Dyadic Mental State Talk and Sophistication of Symbolic Play between Parents and Children with Behavioral Problems

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To cite this article: Sibel Halfon, Özlem Bekar, Serra Ababay & Görkem Çöklü Dorlach (2017) Dyadic Mental State Talk and Sophistication of Symbolic Play between Parents and Children with Behavioral Problems, Journal of Infant, Child, and Adolescent Psychotherapy, 16:4, 291-307

To link to this article: http://dx.doi.org/10.1080/15289168.2017.1370952

Published online: 08 Nov 2017.
Mentalization, or reflective functioning (RF) in the specificity of attachment relationship, entails being inquisitive about mental states, attempting to label them, and providing an open space for the expression of a range of mental states, including negative ones (Fonagy & Target, 1997). This process allows children to organize their experiences and have a better understanding of what they are feeling, which in turn helps form tentative hypotheses about the link between emotions and behaviors and to develop the ability to regulate them (Fonagy et al., 2002). Fonagy and Target (1997) proposed that children’s play is a major framework for the development of mentalization. An improvement of cognitive constructs in play (i.e., imagination, elaboration, quality of fantasy) facilitates emotional understanding and empathy (Niec & Russ, 2002; Seja & Russ, 1999). In pretend play, children gain the opportunity to act out social situations and try emotion regulation strategies, which then leads to increased mentalization and the development of affective structures for understanding oneself and others (Fonagy & Target, 1996).

Some studies found that children with behavioral problems suffer from deficits in mentalization and have difficulty engaging in symbolic play. Children with behavioral problems were more likely
to attribute negative intentions to others (Ha, Sharp, & Goodyer, 2011) and less likely to evaluate the social consequences of their actions (Sutton, Reeves, & Keogh, 2000). They are also more likely to make more fallacious positive attributions to themselves (Sharp, Fonagy, & Goodyer, 2006) and show deficits in emotion understanding (Sharp, 2008). Although play provides a rich context for symbolization, and an intervention tool in therapy with children to cultivate mentalization skills (Verheugt-Pleiter & Zevalkink, 2008), to the best of the authors’ knowledge, no studies have systematically studied and demonstrated the relationship between mentalization and symbolic play in a sample of children with behavior problems. In this study, we aimed to investigate the associations among mothers’, fathers’, and children’s mental state talk, and children’s interactive role-play and affect regulation, and their links with children’s behavioral problems at the beginning of psychotherapy. A community based psychotherapy research program focused on school age children’s behavioral problems provided the context for the investigation.

Mental state language, play and children’s socio-emotional functioning

Symbolic play is one of the most fertile areas for the development of mentalization skills in children. In play, children experiment with mental states that are less common, acceptable, or coherent compared with those in real world interactions, helping them develop awareness for a larger variety of mental states. Thus, children need parents to “play along” in order to make meaningful connections among their mental states, behaviors, and the external world (Fonagy & Target, 1996, 2007). Mothers with a secure state of mind act inquisitively about mental states, attempt to label them both in themselves and their children and provide an open space for the expression of a range of emotions, including negative ones, without getting overwhelmed or consumed by them (Fonagy & Target, 1997). Studies have found that mothers’ mental state language during play is linked with children’s production of mental state words during toddlerhood and preschool years (Slaughter, Peterson, & Carpenter, 2009; Symons, Fossum, & Collins, 2006). In return, children who produce more mental state talk in their verbal interactions with their mothers in play perform better in emotion recognition (Dunn, 1995) and are able to play interactively with multiple play characters (Astington & Jenkins, 1995; Lillard & Kavanaugh, 2014; Youngblade & Dunn, 1995). Children who are able to express and explore mental states with a reflective parent become adept at identifying those emotions promptly and develop flexible and adaptive means of regulating themselves (Laible, 2004; Slade, 2005). However, most of these studies have been conducted with normally developing preschool children, and there is a gap in the literature in terms of mental state talk and play characteristics of school-age children.

While the development of mentalization skills in the family context has been subject to extensive research for many years, the vast majority of studies have focused on the mother-child relationship, and only a few investigated the effects of fathers (Arnott & Meins, 2007; Lundy, 2013). Mothers and fathers have been found to render similar proportions of appropriate mind-related comments during interactions with their infants (Lundy, 2003). However, Arnott and Meins (2007) found that fathers were more likely than mothers to produce inappropriate comments regarding their children’s mind in play and Lundy (2003) found that fathers made comments more geared towards problem-solving.

Characteristics of mental state talk and play of children with behavior problems

Even though children with externalizing behaviors do not display problems with cognitive perspective taking (Happe & Frith, 1996; Sutton et al., 2000), studies have found these children have trouble talking about past emotional experiences (Cook, Greenberg, & Kusche, 1994), disown their underlying mental states in an attempt to deny responsibility (Sutton et al., 2000), and attribute overly positive thoughts to others about themselves (Sharp, 2008; Sharp et al., 2006). Internalizing children tend to be “hyper-vigilant mentalizers” attributing possible threat and negative evaluations of social events inappropriately (Banerjee, 2008). Better affective perspective taking and emotional
understanding were linked with higher prosocial behaviors and fewer behavior problems in several other studies (Garner, Dunsmore, & Southam-Gerrow, 2008; Hughes, Dunn, & White, 1998). Several lines of research focused on the link between parental mental state talk and child’s social adaptation and behavioral problems and found that mothers’ mental state references to their children’s minds were negatively associated with children’s behavioral problems (Meins et al., 2013; Oppenheim, Goldsmith, & Koren-Karie, 2004). Gottman, Katz, and Hooven (1996) found that mothers of children with conduct problems were less skilled in coaching of negative emotions and understanding their own negative emotions.

