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EMPIRICAL PAPER

Mentalization and the growth of symbolic play and affect regulation in psychodynamic therapy for children with behavioral problems

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Abstract

Objective: Children with behavioral problems often have problems with symbolic play organization, specifically with the regulation of negative affect and its representation. One of the aims of psychodynamic therapy with these children is enhancing their symbolic and mentalizing capacities in play. This study investigated the associations between promoting mentalization, and the growth of symbolic play and affect regulation. Method: The sample included 48 children with behavioral problems, who underwent long-term psychodynamic treatment informed with mentalization principles, and with good outcome. Three hundred twenty-nine sessions were coded for children’s symbolic play and affect regulation strategies, and each treatment was rated for adherence to mentalizing principles. Results: Hierarchical linear modeling showed quadratic growth of variables, wherein symbolic play initially increased followed by a deceleration in change, whereas affect regulation initially decreased followed by an increase. Adherence to mentalizing principles was associated with both symbolic play and affect regulation. A two-way interaction between time in treatment and adherence to mentalization showed that in high adherent treatments, affect regulation increased towards the end of treatment, whereas in low adherent treatments, there was no change. Conclusion: Results show support for the association between adherence to mentalization and growth of affect regulation and symbolic play in psychodynamic therapy.

Keywords: mentalization; reflective function; symbolic play; affect regulation; psychodynamic child therapy

Clinical or methodological significance of this article: Despite the central roles of symbolic play and mentalization, there have been very few studies that empirically investigated their associations and growth trajectories in psychodynamic child psychotherapy. This study found that adherence to mentalizing principles is associated with growth in affect regulation in the context of symbolic play with a sample of 48 children (329 sessions) with behavioral problems, who underwent psychodynamic play therapy informed with mentalization principles. Given the limited amount of process research with children compared to adults, and that the majority of child psychotherapy research focuses on outcome, which does not answer more specific pathways associated with change, specific process factors in psychotherapy that could be associated with symptomatic improvement were shown.

Associations Between Mentalization and the Growth of Symbolic Play and Affect Regulation in Psychodynamic Child Therapy

In psychodynamic child psychotherapy, play serves a central role in children’s understanding of their mental and internal reality by providing a safe “as-if” platform to experiment with several types of mental states and feelings, experience distressful emotions from a representational distance, and try out coping mechanisms (Fonagy & Target, 1996). Fonagy and Target (1996) proposed that pretend play has a key function for learning about mental reality and the development of mentalization, defined as the ability to interpret the behaviors of self and others as motivated by underlying mental states (e.g., feelings, beliefs, intentions, desires). The children’s symbolic play activity with a therapist, who provides a secure base for the children’s mind, who recognizes and affirms the children’s mental states, is crucially linked with children’s ability to understand their own internal experiences, which underlies the capacity for affect regulation (Fonagy

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& Target, 1998). This practice of mentalization has recently been integrated into psychodynamic interventions with children (Verheugt-Pleiter, Zevalkink, & Schmeets, 2008). Despite the central roles of symbolic play and mentalization, there have been very few studies that empirically investigated their interrelations in psychodynamic child psychotherapy. This study investigated the associations between adherence to mentalization practices and the longitudinal changes in children’s symbolic play and affect regulation in psychodynamic play therapy informed with mentalization principles, in a sample of children with behavioral problems, who had good outcome in terms of symptom remission.

Normative Development of Mentalization and Symbolic Play

Mentalization is a developmental achievement that depends on the quality of attachment relationships, and particularly on the child’s interaction with a mature and sensitive caregiver, who is able to practice the capacity to see his/her child as a mental being and practice optimal affective mirroring, which impacts on the child’s development of affect regulative processes and capacity for mentalization (Fonagy, Gergely, Jurist, & Target, 2002). Mental state talk across diverse situations among parent–children and sibling dyads has consistently been found to be pivotal for the development of children’s emotional understanding and theory of mind (ToM) development (De Rosnay, Harris, & Pons, 2008; Dunn, Brown, Slomkowski, Tesla, & Youngblade, 1991; Ereky-Stevens, 2008; Taumoepeau & Ruffman, 2008).

Symbolic play and mentalization are closely intertwined. Symbolic play is also related to language development, as they assume a representational capacity, where one thing is treated as something else, and both follow a parallel pattern of development, beginning at pre-symbolic levels towards combining mental representations of several symbols (see Orr & Geva, 2015, for a review). However, the capacity for symbolic play, similar to mentalization, also requires a secure parent–child relationship, where the parent holds the child’s mental states in mind, which in turn gives the child the ability to safely explore his/her own mental states and reflect them in play (e.g., Meins & Russell, 1997). Children who engage in more dyadic mental state talk with their mothers and siblings achieve more sophisticated role play (Lillard & Kavanaugh, 2014), incorporate different perspectives into play and engage in collaborative symbolic play (Meins, Bureau, & Fernyhough, 2017).

Mentalization and Symbolic Play Difficulties in Children with Behavioral Problems

Children with behavioral problems suffer from self-regulation deficits and interpersonal difficulties; therefore, mentalization-based theories provide a useful framework for understanding the possible underlying causes of these problems (Sharp, 2008). Children with externalizing problems make fallacious positive attributions to themselves (Sharp, Fonagy, & Goodyer, 2006), are more likely to attribute negative intentions to others (Ha, Sharp, & Goodyer, 2011), are unable to evaluate the social consequences of their actions (Sutton, Reeves, & Keogh, 2000), and show deficits in emotion understanding (Sharp, 2008). Internalizing children tend to be “hyper-vigilant mentalizers” attributing possible threat and negative evaluations of social events inappropriately (Banerjee, 2008).

