VARIABLES AFFECTING PREMATURE TERMINATION FROM GROUP PARENT-CHILD INTERACTION THERAPY

By

MIRIAM TYLER McCAA

Bachelor of Science
Birmingham-Southern College
Birmingham, Alabama
1991

Master of Science
Oklahoma State University
Stillwater, Oklahoma
1993

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
July, 1997

VARIABLES AFFECTING PREMATURE

TERMINATION FROM GROUP

PARENT-CHILD INTERACTION

THERAPY

Dissertation Approved:

Dissertation Advisor

Thomas C. Collins

Dean of the Graduate College

ACKNOWLEDGMENTS

I would like to express my sincere appreciation to my advisor, Dr. John Chaney, for his willingness to support my work in an area of research unfamiliar to him, his pivotal suggestions for my project, and the sense of humor he brought to supervision. He has been a source of encouragement throughout this process and has helped me maintain a sense of perspective when the process seemed overwhelming. I would also like to thank the rest of my dissertation committee, Dr. Frank Collins, Dr. Larry Mullins, and Dr. Patti Self, for their support and helpful suggestions throughout my project's various metamorphoses. In addition, many heartfelt thanks to Dr. Donald Oswald at the Virginia Treatment Center for Children for his generous contribution of time, effort, and support in helping me complete my dissertation during my internship year.

Not only have I gained a great deal of knowledge through my research projects, classes, and clinical experiences during graduate school, I have also learned an enormous amount as a result of my friendships. During no other period of time in my life have I had so much fun, learned so much about myself as an individual, and developed relationships so rich and rewarding. I would like to thank Larry Stein, Kimi Cohen, and David DiLillo for sharing this amazing experience with me.

Finally, I would like to extend my sincere gratitude to my parents, Jan Stadtlander and John and Ana Maria McCaa, to my brothers, Johnny and Christopher McCaa and Charles Goolsby, to my sister, Leslie Drinkwalter, and to their families. With their love, support, and care packages, I have been able to face even the most daunting challenges.

TABLE OF CONTENTS

LIST OF TABLES

Variables Affecting Premature Termination from Group Parent-Child Interaction Therapy

CHAPTER I: INTRODUCTION

Premature termination from treatment is a significant problem with a broad range of implications for research and clinical practice (Kazdin, Mazurick, & Bass, 1993). From a conceptual perspective, the loss of cases from treatment-outcome studies raises questions about the variables that place individuals at risk for premature termination. A diverse set of client, therapist, and treatment variables needs to be understood to achieve improved retention of clients in treatment. From a methodological perspective, attrition can threaten all aspects of experimental validity by altering the random composition of groups, reducing statistical power, and limiting the generality of the results (Kazdin, 1992). From a clinical perspective, the loss of cases over the course of psychotherapy means that many people who come in for treatment receive few or no services.

The treatment of children and adolescents differs from the treatment of adults in ways that may directly influence premature termination (Kazdin et al., 1993). First, youth are typically referred to treatment by someone else and usually do not experience or report problems which they wish to resolve. Thus, treatment motivation depends largely on parents, teachers, or the referral agents who identify the problems. Additionally, treatment of children and adolescents most often involves parents directly in treatment (Kazdin, Siegel, & Bass, 1990). Consequently, continuation in treatment is likely to be influenced by parent

characteristics and larger family dynamics in addition to individual child characteristics (Kazdin et al., 1993).

Among childhood dysfunctions, conduct problems (e.g., oppositional, aggressive, and antisocial behavior) represent the domain most frequently treated in clinical practice in the U.S. (Kazdin, Siegel, et al., 1990). They are also the most commonly studied disorders in treatment research (Kazdin, Bass, Ayers, & Rogers, 1990). Children with conduct problems exhibit a wide range of behaviors that can be classified as antisocial to some degree, such as aggression, temper tantrums, disobedience, destructiveness, rudeness, defiance, lying, restlessness, and disruptiveness. To be considered as having conduct problems, children need to show several of these behaviors, persisting for at least six months and occurring more frequently than in most children of the same age. This definition, which encompasses the Disruptive Behavior Disorders, Oppositional-Defiant Disorder and Conduct Disorder, as described by the Diagnostic and Statistical Manual of Mental Disorders (4th ed.; DSM-IV; American Psychological Association, 1994), will be used in the present paper because it has wide empirical support.

The above cluster has been validated in numerous factor-analytic studies (see Quay, 1986, for a review), using data from a range of sources and with children of different ages (Achenbach, 1966; Hewitt & Jenkins, 1946; Mattison, Cantwell, & Baker, 1980; Peterson, 1961). Such studies have consistently revealed a cluster of intercorrelated items that can be labeled conduct problems

or externalizing disorders and that is distinct from an anxious-withdrawn cluster. Additionally, longitudinal studies demonstrate that this cluster tends to be highly persistent over time (Achenbach & Edelbrock, 1981; Campbell & Ewing, 1990; Fischer, Rolf, Hasazi, & Cummings, 1984; Loeber, 1982; Richman, Stevenson, & Graham, 1982; Robins, 1966, 1978).

Theorists and researchers have emphasized aspects of the family socialization process in the development and maintenance of conduct problems (e.g., Patterson, 1986). Research suggests that a variety of parental characteristics and family variables are associated with conduct problems, including socioeconomic disadvantage, parent stress, parent psychopathology, adverse childrearing practices (poor supervision, harsh punishment), and parent history of antisocial behavior (see Kazdin, 1987a; Pepler & Rubin, 1991; Robins & Rutter, 1990; Werner & Smith, 1992). Researchers have also found that variables such as maternal criticism, irritability, and low warmth toward the child were more strongly related to the presence of conduct problems in preschoolers than were global social variables such as low socio-economic status, poor housing, and marital discord (Needlman, Stevenson, & Zuckerman, 1991; Richman, Stevenson, & Graham, 1982). These findings suggest that parent-child interactions may be at least as important as the broader social environment in determining child behavior (Gardner, 1992).

Researchers have attempted to determine how adverse social and environmental variables impact parent-child interaction and, in turn, child

behavior. These efforts were motivated by studies which found an association between maternal depression and child conduct problems (e.g., Griest, Forehand, Wells, & McMahon, 1980; Webster-Stratton, 1988). Patterson (1982) drew together research from a number of sources to develop a model of possible causal pathways. His model suggested that both chronic adversity (e.g., poverty, marital discord) and more temporary crises can have a direct effect on mother's mood. Consequently, mothers under a great deal of stress are less able to deal consistently and effectively with their children, such as monitoring their whereabouts, enforcing rules, encouraging appropriate behavior, and finding constructive solutions to crises. In turn, this less effective parenting can directly and adversely impact child behavior. In the same vein, Gross and colleagues (1994) tested a model of maternal self-efficacy during toddlerhood and found that the more depressed mothers feel, the more likely they are to rate child behavior as difficult. Moreover, the more difficult temperament is perceived to be, the lower the mothers' estimates of their parenting self-efficacy. In turn, the lower their self-efficacy, the greater their depression.

