational analyses showed that only aggression expressed in pretend play was positively and significantly correlated with emotion regulation (r=.21, p<.05). The correlations between each affect dimension and emotion regulation are given in Table 3.5.

Table 3.1 Descriptive Characteristics of the Study's Measures

Measures	N	Mean	SD	Min-Max
ERC	99	23.16	3.32	13-30
APS Total Affect	99	16.90	11.88	0-56
APS Positive Affect	99	6.85	7.36	0-32
APS Negative Affect	99	10.22	9.69	0-43
APS Imagination	99	2.77	1.18	1-5
APS Organization	99	2.67	1.28	1-5
APS Elaboration	99	2.59	1.21	1-5
APS Comfort-Interest	99	2.96	1.27	1-5
APS Quality of Fantasy	99	2.68	1.20	1-5
APS Affect Integration	99	52.76	48.76	0-212
Raven	96	20.94	8.86	0-36
TIFALDI Expressive	96	60.51	15.85	3-78

Note. ERC=Emotion Regulation Checklist, APS=Affect in Play Scale, Raven= Raven Test of Progressive Matrices, TIFALDI Expressive= TIFALDI Expressive Language Subscale

Table 3.2 Pearson Correlation Coefficients Between the Measures of the Study

Measures	ERC	APS Positive Affect	APS Negative Affect	APS Total Affect	APS Imagination	APS Organization	APS Elaboration	APS Comfort	APS Quality of Fantasy	APS Affect Integration	TIFALDI Expressive Subscale	Raven Test of Progressive Matrices
ERC	1	-.01	.16	.114	-.08	-.08	-.11	-.02	-.09	.02	-.09	-.15
APS Positive Affect		1	-.11	**.53****	**.50****	**.57****	**.54****	**.52****	**.53****	**.59****	-.13	-.17
APS Negative Affect			1	**.76****	**.24***	.18	.19	**.21***	**.20***	**.62****	-.14	-.06
APS Total Affect				1	**.53****	**.51****	**.50****	**.51****	**.52****	**.91****	**-.24***	-.20
APS Imagination					1	**.94****	**.92****	**.86****	**.97****	**.73****	.04	.04
APS Organization						1	**.96****	**.88****	**.99****	**.73****	.08	.08
APS Elaboration							1	**.88****	**.98****	**.74****	.15	.10
APS Comfort								1	**.89****	**.69****	-.06	-.00
APS Quality of Fantasy									1	**.75****	.09	.08
APS Affect Integration										1	-.08	-.08
TIFALDI Expressive Language											1	**.70****
Raven												1

Note. ERC= Emotion Regulation Checklist, APS= Affect in Play Scale, Raven=Raven Test of Progressive Matrices
**=p<.01, *=p<.05

Table 3.3 Pearson Correlation Coefficients Between ERC, Affect in Play Scale and Age, Expressive Verbal Ability and Raven

Measures	Age	TIFALDI Expressive	Raven
ERC	-.16	-.09	-.14
APS Total Affect	-.13	**-23***	-.19
APS Positive Affect	-.09	-.12	-.17
APS Negative Affect	-.06	-.23	-.06
APS Imagination	.13	.03	.03
APS Organization	.14	.08	.08
APS Elaboration	.17	.14	.09
APS Comfort-Interest	.04	-.06	-.00
APS Quality of Fantasy	.15	.09	.07

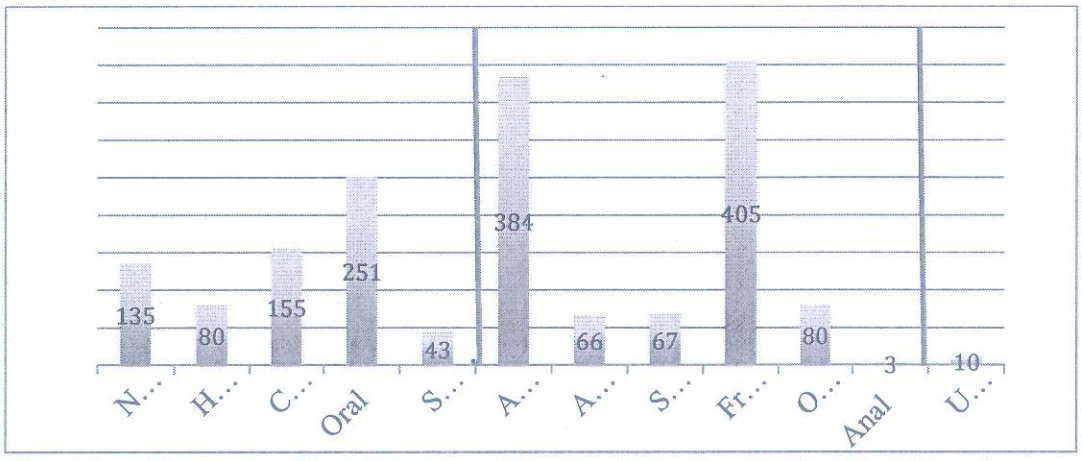
Note. ERC = Emotion Regulation Checklist, APS= Affect in Play Scale, TIFALDI Expressive= TIFALDI Expressive Language Subscale, Raven= Raven Test of Progressive Matrices.