In terms of play characteristics, research shows that children with behavioral problems have problems with symbolic play organization, specifically with regard to the regulation of negative affect. The negative emotion cannot be verbally represented and coherently organized in context; therefore, these children cannot achieve an adaptive distance from the overwhelming affective state, which is necessary to develop a symbolic play organization (Fonagy et al., 2002). Children with disruptive behaviors, such as conduct disorder and attention deficit hyperactivity disorder, display more negative affect, such as anger and hostility in their play, and as well as lower levels of affect regulation and organization (Butcher & Nic, 2005). Anxious children play solitary and have less organization in play (Christian, Russ, & Short, 2011). Differences in the level of symbolic play and coherence while playing have also been found between depressed and non-depressed children (Lous, De Wit, De Bruyn, & Marianne Riksen-Waltz, 2002). Children’s narrative incoherence, specifically deregulated aggression, and the intrusion of negative atypical themes in attachment-related play tasks were substantially correlated with parents’ reports of externalizing symptoms (Von Klitzing, Kelsay, Emde, Robinson, & Schmitz, 2000). Halfon, Oktay, and Salah (2016) found that in a group of Turkish children starting psychodynamic psychotherapy, externalizing problems were positively associated with more negative affect and aggression in play, and internalizing problems were also linked with higher levels of negative affect and low affective arousal.

Therapeutic goals with children with behavioral problems often include enhancing the children’s symbolic and mentalizing capacities in play (Fonagy, 2000). The therapist first and foremost
adopts a mentalizing stance, which requires being present and sharing the subjective experience of the child, and bearing the child’s feelings without trying to change them. The unfolding play process itself also enables “feelings and thoughts, wishes, and beliefs [to] be experienced by the child as significant and respected on the one hand, but on the other as not being of the same order as physical reality” (Bateman & Fonagy, 2004, p. 84), so the child can take a representational distance from his/her own experiences and start to explore his/her internal world. Within this supportive environment, the therapist can facilitate mentalizing by wondering about and commenting on the mental content of the play characters, the child’s behavior or play, as well as reflect on the uniqueness of the child’s mental world. The therapist identifies and labels verbal and non-verbal affect states, points out how they change over time, and starts to make tentative links between behaviors and emotions. This process then allows children to organize and have a better understanding of their internal world (Fonagy, 2000).

Empirical Studies on Symbolic Play and Mentalization in Psychodynamic Child Therapy

Even though there is substantial evidence that play-based therapies produce significant change across a variety of childhood emotional and behavioral problems, most of these studies only report successful outcome without elucidating the specific links between play processes and treatment techniques (Bratton, Ray, Rhine, & Jones, 2005). There is preliminary evidence from a series of empirical single case studies that show improvements in children’s symbolic play capacity in psychodynamic psychotherapy using the Children’s Play Therapy Instrument (CPTI; Kernberg, Chazan, & Normandin, 1998) with a pervasively delayed child (Chazan, 2000), a child suffering from posttraumatic stress disorder (Chazan, 2001), a child diagnosed with a major depressive episode (Chazan & Wolf, 2002) and also in the context of pediatric oncology with a child diagnosed with acute lymphoblastic leukemia (Chari, Hirisave, & Appaji, 2013), and finally with two children diagnosed with separation anxiety disorder (Halfon et al., 2016). Compared to pre-treatment, these children at the end of treatment showed less inhibition of symbolic play activity. These studies also found that children started therapy with simpler representations, where they brought a solitary role to play. As the therapy progressed, more complex representations emerged, with several characters in interacting roles including generational and familial dynamics. Over the course of treatment, these children showed gains in pleasurable affect, less emotional discomfort, and greater capacity for regulation of affect. Chazan (2002) has also noted that the course of development in play characteristics is not always linear. If the treatment is working effectively, children play out personal problematic situations which may cause expected disorganization in play structure and emergence of intense feelings that may be dysregulating during the treatment phase. It is the completed reparation of the evoked issues that categorizes the treatment process as adaptive. Halfon et al. (2016), in an empirical study of two single cases, also found a similar nonlinear change trajectory in play characteristics in psychodynamic play. However, most of these studies have been conducted at the level of single cases and there is lack of research in this area with larger samples.

Similarly, research on mentalization in psychotherapy research with children and adolescents is lagging behind. In adult psychotherapy research, mentalization has been conceptualized as a moderator and/or predictor of therapeutic outcome, as well as an actual clinical outcome measure in psychodynamic treatments (see Katznelson, 2014, for a review). Mentalization has also been proposed as a mechanism of change in adult psychotherapy (i.e., Levy et al., 2006). In the area of child and adolescent research, Goodman, Midgley, and Schneider (2016) used the Child Psychotherapy Process Q-sort (CPQ; Schneider & Jones, 2006) in order to identify characteristics of an ideal session that promotes mentalization, which they found to be a common factor of both psychodynamic and cognitive-behavioral treatment models. A series of empirical single case studies with successful outcome also showed strong mentalization adherence in psychodynamic child treatments (Goodman, Reed, & Athey-Lloyd, 2015; Muñoz Specht, Ensink, Normandin, & Midgley, 2016). The associations between symbolic play and mentalizing interventions have only been studied in one study to date. In an empirical case study of two children diagnosed with separation anxiety disorder, Halfon, Bekar, and Gürleyen (2017) found that therapists’ use of mental state talk significantly predicted children’s subsequent affect regulation in play.