In light of the crucial role of parents in child treatment and the parent and family dysfunction often associated with these problems, it has been suggested that children and adolescents with conduct problems are especially likely to be at relatively high risk for dropping out of treatment (Kazdin et al., 1993). In fact, longitudinal studies find that youth higher in aggressive and antisocial behavior show greater premature termination from treatment (see Capaldi & Patterson,

1987; Lefkowitz, Eron, Walder, & Huesmann, 1977). For those families that do remain in treatment, good clinical outcomes can be difficult to achieve when children's problems are complicated by other indices of family adversity (e.g., maternal depression, marital discord, single parent status, substance abuse, or poverty); (Sanders, 1992; Webster-Stratton, 1990a).

Child conduct problems have extensive implications for the future functioning of these individuals. Even when these problems are identified and treated early, they are often associated with more serious behavioral and psychiatric diagnoses in later stages of development (Baum, 1989; Robins, 1966). Furthermore, it is increasingly evident that childhood conduct problems, if left untreated, are associated with impaired functioning in later life (Quay, 1986). McMahon and Wells (1989) reported that, as adults, children who exhibit disruptive and oppositional behaviors are likely to engage in more serious antisocial behavior and are at increased risk for psychiatric impairment, poor occupational adjustment, low educational attainment, marital distress or disruption, less social participation, and poor physical health.

The array of available treatments for conduct problems are typically classified according to the person(s) targeted for behavior change (child, child and family, community, etc.), the level of cognitive functioning or age of the child, and/or the type of behavior problem present (overt, covert, mixed). Available forms of treatment include individual, group, and family therapies, behavior

therapy, problem-solving skills training, parent training, residential treatment, and pharmacotherapy (Kazdin, 1987b).

The most extensively researched and most effective interventions for pre-adolescents with conduct problems are parent training programs (Kazdin, 1987a; McMahon & Wells, 1989; O'Dell, 1985). The parent training model involves teaching parents improved behavior management techniques and altering parent-child interaction patterns to become more prosocial and less coercive. Additionally, parent training offers support and a reference group for parents, provides parents with a knowledge base in child development and theoretical perspectives on parental guidance and discipline, and attempts to reduce frustration levels (Beavers & Hampson, 1990). This type of intervention is the mainstay of behavior therapy for children with conduct problems (Patterson, 1982). Redl (1976) contends that traditional insight-oriented, client-centered psychotherapy is not enough to produce changes in children with conduct problems and that modification of the natural environment is important. Additionally, Bernal, Klinnert, and Schultz (1980) noted that client-centered therapy was less effective than parent training, and Forehand and McMahon (1981) noted that parents were less satisfied with the client-centered approach.

Parent training for conduct problems in children have demonstrated improvements in both child and parent behaviors over the course of treatment. Eyberg and Ross (1978) showed that problem behaviors of oppositional children can be substantially reduced to within normal limits following treatment, and

treatment effects may also extend to non-targeted behaviors and untreated siblings (Eyberg & Robinson, 1982). Moreover, treatment gains from parent training programs have been maintained from one to four and one half years following treatment (Forehand & Long, 1988; Webster-Stratton, 1982).

Increases in child compliance and decreases in child deviant behaviors have also been shown to accompany parent changes (Eyberg & Robinson, 1982; Webster-Stratton, 1984). Following parent training, parents have been shown to reduce their overall use of commands and questions, make their commands clearer and more direct, and increase their use of rewards and contingent praise (Forehand & McMahon, 1981). In addition to behavioral changes, parental attitudes towards their children improve (Eyberg & Matarazzo, 1980) and parents have been found to be less depressed (Griest & Wells, 1983) following treatment.

Although reports of success with parent training with conduct-problem children are high, the rates of parent dropout are also high (Forehand, Middlebrook, Rogers, & Steffe, 1983; Frankel & Simmons, 1992). An early study by Johnson and Christensen (1975) reported that 31% of families entering a behavior modification program terminated prematurely. Frankel and Simmons (1992) found that 59% of their subjects who initiated parent behavioral training terminated prematurely, and Eyberg and Johnson (1974) observed that 65% of their total referrals dropped out of their parent training program. Additionally, Firestone, Kelly, and Fike (1980) observed a 50% dropout rate with parents

treated in groups and Firestone and Witt (1982) found that 35% of parents who agreed to treatment finished a parent-training program. Forehand et al. (1989) examined 8 journals containing parent training studies and discovered that the average premature termination rate was 28%.

Though premature termination from parent training represents a significant problem, little attention has been devoted to identifying reliable predictors of this phenomenon or to utilizing this information in a clinically useful way. It is estimated that only 1-2% of the research addressing premature termination in general focuses on children and adolescents (Armbruster & Kazdin, 1994; Pekarik & Stephenson, 1988; Baekeland & Lundwall, 1975; Flick, 1988) and that less than half of the parent training literature has formally addressed premature termination (Forehand et al., 1989; Frankel & Simmons, 1992).

Of the studies that did examine rates of premature termination from parent training, even fewer specifically investigated the variables which may predict dropout. Moreover, extant studies are characterized by failure to replicate previous findings and by few reliable differences between those who complete treatment and those who terminate prematurely (e.g., Armbruster & Kazdin, 1994; Gould, Shaffer, & Kaplan, 1985; McAdoo & Roeske, 1973; Pekarik & Stephenson, 1988; Wierzbicki & Pekarik, 1993). However, the few studies that have examined predictors of attrition identify maternal distress as an important variable which has deleterious effects on treatment outcome and serves to differentiate those who complete parent training programs from those who

terminate prematurely (Albin, Lee, Dumas, & Slater, 1985; Forehand et al., 1989; Forehand, Furey, & McMahon, 1984; Griest & Forehand, 1982). Given the paucity and inconsistency of the current premature termination literature in the area of parent training, it remains an important goal to identify the variables that contribute to dropping out of parent training prematurely (Kazdin et al., 1993).