In terms of play characteristics, externalizing and internalizing children have problems with symbolic play organization and affect regulation in play. Externalizing children display more negative affect such as anger and hostility in their play and as well as lower levels of affect regulation and organization (Butcher & Niec, 2005). Anxious children play solitary and are not able to engage in interactive play (Christian, Russ, & Short, 2011). Differences in the level of symbolic play and coherence while playing have also been found between depressed and nondepressed children (Mol Lous et al., 2002).

**Aims of the current study**

Our study offers unique advantages in determining the association between Turkish mothers’, fathers’ and children’s mentalization capacity and children’s affect regulation and interactive role-play with a group of school-age children with behavioral problems. In line with the recent advancements in theory, which emphasize the multidimensional nature of the mentalization construct (Luyten et al., 2012), we believe that mentalization construct should be examined in detail (self-related, other-related, and play-related). Moreover, the notion of symbolic play should be detailed for a multi-faceted assessment of school-age children’s capacity to play (i.e., representation of social characters and affect regulation strategies in play).

In this study, mentalization was operationalized as mental state talk that was co-created between the parent-child dyads. A novel observational tool, the Coding System for Mental State Talk (CS-MST; Bekar, Steele, & Steele, 2014) was used to assess parents’ and children’s level of mentalization pertaining to the pretend play characters, themselves, and to their children. CS-MST builds upon the earlier efforts to measure various dimensions of mental state talk in speech such as utterances of emotions, cognitions, physiological, and perceptual mental states (Bretherton & Beeghly, 1982). CS-MST also assesses the directionality of speech that involves mental states. Preliminary research with this instrument has shown promising results in terms of its validity, ease of coding, and reliability. For example, in a recent study we found therapists’ and children’s use of mental state words in sessions was predictive of children’s affect regulation (Halfon, Bekar, & Gurleyen, 2016).

Children’s ability to engage in role play and regulate affect in play were measured by Children’s Play Therapy Instrument (CPTI; Kernberg, Chazan, & Normandin, 1998), which is a psychodynamically informed measure that aims to assess the structure and narrative of a child’s play activity in psychotherapy. Even though this instrument has not been used in mentalization research, its unique characteristics are conducive to assess children’s affect laden representations in play, an important component of mentalization. Prior research using this instrument with clinical populations has shown that such children are capable of simpler representations, where they may bring a solitary role to the play world, remaining more centered upon themselves. Alternatively, the therapist or toys may be animated only as recipients of the child’s activities. It was shown that over the course of treatment children tend to play with several characters in interacting roles, taking into account different generational and familial dynamics (Chazan, 2000, 2002; Chazan & Wolf, 2002). In terms of affective characteristics of play as measured by CPTI, Halfon (2017) found that internalizing children, especially children with depressive problems, show more constricted and limited affect in play, and Halfon et al. (2016) found that externalizing children showed more negative affect in play and higher levels of anger. Internalizing problems were also associated with higher levels of negative
affect and low affective arousal. The specific links between symbolic play and mental state talk in psychodynamic therapy have only been studied in one study to date. In an empirical single-case study of two children diagnosed with separation anxiety disorder Halfon, Bekar and Gurleyen (2017) found that therapists’ use of mental state talk significantly predicted children’s subsequent affect regulation in play.

The first aim of this study was to investigate the associations between mental state talk of mother-child and father-child dyads and interactive role-play and affect regulation in play with a Turkish population of children with behavioral problems at the beginning of psychotherapy. The second aim was to investigate the association between mental state talk and play variables and children’s behavioral problems, as reported by parents and teachers. The first hypothesis was that mothers’, fathers’, and children’s mental state talk would be significantly linked with higher capacities for affect regulation and interactive role-play. The second hypothesis was that mental state talk capacity, interactive role-play, and affect regulation would be significantly negatively linked with children’s behavioral problems.

Method

Data

The data source for this study is the Istanbul Bilgi University Psychotherapy Research Laboratory, which provides low-cost outpatient psychodynamic psychotherapy. Referrals were made by parents themselves or by mental health, medical, and child welfare professionals. The parents and the children were interviewed in order to determine whether the patients fit the study protocol inclusion criteria: ages 4–10 years old, no psychotic symptoms, no significant developmental delays, no significant risk of suicide attempts, and no drug abuse. The patients and their parents were informed about the research project before commencing therapy and the parents provided written informed consent and the children provided oral assent concerning use of their data for research purposes. A group of 84 consecutively admitted patients from fall 2014 to spring 2016 and who met inclusion criteria were approached for data collection purposes. Of these families, 57 consented to research and video recording of sessions. Also of these 57 families, 36 children had play session data with both their mothers and fathers, 17 children had only mother data, and 4 children had only father data. Missing data occurred due to fathers’ refusal to engage with the treatment process (n = 17) and some mothers’ discomfort with video-recordings (n = 4). In the final sample, 53 partook in the mother-child and 40 partook in the father-child protocol.

Sample characteristics

All the families (n = 57) were intact, born in Turkey, came from relatively homogeneous urban neighborhoods, and belonged to low to middle socioeconomic status (SES). Most parents were between the ages of 30 and 39 (68%), 24% were within the 40–50 age range, and a small percentage (8%) were between the ages of 20 and 29. The parents’ level of education varied such that 15% of parents dropped out of school before the age of 13, 40% of the parents had a secondary or high school equivalent diploma, and 45% of the parents had a university equivalent diploma. The children’s ages varied between 4 and 10 years (26% were 4–5 years old, 34% were 6–7 years old, and 40% were 8–10 years old), with an almost equal ratio of males (54%) to females (46%), who were referred due to behavioral problems, school problems or anxiety related problems.