Aims of the Current Study

The goals of this study were twofold. The initial goal was to investigate the changes in symbolic play and affect regulation capacity of a group of children with behavioral disorders, who underwent psychodynamic child therapy informed with mentalization principles, and had good outcome in terms of symptom
remission. Previous research reviewed showed that these children have deficits in both symbolic and affective organization of play, which have improved over the course of treatment. Since change in play characteristics is not always linear, we investigated both linear and quadratic growth trajectories. The second goal was to investigate whether reflective function (RF) prototype adherence, conceptualized as an ideally conducted prototypical session that promotes mentalization taking into account therapist, child, and therapeutic interaction characteristics, was associated with symbolic role play and affect regulation. The hypotheses were: (i) There would be a significant growth in symbolic role play and affect regulation over the course of treatment; (ii) Adherence to RF prototype would be significantly associated with symbolic role play and affect regulation; (iii) It was also hypothesized that stronger adherence to RF prototype would be significantly associated with the course of change over time in symbolic role play and affect regulation, therefore we investigated the interaction of RF adherence and time in treatment.

Method

Participants

Patient characteristics. The source of data used for this study comes from 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 screened by a licensed clinical psychologist in order to determine whether the patients fit the study protocol inclusion criteria: ages between 4 and 10 years old, no psychotic symptoms, no significant developmental delays, no significant risk of suicide attempts, and no drug abuse. 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 84 patients, 57 consented to research and video recording of sessions. The patients and their parents were extensively informed before commencing therapy about research procedures, and parents provided written informed consent, and the children provided oral assent concerning the use of their data, including questionnaires, videotapes, and transcripts of sessions for research purposes. This research was approved by Istanbul Bilgi University Ethics Committee.

9 of the 57 patients dropped out of treatment before or during the assessment. The final sample included 48 patients. All the children were born in Turkey and came from relatively homogeneous urban neighborhoods and belonged to low-to-middle socioeconomic status. 23% of the children were 4–5 years old, 27% were 6–7 years old, and 50% were 8–10 years old, with an equal ratio of males to females. They were referred most frequently due to behavioral problems such as rule-breaking and aggressive acts (62%), followed by anxiety and depressive complaints (21%), and finally social problems (17%). A series of standardized psychometric behavior, psychosocial functioning, and outcome measures filled out by parents, teachers, and treating clinicians were used in order to assess problem areas at pre- and post-treatment (see Table I).

The sample was relatively homogeneous in terms of problem levels and children were mostly at “borderline” or “clinical” levels of functioning (mean total problem t-score = 61. 95, SD = 6.61) on the Child Behavior Checklist (CBCL; Achenbach, 1991) where t scores over 59 indicate clinical functioning. The results are presented in Table I for outcome scales organized under reporters. Children showed significant changes in total problems on the CBCL (parent-report) with a large effect size (d = 0.95) and on the Teacher Rating Form (TRF) with medium effect size (d = 0.41). According to therapists’ reports, children showed significant gains on the total problems score of Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA; Gowers et al., 1999) with a large

<table>
<thead>
<tr>
<th>Outcome scales</th>
<th>Pre-treatment</th>
<th>Post-treatment</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Child Behavior Checklist (CBCL) Total Problems</td>
<td>48.60</td>
<td>19.47</td>
<td>30.39</td>
</tr>
<tr>
<td>Teacher Report Form (TRF) Total Problems</td>
<td>37.66</td>
<td>21.84</td>
<td>29.11</td>
</tr>
<tr>
<td>CGAS (Children’s Global Assessment Scale)</td>
<td>64.15</td>
<td>9.60</td>
<td>74.65</td>
</tr>
<tr>
<td>HoNOSCA (Health of the Nation Outcome Scales for Children and Adolescents) Total Problems</td>
<td>12.10</td>
<td>4.56</td>
<td>8.29</td>
</tr>
</tbody>
</table>

*p < .05.

**p < .01.
effect size ($d = 0.88$) and also significant gains in global functioning according to Children’s Global Assessment Scale (CGAS; Shaffer et al., 1983) (large effect size; $d = 1.15$).

**Therapists.** The therapists were 20 clinical psychology master’s level clinicians, who were all female, with ages ranging from 23 to 27 years old. Each therapist was extensively educated in the theoretical background of psychodynamic play therapy with mentalization principles (Verheugt-Pleiter et al., 2008). All therapists had the same experience level (1 to 2 years of supervised psychotherapy experience). On average, therapists treated 3 patients (range: 1–5). Each therapist received a minimum of 4 hr of supervision per week (i.e., 1 hr of individual and 3 hr of group supervision) by licensed psychodynamic supervisors with at least 10 years of experience.

**Treatment.** The standard treatment applied at Bilgi University Psychological Counseling Center is psychodynamic play therapy informed with mentalization principles (Verheugt-Pleiter et al., 2008). Cases were assigned to therapists on the basis of therapists’ availability. The treatment process includes a standard assessment in the first session where a clinical interview is conducted with the parents in order to learn about the history of the presenting problem, the child’s developmental history and family background. At the end of this session, the parents fill out the relevant symptom assessment measures, and the teacher forms are sent to school. In the second session, the therapist meets with the child and tells him/her that he/she is free to play with any toys and notes the rules of safety. After this session, the therapist presents a clinical formulation and a treatment plan. The standard treatment plan at the clinic involves once a week therapy session of 50 min with the child, along with once a month parent sessions. The treatments are open-ended in length and are determined based on progress towards goals, life changes, and patients’ families’ decisions. On average, patients receive 40 sessions over a 10-month period. The treatment lengths varied among 48 patients in the current study, with the mean number of sessions for this sample being 34 ($SD = 14.60$).