One type of parent training program in which parents are taught a set of operant procedures for reducing children's problem behaviors and increasing prosocial behavior is Parent-Child Interaction Therapy (PCIT). PCIT is characterized by an emphasis on teaching parents traditional play-therapy skills to improve the quality of the parent-child relationship and developing problem-solving skills to develop strategies for managing new problem behaviors. Parents are typically trained sequentially in two distinct types of parent-child interaction. The first phase, Child-Directed Interaction (CDI), consists of teaching parents skills to enhance communication and to manage behavior with their child during play. This is accomplished by allowing the child to lead the play activity while the parent describes, imitates, and praises the child's appropriate behaviors and reflects appropriate speech while ignoring inappropriate behavior. During Parent-Directed Interaction (PDI), the disciplinary phase of PCIT, parents are taught how to direct their child's activity and to use clear, positively stated commands and consistent consequences for behavior. Children are praised for compliance to the parent's commands and are placed in a time-out chair following noncompliance. CDI is taught first, and

PDI is taught following mastery of the CDI skills. Description and modeling are used to teach parents each type of interaction.

Subsequently, each parent-child dyad is instructed to practice the skills in a playroom during which the parent is coached by a therapist via a bug-in-ear device from behind a one-way mirror. Parents are then asked to practice the interactions with the child at home each day during a "special time". Following training and practice in both CDI and PDI, parents are taught to generalize the discipline strategies first to the home setting outside of special time and then to public settings.

In order to maximize the availability, accessibility, cost-effectiveness, and support offered by PCIT, it is often provided in a group format. This way, waiting lists are minimized, the cost of treatment to the parents and to the providers is decreased, and the opportunity for social support among parents in the group is enhanced. A study that specifically compared the effectiveness of group PCIT and individual PCIT found that families in group treatment did not differ significantly from families in individual treatment on treatment outcomes, parental cooperation with the program, or satisfaction with treatment (Grief, 1978). Moreover, Grief reported that group PCIT only utilized 71% of the therapists' time required by individual PCIT. Another study demonstrated that parents of preschoolers with severe behavior problems were significantly more likely to engage in treatment when offered community-based parent-training groups versus individual clinic-based parent training (Cunningham, Bremner, &

Boyle, 1995). These parents also reported greater improvements in behavior problems at home and better maintenance of these gains at six-month follow-up. A third study (Pevsner, 1982) comparing group parent training versus individual family therapy found that the group condition was more efficient in terms of therapist time and number of families achieving an experimental criterion for behavioral change and that both groups of parents were equally satisfied with therapy.

Surprisingly, no research has been published which examines the specific impact of group treatment on premature termination or which compares dropout rates from group therapy and individual therapy, either in the general treatment literature or the parent training literature. For those parent training studies that do report dropout rates, the percentage of parents withdrawing from treatment prematurely is typically between 45 and 50% whether they receive parent training in groups or individually (Firestone & Witt, 1982). However, the diversity of parent training programs studied (e.g., discussion/didactic approaches versus in-vivo practice approaches versus combinations) and the variable length of treatment required (ranging from 6 to 14 sessions) make comparisons of these studies difficult. Undoubtedly, differences in patient populations, such as children who are primarily hyperactive (Forehand et al., 1989) as compared with antisocial children (Kazdin & Mazurick, 1994), and differences in treatment formats, such as individual (Frankel & Simmons, 1992) versus group (Firestone,

Kelly, & Fike, 1980) treatment, contribute to the varying dropout rates in the parent training literature (Firestone & Witt, 1982).

Because parent and child characteristics associated with child clinical problems may vary widely (Kazdin et al., 1993), it has been suggested that patterns of variables reliably associated with premature termination may be obscured by heterogeneity in the clinical problems, samples, treatments, and settings across studies. Consequently, it may be necessary to consider variables associated with more homogeneous groupings of cases (e.g., specific populations, specific treatment modalities) as an initial step in developing conceptual models and for testing the generality of these models across diverse groups and conditions. One approach which may be especially illuminating is the examination of cases treated within a specific treatment protocol for a circumscribed set of presenting problems. The present study is designed to examine the variables related to premature termination in a population of young children and their families referred for treatment of conduct problems who were treated in small Parent-Child Interaction Therapy groups. Several domains were investigated because of the pervasive role they play in the onset, prognosis, and treatment of conduct problems and in premature termination in general. These domains include variables related to the parent (parenting stress, depression, parenting self-efficacy, and maternal readiness for change), the child (severity of behavior problems as rated by mothers), and treatment (therapist experience and phase of treatment: CDI [first six weeks] or PDI [last six weeks]).

Maternal reports of stress have been linked in the literature to premature termination from treatment for child conduct problems. In addition to the stress provided by aggressive and noncompliant child behavior, major life events and minor daily stressors provide a context that influences the way parents evaluate their children's behavior and react to difficulties. Mothers who experience high levels of stress are less able to respond to their children in a warm, sensitive, and competent manner (Gelfand, Teti, & Fox, 1992). When children manifest major and persistent behavior problems, mother-child interactions tend to be even more stressful and less rewarding (Mash & Johnston, 1983).

In addition to its influence on actual parenting behavior and parent-child interaction, maternal reports of stress also relate to treatment outcome and continuation in treatment. In the child treatment literature, mothers of children with conduct problems who prematurely terminate from treatment report greater stress related both to parenting and to life events. For example, Kazdin (1990) examined premature terminators (families who dropped out with fewer than 25% of the sessions completed) from a six-month outpatient treatment program which included parent training in addition to cognitive therapy for the child. Results indicated that the premature terminators in this study reported greater stress from their relations with their child, their own role as a parent, and life events on the Parenting Stress Index (PSI; Abidin, 1983). These results were replicated in two similar studies of premature termination from parent training for child antisocial behavior (Kazdin & Mazurick, 1994; Kazdin et al., 1993). However, no

extant studies have specifically examined maternal reports of stress as they contribute to dropping out of PCIT.

Research on premature termination in the area of marriage and family treatment has also looked at the severity of dysfunction in persons other than the identified patient as a predictor of premature termination, especially when the identified patient is a child (Bischoff & Sprenkle, 1993). Prior research has linked depression in mothers to dropping out of treatment for youth with conduct problems. Given the pervasive detrimental impact maternal depression may have in the daily functioning among families of antisocial children, it follows that it may also affect premature termination from treatment (Kazdin et al., 1993). For example, Kazdin (1990) found that mothers in families who withdrew prematurely from treatment for their child's antisocial behavior endorsed more items on the Beck Depression Inventory (BDI; Beck et al., 1961) than did continuing mothers. Similar findings were reported by Griest and Forehand (1982), McMahon and colleagues (1981), and Reid and Patterson (1976). The present study investigates the role that maternal depression plays in determining premature termination for families in group PCIT.