Measures

Background information and behavioral problem levels

Demographic information such as age, education, socioeconomic status and marital status were obtained using a standard intake form and from information obtained in the initial intake interview.

The CBCL is a widely used assessment measure for behavioral problems of children aged 4 through 18 and is filled out by the parents, who report on the child’s academic performance, social relationships, and indicate how true a series of 112 problem behavior items are for the child. Outcomes can be determined for significant problems with internalizing behavior (e.g., depression, anxiety), externalizing behavior (e.g., aggression, violence), or total problems. The CBCL was adapted to Turkish language with good test-retest reliability (.84 for the total problems) and internal consistency (Cronbach’s alpha = .88; Erol, Arslan, & Akcakin, 1995).

**Teacher’s Report Form, 4–18 (TRF 4–18; ACHENBACH, 1991)**

Teachers were sent the TRF, which is a teacher-report measure scored similarly to the CBCL with the same problem scales. The test-retest reliability of the Turkish TRF is .88 for total problems and Cronbach’s alpha was .87 (Erol & Şimsek, 2000).

**Mentalization measure**

Coding System for Mental State Talk in Narratives (CS-MST; Bekar Steele & Steele, 2014) was developed to assess various dimensions of mental state talk in preschool children’s and their parents’ narratives while reading the wordless picture book *Frog, Where are You?* by Mercer Mayer (1969). CS-MST comprises five major categories of mental state language: emotions (e.g., *happy*), cognitions (e.g., *think*), perceptions (e.g., *to smell*), physiological mental state words (e.g., *hungry*, *sleepy*), and action-based mental state words (i.e., actions that inherently imply mental states, such as *hiding*, *looking for something*, or *laughing*). These basic categories can be coded in three directions: about the characters, the self, and the other (listener). The sum of the five major categories that are oriented at the story characters comprises the category of “story-oriented mental state talk.” The sum of the five major categories that are oriented at the self or the listener comprise the Self-Composite and the Other-Composite, respectively.

The CS-MST was first adapted to Turkish language by using the narratives of Turkish mothers and their preschool children (Bekar & Çorapçı, 2016) and then adapted to play therapy narratives for use in the current study. For adaptation purposes, the “story-oriented mental state talk” was replaced with “play-oriented mental state talk,” which refers to participants’ mental state utterances in the mode of pretend play (e.g., mother speaking as a lion: “Oh no I am so *hungry*, when are we going out to catch a deer?”). The Self-Composite and the Other-Composite variables remained the same as in the original coding system, and refer to participants’ mental state talk about themselves and the listener, respectively, outside of the pretend play.

During the adaptation phase, 25 play segments were coded by the second author and a group of four masters level research assistants following a one-day training workshop. The levels of inter-rater reliability were excellent. An intra-class correlation coefficient (ICC; 2,1) of .92 was reached on all coding variables (play-oriented, self-oriented, and other-oriented mental state talk) in each play segment. Any disagreements and questions were resolved before the same group of research assistants coded the remaining transcripts. An ICC (2,4) of .90 was reached amongst these research assistants on the remaining transcripts. Disagreements were resolved in consultation with the second author.

**Assessment of play activity**

The Children’s Play Therapy Instrument (CPTI; Kernberg et al., 1998) rates children’s behavior in therapy at different levels (for further definition of play activity categories, see Chazan, 2002). In this study, two scales, the interactive role play and affect regulation, were rated using both the session videotapes and transcripts.

Interactive role-play is an assessment of the child’s social representational world as reflected in the play. Higher scores represent the presence of three or more characters in play who are all inter-related and whose roles are all clearly defined and verbalized by the child. It was calculated by taking the mean score for the following specific social representation items rated on a 1–5 Likert scale...
(5 = most characteristic, 1 = no evidence): (1) The child collaborates in role-play with another person with at least three or more interactive roles. For instance, the child plays being the driver, the father doll is the passenger and the mommy is waiting for them at home. (2) The child gives voice to a character and does not just talk about him. For example, the child speaks for the mother doll, telling his son to go to bed and then pretend to be the son who says, “No!”

Affect regulation looks at the child’s capacity to express appropriate affect in play in an adaptive way, such as being able to emotionally regulate one’s self when faced with sources of distress and discomfort in play activity. The affect regulation score was calculated by taking the mean score for the following specific affective items rated on a 1–5 Likert scale (5 = most characteristic, 1 = no evidence): (1) Child can express and oscillate between different intensities of a feeling within his control, i.e. from annoyance to irritability to anger to rage. (2) The child moves from one affective state to another smoothly. (3) The child’s affective tone is appropriate to the play theme. (4) The child can use adaptive coping strategies such as problem solving or humor in the face of disruptive affect.

The first author was trained by Saralea Chazan on the use and adaptation of CPTI. The CPTI was translated and back translated for use in Turkish. A group of seven graduate students and an experienced clinical psychologist with 10 years of clinical experience evaluated the language and statement comprehensibility of the scale. The scale was finalized following necessary modifications according to the feedback received during this evaluation. Two masters level research assistants who received 20 hours of training on the CPTI by the first author rated 10 training sessions (24 play segments) prior to the study rated the sessions. ICCs were computed to help identify the agreement level between judges for subscale ratings. The values varied between .75 and .97, suggesting good reliability for all subscales. Disagreements were resolved by consultation with the first author. The internal consistency of the composite interactive role play and affect regulation components was tested by Cronbach’s alpha and the reliability scores were .72 for interactive role-play and .75 for affect regulation.

