

Parent-Child Interaction Therapy: New Directions in Research

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Parent-Child Interaction Therapy (PCIT) is a short-term, evidence-based parent training program for families with 2- to 6-year-old children experiencing behavioral, emotional, or family problems. Based on both attachment theory and social learning theory, PCIT research has provided evidence of efficacy, generalization, and maintenance. The new directions in PCIT research are highlighted in this article.

PARENT-CHILD INTERACTION THERAPY (PCIT) is a short-term, evidence-based intervention designed for families with children between the ages of 2 and 6 who are experiencing a broad range of behavioral, emotional, and family problems. This manualized parent training program has two discrete phases, Child-Directed Interaction (CDI) and Parent-Directed Interaction (PDI). CDI concentrates on strengthening parent-child attachment as a foundation for PDI, which emphasizes a structured and consistent approach to discipline. Throughout treatment, emphasis is placed on the interaction between the parents and their child due to the specific theoretical assumptions about the development and maintenance of externalizing behavior¹ in children. The protocol is assessment driven and is not time limited; progress in the parent-child interactions is coded at each session, and treatment is completed when parents have mastered the skills of CDI and PDI and the child's behavior is within normal limits.

Research indicates that externalizing behavior originates from multiple child and family factors. Child factors may include difficult temperament (Bates, Bayles, Bennett, Ridge, & Brown, 1991), hyperactivity (Loeber & Keenan, 1994), faulty social information processing (Crick & Dodge, 1994), and genetic difficulties. These child factors interact with adverse family factors in the development and maintenance of externalizing behavior (Kazdin, 1987). Family factors may include maternal depression

¹The term "externalizing behavior" is used to refer to disruptive behavior characteristic of diagnostic criteria for oppositional-defiant disorder or conduct disorder (e.g., noncompliance, aggression).

(Forehand, Furey, & McMahon, 1984; Webster-Stratton & Hammond, 1990), stressful life events (Campbell, 1998), anger (Wolfe, 1987), parent conflict about childrearing (Bearss & Eyberg, 1998; Bearss, Eyberg, & Hoza, 2002), social isolation (Dumas & Wahler, 1983), single-parent status, or poverty (Forehand et al.). Family factors are thought to influence child behavior through their effect on parenting behaviors (Patterson, Reid, & Dishion, 1992; Tolan, Guerra, & Kendall, 1995). Parents' early interactions with their young child appear to be the most proximal parental influence on the child's behavioral development (Campbell, 1997), and parenting practices continue to play a critical role in the maintenance of externalizing behavior throughout childhood and adolescence (McMahon & Estes, 1997). The strong and consistent relations between certain parenting styles and problematic child outcomes (Azar & Wolfe, 1989; Franz, McClelland, & Weinberger, 1991; Olson, Bates, & Bayles, 1990) suggests the need to focus on parenting style and parent-child interactions in families whose young children demonstrate behavioral and emotional problems.

Theoretical Foundations of PCIT

According to attachment theory, sensitive and responsive parenting during infancy and toddlerhood leads the child to develop a cognitive-affective working model that predicts that the child's needs will be met by the parent. Thus, young children whose parents show greater warmth, responsiveness, and sensitivity to their signals are more likely to develop a secure working model of their relationships with others and more effective emotional regulation (Ainsworth, Blehar, Waters, & Wall, 1978). Clinic-referred preschoolers with externalizing behavior are more likely than nonreferred children to be distressed during separations from parents and to display behavioral indicators of insecure attachment (Greenberg & Speltz, 1988).

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 Continuing Education Quiz located on p. 80.

CDI draws from attachment theory in its aims to restructure the parent-child relationship and provide a secure attachment for the child. Parents are taught skills that foster positive, nurturing interaction patterns. This phase of treatment recognizes that parents can have a particularly dramatic effect on their child's behavior during the early preschool years when children are more responsive to parental attention and less susceptible to the influence of peers, teachers, or developmental autonomy than in later years (Eyberg, Schuhmann, & Rey, 1998).

