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# Parent-Child Interaction Therapy: Theory and Research to Practice

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## Abstract

This chapter will focus on the theory behind and research on Parent-Child Interaction Therapy (PCIT), a treatment developed for young children with disruptive behavior problems. We will describe and provide details about PCIT, which is based on both attachment and social learning models, and incorporates an innovative approach to treatment in which therapists coach caregivers “live” via a wireless headset while each caregiver interacts with their child. In addition, we will review research that has examined PCIT with a variety of diverse populations (e.g., children with developmental delay, physical abuse histories, anxiety and depression, and children from underrepresented racial and ethnic minority families), settings (e.g., clinic, home, school) and formats (e.g., individual, group, intensive). Finally, we will present a case study of PCIT with a child younger than 2 years to demonstrate the effectiveness of PCIT and highlight some common challenges and pitfalls that clinicians may face in clinical practice.

**Keywords:** early childhood, externalizing behavior, behavior parent training, parent-child interaction therapy

## 1. Introduction

Externalizing behavior problems, which include behaviors such as physical aggression (e.g., throwing and hitting), defiance (e.g., not complying to parents demands), hyperactivity and impulsivity, and tantrums are one of the leading causes for referring young children to a mental health professional [1]. When these externalizing behaviors become functionally impairing, interfere with everyday life tasks (e.g., going to the grocery store or eating at restaurants), and persist across multiple settings, they may represent a clinically elevated problem. It is important to note that most young children exhibit these behaviors to some degree, and it is only when these behaviors are persistent and interfere with daily functioning that they warrant intervention. Young children with externalizing behavior problems are at elevated risk for more severe behavior problems later in development [2], academic difficulties [3, 4], and substance use and criminality [5]. Additionally, parents of these children are more likely to display higher levels of stress [6] and other mental health concerns, such as depression and anxiety [7–9], compared to parents of children without externalizing behavior problems.

## **2. Theory for the development of externalizing behavior problems in young children**

There are different theories on how early externalizing behavior problems develop. For example, in attachment theory [10], infants use their parents as a secure base to explore their environment, and the extent to which parents are sensitive and responsive in this relationship is associated with the infant's socialization [10, 11]. Based on this model, infants are at increased risk for externalizing behavior problems if they have an insecure attachment with their parent and their parent lacks warmth [12–14]. Thus, attachment-based interventions focus on enhancing the parent-child relationship. One example of an attachment-based intervention is the Video-Feedback Intervention to Promote Positive Parenting (VIPP [15]), which was developed to reinforce parents' sensitive responsiveness to their infant. During sessions, parents are videotaped interacting with their child. These video-taped interactions are used to give feedback to the parent about interactions highlighting moments of empathy and sensitivity. VIPP has been shown to improve parent responsiveness and reduce externalizing behavior problems but has not been shown to change infant attachment classification [16, 17].

Social learning is another theory informing how behavior problems may develop in young children and suggests young children learn behaviors through observation and function as a result of reinforcement and punishment by parents [18]. Specifically, according to Patterson's [19] coercive cycle, children and parents both negatively reinforce negative behaviors in one another. For example, imagine a child in a supermarket who wants a candy bar, but their parent sets a limit by saying no. The child may throw a temper tantrum until the parent removes the limit and gives the child the candy, thereby negatively reinforcing the child's tantrum. Similarly, the parent might yell at the child for the tantrum, which may stop as a result, and thereby reinforce the parent's yelling.

Behavioral parent-training interventions integrate attachment and social learning theories and focus on improving the parent-child relationship while teaching parents to use effective discipline strategies. These behavioral parent-training interventions emerged from Dr. Constance "Connie" Hanf's model, which targets improvements in parent-child interactions (Hanf-Model [20]). A systematic review of psychosocial interventions for disruptive behavior disorders suggests these behavioral parent-training interventions have strong support from studies examining their efficacy [21] and include programs such as the Incredible Years (IY [22]), Helping the Non-Compliant Child (HNC [23]), Triple P—Positive Parenting Program (PPP [24]) and Parent Child Interaction Therapy (PCIT [25]). Although these behavioral parent-training programs share commonalities, each program has unique components. For the remainder of this chapter we will focus on PCIT.