**Parental education**

As a measure of SES, parental education was coded on a 6-point scale in order to approximate North American equivalents as follows: 0 = dropped out of school before age 13 (elementary school level education), 1 = certificate of secondary education (middle school up to age 16), 2 = high school completion (up to age 18), 3 = professional school (two years of university education), 4 = undergraduate education (four years of university), and 5 = (graduate education).

**Procedures**

In the initial meeting, the parents were interviewed by the therapist in order to get the details of the child’s presenting problem, developmental history, and social/familial context. At the end of this session, the parents filled out the background questionnaire and CBCL and the teachers were sent the TRF. The second meeting took place in play therapy rooms. The clinic has four identical specially equipped play therapy rooms with one-way mirrors and videotaping equipment. They were equipped with symbolic toys such as dolls, a doll house, and puppets; plastic animals; more aggressive items such as plastic soldiers, combat toys, and plastic guns; transportation toys such as cars, ships, and planes; plastic doctor materials such as stethoscope and vaccines; and a plastic tool box. There were also creative items such as art supplies and clay. The parent and child were shown the playroom by the therapist with the explanation, “This is a room where children and parents can play together. Please play as you would do if you had some free time together at home. You are free to use any of the toys you like.” Afterwards, the therapist instructed the parent and the child to play together for 20 minutes. The mother-child dyadic play took place first, followed by the father-child dyadic play in the next session. All these play segments (a total of 93 play segments) were video-
taped, transcribed verbatim, and coded for mothers’ mental state talk, fathers’ mental state talk, and child’s mental state talk using the CS-MST and for play variables, that is, interactive role-play and affect regulation, using the CPTI.

**Results**

Results are organized into three sections. First, we explored the data properties of mental state talk and play variables. Second, we examined associations between mental state talk, interactive role-play and affect regulation in mother-child and father-child play. Third, we examined the associations among mental state talk, play, and children’s behavioral functioning. Partial correlations and hierarchical regressions were used to test the hypotheses.

**Preliminary analyses**

In order to ensure that mental state talk categories were not affected by overall verbosity, we controlled for word count by dividing each participant’s mental state talk frequencies by the total word count of the participant within the play segment. Scores for mental state talk variables were positively skewed. After square root transformations, the mental state and play variables in the mother-child condition were within limits of normality and there were no outliers. In the father-child data, one outlier regarding the children’s self-mental state talk was identified and truncated by assigning the outlying case a score that is one unit larger than the next highest score on that variable (Tabachnick & Fidell, 2007, p. 77). This technique reduces the impact of outliers on the analyses while also accounting for the variance provided by participants who employ a particular mental state category more often than others. To alleviate the effect of multicollinearity between children’s and parents’ mental state talk variables, children’s mental state talk variables were residualized by regressing it on parents’ play-related mental state talk (Lovell, 2008). This allowed us to remove the common variance from one of the variables (i.e., children’s talk) and independently examine its unique effects through the residual scores that are not explained by parent’s talk.

Previous research on mother-child interaction has shown that the frequency count of mental state words provides important complementary information about the different types of mental state discourse that children are exposed to. Each utterance of the parent may have a direct influence on the child’s understanding of mental states regardless of the verbosity of the parent, and consequently affects the children’s play structure (e.g., Fivush, 1998; Ruffman, 2002). Accordingly, during the pretend play, approximately one in five mothers used emotion or cognition words, approximately one in three used perception words (e.g., “the kitten saw that”) or physiological mental state words (e.g., “the bear is hungry”), and half of the mothers used action-based mental state words (e.g., “the monster is hiding!”). Overall 68% of the mothers used at least one mental state word from one of the five categories while they were engaged in pretend play. The vast majority of mothers referred to their children’s and their own mental states at least once during the play sessions that are outside of pretend play (96% and 91%, respectively). These self-oriented mental state words largely consisted of self-cognitions (e.g., “I think”) and self-perceptions (e.g., “I see that”). The child oriented mental state words again largely consisted of references to children’s cognitions and perceptions, while mothers’ references to children’s emotions and physiological mental states were observed less often. With their mothers, 55% ($M = 3.85$, $SD = 7.09$) of the children used at least one mental state word during pretend play. Approximately 79% and 77% of the children referred to their own and to their mothers’ mental states, respectively. Approximately 63% of the fathers used at least one mental state word during pretend play and vast majority referred at least once to their children’s and own mental states (95% and 90%, respectively). With their fathers, 48% ($M = 1.53$, $SD = 2.52$) of the children used at least one mental state word during pretend play. Approximately 88% and 90% of the children referred to their own and fathers’ mental states at least once.
Parents’ age and education
The associations among parents’ ages, education, mental state talk, and children’s play variables were checked by Pearson Correlation analyses separately for mother-child and father-child data and no significant associations were found.

Children’s age and gender
Mothers who had older children used less child-related mental state talk compared to mothers of younger children \( r(53) = -.36, p < .05 \). No significant findings emerged regarding the association between children’s ages and fathers’ or children’s mental state talk. Regarding play variables, compared with younger children, older children in the father-child data had lower interactive role-play scores \( r(40) = -.38, p < .05 \), and older children in the mother-child data had higher affect regulation scores \( r(53) = .51, p < .001 \).