Social learning theory asserts that child behavior problems are inadvertently established or maintained by dysfunctional parent-child interactions. According to Patterson, each member in the relationship attempts to control the behavior of the other through habitual, aversive behaviors, thus establishing a coercive style of interaction (Patterson, 1975, 1976, 1982; Patterson, DeBaryshe, & Ramsey, 1989). The coercive interaction cycle is maintained by negative reinforcement, in which externalizing child behaviors (e.g., arguing, aggression) are reinforced by parent behaviors (e.g., withdrawal of demands), and, in turn, negative parent behaviors (e.g., yelling) are reinforced by child behaviors (e.g., momentary compliance). Parents of children exhibiting externalizing behaviors have often been found to be both power-assertive and lax in their discipline. This inconsistency serves to strengthen the young child's externalizing behavioral repertoire (Sansbury & Wahler, 1992). PCIT specifically addresses such processes by establishing consistent contingencies for the child's behavior during the PDI phase of treatment.

Structure of PCIT

For each phase of treatment, CDI and PDI, parents attend one didactic session during which the therapist describes the skills of the interaction and provides the rationales for their use. Modeling and role-playing are incorporated into these sessions to facilitate learning of the skills. Following the initial didactic session, parents and their child attend weekly coaching sessions together. Between sessions, parents are asked to devote 5 to 10 minutes a day practicing the interactions with their child at home.

During CDI, parents are taught to use the PRIDE skills (Praise, Reflection, Imitation, Description, and Enthusiasm) at high rates and to avoid questions, commands, and criticism while they play with their child. The play situation at home and in the clinic is arranged so that the child may choose the toy(s) he or she would like to play with, and the parent is instructed to play along with the child, following the child's lead. During the coaching sessions, parents typically wear a bug-in-the-ear hearing device and are coached on their use of the skills by a thera-

pist who is observing the parent-child interaction from behind a one-way mirror.

Once the parent's CDI skill level meets a predetermined set of criteria, the second phase of PCIT is initiated. During PDI, parents are taught to issue clear, developmentally appropriate, direct commands and to provide consistent consequences for both their child's compliance and noncompliance. Parents are instructed to provide labeled praise following child compliance and to initiate a time-out procedure following child noncompliance. Parents are coached in the use of these skills during a play situation with their child in which they must issue commands and follow through with the appropriate consequence (i.e., praise or time-out).

For most families, the full course of treatment is completed in 10 to 16 weekly, 1-hour sessions. A comprehensive PCIT treatment program includes (a) a pretreatment assessment of child and family functioning; (b) feedback, teaching, and coaching of parents in the CDI skills; (c) teaching and coaching of parents in the PDI skills; (d) teaching generalization skills; and (e) a posttreatment assessment of child and family functioning. Follow-up assessments are recommended, and booster sessions should be provided, if needed.

Efficacy of PCIT

Outcome research on PCIT has demonstrated clinically and statistically significant improvements in the interactional style of parents and in the behavior problems of children at home and at school (Eisenstadt, Eyberg, McNeil, Newcomb, & Funderburk, 1993; McNeil, Eyberg, Eisenstadt, Newcomb, & Funderburk, 1991; Schuhmann, Foote, Eyberg, Boggs, & Algina, 1998). In addition to finding that PCIT is efficacious in helping them manage their child's behavior, parents report high levels of satisfaction with the content and process of PCIT, less personal distress as their child's behavior improves, and more confidence in their ability to control their child's behavior (Schuhmann et al.). The effects of PCIT have been shown to generalize to other members of the family, including the behavior of untreated siblings of referred children and the psychological functioning of the parent (Brestan, Eyberg, Boggs, & Algina, 1997; Eyberg & Robinson, 1982). These examinations of PCIT have included comparisons of treated children to wait-list controls (McNeil, Capage, Bahl, & Blanc, 1999; Querido & Eyberg, 2001; Schuhmann et al.), normal classroom controls, untreated classroom controls (McNeil et al., 1991), modified treatment groups (Nixon, Sweeney, Erickson, & Touyz, 2001), treatment dropouts (Edwards et al., 2002), and control groups varying in severity of disruptive behavior (Funderburk et al., 1998). Each comparison has dem-

onstrated the superiority of treatment over various control conditions.