## **3. Parent-child interaction therapy (PCIT)**

PCIT, developed by Dr. Sheila Eyberg, is an evidenced-based, manualized treatment for young children with behavior problems that stems from the principles of play therapy [25]. In PCIT, the overall goal is to enhance the parent-child relationship through active and live coaching of the parent during interactions with the child. For instance, in clinic-based PCIT, the parent and child are in a play room, while the therapist coaches the parent through a one-way mirror with the use of a "bug in their ear" or wireless headset device. PCIT consists of two phases: the Child-Directed Interaction (CDI) and the Parent-Directed Interaction (PDI). At the beginning of both of these phases, parents participate in a teach session during

which the clinician discusses the different skills that will be used during each phase of treatment. The following sessions are coach sessions, where the clinician coaches the parent while they interact with their child.

During the CDI phase, the therapist teaches and coaches the parent in their use of the PRIDE skills to follow the child's lead in the play and to enhance their relationship. The P in PRIDE stands for Praise. Specifically, the therapist coaches the parent to use specific (i.e., labeled) praises to reinforce specific appropriate behaviors (e.g., I love how you are playing so gently with the toys). The R in PRIDE stands for Reflection, which refers to repeating the child's appropriate vocalizations and verbalizations. For example, if the child says, "Cup" the parent is encouraged to repeat (and expand upon) the child's verbalization with a response such as, "That is a red cup." Reflections that provide additional information may help the child expand their vocabulary. The I in PRIDE stands for Imitation, which refers to copying and expanding on the child's play. For example, if the child is building a house with blocks the parent is coached to also build a house with blocks and possibly add a garage out of blocks. The D in PRIDE stands for Description, which involves a parent using a running commentary of their child's ongoing behavior (e.g., "You are putting the blue block on top of the red block") and may help keep the child engaged in play. The E in PRIDE stands for Enjoyment because it is important for parents to have fun and be enthusiastic while playing with their child to keep their child engaged.

In addition to using the PRIDE skills, therapists instruct parents to avoid commands, questions, and criticisms. Commands can be direct (e.g., Give me the block) or indirect (e.g., "Let's play with the cars") and lead the play by suggesting what the child should do. Similarly, questions at times can be hidden commands (e.g., Would you clean up the toys?) and can also take the lead in the conversation between the parent and child. Questions and commands can place a demand on the child to respond or comply with their parents, which can lead to the coercive cycle and make the play less enjoyable for the child and parent. It is important to note that questions and commands can help children learn in some contexts (e.g., reading) but can be counterproductive during child-directed play, such as CDI. The last thing clinicians instruct parents to avoid are criticisms or negative statements about the child or pointing out mistakes the child made. Criticisms can make the interaction less enjoyable and lower a child's self-esteem.

During the CDI phase, therapists also coach parents to use active ignoring, which is when parents remove attention from the child for inappropriate or annoying behaviors (e.g., tantrums, whining). The combination of positive attention (i.e., PRIDE skills) when the child engages in positive behaviors with the removal of attention for negative behaviors helps the child learn to engage in more positive behaviors for attention. It is recommended that parents practice using the PRIDE skills for 5 minutes every day during "special time" with their child to improve their skills and their child's behavior. Recommended toys for special time include construction toys (e.g., blocks, Legos), pretend play toys (e.g., dolls, farm animals), and creative toys (e.g., coloring). Toys and games to avoid are those with specific rules (e.g., board games), that make messes (e.g., paint, playdough), or that lead to aggressive behaviors (e.g., balls, superhero figures). During treatment sessions, therapists monitor special time practice and skill acquisition.