Prior to the present study, no research has been conducted which examines parenting self-efficacy with regards to discontinuing parent training prematurely. Parenting self-efficacy, or parenting self-esteem, encompasses both perceived self-efficacy as a parent and the satisfaction derived from parenting (Johnston & Mash, 1989). Bandura (1982) defined self-efficacy as

expectations for successful coping in upcoming situations. In the parenting context, this refers to the degree to which the parent feels competent and confident in handling child problems. Bugental and Shennum (1984) have shown that this sense of parenting efficacy functions as a moderator of parent-child relationships and that caregivers with low levels of perceived control over child behavior are sensitized to and cope ineffectively with difficult child behavior. An unrelated study by Longo, Lent, and Brown (1992) investigated social cognitive variables in the prediction of client motivation and attrition among university counseling center clients. These authors found that self-efficacy regarding ability to negotiate counseling tasks contributed to motivation beyond client or counselor background variables. Also, self-efficacy and motivation each contributed to the prediction of client return after intake. In another unrelated study, Bernier and Avard (1986) evaluated the utility and validity of Bandura's self-efficacy construct in a weight-reduction program. Results demonstrated that completers of the program had a substantially higher level of self-efficacy than dropouts over treatment. Based on these findings and given the demanding nature of PCIT, it seems relevant to incorporate self-efficacy related to parenting in a study concerning premature termination from PCIT.

In one general investigation of premature termination which attempted to identify early dropouts by means of multiple criteria, client readiness for change most was most strongly impacted the likelihood of premature termination from

treatment (Cartwright, Lloyd, & Wicklund, 1980). A useful framework for investigating client readiness for change is the transtheoretical model of change as proposed by Prochaska and DiClemente (1982). Thus far, this model has been used in investigation of how stages of change influence therapeutic outcome in areas such as smoking cessation, weight loss, and alcoholism (DiClemente, & Prochaska, 1982; McConnaughy, Prochaska, Velicer, & DiClemente, 1983; Prochaska & DiClemente, 1982, 1985; Prochaska, DiClemente, & Norcross, 1992). Results suggest that particular stages of change relate to greater client readiness for change, and that individuals who are in these particular stages report more positive outcomes than do other individuals (McConnaughy et al., 1983; Prochaska & DiClemente, 1982, 1985; Prochaska et al., 1992). Given this support for the relationship of the transtheoretical model's stages of change to client readiness to initiate therapeutic change and therapeutic outcome, these stages may predict which clients are at risk for premature termination.

Prochaska et al.'s (1992) most recent conceptualization of the model includes five stages of change: precontemplation, contemplation, preparation, action, and maintenance. In precontemplation, the individual is either unaware of or has no desire to change behavior. In contemplation, the individual is considering the need to change. In preparation, the individual has decided to take action shortly with regard to the problem or has unsuccessfully acted on it in the recent past. In action, the individual has begun effectively to change

behavior, but has not changed to the desired level. The final stage is maintenance, and it is characterized by significant behavior change and attempts to prevent relapse or to consolidate previous changes. Most clients are thought to experience one or more of the stages and to recycle through the model (Smith, Subich, & Kalodner, 1995). Prochaska et al. (1992) supported their stage model with a review of twelve years of clinical research in which the stages were found to relate to client self-change behavior, persistence in treatment, differential treatment effectiveness, and treatment outcome.

In general, persons further along in the stages tend to make more progress and benefit more from therapy (Prochaska et al., 1992). McConnaughy and colleagues (1983) hypothesized that individuals who enter therapy at the precontemplation or contemplation stage are less ready to initiate change and may be more likely to terminate prematurely from treatment than those who enter treatment at later stages. Prochaska and colleagues (1992) found that premature termination was most likely to take place when clients were in the precontemplation stage. A study by Smith et al. (1995) indicated that individuals who terminated from therapy prematurely could be distinguished from those who did not prematurely terminate by examining the stage of change at which they entered therapy. In fact, all nine subjects in the precontemplation stage terminated prematurely, and those who entered therapy in the preparation and action stages did not terminate prematurely. Premature terminators scored highest on the scales indicating the precontemplation and contemplation stages,

and treatment completers scored highest on the preparation stage. Contemplation was not clearly related to premature termination. Despite the demonstrated relationship between readiness for change and premature withdrawal from therapy, there is no extant research which examines readiness for change as it relates to premature termination from parent training or PCIT.

Prior research has also suggested that the severity of antisocial and aggressive behavior is likely to predict premature termination from treatment (Kazdin et al., 1993). For example, Kazdin (1990) reported that among children with disruptive behavior disorders, those who are more seriously disturbed (via child and parent report) are more likely to drop out of treatment. This finding was replicated in a similar study by Kazdin et al.(1993). Further, an examination of early and late terminators from a treatment program for children exhibiting oppositional, aggressive, and antisocial behavior (ages 4-13) indicated that early dropouts were characterized by more severe child impairment in relation to conduct disorder and delinquency, academic dysfunction, and social behavior (Kazdin & Mazurick, 1994). Given the impact of child dysfunction on family functioning in general and parent-child interactions specifically, it would be helpful to better understand how the severity of child conduct problems influences persistence in treatment for these problems.

In addition to client (i.e., parent and child) variables which affect premature termination, variables related to the therapist also may play a role in client dropout. Research suggests that, in the area of marriage and family therapy,

therapists with fewer family therapy training experiences have higher dropout rates (Bischoff & Sprenkle, 1993). These findings reflect similar patterns in previous research in adult psychotherapy (DuBrin & Zastowny, 1988). For example, Frankel and Simmons (1992) reported that, in their study of subjects in a parent behavioral training program, the only variable associated with persistence through treatment (10 one-hour individual didactic sessions) was therapist's level of training. Those who dropped out of treatment were more likely to have worked with a trainee rather than a staff therapist. Based on these findings, therapist type is an important variable to be examined in studies of treatment dropout.

The following section reviews the literature regarding premature termination and how several parent (e.g., maternal readiness for change, parenting stress, depression, and parenting self-efficacy), child (e.g., severity of conduct problems), and treatment (e.g., phase of therapy [CDI versus PDI], therapist experience) variables relate to the onset, prognosis, and treatment of disruptive child behavior and to dropping out of treatment. Following the literature review, a study is described that examines the relationship between these variables and premature termination from PCIT.