New Directions

The progression of treatment research is not linear; it advances like spokes in a rotating wheel. The spokes include traditional child outcomes, outcomes for the family, outcomes across situations, and outcomes extending further in time. They include component analyses, process analyses, and predictors of treatment events. They include applications of treatment to children from diverse backgrounds, and new variations of treatment delivery. They include new methods to measure and analyze change. At its hub, the treatment itself is changed with the knowledge gained from the many directions of study. In the scientist-practitioner model, clinical practice sits at the hub as well. It is shaped by the research and, in turn, generates important and practical research questions. In this section, we review the new directions of PCIT research, and suggest ways to further our understanding of this treatment.

Effectiveness

Examination of the efficacy of a treatment is an important first step in treatment research. It is important to follow that step with an examination of how, why, and for whom the treatment is effective (Kazdin, 1997). For example, PCIT studies have demonstrated significant changes on a group level, but less is known about the specific predictors of treatment response. There is evidence to suggest that families in which a mother is highly critical or depressed respond more poorly to PCIT (Werba, Eyberg, Boggs, & Algina, 2002). Clinical experience suggests that parents actively abusing a drug, or experiencing *severe* marital discord or psychopathology also may respond poorly to PCIT (Hembree-Kigin & McNeil, 1995). Much more research is needed to establish for whom PCIT is most effective and to identify which families are most responsive to treatment in order to provide services to families that will benefit them most and to identify less responsive groups for further study aimed at treatment modifications to better serve these families.

Translational research also is needed to examine the effectiveness of PCIT in real-world clinics where the services are provided without the intensive scrutiny of supervisors and cameras recording the integrity of every session as delivered by doctoral and postdoctoral students. Studies conducted in community mental health centers may inform PCIT training and dissemination protocols as well. Finally, treatment outcome must be examined not only for the families who complete treatment, but also for intent-to-treat groups that begin PCIT. A recent follow-up study found that families who dropped out of PCIT

looked the same after 1 to 3 years as they had before treatment started, whereas families who had completed treatment maintained their gains in both child and family functioning (Edwards et al., 2002).

Diagnostic Variables

Although rigorous empirical examination of PCIT has been conducted only with children who show externalizing behavior, the treatment has been applied to children with diverse childhood disorders (e.g., Urquiza & McNeil, 1996). The parenting principles that underlie PCIT, from both attachment and social learning theory, have application to a range of dysfunctional parent-child interactions, including those associated with the internalizing disorders of childhood (Pincus, Choate, Eyberg, & Barlow, in press), chronic pediatric illness (Miller & Eyberg, 1991), and developmental disorders (Eyberg & Matrazzo, 1975). Eisenstadt et al. (1993) showed that, in a sample of preschoolers exhibiting externalizing behavior problems, the children's scores for internalizing behavior problems and symptoms of attention-deficit/hyperactivity disorder decreased significantly following PCIT. It will be important to document further the range of comorbid diagnoses affected by PCIT and to explore the extent to which PCIT can be adapted for treatment of other disorders of childhood.

Cultural Variables

Developmental research has long relied on assumptions about healthy childrearing practices and beliefs that were based on studies of middle-class, Caucasian families and that ignored cultural variations in parenting (Zayas, 1994). So, too, the development of most psychosocial treatments for children have been based on Western theories and have been tested on predominantly Caucasian samples, with less attention to the influence of social and cultural diversity. Although treatment studies of children experiencing disruptive behavior disorders, including PCIT studies, have had perhaps more culturally heterogeneous samples than studies of other childhood disorders, the outcomes are rarely reported separately by ethnic group and, in fact, only half of the peer-reviewed studies in this area have even reported the ethnicity of their participants² (Brestan & Eyberg, 1998).