During the PDI phase, parents learn to lead the play and use limit setting to increase child compliance. Specifically, therapists teach parents to use specific and direct commands and follow-through with consistent consequences. The parent starts the PDI sequence by giving their child a direct command. If the child complies within a five second interval, the parent provides the child with a labeled praise (e.g., thank you so much for listening the first time). If the child does not comply to the command after 5

seconds, the parent gives the child a warning indicating that if they do not comply they will have to go to the timeout chair. If the child complies after the warning, the parent gives the child a labeled praise. However, if the child does not comply, the parent tells the child that they did not listen so they have to go to the timeout chair, which is an adult-sized chair facing a corner or wall to minimize distractions. After 3 minutes and when the child has been quiet for 5 seconds, the parent restates the original command. If the child does not comply, they go back to the time out chair, and the sequence starts over until the child complies. In the event the child does not stay on the timeout chair, a back-up room is used when the child gets off the chair. The child is brought to the room for 1 minute and then returned to the chair.

The PDI sequence is first practiced during play for both the parent and child to learn the routine. Once parents feel comfortable using these skills on their own, they are encouraged to use the PDI sequence throughout the day and eventually establish standing house rules (e.g., no yelling) for which the child will automatically go to the timeout chair without a warning. The PDI sequence is first practiced in the home, however, once parents feel comfortable using PDI, they are coached and encouraged to use it in public settings. The therapist works with the parents to adapt the sequence in different public settings (e.g., grocery store).

PCIT is a time unlimited treatment, but the average length of treatment ranges from 12 to 14 weekly sessions, each lasting approximately 1 hour [26]. Graduation from treatment termination requires parents to master skills learned during treatment and that the child's behavior is within normal limits. To meet mastery criteria for CDI, parents must use 10 labeled praises, 10 reflections, 10 behavior descriptions, and less than 3 questions, commands, and criticisms during a 5-minute child-directed play. To meet mastery criteria for PDI, parents must use direct commands and follow through the sequence effectively 75% of the time. To monitor the child's disruptive behavior throughout treatment, parents complete the Eyberg Child Behavior Inventory (ECBI [27]) weekly prior to each session. The ECBI's clinical cut-off score helps indicate when a child's behavior is no longer clinically significant compared to peers' behavior.

#### **4. Efficacy of PCIT**

PCIT has been found to be effective in reducing child externalizing behavior problems, as well as increasing child compliance, enhancing the parent child relationship, and reducing parenting stress [28, 29]. In addition to children with externalizing behavior problems, PCIT and adaptations of PCIT have been shown to be effective with other at-risk child populations, such as children with early developmental or neurodevelopmental delays [30–33], anxiety [34–36], and depression [37, 38]. PCIT also has been shown to be effective in increasing maternal sensitivity and positive interactions in parents at risk for maltreatment and abuse [39, 40], as well as in children and families from ethnically and racially diverse backgrounds, such as Puerto Rican [41], Mexican-American [42, 43], Alaskan native [44], Chinese [45], and Norwegian families [46] to name a few.

In addition to targeting diverse populations, PCIT has been shown to be effective when delivered in different formats. For example, research has demonstrated that PCIT can be delivered effectively in a group format [47–49], in which three to six families practice the skills and provide feedback to one another. Additionally, research has demonstrated feasibility of intensive versions of PCIT [50, 51], in which treatment is condensed into 2 weeks. Furthermore, adaptations of PCIT have been delivered in school settings with teachers [52, 53] and in the families' homes [54–56], including a brief, in-home adaptation of PCIT for infants ages

12–15 months from high-risk families [57]. Research on this adaptation, called the Infant Behavior Program (IBP), has demonstrated that infants randomized to the IBP displayed lower levels of externalizing behavior problems through a 6-month follow-up compared to infants in a standard care pediatric primary care group. Additionally, in comparison to infants in the control group, infants who received the IBP demonstrated increases in language that were mediated by changes in infant behavior [58] and parenting behavior [59, 60]. For illustrative purposes, we describe below a fictional case study based on experiences with actual PCIT cases.