Table 3.4 Results of the Hypothesis Testing; Correlation Coefficients Between Variables of the APS and Emotion Regulation

	TotAff.	PosAff.	NegAff.	Imag.	Organiz.	Elab.	Aff,Integ.
Emotion Regulation	.10	-.01	.16	-.08	-.07	-.10	.02

Note. TotAff.=Total Affect, PosAff= Positive Affect, NegAff.=Negative Affect, Imag.=Imagination, Organiz.=Organization, Elab.=Elaboration, Aff.Integ.=Affect Integration

Figure 3.1 Frequencies of Affect Dimensions in Positive and Negative Categories



Note. Nurt=Nurturance, Hap=Happiness/Pleasure, Com=Competition, Sex=Sexual, Agr=Aggression, Anx=Anxiety/Fear, Sad=Sadness/Hurt, Frust=Frustration/Dislike, Und=Undefined

Table 3.5 Pearson Correlation Coefficients Between Emotion Regulation and Specific Affect Dimension

	Nurt	Hap	Com	Or	Sex	Agg	Anx	Sad	Frus	OrA	An
Emotion Regulation	-.08	.08	-.10	.05	.04	**.21***	-.01	-.05	-.01	.11	-.06

* = $p < .05$

Note. Nurt=Nurturance,Hap=Happiness/Pleasure,Comp=Competition,Sex=Sexual,Agg=Aggression,Anx=Aniety/Fear,Sad=Sadness/Hurt, Frust=Frustration/Dislike, OrA= Oral Aggression, An=Anal

In further analyses, the Pearson Correlation Coefficients between affective and cognitive components of the APS and comfort during the play were conducted. It was found that total affect expressed during the pretend play significantly correlated with imagination (r=.52, p<.01), organization (r=.50, p<.01) and elaboration (r=.50, p<.01) of the play's plot. Similarly, positive affect expressed during the pretend play was significantly correlated with imagination (r=.49, p<.01), organization (r=.52, p<.01) and elaboration (r=.54, p<.01) of the play's plot. On the other hand, negative affect expressed during the pretend play was significantly correlated only with imagination (r=.23, p<.05). The results are also depicted in table 3.6.

Table 3.6 Pearson Correlation Coefficients Between Affective and Cognitive Components of the APS and Comfort During the Play

	Imagination	Organization	Elaboration	Comfort
Total Affect	**.52****	**.50****	**.50****	**.51****
Positive Affect	**.49****	**.52****	**.54****	**.51****
Negative Affect	**.23***	.18	.19	**.20***

*$p < .05$

**$p < .01$

CHAPTER 4

DISCUSSION

The aim of the present study was to investigate the relationship between affective and cognitive processes occurring during pretend play and emotion regulation in children. The results showed that affect expression in play and cognitive characteristics of play which were imagination, organization, and elaboration, were not associated with emotion regulation. In addition, affect integration, which refers to the extent to which affect is integrated into a cognitive context in the play, was not related to emotion regulation. Exploratory analyses revealed that aggression expressed during pretend play was related with emotion regulation and affect expression in play was related to better cognitive characteristics (imagination, organization, and elaboration) of the play.

In the following section, first, the results of the study hypotheses will be discussed in the light of the existing literature. Second, the results of the exploratory analysis will be presented. Finally, clinical implications, limitations, strengths of the study and suggestions for future research will be presented.