Even though the treatments are not manualized, the supervisors and therapists follow similar procedures for each case, and treatment adherence is checked in supervision sessions using therapist reports, videotapes, and audiotapes. The core treatment principles can be summarized under five headings. (i) The therapist draws attention to the play process by listening actively and inviting the child to communicate in play, encouraging the child to express and reflect on his perceptions, feelings, and thoughts. (ii) The therapist clearly identifies the boundaries of the play situation where disruptive and potentially harmful actions are differentiated from symbolic aggression with a mentalizing stance. For example, when the child starts to actually harm the toys, the intentions and feelings behind this behavior are verbalized with the aim of helping the child regulate disruptive affect. (iii) The therapist mentalizes the play context by asking questions about the play setting, temporal ordering, and the details of the characters, their thoughts, feelings, and behaviors in terms of mental states. (iv) The therapist cautiously interprets the play context with a wondering stance to help the child see the links between conflicting needs and emotions about self and others that find reflection in play behaviors and in the therapeutic relationship, with the purpose of bringing feelings, attitudes, assumptions, and beliefs into consciousness. (v) The therapist identifies specific play content that has been repetitive in treatment and suggests possible links with what the child could be feeling, thinking, or experiencing in real life, as a way of helping the child express and explore mental states regarding difficult life experiences using his/her play as a starting point. Parallel parental work takes place once a month with the main goal of increasing parental reflective function (Slade, 2005), helping the parent to think about the child’s mind, underscoring links between behavior and mental states, and noting the relations between the parent’s and child’s mental states.

**Outcome Measures**

**Parent Measures.** The Child Behavior Checklist (CBCL; Achenbach, 1991) is a widely used method of identifying problematic behaviors in children with two separate versions for ages 1.5–5 and 6–18. CBCL indicates how true a series of 112 problem behavior items are for the child on a three-point scale (0 = “not true,” 1 = “somewhat or sometimes true,” and 2 = “very true or often true”). Outcomes can be determined for significant problems for internalizing (e.g., depression, anxiety), externalizing (e.g., aggression, violence), or total problems. In the current study, only the total problem scale was used. This scale has high levels of internal consistency (CBCL 1.5–5 and 6–18: $\alpha = 0.97$) and one-week test-retest reliability (CBCL 1.5–5: $r = 0.90$; CBCL 6–18: $r = 0.94$; Achenbach & Rescorla, 2000). The scale has been adapted to Turkish with good internal consistency for total problems ($\alpha = 0.88$) and one-week test-retest reliability ($r = 0.84$) (Erol, Arslan, &
Açakın, 1995). In the current study, only the total problem scale was used, which had α’s of 0.94 and 0.82 for the CBCL 6–18 and CBCL 1.5–5, respectively, and test–retest reliabilities of 0.90 and 0.88 over 8 months, respectively.

**Teacher measures.** TRF (Achenbach, 1991) includes 118 items, 93 of which have counterparts on the CBCL, including same broadband syndromes. The total problems scale has high internal consistency (CBCL 1.5–5 and 6–18: α = 0.97) and two-week test–retest reliability (CBCL 1.5–5: r = 0.90; CBCL 6–18: r = 0.94; Achenbach & Rescorla, 2000). The scale has been adapted to Turkish with good internal consistency for total problems (α = 0.87) and one-week test–retest reliability (r = 0.88) (Erol & Simsek, 2000). In this study, the TRF 6–18 and 1.5–5 total problems scales both had α’s of 0.95 and test–retest reliabilities of 0.93 and 0.86 over 8 months, respectively.

**Therapist measures.** The CGAS (Shaffer et al., 1983) is a numeric scale (from 1 to 100) used by mental health clinicians to rate the general functioning of children under the age of 18. It has shown moderate to excellent inter-rater reliability, good stability over time, and good concurrent as well as discriminant validity (Shaffer et al., 1983). The HoNOSCA (Gowers et al., 1999) focuses on a range of behavioral, symptomatic, and social impairment domains and consists of 15 scales, each rated from 0 (no problem) to 4 (very severe problem). The first 13 scales are summarized to a total problem score (range 0–52) (Gowers et al., 1999). The scale is reported to have adequate construct, concurrent, and predictive validity, with a test–retest reliability of 0.80 over 3 months (Brann, Coleman & Lu, 2001). In this study, the HoNOSCA total problems scale had an α of 0.72 and test–retest reliability of 0.70 over 8 months.

**Process Measures**

**Assessment of play activity.** CPTI (Kernberg et al., 1998) rates children’s play activity in therapy at different levels. The child’s activity in the session is first segmented into pre-play, play activity, non-play, or interruption. Going forward only play activity is rated. Previous studies have shown good inter-rater reliability with the CPTI (Chari et al., 2013; Kernberg et al., 1998). The measure has been found to be sensitive to changes in psychotherapy (Chazan, 2000, 2001; Chazan & Wolf, 2002) and has shown good convergent and predictive validity in relation to associations between play characteristics and behavioral problems (Halfon, 2017) and discriminant validity in differentiating traumatic vs. normal play characteristics (Cohen, Chazan, Lerner, & Maimon, 2010).

In this study, two composite scales, symbolic role play and affect regulation, were used. Symbolic role play indicates the extent to which the child can bring to play three or more play characters/roles who are all inter-related and whose roles are all clearly defined and verbalized. It was calculated by taking the mean score for the following three specific CPTI role-representation items rated on a 1–5 Likert scale (5 = Most Characteristic, 1 = No Evidence): (i) Three or more roles in play assesses the extent to which the child engages in role play 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. (ii) Verbalization of roles assesses the degree to which the child gives voice to a character and does not just talk about him. (iii) Awareness of play activity assesses how much awareness the child shows that he is playing symbolically by indications such as a verbal statement “let’s pretend,” or redirecting the therapist to role play.