## 5. Case example

“Matthew” was a 22-month-old Hispanic boy who lived with his 7-year-old sister, 8-year-old brother, and biological mother, who reported an annual income of \$22,200. Matthew’s mother came to the clinic after his primary care physician recommended treatment for Matthew’s aggressive behaviors. Matthew’s mother reported that he frequently bites his older sister and brother, as well as other children at daycare, and that he can be destructive with his toys (e.g., throws toys at others). Additionally, Matthew’s mother reported that when Matthew becomes upset, he has difficulty responding to his mother’s instructions and demands. His primary care physician as well as his mother also reported delays in Matthew’s expressive speech.

At an evaluation, results revealed clinically elevated scores on the externalizing and dysregulation domains on the Infant-Toddler Social-Emotional Assessment (ITSEA [61]), as well as on the activity/impulsivity, aggression/defiance, negative emotionality, compliance, and attention subscales. He also demonstrated delayed speech, as reported by his mother and physician, and as demonstrated in his scores on the expressive communication subscale on the Preschool Language Scales, Fifth Edition (PLS-5 [62]). Matthew’s mother endorsed clinically significant symptoms of disruptive behavior on the ECBI [63], with a score of 146 (T-score = 64) on the Intensity Scale. Matthew’s mother’s scores at baseline also revealed clinically significant levels on the Parental Distress and difficult child subscales of the Parenting Stress Index, Fourth Edition (PSI-4 [64]), as well as clinically significant levels of depressive symptoms on the Center for Epidemiologic Studies Depression Scale (CES-D [65]). During the evaluation, Matthew displayed frequent aggressive and defiant behaviors in the evaluation setting and used limited communication.

As a result of the evaluation, Matthew’s mother was recommended to receive PCIT in order to learn effective skills to manage Matthew’s externalizing behavior problems and improve her relationship and interactions with Matthew. An in-home PCIT program was recommended for the family, as difficulties made traveling to the clinic for treatment very difficult. The family completed ten sessions of in-home PCIT, which included one CDI teach and five CDI coach sessions, as well as one PDI teach and three PDI coach sessions, over 4 months. The family attended PCIT sessions consistently until the PDI-phase of treatment, during which time the family’s attendance decreased due to work schedule changes and health difficulties in the extended family.

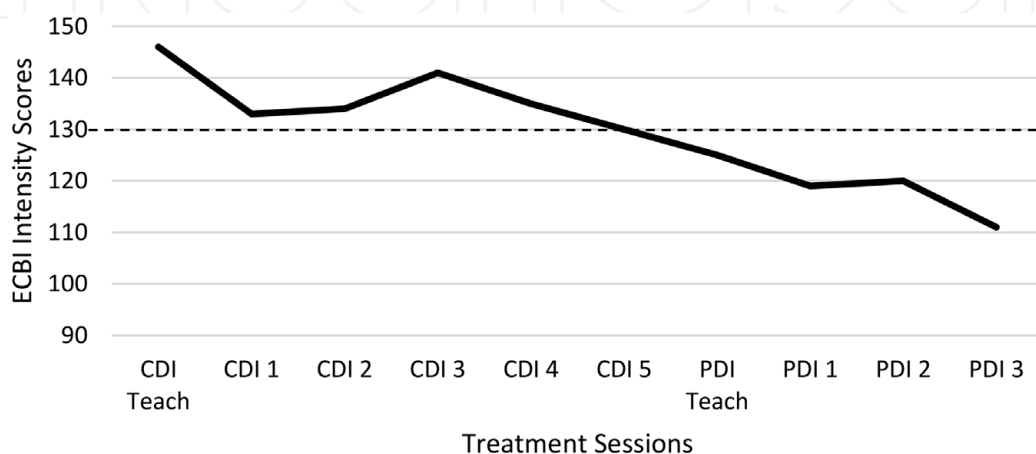
During the CDI phase of treatment, Matthew’s mother used several questions and commands. The therapist, who was a doctoral student in clinical psychology, coached Matthew’s mother to use the PRIDE skills, with an initial focus on labeled praises and by prompting Matthew’s mother with statements such as, “Tell him exactly what he did a great job doing.” With coaching and consistent practice using labeled praises and other PRIDE skills over the first five CDI sessions, Matthew’s mother increased her use of labeled praises (from 0 in CDI Coach 1 to 10 in CDI Coach 5) and behavior descriptions (from 0 in CDI Coach 1 to 11 in CDI Coach 5). Additionally, while there