It is not surprising then, that for PCIT, like other parenting programs (Forehand & Kotchick, 1996), very limited data exist to indicate whether or how the values and practices of an ethnic minority group should lead to changes in parenting (Capage et al., 2001a; Hembree-Kigin & McNeil, 1995). Some evidence has suggested that

²The low percentage of treatment research articles reporting participant ethnicity is primarily due to the inclusion of early studies, when ethnicity was rarely reported.

culture largely determines the inferred basis of parenthood, so that parenting is defined according to cultural understanding and is grounded in the past experiences of that culture (Baumrind, 1995; O'Reilly, Tokuno, & Ebata, 1986). Yet, recent research with African American families suggests that parenting styles associated with optimal child outcomes are the same in this culture as in the majority Caucasian culture (Querido & Eyberg, 2002) and that PCIT may be equally effective with these families as with Caucasian families when the effects of socioeconomic status are controlled (Capage, Bennett, & McNeil, 2001b). Werba et al. (2002) also found that ethnicity predicted neither response nor attrition in PCIT, although their sample included only 19 African American families. Calzada and Eyberg (2002) examined specific parenting practices among Dominican and Puerto Rican mothers living in the United States, and their results suggested that the parenting values of these Hispanic groups are also similar to those of U.S. Caucasian mothers. In sum, although the preliminary data are promising in suggesting that PCIT may be applied successfully to diverse ethnic groups, a more complete understanding of the construct of effective parenting within diverse groups is necessary. It is imperative that future studies identify the mechanisms of therapeutic change and the ways that treatment may be tailored to maximize therapeutic gains in the treatment of minority families.

Therapist Variables

There is evidence to suggest that therapist behaviors may be more predictive of treatment outcome than therapeutic techniques (e.g., Luborsky et al., 1986), yet less than 3% of the research on child therapy has addressed the therapeutic process (Kazdin, Bass, Ayers, & Rodgers, 1990). Researchers have suggested that a more thorough examination of the quality of social reinforcement, including the accuracy and consistency of the clinician's delivery of social reinforcement, is needed to help clinicians systematically facilitate and understand the mechanisms of change in PCIT (Borrego & Urquiza, 1998). In a recent study, Capage, McNeil, Bahl, and Herschell (2001) examined the relation between therapist style and maternal compliance, skill acquisition, and consumer satisfaction with PCIT. They found that mothers acquired skills more efficiently when therapists balanced positive feedback with constructive advice, though no association was found between therapist style and maternal compliance or satisfaction with treatment.

Delivery of Treatment

Families who are most in need of services often have limited financial resources and face other stressors that interfere with treatment (McNeil & Herschell, 1998). The logistical considerations involved in attending weekly ther-

apy appointments range from transportation difficulties to child care issues, and may interfere with a family's ability to commit to therapy, regardless of motivation level. In such cases, it is necessary to find alternative ways to deliver clinical services.

Querido and Eyberg (2001) designed a model of PCIT delivery for low-income, Head Start families for whom barriers to treatment often include lack of transportation and care for other children in the home. Developed in response to discussions with the local Head Start Policy Council and Head Start staff, several incentives, including provision of transportation to and from sessions and care for siblings during sessions, were included in the program and appeared to enhance parents' motivation for treatment. For rural families, where the distance presents even greater barriers, the advances in telehealth and other distance-learning technologies may provide a venue for future applications of PCIT.

Bahl (1998) has proposed a model for applying PCIT to the classroom, which she calls Teacher-Child Interaction Training (TCIT). Similar to the phases of PCIT, her model focuses first on enhancing the teacher-child relationship and later on improving child compliance. The structure of TCIT also is similar to that of PCIT in its focus on working with the teacher and children together, providing direct coaching and overlearning of behavioral skills, and emphasizing the use of a positive approach to working with teachers. Modifications for the classroom include application of the behavioral skills to academic lessons, the use of an ignoring signal, and use of a school-specific back-up for time-out (e.g., director's office or another classroom). The effectiveness of TCIT is currently being investigated.