Affect regulation looks at the child’s capacity to express affect in play in adaptive ways, 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 five affective items: (i) Modulation of affect assesses how easily different intensities of affect are expressed within the child’s control, that is, from annoyance to irritability to anger to rage, scored in a range of 5 (Very Flexible) to 1 (Very Rigid). (ii) Transition between affective states assesses how the child organizes transitions and moves from one affective state to another, abruptly or smoothly, scored in a range of 5 (Always Smooth) to 1 (Always Abrupt). (iii) Appropriateness of affective tone to content assesses the appropriateness of the emotions expressed by the child within the context of the play theme, scored in a range of 5 (Always Appropriate) to 1 (Never Appropriate). (iv) Spectrum of affects assesses the range of emotions demonstrated in the child’s play scored in a range of 5 (Very wide) to 1 (Constricted). (v) Using adaptive coping strategies in face of disruptive affects assesses the degree to which the conflicts or stress in play are dealt with by an effective accommodation to given circumstances such as adaptation, problem-solving or humor, scored in a range of 5 (Most Characteristic) to 1 (No Evidence).

Author #1 was trained by Saralea Chazan on the CPTI. Six master’s level research assistants, who received 20 hr of training on the CPTI by Author...
#1 and rated 10 training sessions prior to the study, rated the sessions. They were independent assessors who were not associated with the treating clinicians or the cases, and blind to the purposes of the study. During the training, they rated practice videos until their inter-rater reliability reached an intra-class correlation (ICC) of 0.70. Afterwards, pairs of coders independently coded the sessions with good to excellent ICCs (0.75–0.96) \((M = 0.89; SD = 0.08)\). Disagreements were resolved by consultation with Author #1. The composite symbolic play and affect regulation scales showed good internal consistency \((\alpha = 0.72 \text{ and } 0.75)\).

Assessment of RF adherence. The CPQ (Schneider & Jones, 2006) is used to analyze the psychotherapeutic process among 3- to 13-year-olds. This instrument consists of 100 items, containing statements that describe a relevant feature of the treatment process corresponding to (i) the child’s attitudes (i.e., feelings, behaviors, or experience); (ii) the therapist’s actions and attitudes; and (iii) the nature of the patient–therapist interaction. After watching a videotape of a therapy session, the raters Q-sort the 100 items into 9 piles in a forced-choice procedure ranging from most uncharacteristic (Pile 1) to most characteristic (Pile 9). The CPQ’s reliability and validity have been demonstrated in various ways. Previous studies presented strong inter-judge agreement on the coding of CPQ items (e.g., Goodman & Athey-Lloyd, 2011). Discriminant validity was demonstrated between two sets of PDT and CBT sessions (Schneider, Pruetzel-Thomas, & Midgley, 2009). The CPQ distinguished between the treatments of two different patients with the same therapist (Schneider et al., 2009) and the treatments of two different therapists with the same patient (Goodman & Athey-Lloyd, 2011). The coders in this study consisted of 10 trained research assistants by Dr Geoffrey Goodman, who were not associated with the treating clinicians or the cases, and blind to the purposes of the study. They Q-sorted practice videos until their ICC reached a benchmark of 0.70. Afterwards, pairs of coders independently coded the sessions and reached satisfactory ICCs \((M = 0.82; SD = 0.06)\). The two sets of independent ratings were then composited by taking their average.

The RF prototype used in this study was originally developed by Goodman et al. (2016). Experts in RF from several countries rated each of the 100 CPQ items with regard to how well they characterized a hypothetical ideal session that promotes mentalization. The extent to which each session conformed to the prototype is called the adherence score. In accordance with Ablon and Jones’ (1998) methods, the factor scores associated with the set of 100 CPQ items for RF prototype were correlated with the corresponding Psychotherapy Process Q-set (PQS) ratings for each session, yielding one RF adherence score per session.

Procedures

All outcome measures were administered during intake and at the final session of the psychotherapy process. All psychotherapy sessions were videotaped and transcribed. In the current sample \((N = 48)\), the patient session lengths were unequal and ranging between 15 and 50 sessions \((M = 34; SD = 14.60)\). Videotapes and transcripts of sessions were arranged in random order, and entire sessions were watched and rated by judges independently. For CPTI ratings, two consecutive sessions were randomly chosen from sessions 1–10, 11–20, 21–30, 31–40, 41–50 in each psychotherapeutic process, and sessions from the later phases of treatment were added when available, with a total of 329 sessions. For CPQ ratings, one session from each phase that was also coded for CPTI was used, with a total of 164 sessions. Individual CPTI ratings at the session level were used for longitudinal analyses, and RF session adherence scores (attained via CPQ ratings) were averaged per patient to attain a single patient-specific treatment adherence score.

Data Analytic Strategy

In our data psychotherapy sessions \((N = 329)\) were nested within patients \((N = 48)\) who were nested within therapists \((N = 20)\). Therefore, we used a hierarchical linear modeling (HLM) approach for all analyses using HLM Version 7 (Raudenbush, Bryk, & Congdon, 2002). Since multiple clients were treated by the same therapists, we investigated the degree of interdependency due to the therapists. We used two-level (sessions nested within patients) and three-level (sessions nested within patients nested within therapists) “empty” hierarchical linear models, where symbolic role play and affect regulation were entered as dependent variables with no predictor variables. The therapist level ICCs were 0.00, \(ns\), and 0.04, \(ns\), for symbolic play and affect regulation, respectively, which showed that therapists accounted for about 1% of the variance in symbolic role play and affect regulation, suggesting that the variance in the session measures is not attributable to differences between therapists. In contrast, the between-patient ICCs were 0.37, \(p < .01\), and 0.19, \(p < .01\), accounting for 14% and 5% of the variance in symbolic role play and affect regulation, respectively.
play and affect regulation, respectively, which suggest that a two-level model is appropriate, because not all variance is attributable to session-level variables. Therefore, we used only two-level models. To account for the variance between patients, we controlled children’s age and gender, that are found to have an effect on children’s play (Chazan, 2002).