were not many opportunities to reflect Matthew given his limited speech, Matthew’s mother reflected his sounds (e.g., “choo choo” for a train) consistently throughout the CDI sessions. She decreased the number of questions and commands used during sessions, in addition to continuing to avoid critical language. By the end of the five CDI sessions, Matthew’s mother reported increased engagement in the parent-child interaction, as well as an increase in Matthew’s speech.

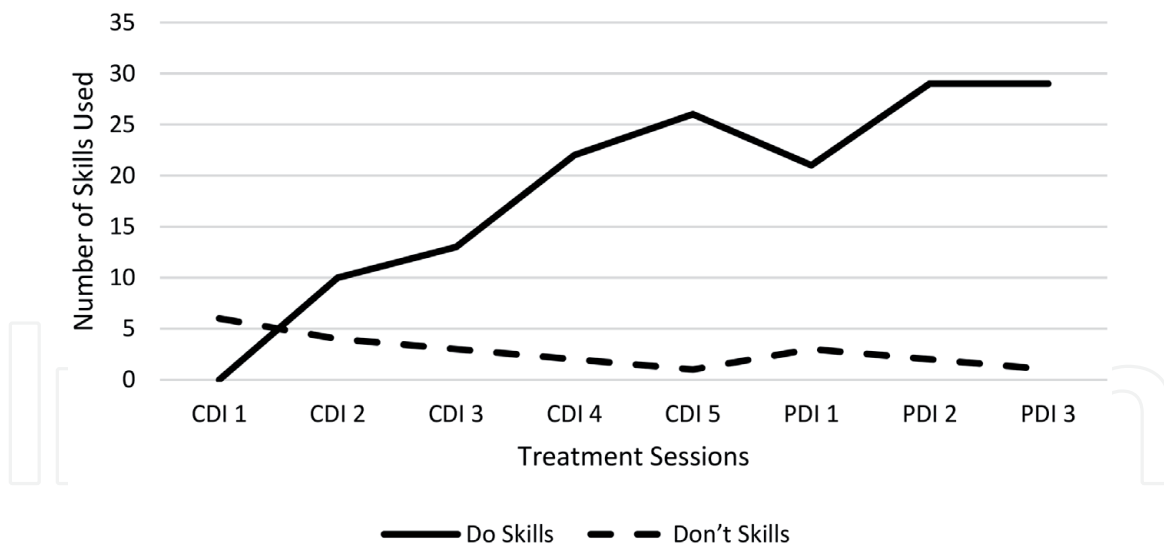
During the PDI phase of treatment, the therapist coached Matthew’s mother to use effective direct commands. During the first PDI session, Matthew was unable to stay on the chair for the full 3 minutes, and went back and forth between the chair and the time-out room five times. During this sequence, Matthew was very dys-regulated, as he yelled, screamed, and kicked his mother when she moved him from the chair to the room each time. By PDI Coach 3, he was able to stay on the chair for the full 3 minutes without yelling or jumping off. By PDI Coach 3, Matthew quickly complied with his mother’s commands and no longer went to the timeout chair or room. As displayed in **Figure 1**, Matthew’s scores on the ECBI Intensity Scale dropped and stayed below the clinical range after the CDI Coach 5 session and continued to show improvement throughout the PDI phase of treatment.