CHAPTER II: REVIEW OF THE LITERATURE

Premature Termination

Rather than viewing premature termination from therapy as a hindrance to research, Flick (1988) encouraged researchers to investigate this phenomenon with interest. Given that dropouts do differ from completers, at least on the dimension of participation, it is helpful to identify and understand other variables which make these groups different in hopes of revealing the causes and/or correlates of attrition. In fact, three major categories of variables have been investigated with regards to premature termination from therapy, including client variables, therapist variables, and client-therapist interaction variables (Flick, 1988). Unfortunately, however, reviews of research in this area have found contradictory results across studies (Baekeland & Lundwall, 1975; Bischoff & Sprenkle, 1993; Brandt, 1965; Garfield, 1978).

One critical problem which makes these studies difficult to compare is the disagreement among researchers over an operational definition of premature termination (Flick, 1988; Kazdin & Mazurik, 1994). As early as 1965, Brandt identified a lack of consistency in definition as a primary barrier to consistent results across "dropout" studies in general, and Bischoff and Sprenkle (1988) confirmed that this is still a problem in family treatment research. Most commonly, studies use an arbitrary number or percentage of sessions completed as the criterion (Bischoff & Sprenkle, 1993; Flick, 1988). Other studies (Pekarik, 1985) use therapeutic judgments about whether a termination early in therapy is

completed short-term therapy, or if termination was therapeutically contraindicated and the client was a dropout.

Another factor contributing to the inconsistent findings in this body of literature is related to the variety of settings, populations, and treatments which have been studied (Flick, 1988). It is not surprising that the variables that discriminate between dropouts and completers differ according to the population (i.e., sample, treatment, and setting) under study. Therefore, Flick urges researchers to view every treatment study as a prospective study of who drops out of the type of treatment under investigation, given the population.

Although premature termination has been and continues to be intriguing to clinical researchers and disconcerting to clinicians, empirical study of the phenomenon in child and family treatment is lacking (Kazdin et al., 1993). Most of what is known about client dropout is from the study of individually-oriented therapies with adults (Bischoff & Sprenkle, 1993). For example, in Baekeland and Lundwall's (1975) landmark review of 362 articles on therapy dropouts, amassed prior to 1975, no studies were cited that examined family therapy, and only five studies were focused on clients seeking services from child guidance clinics. However, in the case of children and adolescents, failure to receive the intended treatment is no minor problem. Several reports indicate that anywhere between 50% and 75% of children referred for treatment either do not initiate treatment or terminate prematurely if they do begin (e.g., Ewalt, Cohen, & Harmatz, 1972; Pekarik & Stephenson, 1988; Singh, Janes, & Schechtman,

1982; Vaile-Val, Rosenthal, Curtis, & Mahron, 1984). Recently, more research has been conducted which addresses premature termination from child treatment, especially from treatment of children with conduct problems and their families (e.g., Frankel & Simmons, 1992; Kazdin, 1990; Kazdin & Armbruster, 1994). However, similar to their counterparts in the adult treatment literature, these studies have produced few reliable differences among several child, parent, and family domains (e.g., Gould et al., 1985; McAdoo & Roeske, 1973; Pekarik & Stephenson, 1988; Weisz, Weiss, & Langmeyer, 1987). For example, a given variable (e.g., maternal depression) is associated with premature termination in some studies (McMahon et al., 1981; Reid & Patterson, 1976) but not in others (Kazdin, 1990; Kazdin et al., 1993).

Inconsistencies in defining premature termination causes problems in the comparison of studies in the child and family treatment literature as it does in the adult literature. Though most of these studies define premature termination based on a particular number or percentage of sessions completed, the length of treatment and the amount of sessions chosen as the criterion varies widely and as a function of the clinical problems, samples, treatments, and settings encompassed by separate studies. Two recent studies serve as an example.

Kazdin and colleagues (1993) investigated risk for attrition in the treatment of antisocial children and families and defined completers as those who finish an entire 6-month treatment regimen (average number of sessions = 23.3) and terminators as those who completed less than six sessions (average = 3.7).

Cognitive problem-solving skills training for the child and parent management training were core treatments and were provided alone or in combination to different cases, determined on a random basis. Eleven clinicians served as therapists. In contrast, Weisz and colleagues (1987) examined dropouts from child psychotherapy and defined completers as those who participated in at least five therapy sessions and did not terminate against the recommendation of the therapist (average = 13.27) and terminators as those who did not participate in any treatment sessions following the intake session. Therapy was provided in one of nine clinics by one of sixty-one therapists and was described only as "child psychotherapy." Interestingly, Kazdin et al.'s (1993) study, which examined a specific clinical problem and treatment program, identified several variables which placed families at increased risk for dropping out of therapy. Weisz et al. (1987) found no reliable group differences, supporting the importance of narrowing the type of treatment and population studied when examining variables that contribute to premature termination.

For the purpose of the present study, the variables which are related to dropping out of treatment for child conduct problems and parent training will be examined most closely.

Child Conduct Problems and Parent-Child Interactions

Evidence suggests that the causes of behavioral disorders are multifaceted (Gardner, 1992; Rutter, 1985). Individual differences in children's learning styles (Daugherty & Quay, 1991; see Hogan & Quay, 1984, for a review),

temperament (Plomin, 1983), and genetic make-up (Quay, 1986; Rutter et al., 1990) are likely to have an impact on whether children develop conduct problems. Additionally, these variables may interact with parenting styles to produce such behavior problems (Rutter, 1978). Recent models of externalizing child disorders have emphasized the family context surrounding these problems (Johnston, 1988; Johnston & Pelham, 1990). It has been proposed that maternal dysfunctions such as depressed mood and life stress interfere with effective parenting and the resulting parenting deficits exacerbate, if not create, child conduct problems. Moreover, Griest and colleagues (1980) suggested that an interaction of child behavior and maternal personal adjustment (e.g., presence of depression, anxiety, and maternal problems) is the critical factor that determines whether mothers will perceive their children as being in need of psychological services.

As mentioned previously, models have been proposed which attempt to explain the mechanisms by which maternal variables such as reported depression and stress exert their effects on parent-child interaction (e.g., Gross, Conrad, Fogg, & Wothke, 1994; Patterson, 1982). Briefly, Patterson (1982) posited that maternal distress (i.e., depression and stress) leads to less effective parenting, which, in turn may increase child behavior problems. Additionally, Gross and colleagues (1994) found support for their theory that increased maternal depression is related to increased perceptions of child conduct problems and, in turn, lowers parenting self-efficacy.