Attrition

Treatments for families with children who have externalizing behavior problems place many effort- and time-related demands on parents, and it is not uncommon for families to terminate treatment early. Most studies find that 40% to 60% of families of children and adolescents who enter treatment terminate prematurely and against the advice of treatment providers (Kazdin & Wassell, 1998). Data reported by Werba et al. (2002) indicated that 33% of families referred for PCIT dropped out of treatment prematurely. Families who complete PCIT evidence significant behavioral gains, precisely because significant behavioral gains are required for termination. Families who end treatment prematurely cannot be expected to show these same gains (Edwards et al., 2002).

To address the issue of attrition, it is important to investigate variables that identify or describe families at risk for dropping out of treatment. Prinz and Miller (1994) found that families whose treatment focused exclusively on parent training and child behavior dropped out more

often than families who had opportunities to discuss life concerns beyond child management, particularly among families facing greater adversity. They suggested that addressing broader contextual issues in treatment might be necessary to keep some families in treatment. A similar conclusion was reached by Werba et al. (2002), who found that maternal depression was a significant predictor of dropout from PCIT. They recommended that some attention to the mother's personal concerns be given in each session, and recent changes to the PCIT treatment manual (Eyberg & Calzada, 1998) reflect this concern.

Although other researchers have found significant relations between attrition and both child-related variables, such as problem severity (Webster-Stratton, 1997), and demographic variables, such as socioeconomic disadvantage (Armbruster & Kazdin, 1994), none of these variables has been found predictive of dropout from PCIT (Capage et al., 2001b; Werba et al., 2002). Further, even the significant parent-related variables accounted for only a small amount of variance in PCIT outcome (Werba et al.). It will be important to examine further the influence of the therapy process variables on PCIT outcome, and particularly the therapist-parent relationship.

Maintenance

The presence of disruptive behavior disorders in childhood predicts antisocial behavior in adolescence and adulthood (Farrington, 1995; Satterfield & Schell, 1997), providing strong evidence of critical need for effective treatments for these children. Although many studies have documented initial treatment success for children with externalizing behavior (Brestan & Eyberg, 1998), fewer studies have documented long-term maintenance of treatment effects (Eyberg, Edwards, Boggs, & Foote, 1998). Funderburk et al. (1998) provided the first evidence of long-term maintenance of PCIT. In a study of 12 boys referred for behavior problems both at home and at school, they conducted 12- and 18-month follow-up school assessments after completion of PCIT. Treated children were compared with classroom control children on teacher ratings and classroom observations of behavior, attention, and social adjustment. At posttreatment, the children had shown significant improvements on teacher ratings, observational measures of noncompliance, and inappropriate classroom behaviors, but not on observed off-task behaviors or teacher ratings of social skills (McNeil et al., 1991). At the 12-month follow up, 11 of the 12 boys maintained all posttreatment improvements on observational and teacher rating measures of classroom conduct problems. At the 18-month follow-up, children maintained improvements in compliance, but demonstrated declines on other measures of school behavior into the range of pretreatment levels. Eyberg et al. (2001) examined the home behavior of families up to 2

years following PCIT. The families had originally completed an experimental 14-week, time-limited application of PCIT in which half of the families received the traditional sequence (CDI-first) and half of the families received the reversed sequence (PDI-first; Eisenstadt et al., 1993). One year following treatment completion, 8 of the 13 (62%) families maintained treatment gains, and 2 years following treatment, 9 of 13 (69%) families maintained their gains, as measured by behavior observation and parent rating scales. Specifically, 2 years after completion of PCIT, parents continued to report child behavior problems, child activity level, and parenting stress at posttreatment levels, and the majority of children (7 of 13, or 54%) remained free of diagnoses of disruptive behavior disorders. Further, parents reported high satisfaction with the process and outcome of PCIT at the 2-year follow-up. Notably, no long-term impact of phase sequence was evident at either follow-up.