Immediately following treatment, Matthew demonstrated clinically significant decreases in parent-reported externalizing behavior problems and aggressive behaviors at home. Specifically, at post-treatment, Matthew’s score on the ECBI Intensity Scale was a 111, which was a 35-point drop from his pre-treatment score and within the normal range (T-score = 54). Additionally, Matthew’s mother reported fewer temper tantrums throughout the day and increased compliance to commands, as well as increased spontaneous speech at home. Relatedly, Matthew’s speech improved over the course of treatment as documented by his increased score on the PLS-5 expressive communication subscale from pre-treatment (standard score = 63) to post-treatment (standard score = 79).

In addition to changes in child behavior, Matthew’s mother demonstrated improvements in her own skills from pre to post-treatment. As displayed in **Figure 2**, Matthew’s mother demonstrated increases in do skills and decreases in don’t skills. Furthermore, she reached mastery criteria (i.e., 10 behavior descriptions, 10 reflections, and 10 labeled praises, as well as less than 3 questions, commands and criticisms, during a 5-minute child-directed play) before the end of CDI, and continued to demonstrate excellent use of the skills through the end of PDI. Matthew’s mother did not reach mastery criteria for PDI, and Mathew was compliant to about 60% his mother’s commands, most (80%) of which were directly stated. Additionally, Matthew’s mother reported lower levels of parenting



**Figure 1.** *ECBI Intensity Scale scores across treatment. Note: The above graph shows the decrease in ECBI intensity score, as reported by Matthew’s mother, over the course of the 10 sessions.*



**Figure 2.**  
*“Do” and “don’t” maternal skills across treatment.*

stress related to stress in the parent-child relationship. However, her depressive symptoms remained in the clinically significant range and appropriate referrals for follow-up treatment for the mother were provided.

At a 6-month follow-up, parent-reported externalizing behavior problems and aggressive behaviors remained in the subclinical range, with a score of 110, which was consistent with his score at post-treatment (score = 111) and were still significantly lower than scores on the ECBI at baseline (score = 146). Matthew’s mother also reported that Matthew rarely bit his older sister or threw toys and complied to commands quickly. She stated that he continues to remain very engaged in activities with her when she uses the PRIDE skills, which has further facilitated her motivation to continue using the skills learned during treatment. Finally, while Matthew continued to have a speech delay, his speech-pathologist indicated that his scores continued to improve since post-treatment.

Ultimately, in-home PCIT was an effective treatment for this child in reducing his externalizing behavior problems and increasing language production. The family was able to attend a number of sessions, but only attended 3 PDI sessions. It is possible that after the child’s behaviors decreased, the family felt less motivated to continue treatment as the behaviors appeared to be more manageable. However, the family may have benefited from additional coaching in the time-out sequence in PDI to maximize the long-term benefits and learning of the sequence. Additionally, despite the demonstrated positive changes in child behavior and parental skill use, maternal depressive symptoms continued to be a challenge for the mother, which also may have impacted attendance during the second phase of treatment. Providing resources for parents experiencing depressive symptomatology or high levels of stress may be an appropriate supplement to parent-child treatment, and may increase parental likelihood of engagement. Despite these challenges, children from low-income, single-parent households have barriers to treatment participation, such as lack of transportation, so the in-home PCIT treatment approach may be a useful approach to reach these families.

## 6. Conclusion

In summary, young children with externalizing behavior problems are at elevated risk for future difficulties with academics, peer relationships, and continued behavior problems. Research has demonstrated that behavioral parenting



interventions, such as PCIT, can be effective in reducing externalizing behavior problems in young children across a variety of settings (e.g., clinic, school, in home). As demonstrated in the fictional case study above, PCIT adaptations, such as in-home sessions, can be effective in reducing aggressive and non-compliant behaviors, as well as increasing child language productivity and rippling effects such as decreasing parental stress. For further information on PCIT and information on how to receive training and become certified in PCIT, please visit the PCIT International website ([www.pcit.org](http://www.pcit.org)).

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