

## Keeping Families In Once They've Come Through the Door: Attrition in Parent-Child Interaction Therapy

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### Abstract

We review existing studies of attrition in Parent-Child Interaction Therapy (PCIT), an empirically supported treatment for preschool-aged children with disruptive behavior disorders. Variables identified as pretreatment predictors of attrition in a statistically derived search for pretreatment predictors included maternal distress, negative maternal verbal behaviors during parent-child interaction, and therapist verbal behaviors during initial parent-therapist interactions. The most frequently reported reasons provided by mothers for premature termination of treatment were logistical problems such as difficulty finding transportation or sibling child care. Continued study of variables related to attrition in PCIT is essential to retention of a greater number of families in treatment.

Keywords: Attrition, Dropout, Parent-Child Interaction Therapy.

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In this article we review studies of attrition in Parent-Child Interaction Therapy (PCIT), an empirically supported treatment for preschool-aged children with disruptive behavior disorders (DBDs). These disorders, which include Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD), affect as many as 16% of children (APA, 2000) and are associated with significant impairments in social, emotional, and educational functioning (Frick & Loney, 1999). Left untreated, DBDs established during the preschool years tend to persist at least through early adolescence (Campbell, 2002). As many as 45% of children with diagnosed CD between the ages of 4 and 12 years continue to meet criteria for CD four years later. The stability of these disorders increases with age, such that older children with CD are significantly more likely to have symptoms persisting into adolescence (Offord et al., 1992).

The persistence of DBDs carries a high societal price tag. Children with behavior disorders account for a larger percentage of health care costs than children with chronic health conditions, such as asthma, diabetes, or epilepsy (Guevara, Mandell, Rostain, Zhao, & Hadley, 2003). DBDs are the most powerful risk factor for subsequent delinquent behavior, including interpersonal violence, substance abuse, and property destruction (Fagot, Loeber, & Reid, 1988). Thus, other costs of DBDs are associated with treatment of juvenile delinquency through intervention and educational programs, with law enforcement, and with family, security, and emotional damages (Frick & Loney, 1999; Werry, 1997).

From many perspectives, research supports the need for early intervention for DBDs. Parent-Child Interaction Therapy (PCIT), an evidence-based treatment for preschool-age children with disruptive behavior disorders outcomes (Brestan & Eyberg, 1998; Gallagher, 2003; McNeil, Filcheck, Greco, Ware, & Bernard, 2001), is based on developmental theory emphasizing young children's dual needs for nurturance and limit setting in parenting to achieve optimal developmental outcomes (Baumrind, 1967, 1991). Treatment includes two phases: a child-directed interaction (CDI) phase focusing on relationship-enhancement skills to improve the parent-child relationship and increase the child's social skills and self-esteem; and a parent-directed interaction (PDI) phase focusing on skills for directing the child's behavior when needed and following through with structure and consistency to improve child compliance. Each phase of treatment begins with a didactic session in which therapists describe, model, and role-play the skills with the parents. Coaching sessions then follow, in which therapists observe ongoing parent-child interactions and cue and reinforce parent behaviors that successively approximate the pre-set skill mastery

criteria. Parents are required to meet these criteria before moving from one phase of treatment to the next and before treatment graduation (Brinkmeyer & Eyberg, 2003; Eyberg, 2005).

During the Child-Directed Interaction (CDI), parents learn specific verbal behaviors that function to reinforce positive child behavior, such as reflecting the child's talk, describing the child's play, and praising the child's positive behaviors with their parent. Parents also learn to avoid questions, commands, and criticisms that can be intrusive and provide attention to negative behaviors. When coaching, therapists use differential social attention to shape parents' interaction skills. Simultaneously, children acquire social interaction and cooperation skills through similar operant conditioning procedures used by their parent (Harwood & Eyberg, in press).

During the Parent-Directed Interaction (PDI), parents learn a consistent and predictable discipline procedure used to increase child compliance to developmentally appropriate directives. While continuing to give positive reinforcement for appropriate behaviors, parents learn to give clear, direct commands and to follow through with a set sequence of responses to the child's compliant or noncompliant behaviors. If the child complies, the parent positively reinforces the compliance. If the child does not comply, the parent commences the time-out procedure (Brinkmeyer & Eyberg, 2003).

PCIT results in marked increases in positive parenting behaviors, such as praise and reflective listening, and decreases in negative verbal and physical behaviors toward the child during parent-child interactions. Children show marked increases in compliance to parent directives and decreases in disruptive behaviors such as back talk, yelling, and whining (Eisenstadt, Eyberg, McNeil, Newcomb, & Funderburk, 1993; Eyberg et al., 2001). Studies show generalization of changes to untreated siblings (Brestan, Eyberg, Boggs, & Algina, 1997) and to children's school behavior (Funderburk et al., 1998), and parents report decreases in parenting stress, a more internal locus of control, and high levels of satisfaction with treatment (Nixon, Sweeney, Erickson, & Touyz, 2003; Schuhmann, Foote, Eyberg, Boggs, & Algina, 1998). Treatment continues until parents demonstrate mastery of the interaction skills and rate their child's disruptive behavior at home within normal limits. Therefore, completing treatment is considered treatment success. Attrition is considered treatment failure.