Researchers have also sought to understand what aspects of parent-child interaction contribute to the causation and maintenance of conduct-disordered behavior in children (e.g., Gardner, 1987, 1989; Patterson, 1982). Patterson (1982) theorized that much child problem behavior represents an attempt to remove the unwanted intrusions of others, including their nagging, demanding, or criticizing. Indeed, research comparing the interactional processes in families with and without conduct-problem children has demonstrated that mothers of children with conduct problems were much more likely to capitulate when conflict begins following a command, allowing these children to escape from parental demands (see Gardner, 1992, for a review).

The correlational literature in this area has documented a strong and consistent link between certain parenting styles and problematic child behavior (Kendziora & O'Leary, 1993). Specifically, parenting is likely to be dysfunctional when the parent is uninvolved and not responding to the child with sufficient warmth and stimulation, overly harsh and controlling, and unable to establish reasonable expectations and limits for the child (e.g., East, 1991; Wolfe, 1985). Treatment outcome literature provides more information about dysfunctional parenting. Kendziora and O'Leary (1993) reviewed this literature and pointed out that dysfunctional parenting is also characterized by inadvertent attention to inappropriate child behavior, vague or critical communication with the child, and inconsistent and generally inept in managing situations that call for discipline.

Parental variables which are related to the onset and prognosis of child conduct problems also relate to treatment outcome (Kazdin, 1990). Mothers with a child whose behavior problems are severe, who are experiencing multiple sources of stress and symptoms of depression, and who suffer socioeconomic disadvantage are not likely to respond well to treatment or to maintain therapeutic gains (Dumas & Wahler, 1983; Webster-Stratton, 1985). Difficulties in these domains may also affect premature termination from treatment, given the pervasive influence such variables may have on the parent-child relationship (Kazdin, 1990). Several studies which have specifically examined the variables which discriminate between families who terminate from treatment for child conduct problems from those who do not will be reviewed below.

Kazdin (1990) examined differences between children (N=81, ages 7-13 years) and families who completed treatment for severe antisocial behavior versus those who terminated prematurely. Treatment consisted of 25 sessions of cognitively-based treatment for children and 16 sessions of parent management training and was provided concurrently for children and parents. In this study, terminators were defined as those who dropped out with less than 25% of the sessions completed, whereas completers were those who finished more than 75% of treatment. These criteria were chosen because 25% of the treatment program, approximately 5 or 6 sessions, represents an initial stage of treatment and occurs well in advance of the major portion of treatment. Kazdin found that 25 families terminated prematurely (31%) and 56 families (69%)

completed treatment. Results indicated differences between completers and terminators on measures of child dysfunction (Child Behavior Checklist, Achenbach & Edelbrock, 1981; Self-Report Delinquency Checklist, Elliot & Ageton, 1980), sources of parental stress (Parenting Stress Index (PSI), Abidin, 1983), and socioeconomic disadvantage. However, these results did not demonstrate differences in maternal depression (Beck Depression Inventory, Beck, 1961).

A similar study by Kazdin, Mazurick, and Bass (1993), which was described earlier in this section, took the task of identifying risk factors for premature termination from treatment for antisocial behavior one step further. They examined whether the differences between groups across the domains of interest could predict termination from treatment. Thirty-nine percent (N = 62) of the families in this study dropped out prior to completing the entire treatment regimen (i.e., "terminators"). Significant differences were found for measures of socioeconomic disadvantage (educational and occupational attainment, receipt of social assistance, overall income level), parental stress (PSI), child antisocial behavior (Research Diagnostic Interview, Kazdin et al., 1993; Interview for Antisocial Behavior, Kazdin & Esveldt-Dawson, 1986), and child academic/educational functioning (IQ scores, achievement test scores, parent interview). Each of the variables that distinguished terminators and completers (i.e., risk factors) was included in the analyses for predicting risk for premature termination. Results indicated that total number of risk factors differentiated

terminators from completers and that increases in the number of factors present was related to an increase in the proportion of cases who drop out. However, parent psychopathology (depression, overall symptoms) and overall ratings of child emotional and behavioral problems across several domains were not significant in differentiating terminators from completers.

Building on this study, Kazdin and Mazurick (1994) proposed that these types of variables would vary as a function of whether families dropped out early or late in treatment. Their results revealed that a different pattern of variables distinguished between groups of children and families who terminated treatment early (N = 75 or 29.2%) versus those who terminated later in treatment (N = 47 or 18.3%). They examined child, parent, and family variables that predicted dropping out from therapy among their sample of children (ages 4-13) referred for the treatment of oppositional, aggressive, and antisocial behavior. Several variables related to family (e.g., socioeconomic disadvantage, adverse child-rearing practices), parent (e.g., stress, life events, history of antisocial behavior), and child functioning (e.g., severity and chronicity of antisocial behavior, lower IQ, peer relations) predicted premature termination from treatment. The results of this study also indicated that early terminators (e.g., completed less than 6 sessions) could be reliably distinguished from later terminators (e.g., dropped out from 7 to 14 weeks of treatment) and that different variables relate to each subgroup's risk for dropping out.

Based on these findings, Kazdin and Mazurick (1994) argued that though studies that combine all individuals who drop out at any point may still identify reliable differences even when subgroups of dropouts are ignored, this approach may overlook variables that influence one subgroup but not another. Although all completers (N = 135 or 52.5%) and all dropouts (N = 122 or 47.5%) differed reliably in their study, some variables predicted one subgroup of dropouts but not the other subgroup or the combined group of dropouts. Therefore, combining all dropouts into a single group is potentially misleading and can obscure understanding. These authors reiterated the argument that the inconsistencies in the extant research on premature termination from child treatment may be due to problems in defining and delineating subgroups of dropouts. Thus, though reliable differences can be identified even when all treatment noncompleters are combined into a single group and compared with completers, it may be advantageous to examine subgroups of noncompleters to better understand who is at risk for dropping out at different points in therapy and what may be done clinically to retain families.

In summary, the research in the area of dropping out of treatment for conduct problems in children implicates socioeconomic disadvantage, maternal stress, adverse child-rearing practices, and severity of child behavior problems (Kazdin, 1990; Kazdin & Mazurick, 1994; Kazdin et al., 1993) in putting families at risk for premature termination. None of these studies found maternal psychopathology (i.e., depression) to be related to dropping out of treatment. An

important contribution of this literature is the notion of examining subgroups of dropouts (e.g., early versus late terminators). However, this research is limited in that a broad range of ages (from 5 to 13 years) and a mixture of treatments (child problem-solving skills training and parent management training in different combinations) were investigated. Additionally, despite the acknowledged link between child conduct problems and parent-child interactions, the treatment programs provided in these studies do not specifically target the parent-child relationship. Thus, a review of premature termination in the parent training literature may be helpful for further understanding this phenomenon in the treatment of child conduct problems.