4.1. Evaluation of the Results of the Hypothesis Testing

In the literature, it has been indicated that affect expression in play help children distract themselves from emotional stress caused by negative life events (Russ, 2004; Christian et al., 2001). The studies also suggested that play enables children to identify and integrate their emotions adaptively. In support of these views, Hoffman and Russ (2012) found that children who expressed more affect and used a wider range of affects during pretend play were rated higher on emotion regulation than other children by their parents. Similarly, high affect expression in pretend play was related with better emotional outcomes in daily life including expression of

positive affect and emotional understanding (Seja & Russ, 1999). Based on these literature, the first three hypotheses of the current study focused on the relationship between affect expression in the pretend play and emotion regulation in children. It was expected that total affect, positive affect and negative affect expressed in the play task would be associated with emotion regulation, however, the current results revealed no significant relationships.

One explanation for the result of total affect expression's not being associated with emotion regulation would be related with distribution of the language scores in the current sample. The current study documented a significant relationship between expressive language ability and affect expression in play. However, expressive language ability was negatively skewed in the sample, which would refer to relatively lower language abilities of the participants. Westby (1990) suggested that both symbolic play and language shares common underlying processes and they both require development of abstraction and representational thought. Therefore a child's language level would be an indication of his/her symbolic play capacity (Westby, 1990). In addition, Russ (2004) argued that child's expressive language ability would affect the level of affect expression in play. Therefore, the skewed distribution in the children's language ability might have an effect on the results of the study.

Another factor which might be related to affect expression not being associated with emotion regulation, could be related to demographic features of the sample. The studies documenting the hypothized relationships were conducted with low risk, middle to high socioeconomic status (SES) participants. However, this current study investigated a clinical sample whose majority consisted of children coming from middle and low SES, 1/3 of them had a trauma history and all of them referred to psychological counseling. In support of this argument, Scott and colleagues (2006) conducted a study with one a group children who were exposed to cocaine and marijuana prenatally and another group of children who were not. All children were 6 years old and low SES. They found that total affect and negative affect expressions during play were related to depressive and anxious symptoms, and

negative affect expression was related to aggressive and delinquent behavior only for cocaine-exposed children not for others. (Scott et al., 2006). Therefore, demographic characteristics of the current study's sample might have accounted for not finding the associations documented by previous research.

Cultural differences in children's affect expressiveness might provide another explanation for the results of the study. Research showed that mother-child dyads from Western cultures talk more about emotions in daily life and play, and these children have better emotional knowledge and understanding than children from Eastern Cultures (Wang, 2003). Furthermore, cultural differences in children's expression of negative emotions such as sadness and anger were found. While sadness was the most frequently expressed emotions when discussing a negative event among U.S children, anger was the most frequently expressed emotion among Chinese children (Fivush & Wang, 2005). Therefore, one should note that children's expressions of emotions might vary between Eastern and Western Cultures.

Research on emotion regulation pointed out the effects of temperamental differences in emotionality (Eisenberg et al., 2005; Lengua, 2003). They argued that due to high level of negative emotionality, some children are more vulnerable to experience and express negative emotions such as aggression, sadness or fear. The current study did not include any measures of children's negative emotionality, which may have acted as a confounding variable of emotion regulation and this needed to be controlled in future studies.

Contrary to hypothesis, scores on the cognitive dimensions of play (imagination, organization, elaboration) were not related to emotion regulation. Although a positive relationship between imagination, organization, and elaboration during the play and emotion regulation was documented in the literature, most research was conducted with nonclinical samples (Seja & Russ, 1999; Hoffmann & Russ, 2012; Elias & Berk, 2002). Chazan and Cohen (2010) suggests that children in high risk for psychopathology and with a trauma history are more likely to display low affective quality, less imagination and disorganized plot characterized by

repetitive themes and behaviors, and interruptions during the play. The current study was conducted with children who were referred to psychotherapy due to trauma or severe emotional and behavioral problems. It can be argued that, the level of emotion regulation ability these children have might be sufficient to let them express their aggression in play. However, being able to express emotions in an organized and detailed play, which is rich in fantasy and imagination, would require a more advanced capacity of emotion regulation. The data of the current study was collected prior to psychotherapy. It could be expected that at the end of the psychotherapy these children would have better imagination, organization and elaboration skills in the pretend play, since psychotherapy process would help them express and regulate their emotions more effectively. In support of this argument, research showed that after receiving play intervention or psychotherapy children improved their affect expression, imagination and organization scores in the follow up play assessments (Moore & Russ, 2008; Russ, Moore, & Pearson, 2007). Therefore, comparing children's play characteristics in pre and post treatment would be beneficial for better understand the relationship between pretend play and emotion regulation.