Mothers who had girls \( M = .10, SD = .07 \) used significantly more play-related mental state talk \( t(51) = -2.95, p < .05 \) than mothers who had boys \( M = .05, SD = .05 \). Girls \( M = .10, SD = .08 \) in the mother-child data used significantly more play-related mental state discourse \( t(51) = -3.56, p < .01 \) than boys \( M = .03, SD = .04 \). In addition, girls \( M = 2.14, SD = 1.04 \) were found to score significantly higher on interactive role-play \( t(51) = -2.63, p < .05 \) than boys \( M = 1.51, SD = .65 \) and girls also scored \( M = 3.59, SD = .55 \) significantly higher on affect regulation \( t(51) = -2.13, p < .05 \) than boys \( M = 3.30, SD = .46 \) in the mother-child data. In the father-child data, boys \( M = .09, SD = .06 \) referred to their fathers’ cognitive states more frequently \( t(38) = -2.12, p < .05 \) than girls \( M = .05, SD = .05 \), although there were no significant differences between genders in terms of the total number of references to fathers’ mental states (including cognitions, emotions, perceptions, etc.).

Mother-child play
Because connections were found among some age, gender, mental state talk, and play variables, partial correlations controlling for age and gender were computed. Results indicated that both the mothers’ and children’s play related mental state talk were significantly and positively correlated with children’s ability to construct interactive role-play \( pr(49) = .76, p < .01 \; pr(49) = .74, p < .01 \). Mothers’ references to children’s mental states were negatively correlated with interactive role playing \( pr(49) = -.50, p < .01 \). In addition, mothers’ and children’s references to their own mental states were significantly linked with children’s affect regulation \( pr(49) = .29, p < .05 \; pr(49) = .31, p < .05 \).

In order to address the question of how much mothers’ and children’s mental state talk account for the variance in play variables over and above the effects of gender and age and with respect to each other, we conducted two hierarchical multiple regression analyses including only the mental state talk variables that were significantly associated with play variables as predictors. The first regression analysis was conducted to predict interactive role-play (see Table 1).

Results indicated that children’s (residualized) and mothers’ play-related mental state talk and mothers’ child-related mental state talk accounted for a significant amount of variance in interactive role-play, after controlling for age and gender. Mothers’ and children’s play related mental state talk were significantly associated with the dependent variable, while mothers’ references to children’s mental states did not uniquely contribute to the variance explained. Children’s (residualized) and mothers’ mental state talk variables significantly predicted affect regulation in play over and above children’s gender and age, although only mothers’ self-related mental state talk was associated the dependent variable (please see Table 1).

Father-child play
Partial correlations revealed a positive correlation between fathers’ play-related mental state talk \( pr(36) = .46, p < .05 \) and children’s use of interactive role-play as well as between children’s
play-related mental state talk and their use of interactive role-play \((pr(36) = .64, p < .01)\). Children’s affect regulation in play was not significantly linked with fathers’ or their own mental state talk. To address the question of whether fathers’ and children’s play-related mental state talk accounts for variance in interactive role-play over and above age and gender, a hierarchical regression analysis was conducted. Results showed that children’s (residualized) and fathers’ play related mental state talk together accounted for a significant proportion of variance after controlling for the effects of children’s age and gender, and both were significantly associated with interactive role play (see Table 2).

### Relationship between the CBCL, TRF, mental state talk and play variables

During mother-child play, after controlling for age and gender, mothers’ ability to verbalize mental states in pretend play was associated with lower levels of internalizing problems on the TRF, \(pr(46) = -.29, p < .05\). Similarly, children’s mental state talk through the play characters was associated with fewer internalizing symptoms on the TRF and this relationship was at a trend level, \(pr(46) = -.27, p = .064\).

The proportion of mothers’ references to children’s mental states out of the pretend play were strongly associated with higher levels of externalizing and total problems on the TRF, \(pr(46) = .44, p < .01, pr(46) = .35, p < .05\). These relationships were largely driven by mothers’ references to children’s cognitions during play (e.g., “do you understand?”), \(pr(46) = .36, p < .05, pr(46) = .28, p = .05\), although perceptual attributions to children’s mental states (but not action-based mental

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<thead>
<tr>
<th>Table 1. Summary of hierarchical regression analysis for variables predicting interactive role-play and affect regulation in mother-child dyadic play (n = 53).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive role-play</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Child’s Play-related Mental State Talk (Residualized)</td>
</tr>
<tr>
<td>Mother’s Play-related Mental State Talk</td>
</tr>
<tr>
<td>Mother’s Child-related Mental State Talk</td>
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<td>(R^2)</td>
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<tr>
<td>Model F</td>
</tr>
</tbody>
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| Affect regulation | Step 1 | Step 2 |
|-----------------------------------------------|
| Gender | \(-.07\) | \(.03\) | \(-.23\) | \(-.08\) | \(.03\) | \(-.27^*\) |
| Age | \(.03\) | \(.01\) | \(.50^**\) | \(.04\) | \(.01\) | \(.54^**\) |
| Mother’s Self-related Mental State Talk | \(.65\) | \(.30\) | \(.25^*\) |
| Child’ Self-related Mental State Talk (Residualized) | \(.03\) | \(.02\) | \(.19\) |
| \(R^2\) | \(.31\) | \(.41\) |
| Model F | \(11.60^**\) | \(8.43^*\) |

Note. \(^*p < .05. \ ^{**}p < .01.\)

### Table 2. Summary of hierarchical regression analysis for variables predicting interactive role-play in father-child dyadic play (n = 40).

| Interactive role-play | Step 1 | Step 2 |
|-----------------------------------------------|
| Gender | \(.12\) | \(.07\) | \(.25\) | \(.11\) | \(.06\) | \(.21\) |
| Age | \(-.06\) | \(.02\) | \(-.47^**\) | \(-.06\) | \(.02\) | \(-.44^**\) |
| Father’s Play-related Mental State Talk | \(1.56\) | \(.66\) | \(.28^*\) |
| Child’ Play-related Mental State Talk (Residualized) | \(.11\) | \(.03\) | \(.40^**\) |
| \(R^2\) | \(.59\) | \(.76\) |
| Model F | \(8.82^*\) | \(10.71^**\) |

Note. \(^*p < .05. \ ^{**}p < .01.\)
state attributions) were also positively correlated with higher scores on the TRF. Children’s attributions to their own mental states out of pretend play were correlated with higher levels of externalizing problems on the TRF, $pr(46) = .39, p < .01$. This link was largely driven by children’s attributions to their own cognitions during play, $pr(46) = .45, p < .01$.