We did two separate HLM analyses to examine the main effects of adherence to RF prototype, time in treatment and their interactions on symbolic role play and affect regulation. Several data transformations were performed before the main HLM analyses were run. A time variable was created to model the linear and quadratic change of play characteristics over the course of treatment. Time was measured in terms of session numbers, the quadratic time component was calculated by squaring the linear time variable. Because patients had a different number of sessions, both time variables were centered at each patient’s own mean. To find the best-fitting model, first a linear model was explored, followed by a model with linear and quadratic growth terms. Differences between deviance scores derived using full maximum likelihood were computed in an attempt to isolate the best-fitting model.

For the patient level, an average RF treatment adherence score was calculated for each patient. We also computed two interaction variables by multiplying linear and quadratic time terms with the RF adherence scores. These interaction variables examined whether differences in RF adherence were associated with change over the course of treatment in symbolic role play and affect regulation. We also controlled for fixed patient characteristics that are patients’ age and gender adding them as level-2 predictors in order to account for the between-person variability. All level-2 predictors were grand mean centered.

### Results

The means, standard deviations, and inter-correlations of the variables in the study are presented in Table II. Table III represents the results of the full models.

The main effects of time on symbolic role play indicated significant linear and quadratic trends after controlling for the effect of individual patient characteristics. The difference test of the deviance statistics between the linear and quadratic model was significant [$\chi^2(1) = 14.23, p < .05$], indicating that the quadratic model was a better fit than the linear model, therefore it was retained. The positive effect

### Table II. Descriptive statistics and inter-correlations between measures per sessions ($N = 329$).

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (0 = female, 1 = male)</td>
<td>0.50</td>
<td>0.50</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>7.17</td>
<td>2.12</td>
<td>–</td>
<td>0.09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symbolic role-play</td>
<td>2.40</td>
<td>0.62</td>
<td>–</td>
<td>0.33</td>
<td>0.05</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Affect regulation</td>
<td>3.05</td>
<td>0.60</td>
<td>–</td>
<td>0.24</td>
<td>0.11</td>
<td>0.13</td>
<td>–</td>
</tr>
<tr>
<td>RF adherence</td>
<td>6.30</td>
<td>0.37</td>
<td>–</td>
<td>0.07</td>
<td>0.04</td>
<td>0.25</td>
<td>0.04</td>
</tr>
</tbody>
</table>

Notes. RF = reflective function.

### Table III. Summary of multilevel models predicting symbolic role play and affect regulation by time in treatment, RF adherence and their interactions.

<table>
<thead>
<tr>
<th>Intercept and predictors</th>
<th>β</th>
<th>SE</th>
<th>t-Ratio</th>
<th>df</th>
<th>β</th>
<th>SE</th>
<th>t-Ratio</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1: Symbolic role-play</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept ($b_{00}$)</td>
<td>2.611</td>
<td>0.089</td>
<td>29.266**</td>
<td>44</td>
<td>3.090</td>
<td>0.037</td>
<td>36.295**</td>
<td>44</td>
</tr>
<tr>
<td>Gender ($b_{01}$)</td>
<td>−0.395</td>
<td>0.107</td>
<td>−3.671**</td>
<td>44</td>
<td>−0.270</td>
<td>0.072</td>
<td>−3.735**</td>
<td>44</td>
</tr>
<tr>
<td>Age ($b_{02}$)</td>
<td>0.012</td>
<td>0.024</td>
<td>0.481</td>
<td>44</td>
<td>0.060</td>
<td>0.020</td>
<td>2.948**</td>
<td>44</td>
</tr>
<tr>
<td>RF adherence ($b_{03}$)</td>
<td>0.308</td>
<td>0.116</td>
<td>2.660*</td>
<td>44</td>
<td>0.344</td>
<td>0.095</td>
<td>3.601**</td>
<td>44</td>
</tr>
<tr>
<td>Time (linear) ($b_{10}$)</td>
<td>0.015</td>
<td>0.006</td>
<td>2.294*</td>
<td>277</td>
<td>−0.022</td>
<td>0.010</td>
<td>−2.252*</td>
<td>277</td>
</tr>
<tr>
<td>Time$^2$ (quadratic) ($b_{20}$)</td>
<td>−0.0003</td>
<td>0.0001</td>
<td>−1.952*</td>
<td>277</td>
<td>0.0004</td>
<td>0.0002</td>
<td>1.845*</td>
<td>277</td>
</tr>
<tr>
<td>Time$^2$-RF adherence ($b_{11}$)</td>
<td>0.003</td>
<td>0.014</td>
<td>0.184</td>
<td>277</td>
<td>−0.036</td>
<td>0.022</td>
<td>−1.607</td>
<td>277</td>
</tr>
<tr>
<td>Time$^2$-RF adherence ($b_{12}$)</td>
<td>0.0003</td>
<td>0.0003</td>
<td>−0.890</td>
<td>277</td>
<td>0.001</td>
<td>0.0005</td>
<td>2.446*</td>
<td>277</td>
</tr>
</tbody>
</table>

Notes. RF = reflective function.