When considering the results of pretend play variables which are not associated with emotion regulation, methodological features of the study should not be overlooked. In the assessment of emotion regulation, the current study relied only on parent's report of child's emotion regulation and no significant relationship among the variables was observed. Assessment of children's emotion regulation was done via the emotion regulation subscale of the Emotion Regulation Checklist (ERC; Shields and Cicchetti, 1997), which was found to be a reliable parent reported measure (Suveg & Zeman, 2004; Kapçı, Ri, Akgün & Acer, 2009). On the other hand, several researchers argued that assessment of emotion regulation has some methodological and conceptual challenges since emotion and its regulation are elusive and dynamic processes, which lacks a "golden standard" of assessment (Cole, Martin, & Dennis, 2004; Zeman, Klimes-Dougan, Cassano, & Adrian, 2007).

Therefore, researchers are recommended to obtain information from multiple methods such as questionnaire, observation or physiological assessment and from multiple informants like parents, teachers and child when conducting a research (Morris, Robinson, & Eisenberg, 2006). Furthermore, literature suggests that parent reports would measure informant's own perceptions and attributions to children's emotion. In addition, rather than tapping on child's individual emotional competence they would assess the behavioral outcomes of child's expressing emotions in maladaptive ways (Zeman et al., 2007). In support of this view, review studies found that a great number of discrepancies between parents' and children's report of child ER exists (Weems & Pina, 2010; Hourigan, Goodman, & Southam-Gerow, 2011). Specifically, children were more likely to report more dysregulated expression of sadness and anger than their parents. In addition, for the children who were rated to have aggressive and delinquent behavior, parents reported more dysregulated expression of sadness and anger than children (Hourigan et al., 2011). In the light of the research mentioned above, use of observational methods in addition to the ERC and obtaining data from multiple resources such as children's own reports on emotion regulation would have lead to more reliable results for the current study.

4.2. Evaluation of the Results of the Exploratory Analysis

The results showed that total, positive and negative affect expression scores were not associated with emotion regulation scores. Therefore, further correlational analyses between each affect category and emotion regulation were conducted. The results indicated that aggression expressed in pretend play was significantly related to emotion regulation. This was in support with the view that play contributes to emotional development in children, by allowing them to express their aggression in the play, thus they learn and practice to control teir aggressive impulses, which in turn enhances their emotion regulation capacity (Linn, 2008). In the line with this view, Russ and Fehr (2013) documented that expression of aggression during play

was associated with more prosocial behavior and less aggressive behavior in classroom context.

Correlation analysis between affective and cognitive dimension of the Affect in Play Scale (APS; Russ, 2004) was conducted to have a better understanding of the children's pretend play. It was found that total affect and positive affect expression scores were related to cognitive processes of imagination, organization and elaboration in play. These results were in accordance with Slade and Wolf's (1994) argument that cognitive and emotional structures contributes to development of each other. They also support Russ's (2004) view that affect and cognition are two fundamentals of pretend play, which are intertwined and occur simultaneously. On the other hand, negative affect expression score was associated only with imagination at a lower (weaker) level. Chazan and Cohen (2010) suggested that trauma exposure decreases symbolic expression and increases concrete thinking in play. They also added that play activity could be too rigid and constricted since feelings expressed are of the disturbing and frightening for the child. It should be noted that 1/3 of the current sample had a trauma history which might have accounted for imagination, organization and elaboration not being related to emotion regulation.

4.3. Implications for Clinical Practice

The result of the study showed that expression of aggression in play is related to children's emotion regulation. One should be aware that aggression in pretend play is not always an indicator of emotional difficulties related to aggression. Expression of negative affects in play was linked with more adaptive emotional outcomes in many studies. This study contributes to the existing knowledge that children use pretend plays to accomplish developmental milestones in emotion regulation. Therefore it becomes crucial that parents and school teachers encourage children to

use imagination, story telling and express their emotions, aggression in particular, in play in order to enhance emotion regulation capacity of children. Encouragement for the expression of negative affect in play should be considered an important dimension of healthy parent-child interaction.

The results have some implications for therapeutic work with children. When developing play therapy models or play interventions, both affective and cognitive processes and their integration should be taken into consideration. In addition, a child's pretend play characteristics could be a useful assessment tool providing information about the child's affectivity, cognition and developmental level.