After controlling for age and gender, the proportion of fathers’ references to children’s mental states out of pretend play was significantly correlated with CBCL externalizing and TRF total problems subscales, $pr(36) = .38, p < .05$, $pr(34) = .38, p < .05$. Upon closer inspection, we found that these relationships by the composite scores were largely driven by fathers’ attributions to children perceptions (e.g., “look!”) rather than their cognitions. Namely, fathers’ references to children’s perceptions out of pretend play were associated with CBCL internalizing, externalizing and total problems scales at trend levels ($pr(36) = .31, p = .059$, $pr(36) = .31, p = .063$, $pr(36) = .31$, $p = .062$) and with TRF total problems $pr(34) = .38, p < .05$. Fathers’ references to children’s cognitions were associated with TRF total problems at trend level, $pr(34) = .31, p = .064$. Fathers’ references to their own mental states and children’s references to their fathers’ mental states out of pretend play were linked with fewer internalizing problems on the CBCL, $pr(36) = -.34, p < .05$, $pr(34) = -.33, p < .05$.

After controlling for age and gender, in the mother-child play, children’s interactive role-play was significantly negatively correlated with children’s internalizing problems ($pr(46) = .41, p < .05$) on the TRF.

**Discussion**

This study aimed to investigate the links among mental state talk, play characteristics, and children’s behavioral symptoms as reported by parents and teachers in a sample of Turkish children with behavioral problems. Prior studies investigating the link between mental state talk and pretend play have typically reported on normally developing preschool children (Astington & Jenkins, 1995; Lillard & Kavanaugh, 2014; Youngblade & Dunn, 1995). Yet older children with behavioral problems have substantial and multiple types of mentalization deficits, including understanding others’ mental states and organizing affect in light of those predicted mental states (Ha et al., 2011; Happé & Frith, 1996; Sutton et al., 2000). This study was the first to explore the differential associations between mental state talk and play characteristics in a clinical sample of school aged-children in Turkey.

With respect to the associations between mental state talk and play characteristics, we found that in the mother-child dyadic play situation, both mothers’ and children’s play-related mental state talk were associated with the children’s capacity to role play in the dyadic play situation. In the father-child play, we saw that the children’s, but not fathers’ mental state talk was associated with children’s role-play capacity. These findings support literature that has found that children who produce more mental state talk in their verbal interactions with their parents are able to also engage in sophisticated role play (Astington & Jenkins, 1995; Lillard & Kavanaugh, 2014; Youngblade & Dunn, 1995). It is possible that the use of mental state talk within the play can help these children think about the minds of different characters in relation to each other and experiment with different social situations and outcomes, all important correlates of the capacity for mentalization (Fonagy & Target, 1996).

The results were mixed regarding the association between mental state talk and affect regulation in play. In mother-child play, mothers’ and children’s self related mental state talk were moderately linked with children’s affect regulation. Mothers’ and children’s experimentation and reflectiveness with mental states promote emotion regulation in children (Meins et al., 2001; Oppenheim et al., 1997). Mothers most frequently used cognitive words and specifically the word “to know” when referring to themselves (i.e., “I know, I can use this to put the fire out”). These words were used to describe their own process of thinking allowing them to share their beliefs and ideas, which as documented by prior research, may function as a model of self-reflection for the child (e.g., Ruffman, Slade, & Crowe, 2002). However, no significant associations were found between fathers’ or children’s mental state talk and affect regulation, which could be due to the characteristics of father-
child play. In the literature, fathers’ play is mostly characterized as being more active and challenging (Lamb & Lewis, 2003; Paquette, 2004). Paquette and colleagues (2003) describe this process by fathers’ destabilization of the play, through creating opportunities where the child is faced with situations in which stress coping is required. Herzog (1992) calls this “disruptive harmony” which ultimately supports affect regulation in the long run (helping the child deal with unexpected circumstances), however this capacity may not be immediately observable. We saw examples of these phenomena in our data where fathers expected a certain level of performance from their children, encouraging them to develop their pretend activities to include more demanding tasks. The father-child games were mostly competitive in nature, where fathers challenged the children to play faster or stronger.

Mothers’ and children’s ability to verbalize mental states through the pretend play characters was associated with lower level of internalizing problems. Conversely, mothers’ and fathers’ references to children’s mental states as well as children’s references to their own mental states out of pretend play were associated with higher levels of externalizing and total behavior problems. Specifically, a focus on children’s cognitions in mother-child play by both the mothers (e.g., “do you understand?”) and the children (e.g., “I know how to do it!”), and fathers’ focus on children’s perceptions (e.g., “Look!” “do you see that?”) were associated with teachers’ reports of problem behaviors at school. This finding should be understood contextually: the parental focus on children’s mental states takes place during a time period in which the children are stimulated with a variety of play material and distractors were minimized to facilitate parent-child play. Direct references to children’s minds during playtime can be construed as departures from pretend play (Fonagy & Target, 1996) tapping a possible struggle in the dyad with respect to establishing and maintaining a representational platform for mental states, on which the child can play with a variety of feelings and thoughts. When this scarce pattern of mentalization-facilitating activities is generalized to daily lives of such dyads, it is expected that children experience difficulties with regulating their emotions (Gottman et al., 1996; Oppenheim et al., 2004).