Attrition is broadly defined as premature termination decided unilaterally by a patient against therapist advice (Armbruster & Kazdin, 1994). In PCIT, attrition is operationally defined as discontinuing treatment at any point after attending the first treatment session and before meeting the treatment completion criteria. In research, attrition is problematic because it interferes with the random composition of research groups, reduces statistical power, and limits external validity of findings (Kazdin, 1990). Clinically, attrition is concerning because children who drop out make fewer gains across more limited domains (Kazdin, Mazurick, & Siegel, 1994).

To date, two studies have addressed predictors of attrition in PCIT. In the first study, Werba, Eyberg, Boggs, and Algina (in press) explored pretreatment predictors of attrition by comparing treatment completers ( $n = 33$ ) and dropout ( $n = 17$ ) families on demographic characteristics (e.g., SES), maternal characteristics (e.g., maternal IQ), observed behavior management skills (e.g., caregiver prosocial behavior toward child), and child characteristics (e.g., severity of disruptive behavior). Variables that differed at  $p < .10$  were entered into a multiple regression analysis. The only variables found to predict treatment dropout in this sample were maternal distress, a variable created by combining scores on the Beck Depression Inventory and Parenting Stress Index, and negative maternal verbal behavior (critical and sarcastic comments) directed to the child. The overall classification rate for predicting group membership was 64% (71% for completers, 56% for dropouts; Werba et al.).

A subset of 46 families examined in the Werba et al. (in press) study were recruited for participation in a long-term follow-up study of treatment dropouts and completers (Boggs et al., 2004).

Results showed significant differences at follow-up between groups, with families who dropped out of treatment showing no changes from pretreatment levels at one to three years after entering treatment (Boggs et al.). Families in the Boggs et al. study who had discontinued treatment prematurely were asked to report their reason for not completing treatment. Their primary reasons included logistical problems, such as being unable to obtain transportation or child-care for siblings ( $n = 11$ , or 35%); feeling that treatment was not progressing quickly enough or feeling unable to wait for treatment to begin ( $n = 6$ , or 19%); and dislike of the treatment approach or techniques ( $n = 5$ , or 16%).

In a new sample of families, Harwood and Eyberg (2004) marked a shift in focus from parent, child, and family characteristics to the therapy process variables in PCIT. Their study considered the role of therapist behaviors during early interactions with parents as predictors of treatment completion status. Findings suggested that families whose therapists made fewer facilitative (e.g., Uh huh, Okay) and more supportive (e.g., It seems like things have been very difficult managing Joey's behavior) statements and asked more closed-ended questions during the initial interview were more likely to drop out of therapy. Group membership was correctly classified for 68% of families based on these three therapist verbalization categories. Although not measured in this study, the parent verbalizations in these therapist-parent interactions appeared to play a contributing role in the findings (Harwood & Eyberg). In addition, SES was not examined as a predictor in this study based on the absence of SES differences in the earlier sample (Werba et al., in press). However, Harwood and Eyberg found significant SES differences, with lower SES in the dropout than completer groups.

Studies to date have identified few pretreatment predictors of PCIT attrition. The identified variables – maternal distress, maternal verbal behavior behaviors with their child, and therapist verbal behaviors with parents – provide clues to other potentially important variables to explore. For example, finding that therapist supportive statements were related to later dropout raises questions about the statements that pull for therapist support as well as the extent to which supportive statements might inadvertently reinforce parent feelings of helplessness or hopelessness about change. The therapeutic alliance during treatment has also been implicated in attrition from child and family therapy (Garcia & Weisz, 2002; Robbins, Turner, & Alexander, 2003), but little is known about its role during PCIT. The strength of the therapist-parent alliance might particularly be expected to influence attrition of distressed mothers and calls for further study.

Evidence of maternal psychopathology as a factor in attrition also raises questions about paternal characteristics that may play a role. Fathers have a treatment participation rate of approximately 50% in PCIT, and our research with fathers suggests that their involvement may improve long-term outcomes (Bagner & Eyberg, 2003). At the same time, there is evidence suggesting higher occurrence of antisocial personality features among fathers of children with DBDs (Faraone, Biederman, Mennin, Russell, & Tsuang, 1998), which have been associated with resistance to parent training (Stoolmiller, Duncan, Bank, & Patterson, 1993). Such findings suggest that characteristics of paternal psychopathology will be important to examine as potential predictors of PCIT attrition. Finally, attrition from the follow-up phase of treatment is completely unstudied. The importance of clinical follow-up of families to assure maintenance of treatment gains is increasingly recognized. Early identification of relapse enables reversal of decline with minimal intervention (Eyberg, Edwards, Foote, & Boggs, 1998), which can ultimately improve long-term outcomes. Examination of factors that predict follow-up attrition warrant future research attention.

Early intervention in the development of DBDs is critically important given their stability and associated impairment. At least 20% of children in need of psychological services do not receive them (Pavuluri, Luk, & McGee, 1996). Families who succeed in overcoming barriers to treatment entry face another set of barriers with treatment participation, making their retention decidedly consequential. By

studying attrition, we learn most accurately how to keep these families in once they've come through our doors.

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