Parent Training

Several years ago, Hanf (1969; as cited in McNeil, Eyberg, Eisenstadt, Newcomb, & Funderburk, 1991) developed a procedure for modifying severely disrupted behavioral interaction patterns between multiply-handicapped children and their mothers in standard laboratory situations. Since that time, several of her students have used the Hanf program to treat noncompliant (e.g. Eyberg & Robinson, 1982; Forehand & McMahon, 1981) and hyperactive children (e.g., Barkley, 1981). Distinguishing Hanf's approach from most behavioral treatments is its focus on restructuring family interaction patterns rather than simply reducing targeted maladaptive behaviors. The Parent-Child Interaction Training Program (Eyberg, 1988) is a modification of Hanf's original model and places a

strong emphasis on strengthening the parent-child relationship in addition to effective behavioral consequences for appropriate and inappropriate behavior.

In PCIT and most parent behavioral training programs, prior to treatment, a thorough assessment is conducted, which consists of interviews with the parents and child, parent-completed questionnaires, and direct observation of the parent-child dyads. Following the intake process, each skill is first presented in a didactic format to the parents without the child present, followed by modeling by the therapist and then role-playing by the parents with the therapist. The parents are then observed in the clinic as they practice the skill with their child. During this practice, the therapist provides guided verbal feedback to the parents. Following the treatment session, the parents complete homework assignments designed to increase use of the parenting techniques in the home setting. These training programs teach both positive ways for changing behavior (attending, reinforcement) and the use of disciplinary techniques (ignoring, giving commands, time-out). This program teaches positive strategies before disciplinary techniques based on the notion that discipline is most effective when it exists in the context of generally positive interactions between parents and children (e.g., Eyberg, 1988; Wierson & Forehand, 1994).

Treatment outcome data based on observations in the clinical laboratory setting demonstrate that parent behavioral training programs in general are effective in reducing child noncompliance relative to pretreatment levels (Bernal, Klinnert, & Schultz, 1980; Eisenstadt, Eyberg, McNeil, & Newcomb, 1993;

Eyberg & Robinson, 1982; McNeil et al., 1991; Wierson & Forehand, 1994). In addition, parents significantly increase their use of rewards and significantly decrease their use of commands and questions (which can lead to coercive interactions) from baseline to treatment. In contrast, waiting-list control subjects do not change in these child and parent behaviors (Forehand & Long, 1988; Forehand & McMahon, 1981). Even more remarkable is that treated children are at least as compliant as community control subjects (i.e., children who have not been referred for treatment), despite having had higher levels of noncompliance prior to treatment. Additionally, it has been demonstrated that behavior change in the treated child generalizes from the clinic to the home setting (e.g., Forehand & McMahon, 1981; Peed, Roberts, & Forehand, 1977) and from the treated behavior (noncompliance) to other inappropriate behaviors that were not the target of treatment (e.g., whining); (Forehand & Long, 1988; Forehand & McMahon, 1981). Behavior change has also been shown to generalize from the child identified as the problem to untreated siblings (Eyberg & Robinson, 1982; Humphries, Forehand, McMahon, & Roberts, 1978).

Forehand and colleagues (1989) reviewed the parent training literature to determine the rate of parents who drop out of treatment and found that of the studies that did report dropout rates (i.e., 49% of all studies), the overall rate was 28%. This study suggested that certain types of assessment and treatment in parent training programs may be differentially associated with premature termination. For example, though engaging in role-playing and actual practice of

skills in front of the therapist are important in teaching parenting skills, these dimensions of treatment appear to be threatening to some parents and may lead to dropout. Additionally, PCIT is a fairly demanding therapy which requires a 12-week commitment plus daily practice of newly acquired skills at home. Thus, parents who are already extremely distressed due to parenting, personal, and contextual difficulties may find completing this type of treatment an insurmountable task. On the other hand, parents who are not experiencing a great deal of distress may also feel less motivated to participate in PCIT. In fact, Baekeland and Lundwall's (1975) review indicated that parents who drop out of therapy for their child tend to be referred by an agency (e.g., school, physician) and to deny problems related to themselves or their children.

Because parent training aims to affect change in children's behavior and corresponding changes in aspects of the family environment which maintain and reinforce the child's problem behavior, family adversity and dysfunction are also expected to impede good clinical outcomes and persistence with treatment (Sanders, 1992). However, very few studies have been conducted which examine the variables related to premature termination from parent training, and none have looked specifically at premature termination from parent training programs which directly treat the parent-child interaction. Nevertheless, the extant research does implicate several domains of variables which are associated with dropping out of didactic parent training programs which can be

used to guide future investigations (Firestone & Witt, 1982; Frankel & Simmons, 1992; Griest & Forehand, 1982; Lochman & Brown, 1980).

Lochman and Brown (1980) investigated parents' perceptions and demographic variables in relation to dropout rates from didactic parent education groups which included both behavior modification and communication training. Thirteen of the thirty-one parents (42%) who volunteered to participate in the nine-session groups failed to complete at least half the sessions (i.e., terminators). Results indicated that terminators had reported on a pretreatment questionnaire that they were happier within their family, happier with their child management skills, and more patient than those who completed the groups. The parents who reported gaining the greatest benefit from the groups were the ones who were moderately dissatisfied with their families. The authors suggested that the parents who dropped out could, in fact, have had happier, more functional family relationships with less resultant stress, and therefore less motivation to continue treatment, or alternatively, have been more defensive and less able to self-disclose their parenting concerns in a group setting.

Firestone and Witt (1982) investigated the characteristics of families completing and prematurely discontinuing a behavioral parent training program for hyperactive children. Only 49% of the 83 families who agreed to treatment actually finished the four-month program. The parents first read a book on child management and then learned to target and collect data on problem behavior in three individual sessions. Next, parents learned specific behavior management

techniques in small parent discussion groups. Medication for hyperactivity (e.g., methylphenidate) was distributed to parents throughout the treatment program. Results indicated that terminators (who dropped out prior to the group meeting phase) differed from completers on two of the three validity scales and four of the ten clinical scales on the Minnesota Multiphasic Personality Inventory (MMPI). Specifically, mothers who terminated prematurely were less traditional in their female roles, showed more idiosyncratic thoughts, had more physical complaints, and were more suspicious. The treatment completers in this study were found to have somewhat more consistent and defensive personality styles that terminators.