Similarly, we found that mothers’ child related mental state talk was associated with less interactive role-playing. In this case, parents’ direct statements toward the child’s mind when the child was in the pretend mode was linked with disruptions of the play flow. Prior research with children with behavioral problems has shown these children have difficulty integrating pretend mode with what is actually happening in their primary experience (Sharp, 2008; Verheugt-Pleiter & Zevalkink, 2008). These children may experience direct references to their internal states to be dysregulating, possibly experienced as a low level of intrusion into their mental world and resulting inhibition in their autonomy in play (Verheugt-Pleiter & Zevalkink, 2008). Pretend play has an as-if quality within which these children can more easily think about internal states via using the play characters, and try out different kinds of social scenarios without reprisal (Bretherton, 1984; Chazan, 2002). The following example comes from the mother-child play of a 6.5-year-old, who was referred to therapy due to behavioral and cognitive (learning, memory and concentration) problems. In the given play segment, the boy wants to build a railroad, however the mother often disrupts pretend play by referring to the child directly and taking an educative position: “Child: I will play with this train. Mother: Look, arrange these (referring to the railroad pieces) one after another. Look, these will get inside each other, but first we should organize them. Look, you see? Just like this. Look, this part goes into here, do you understand? (the mother shows how to put the rails together) What kind of a train is that? Child: A passenger train. Mother: Now, which one would you like to build? Child: All of it (attempting to play with the trains). Mother: Oh, where do you want to go with that? Child: (getting angry) Mom! Here are the passengers. These are the passengers. Mother: Ok, do you prefer to go to the station first then? Child: No, mom! (child abruptly takes the passengers, and them pushes them out rapidly with no coherent explanation) Passengers can fall from this vagon, no? Look, they can fall (afterwards child stops playing with the train).” In this episode, the mother keeps instructing and asking the child what he wants to do with the pretend toys, which makes the child increase the tone of his voice in protest possibly indicating anger and anxiety, and he abruptly changes the play narrative and starts to play with passengers who fall off the train, and then interrupts his play.
We found that overall, parents and children relied much less on emotion words and instead use more frequently action and perception based mental state words. Prior studies have shown that children with behavioral problems suffer from an inability to accurately label mental states, and use fewer mental state words, especially emotions. They are better able to produce perceptual or action oriented mental state words (Cook et al., 1994; Rumpf, Kamp-Becker, & Kauschke, 2012). This may also be related to the demographic characteristics of the sample typically of low to mid SES families. Studies have shown that higher SES mothers in Turkey use more complex cognitive words when playing with children (Çakır & Cengiz, 2016).

The high frequency of perceptual words, in our data, served as the basis for joint attention in play. “Look” was the most commonly used mental state word when referring to the others’ mind for both parents and children with the function of requesting the other’s attention for joining the current self-action. For example, children often used sentences like “Look (other-reference) mom! I have found (self-reference) something” and similarly a typical example of parental utterance was: “We can build this house together. Look (other-reference) there is even a kitchen.” This sort of joint shared attention with communicative intent is crucial and it typically starts taking place around 9 months of age, building the initial blocks for mentalization development. The early attachment relationship in which the mother diverts the child’s attention to an interpersonal communication involving mental states hints the presence of an unobservable entity, that is, the mind, to the child, and promotes curiosity about mental states in connection with the outside reality (Fonagy & Target, 1996).

Children used cognitive as well as action words, more specifically the verbs to “know” and “find,” most frequently when they referred to themselves. These words served the purpose of exploring play materials, searching for and trying to find relevant play props (i.e., “Look what I found”) and also searching their own minds to see what they know about the unfolding play (i.e., “I know, this girl is hungry”). This exploratory activity of their own minds and its correspondence in play is a step toward making connections between the internal and the external world, an important move toward the integrated stage of mentalization (Fonagy & Target, 1996, 2007). This is especially important for children with behavioral problems, who tend to resort to immediate action. This process of internal and external exploration may help these children perceive themselves as distinct agents with thoughts and feelings that can be matched in the external word (Fonagy et al., 2002).

We also found that boys referred to their fathers’ cognitive states significantly more frequently than girls. Interestingly, fathers’ references to their own mental states and children’s references to their fathers’ mental states out of pretend play; that is, a focus on the parents’ mind during father-child play but not in the mother-child play was linked with fewer internalizing problems. This finding might be related with fathers’ unique role in providing cognitive stimulation in children’s play (Bretherton, 2010), bringing about children’s need for showing “good performance” especially with regards to shared knowledge. We provide a typical example from our data between a 4-year-old boy, who was referred for anxiety problems and related tics, and his father: “Child: Look Dad! An ambulance. Father: Yes, do you know what ambulances are for? Child: Oh, what a nice train (trying to put the railroad together). Father: Yes, tell me the last time we saw a train. Do you remember? Remember, it was when we went to see your aunt. Ok, put that railroad together to make a long track. How long can you make it? Child: Dad, look I put it together. Father: What a smart boy I have! Child: This is a magnet train! choo choo. . . Dad, look! Another magnet. Wait! Let’s see whether that car can fit beneath it. Father: What do you think will pass under this? What is that? That’s a bridge isn’t it? Child: (Nods) Father: Okay, what do you think should pass beneath it? Child: Something small. Father: A small river or a stream, right? Child: (Nods).