4.4. Strengths and Limitations of the Present Study

There are some strengths of the study, which are note of worth. To our knowledge, the relationship between pretend play characteristics and emotion regulation of children in a Turkish clinical sample has been examined first time by this study. Preliminary adaptation and validation of the Affect in Play Scale (Russ, 2004) with a Turkish sample was done also by the current study. The results also become important in terms of understanding the play characteristics of Turkish children with emotional and behavioral problems. It was found that aggression expressed in pretend play was related with better emotion regulation in the clinical sample. This results is important in terms of overcoming the negative attitude of parents and school teachers towards expression and display of aggression in play. This study also contributes to clinical child psychology literature by documenting important results in play characteristics of emotionally disturbed children.

In addition to its strengths, the study has several limitations. First, this was a correlational study whose design makes it impossible to infer any causality among the variables. Second, although the number of participants was quiet high, the sample size could be a drawback and finding significant results could be possible with a larger sample. Third, in the assessment of emotion regulation the current study relied

on only maternal reports for the children's emotion regulation ability. Use of multiple informants and additional measures of emotion regulation would have strengthened the results of study.

4.5. Future Directions for Research

A further study assessing emotion regulation by observations and multiple informants would provide valuable information for the investigation of the associations between pretend play and emotional regulation in children. When clinical characteristics and relatively lower language ability of the sample are considered, a replication of the study with a nonclinical and normal distributed sample would provide further information on the relationship between the study's variables. In addition, additional measures on child and parental characteristics such as temperament would strengthen the study in terms of finding more controlled results on emotion regulation.

Moreover, children were not classified in terms of their symptoms or reasons for referral in the current study. In the future, studies with different designs could examine the relationship between pretend play and emotion regulation across groups of children clustered according different symptomology, such as externalizing vs internalizing symptoms.

Apart from cognitive and affective processes in pretend play, there are two other major processes occurring in pretend play; interpersonal processes and problem solving (Russ, 2004). This study focused on the affective and cognitive processes, however, assessing those two processes via additional measures would provide deeper information about children's pretend play.

All the assessments in the current study were conducted before children have started the psychotherapy. It is expected that children would have better pretend play and emotion regulation ability at the end of the therapy process. Therefore, reexamining the hypothesized relationships with pre-post treatment comparisons

would be more valuable for future studies. Finally, a comparison of clinical and normal samples in terms of the relationship between pretend play and emotion regulation would make important contributions to the existing literature.

4.6. Conclusions

This study examined the relationship between the affective and cognitive processes of pretend play and emotion regulation in Turkish children. The results showed that positive affect, negative affect and total affect expressed in pretend play were not related to emotion regulation. It was also found that imagination, organization and elaboration in pretend play were not related with emotion regulation. Exploratory analysis showed that aggression expressed in the pretend play was related with emotion regulation. In addition, there were significant positive relationships between affect expression and imagination, organization and elaboration in pretend play. These results were in line with the previous research documenting the relationship between the variables of the current study (Russ, 2004; Fehr & Russ, 2013).

The study makes significant contributions to the literature. First, the results pointed out how aggression in children's play could be adaptive for adjustment. Second, the initial results for the Turkish standardization of the Affect in Play Scale (Russ, 2004) has been examined . Lastly, the links between pretend play and emotion regulation were examined in a Turkish clinical sample.

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APPENDICES

Appendix A: Emotion Regulation Checklist

ID No: **Tarih:**

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

	Nadiren/ Neredeyse Hiç	Bazen	Sık Sık	Her zaman
1) Neşeli bir çocuktur.	1	2	3	4
2) Duygu hali çok değişkendir. (çocuğun duygu durumunu tahmin etmek güçtür çünkü olumlu bir duygu halinden olumsuz bir duygu haline çabucak geçer).	1	2	3	4
3) Yetişkinlerin arkadaşça ya da sıradan (nötr) yaklaşımlarına olumlu karılık verir.	1	2	3	4
4) Bir faaliyetten diğerine kolayca geçer; kızıp sinirlenmez, endişelenmez (kaygılanmaz), sıkıntı duymaz veya aşırı derecede heyecanlanmaz.	1	2	3	4
5) Üzüntüsünü veya sıkıntısını kolayca atlatabilir (örneğin, canını sıkan bir olay sonrasında uzun süre surat asmaz, endişeli	1	2	3	4