Edwards et al. (2002) conducted a long-term follow-up of 23 families from the Schuhmann et al. (1998) study who had completed treatment and compared them to 23 families who had dropped out. The length of follow-up for both groups ranged from 10 to 30 months after the pretreatment assessment. Mothers of children who dropped out of PCIT reported significantly more symptoms of the disruptive behavior disorders at follow-up than did mothers of children in families that completed treatment. Decreased parenting stress and higher satisfaction with treatment were also associated with treatment completion. These data provided evidence that PCIT can alter the developmental path of externalizing behavior problems and pointed to the critical need to keep families in treatment until completion. Finally, Hood and Eyberg (2002) extended the examination of maintenance of treatment gains for the families who completed PCIT and assessed the Schuhmann et al. families 3 to 6 years following treatment completion. They found that the frequency of externalizing behavior was unchanged when compared to posttreatment levels, as was the confidence of the mothers in their ability to control their child's behavior. Although PCIT has demonstrated lasting change, the group data mask individual families for whom the outcomes may be less positive. Individual child and family characteristics, such as comorbidity or parent psychopathology, likely influence maintenance of treatment gains, and it will be important to study the predictors of long-term treatment outcome.

Dissemination

In spite of mounting empirical support since its development in the 1970s, PCIT is still primarily used in select university training clinics, and parent training has not yet become the standard of care in the typical community mental health center, where the majority of young chil-

dren experiencing externalizing behavior problems are treated. Access to evidence-based care is an important problem for our nation's children that cannot be ignored (Satcher, 2000). For PCIT, dissemination must become a priority. In recognition of this goal, a comprehensive treatment manual (Eyberg & Calzada, 1998) and a text (Hembree-Kigin & McNeil, 1995) have been written that outline PCIT and provide recommendations for its implementation. Additionally, workshops have been conducted at national conferences (e.g., Association for Advancement of Behavior Therapy, American Psychological Association), and intensive training workshops have been conducted in individual community mental health centers.

It is important that dissemination results in an accurate implementation of PCIT so that critical components of the therapy are not altered (e.g., coding parent-child interactions to guide treatment sessions; requiring skill mastery before moving to new treatment steps). Without treatment fidelity, the effectiveness of any empirically supported treatment cannot be assured (Henggeler, Melton, Brondino, Scherer, & Hanley, 1997). Yet very little is known about how to achieve such precision. It is uncertain, for example, what level of prior clinical training and what degree of PCIT training is necessary for clinicians within the community to obtain treatment effects similar to those documented in university research centers. To date, most PCIT training has been conducted using an apprenticeship model with clinical psychology graduate students already trained in process skills and basic individual and family therapy techniques. Cotherapy and vertical team models also have been used in the university setting. Training conducted in community mental health centers has involved (a) intensive didactic presentations including information on underlying theories, assessment, and approaches for handling difficult therapeutic situations, (b) interactive discussions, modeling and role-plays, (c) supervision of one or more cases, and (d) continued consultation. There are several models of PCIT training, however, at varying levels of intensity (e.g., reading the treatment manual, participating in video training, attending week-long workshops), that could be further developed. It may be that a combination of training models will be important, regardless of previous clinical training.

Conclusions

Since its beginning, PCIT has been empirically investigated and subsequently modified to incorporate the findings from these investigations. Studies have demonstrated the efficacy and utility of PCIT, but many questions remain to be answered. All of the spokes in the PCIT assessment and treatment research wheel need to be addressed, and readdressed, as results suggest adjustments and adaptations that require further testing.

Considering the poor prognosis of untreated externalizing problems in preschoolers, the need for effectiveness studies in real-world settings is paramount. Hand in hand with effectiveness research is the need for research on training and faithful dissemination of PCIT. As one of few evidence-based early intervention programs for young children with externalizing behavior, the potential impact of PCIT is significant. PCIT scientist-practitioners are compelled to embark on the path to refined understanding of these issues because the mental health needs of the children, their families, and ultimately society, are great.

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