**p < .01.

*p < .05.
of linear term indicated that symbolic play increased during treatment; however, the rate of change was small ($\beta_{0} = 0.014$) and the negative effect of quadratic term indicated that there was a deceleration in the rate of change (the increase was followed by a decrease). RF adherence significantly predicted symbolic role play, suggesting that patients whose treatments showed higher RF adherence were able to express significantly higher levels of symbolic role play. The interaction terms were not significant. Girls expressed higher levels of symbolic role play than boys.

After controlling for age and gender, the linear and the quadratic terms were significant in predicting affect regulation. The difference test of the deviance statistics between the linear and quadratic model was significant ($\chi^2 (1) = 10.83, p < .05$), indicating that the quadratic model was a better fit, and therefore it was retained. The linear slope indicated that affect regulation initially decreased, and the positive effect of the quadratic slope pointed to a subsequent increase (U-shaped curve). RF adherence was significantly associated with affect regulation, suggesting that patients whose treatments were more adherent also expressed significantly higher levels of affect regulation. We also found a significant two-way interaction for RF*time quadratic predictors. To further explore this interaction, we calculated quadratic slopes for affect regulation. For treatments where RF adherence was higher, patient’s affect regulation initially decreased followed by an increase in late sessions ($\beta = 1.63, t (52) = 3.63, p < .05, R^2 = 0.21$). In contrast, in treatments where therapists’ RF adherence was lower, there was no significant difference in affect regulation over time ($\beta = 0.46, t (54) = 0.93, ns$). Finally, there was a positive association between age and affect regulation, and girls expressed significantly higher levels of affect regulation in play.

**Discussion**

This study investigated the growth in children’s symbolic role play and affect regulation capacities, and whether adherence to RF prototype was associated with these play characteristics in long-term psychodynamic play psychotherapy informed with mentalization principles in a sample of children with behavioral problems with good outcome in terms of symptom remission. After controlling for children’s age and gender, the results indicated that RF adherence was significantly associated with symbolic role play and affect regulation. In terms of growth of symbolic play and affect regulation, both variables showed significant quadratic trends, with symbolic play increasing during treatment, which decelerated after, whereas affect regulation decreased early in treatment and started to increase afterwards. Adherence to RF prototype significantly interacted with changes in affect regulation over time, such that in treatments where there was higher RF adherence, children’s affect regulation showed a quadratic trend increasing in later sessions, whereas in low RF adherent treatments, there was no significant difference in affect regulation.

The quadratic trends of symbolic play and affect regulation in psychodynamic play therapy are consistent with previous research that indicates that the shape of change in psychotherapy is not always linear, and that after a point change accelerates, decelerates, or levels off (Collins, 2006). Hayes, Beever, Feldman, Laurenceau, and Perlman (2005) identified what they termed an “arousal spike,” which is a period of symptom exacerbation that is discontinuous and curvilinear followed by a decrease in the symptoms. They hypothesized that there needs to be an adequate level of affective arousal in therapy, which initially may cause intensification of symptoms in order to facilitate their processing and change. In fact, patients who experienced such a spike also showed more cognitive/emotional processing (a significant shift in perspective and emotional response) than those without a spike (Hayes et al., 2005). The quadratic trends in our data could be an indication of such markers that facilitate change. Symbolic play provides a platform for children to represent their concerns and conflicts that underlie their emotional and behavioral difficulties. Thematic material that is emotionally meaningful but exceeds the children’s capacity for verbal representation finds indirect expression in symbolic play (Fonagy & Target, 1996). In this sense, the increase in symbolic play could be a positive prognostic indication of children transferring their problems to the play situation. This is especially a positive development in the case of children with behavioral problems who have been found to have difficulty with symbolic play expression (Butcher & Niec, 2005; Christian et al., 2011; Lous et al., 2002). The simultaneous decline in affect regulation could be another indication of difficult and emotionally arousing themes coming into the play context. In a prior evidence-based study of two single cases with anxiety disorder, Hafon et al. (2016) also found that children were showing more limited and rigid affect during the middle phases of treatment, as well as phase-specific affective disorganizations, which improved towards the end of treatment.

The association between mentalization and sophistication of play has previously been shown in developmental research (i.e., Lillard & Kavanaugh, 2014), and prior studies in psychotherapy research have
shown that mentalization informed processes can be reliably identified in successful psychodynamic child treatments (Goodman et al., 2015; Muñoz Specht et al., 2016). To the authors’ knowledge, this was the first study to show the association between RF adherence, symbolic role play and affect regulation in good outcome psychodynamic therapy with a cross-sectional sample with behavioral problems.