**Cultural characteristics and their effects on parent-child play**

While we think of the link between mentalization and dyadic play as universal, cultural factors affect the way in which play is carried out, which could account for the directive and educative comments of the parents. This effect is similar to that of different cultural backgrounds on
patients’ expectations from therapy in the United States (Constantine, 2002); it does not alter the basic principles of a therapist yet would shape the route of formulation and the method of delivery (Eleftheriadou, 1997). For example, the generational hierarchy in Turkish culture requires adults to be the decision makers (Ataca, Kagıtcıbaşi, & Diri, 2005). This cultural position of adults also creates itself in the parental perception and engagement in play. It was shown that both Turkish mothers and fathers are more directive and controlling during play with their children compared with their Western counterparts (Akgun & Yesilyaprak, 2011; Oksal, 2005). At the same time, socio-economic status is a prominent predictor of the differences in gender roles and child rearing-related beliefs and attitudes in Turkish culture. The sample in this study comprised low to mid SES families; however, studies have shown that higher SES mothers in Turkey are more responsive to their children, use less power assertive, and more cognitively stimulating child rearing methods (Baydar & Akçınar, 2015).

One characteristic of Turkish child rearing practices worth mentioning is the coexistence of warmth with relatively high level of parental control in parent-child relationships. In the Turkish culture, intergenerational psychological interdependence is still highly valued, and children’s autonomy is promoted simultaneously with intergenerational hierarchy, parental control, and relatedness (Kagıtcıbaşi, 2005). In this theoretical model, parental control and parental warmth are not mutually exclusive and not posited at the opposite ends of the same continuum; instead their varying degrees interact with each other in creating unique family structures and child rearing practices, including the one in Turkey (Kagıtcıbaşi, 2005). In support of this framework, it was found that Turkish mothers of preschool children are uniquely high in both maternal behavioral control and warmth: Turkish mothers gave direct commands to their children (indicating behavioral control) much more frequently than their American counterparts yet also displayed maternal warmth more frequently (Akcınar & Baydar, 2011). We have also found that despite high level of directive commands in the mother-child play, children’s interactive-role play with their parents was still significantly negatively correlated with children’s internalizing problems.

In the Turkish culture, which is more patriarchal, even though fathers do not display a significant preference for a particular gender, they have different expectations regarding play with their sons. Fathers engage more in instructive play, rather than pretend play with their sons, and expect them to mature faster in order to take on paternal duties (Ataca et al., 2005). Turkish fathers consider play a means for learning (Korkmaz & Derman, 2014; Oksal, 2005), which could be related to higher frequency of cognitive words (i.e., “know” and “understand”) that the boys used during father-child play, especially focusing on the fathers’ cognitive states, possibly trying to understand and identify with the fathers’ expectations.

**Clinical implications**

Clinically, our findings point to the importance of promoting parental mentalization as well as children’s mentalization during the course of psychotherapy and using the medium of play to provide opportunities for children to understand themselves and others. The findings indicate that the structure of play, especially pretend play, may help children with behavioral problems to take initiative to define social representations for different characters whose inner worlds find life in the play script (Chazan, 2002). During role play, these children may gain the opportunity to make inferences about the inner lives of imagined characters, identify with them, and discover their own thoughts, feelings, and desires as well as begin to make sense of what others feel and think. Having the opportunity to think about different social representations and try out emotion regulation strategies in pretend play may then help develop increased mentalization and affective regulatory structures for understanding oneself and others. Therefore, it is crucial to promote opportunities in psychotherapy to deepen the play narrative of the child.

Our findings also underscore the importance of parents’ contributions to the co-construction of a symbolic play space through using mental state terms regarding the minds of play characters. We
have found that mother’s references to themselves were especially regulating for these children. This may indicate that mothers who can reflect on their own internal states can be more sensitive to their children’s emotional signals. Being able to reflect on their own internal states increases the complexity of self-knowledge, and in turn may allow the mothers to regulate their behavior, and be more responsive to the emotional signals of the child. Therefore, parent work in psychotherapy serves a crucial function to help the parent recognize the child as a “mentalizing” being, and ultimately improve children’s ability to recognize and attribute meaning to their own mental experience.

**Limitations and further research**

Several limitations of these results are important to mention. First, the small sample size and the lack of control group restrict the generalizability of the results. The findings are correlational in nature; therefore, the causal direction of these relationships cannot be determined. It is possible that due to the nature of the unstructured play situation, participants may be using more perception and action words than emotion words, which may increase in the context of storytelling (Laible, 2004). Moreover, even though we captured the diverse nature of mental state talk in our coding schemes, we were not able to assess the accuracy of mental state utterances. It may be useful in the future to code the appropriateness of mental state terms. Similarly, with the use of CPTI, we were only able to account for the child’s immediate affect regulation in play however this is a capacity that is gradually internalized and is context sensitive, therefore we do not know whether these findings generalize to outside of the play situation. Finally, even though we controlled for children’s ages, we were not able to account for other background variables.

In conclusion, we were able to document preliminary evidence for the link between dyadic mental state talk in play, complexity of social representations and affect regulation strategies in play, and behavioral problems. Our findings contribute to the literature by providing empirical support that pretend play and affect labeling/processing go hand in hand. Clinically, our findings point to the importance of promoting parental mentalization as well as children’s mentalization in pretend play to provide opportunities for these children to understand themselves and others and to give voice to their inner life via symbolic play which could be central for their improvement.

**Funding**

This work was supported by the Scientific and Technological Research Council of Turkey (TUBITAK) under Grant 215K180.

**References**