veya üzgün durmaz).				
6) Kolaylıkla hayal kırıklığına uğrayıp sinirlenir (huysuzlaşır, öfkelenir).	1	2	3	4
7) Yaşıtlarının arkadaşça ya da sıradan (nötr) yaklaşımlarına olumlu karşılık verir.	1	2	3	4
8) Öfke patlamalarına, huysuzluk nöbetlerine eğilimlidir.	1	2	3	4
9) Hoşuna giden bir şeye ulaşmak için bekleyebilir. (örneğin, şeker almak için sırasını beklemesi gerektiğinde keyfi kaçmaz veya heyecanını kontrol edebilir).	1	2	3	4
10) Başkalarının sıkıntı hissetmesinden keyif duyar (örneğin, biri incindiğinde veya ceza aldığında güler; başkalarıyla alay etmekten zevk alır.	1	2	3	4
11) Heyecanını kontrol edebilir (örneğin, çok hareketli oyunlarda kontrolünü kaybetmez veya uygun olmayan ortamlarda aşırı derecede heyecanlanmaz).	1	2	3	4
12) Mızmızdır ve yetişkinlerin eteğinin dibinden ayrılmaz.	1	2	3	4
13) Ortalığı karıştırarak çevresine zarar verebilecek enerji patlamaları ve taşkınlıklara eğilimlidir.	1	2	3	4

14) Yetişkinlerin sınır koymalarına sinirlenir	1	2	3	4
15) Üzüldüğünü, kızıp öfkelendiğini, veya korktuğunu söyleyebilir.	1	2	3	4
16) Üzgün veya halsiz görünür.	1	2	3	4
17) Oyuna başkalarını katmaya çalışırken aşırı enerjik ve hareketlidir.	1	2	3	4
18) Yüzü ifadesizdir; yüz ifadesinden duyguları anlaşılmaz.	1	2	3	4
19) Yaşıtlarının arkadaşça ya da sıradan (nötr) yaklaşımlarına olumsuz karşılık verir (örneğin kızgın bir ses tonuyla konuşabilir ya da ürkek davranabilir).	1	2	3	4
20) Düşünmeden, ani tepkiler verir.	1	2	3	4
21) Kendini başkalarının yerine koyarak onların duygularını anlar; başkaları üzgün ya da sıkıntılı olduğunda onlara ilgi gösterir.	1	2	3	4
22) Başkalarını rahatsız edecek veya etrafa zarar verebilecek kadar aşırı enerjik, hareketli davranır.	1	2	3	4
23) Yaşıtları ona saldırgan davranır ya da zorla işine karışırsa yerinde olumsuz duygular gösterir (kızgınlık, korku, öfke, sıkıntı, vb).	1	2	3	4

24) Oyuna başkalarını katmaya çalışırken olumsuz duygular gösterir (aşırı heyecan, kızgınlık, üzüntü, vb).	1	2	3	4

Appendix B: Affect Categories of The Affect in Play Scale

Specific Criteria for Affect Categories

Anxiety/Fear	Expression of fear and anxiety. Content such as school anxiety, doctors visits, fears, concern about punishment and, worry. Action of fleeing and hiding, agitation
Sadness/Hurt	Expression of illness, physical injury, pain, sadness, loneliness.
Frustration/Disappointment	Expression of disappointment and frustration with activities, objects, and limitations (e.g. "math is boring,", "This is a rotten day", "I can't do this".)
Oral Aggression	Expression of oral aggressive themes such as biting or food that has negative affect associated with it.
Oral	Expression of oral content of food, eating and drinking. Affect expressions are positive about oral content.
Anal	Expression of anal content including dirt and making a mess
Nurturance/Affection	Expression of empathy or sympathy with another character; affection; helping and support
Happiness/Pleasure	Expression of positive affect that denotes pleasure, happiness, having a good time, enjoyment, and contentedness.
Competition	Expression of wanting to win, competitive game- playing, pride in achievement, and striving for achievement.

Sexual	Expression of sexual content such as reference to boyfriend or girlfriend, sexual content with feeling state (e.g. "I like to kiss")
Quality of Fantasy	
Organization	Measures the quality of the plot and complexity of the story.
Elaboration	Measures the amount of embellishment in the play. One could consider theme, facial expression, voice tones, character development
Imagination	Measures the novelty and uniqueness of the play and the ability to pretend use fantasy. Ability to transform the blocks and pretend with them
Comfort	Measures the involvement of the child in the play and the enjoyment of the play