The significant two-way interaction between time in treatment and RF adherence in the prediction of affect regulation raises important implications. An ideal RF session has an underlying focus of affective attunement, understanding, and processing of affect states as well as an openness to affective processes (Bateman & Fonagy, 2004). In this vein, according to expert clinicians CPQ RF prototype, most typical characteristics of an ideal RF session include therapist’s actions that verbalize internal affects, comment on changes in child’s mood, and make links between child’s feelings and experiences, therapeutic interaction characteristics that show sensitivity to the child’s level of development and accommodation to the child’s needs, and child’s characteristics including curiosity and willingness to communicate affect and engage in spontaneous play (Goodman et al., 2016). In our data, even though children’s expression of affect was destabilizing in earlier sessions, RF adherence, providing a context for affect attunement, may be associated with children regaining their affective equilibrium towards the end of treatment. Research on the temporal associations between RF adherence and affect regulation is very limited, but an empirical study of a single case of a child in psychodynamic play therapy investigating the temporal associations between therapist’s “contingent affective scaffolding,” operationalized as identifying and labeling the child’s experiences, making inferences about the meaning of a behavior, and linking to affective internal states, found a significant association between such interventions and child’s ability to organize affect (Kassett, Bonanno, & Notarius, 2004). Halfon, Bekar and Gurleyen (2017), in an empirical study of two children with separation anxiety disorder, found that therapists’ use of mental state words in a previous session predicted affect regulation in the next session. There is a body of research on the phase-specific effects of therapeutic alliance and emotion experiencing. Fisher, Atzil-Slonim, Bar-Kalifa, Rafaeli, and Peri (2016) found that alliance strength predicted deeper emotional experiencing and processing, by providing a safe and secure environment that can support intense disruptive affect expression, which contributed to good outcome. Pos, Greenberg, and Warwar (2009) found that emotion experiencing in the context of strong alliance during the “work phase” of treatment was predictive of good outcome. Because the RF prototype of the CPQ refers to the therapy process, rather than only to therapists’ interventions or alliance, it is not possible to pinpoint specific treatment factors that are associated with children’s healthier affect processing in the later phases of treatment, and therefore further research is needed to understand the role of in session RF in this area. It might be possible that it is the unison of these therapist, child and interaction factors that act in concert to promote affect regulation; however, future research is needed to confirm this. Moreover, temporal causal associations cannot be derived from this study, and future research is necessary to investigate whether higher RF early in treatment predicts later improvements in affect regulation in psychodynamic play therapy, and whether RF mediates changes in treatment outcome.

The increase in affect regulation towards later sessions in treatment indicates the importance of long-term treatment, especially with children with behavioral problems. In a recent review evaluating the effectiveness of psychodynamic psychotherapy with children, Midgley and Kennedy (2011) showed that psychodynamic treatment may have a different pattern of effect from other treatments in that whilst improvements for those receiving individual psychodynamic therapy appeared to be slower, they were also more sustained, with some patients continuing to improve after the end of treatment.

Clinical and Research Implications

Clinically, the associations between RF adherence, symbolic play, and affect regulation may be especially applicable for children with behavioral difficulties, who have failures in implicit emotion regulation (Eisenberg et al., 2001) and tend to get dysregulated easily within the context of symbolic play. Prior psychotherapy research has shown that behavioral problems are more resistant to a classical, insight-oriented psychodynamic approach (see Midgley & Kennedy, 2011, for a review) and Eresund (2007) indicated that supportive interventions were more effective with these children in psychoanalytic therapies, which involve the encouragement and facilitation of children’s expressions of feelings and thoughts and the gradual focus on awareness of intentions and behaviors. Our results also point to the importance of RF adherence, where some session processes have similar bearings to techniques described by Eresund (2007).

Prior studies in the field of adult psychotherapy mostly focused on the patient’s RF capacity as a mediating/moderating variable and yielded mixed
outcomes (see Katznelson, 2014, for a review) and specific links with emotion processing have not been shown in adult or child psychotherapy. The associations found in this study between RF adherence and affect regulation can be used as a starting point to test possible mechanisms of change in future research. One direction could be to investigate the temporal effects of RF, to understand whether RF adherence in earlier sessions supports the development of affective regulatory capacities in future sessions. Another direction could be to investigate phase-specific effects of RF. It is possible that RF adherence provides a safe environment during the middle phases of the treatment when disruptive affect emerges, whose symbolization promotes healthier affect processing in the later phases of treatment.

Limitations and Directions for Future Research

The strengths of the study include its longitudinal design, and use of observational measures of play and mentalization, but several limitations of this study should be noted. First, the sample size was relatively small. An improved methodology would be based on a larger sample and preferably with more time points. This study was designed as a naturalistic study of patients in psychodynamic therapy, without a control group. However, although this type of design is inherently limited in its internal validity, it benefits from substantial external validity, as it more accurately reflects the reality of clinical work with patients in clinics. The reliance on novice therapists limits the generalizability of the findings. Additionally, we had patients with a different number of sessions, which may have influenced the process of therapy. Moreover, due to the small sample size, we were not able to divide the data to investigate different play characteristics of children with internalizing and externalizing disorders. It is possible that these children differ in terms of the kinds symbolic play and affect regulation strategies that they show over the course of treatment, which can be studied in future research.

An important caveat is that CPQ is a measure of therapeutic process, which included observations about both the therapists’ and children’s behaviors. Even though the CPTI items are solely about the play process and very specific to the symbolic and affective capacities expressed via play, and the CPQ items are more general to the treatment process, some of the CPQ child items regarding the spontaneity of children’s play and affect expression may have conceptual overlaps with that in the CPTI. Future studies can use a more specific measure that only addresses therapists’ mentalizing interventions, or therapeutic interaction to assess specific mentalizing treatment factors and their differential impact on children’s play. In this study, we chose to use all the items of the CPQ associated with RF prototype for construct validity supported in previous research (i.e., Goodman et al., 2016); however, the adult version of the CPQ, that is the PQS (Ablon & Jones, 1998) has been extended to calculate component adherence scores for subsets of PQS items addressing therapist behavior, client behavior and the therapist–client interaction (e.g., Pole, Ablon, & O’Connor, 2008). It is possible to test the validity of such an extension with the CPQ as well. Along similar lines, we were not able to account for other therapist factors and therapeutic interaction characteristics (i.e., alliance) that aid in the development of play characteristics, which can be studied in future research. Moreover, even though we assessed the characteristics of the work done with the children, we were not able to assess the parent work within the scope of the study, which can be investigated in the future.

This study was able to show support that adherence to mentalizing principles is associated with affect regulation in the context of symbolic play for children with behavioral problems. Given the limited amount of process research with children compared to adults, and that the majority of child psychotherapy research focuses on outcome, which does not answer more specific pathways associated with change, we were able to point to specific process factors in psychotherapy that could be associated with symptomatic improvement.

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