A third study (Frankel & Simmons, 1992) examined variables related to persistence in treatment by parents in a ten-session didactic parent training program. In addition, persistence through the intake process (completion of questionnaire packet and two parent interviews) was also examined. Twenty-nine parents (17% of entire sample) dropped out before completion of the intake. Persistence through intake was associated with only one parent-personality variable (tendency to endorse items reflecting helplessness and negativity on MMPI). Thus, it appears that the major variable operating against dropout at intake may be a higher degree of positive expectancy of change. The criterion for dropout from treatment was failure to persist in treatment for six or more sessions. Of the 119 parents accepted into the program, 35 (29%) terminated

prematurely. Persistence through treatment was associated only with greater therapist experience (i.e., seasoned clinician versus trainee).

Research on premature termination from parent training is limited to studies of dropping out of didactic parent training programs. These studies do suggest that certain parent and therapist variables are related to dropping out of these programs. Parents who terminated from treatment prematurely reported greater satisfaction with their parenting skills and their family (Lochman & Brown, 1980); had personality profiles reflecting more suspicious and idiosyncratic thinking, less traditionally female identities, and less defensive responding styles (Firestone & Witt, 1982); and acknowledged more feelings of helplessness and negativity (Frankel & Simmons, 1992) than those who completed treatment. Because studies of premature termination have not been conducted for the Hanf model of parent training, the following sections of the literature review will examine several variables that are hypothesized to impact dropping out of PCIT.

Parenting Stress

Research has consistently demonstrated a link between disruptive child behavior problems and parenting stress and has identified the most significant source of stress for these parents as arising more from child characteristics than parent characteristics (Bendell, Stone, Field, & Goldstein, 1989; Eyberg, Boggs, & Rodriguez, 1992). Chronic and severe child behavior problems represent perhaps the most significant dimension of stress for parents (Mash & Johnston, 1983; Weinberg & Richardson, 1981). In fact, parents of behavior-disordered

and hyperactive children report higher levels of stress than parents of children with other chronic physical or psychological disorders (Lloyd & Abidin, 1985).

Environmental stressors, especially daily stressors, are also strongly related to reported child behavior problems (Beautrais, Fergusson, & Shannon, 1982; Fergusson, Horwood, & Shannon, 1984; Hall & Farel, 1988). Considered simultaneously, daily maternal stressors and life events constitute the strongest predictors of child behavior problems beyond any other maternal sociodemographic characteristics (Hall & Farel, 1988). When faced with many contextual stressors, mothers are more likely to consider child behavior to be problematic (Fergusson, Horwood, Gretton, & Shannon, 1985).

Research also has demonstrated that maternal perceptions of disruptive child behavior are a function of contextual stress. In an analogue study, Middlebrook and Forehand (1985) found that mothers rated neutral child behavior as significantly more deviant when occurring under highly stressful conditions than when the same behavior occurred in a low-stress situation. Building on this research, Krech and Johnston (1992) demonstrated that daily stressors are associated with significantly more intense and negative perceptions and reactions than are major life events.

As parenting stress increases, the quality of mother-child interactions deteriorates and the level of parent, child, and family functioning declines (Crnic & Greenberg, 1990; Teti, Nakagawa, Das, & Wirth, 1991). However, the association between stress in the family environment and child behavior is

complex. Mothers experiencing high levels of stress may be less tolerant of normally occurring child behaviors and may become more irritable, less attentive, or more punitive in interactions with their children (Beautrais et al., 1982; Hall & Farel, 1988). This less effective parenting behavior may then elicit disruptive or attention-seeking behavior in children. However, environmental stress may have a more direct effect on child behavior. Children living in a stressful environment may respond by developing behavior problems. Concurrently, maternal tolerance of commonly occurring child behaviors may be reduced due to heightened stress levels (Beautrais et al., 1982).

Studies have indicated that when child conduct problems are treated within a family context, reports of maternal stress are substantially reduced. For example, Gross and colleagues (1995) investigated the effectiveness of a parent training program for promoting positive parent-child interactions among families of 2-year-olds. The parent training program was developed by Webster-Stratton (1982; 1990a) and consisted of 10-week sessions during which parent groups learned principles for effective parent-child interactions, viewed and discussed videotaped vignettes of parent and child models, and practiced the principles taught through weekly homework assignments. Following treatment, mothers' PSI scores were significantly lower, indicating decreased stress related to parental functioning.

Unfortunately, maternal stress related to parenting a difficult child and to life events can also have an adverse effect on the treatment of child conduct

problems. Kazdin (1990) reported that mothers who terminated treatment (6-7 months of child cognitive therapy and/or parent management training) prematurely reported greater stress from their interactions with their child, their role as a parent, and life events. More specifically, these mothers indicated that they find their children less adaptable to changes in the environment, less acceptable in terms of physical, intellectual, and emotional characteristics, and less happy. Premature terminators also reported greater dissatisfaction with themselves and less attachment to their child. In a second study, Kazdin, Mazurick, and Bass (1993) noted that terminators reported greater stress, both in parent-child interactions and in parent-role functioning, and more adverse life events. Interestingly, Kazdin and Mazurick (1994) found that parental stress predicted dropping out of treatment early in treatment (e.g., fewer than six weeks) but did not predict dropping out late in treatment. In a comparison of all those who terminated prematurely in this study, stress did not emerge as a reliable predictor and would have otherwise been obscured as a contributor to premature termination if subgroups had not been examined.

Though research suggests that maternal reports of stress related to a variety of sources is related to premature termination from treatment for child conduct problems, more research on this variable is needed in the context of Hanf-model parent training programs.

Maternal Depression

Both epidemiological studies and studies of clinic-referred groups have found maternal depression to be associated with child conduct problems (Gardner, 1992; Griest et al., 1980; Gross, Fogg, & Tucker, 1995; Webster-Stratton, 1988). Some researchers argue that a mother's depressed mood colors her perception of her child's behavior and, consequently, influences her responses on the rating scales that are frequently the main measure of child conduct problems (e.g., Fergusson, Lynskey, & Horwood, 1993; Webster-Stratton, 1988). In fact, several studies have questioned whether the association between depression and conduct disorder is a genuine one, or whether depressed mothers merely appear to have more difficult children because they perceive the child more negatively (Brody & Forehand, 1986; Conrad & Hammen, 1989; Dumas, Gibson, & Albin, 1989; Fergusson et al, 1993; Friedlander, Weiss, & Traylor, 1986; Webster-Stratton & Hammond, 1988). Other studies have attempted to circumvent this potential confound by utilizing independent measures of child behavior, such as direct observations and multiple-informant data, rather than relying primarily on maternal reports. For example, a study by Webster-Stratton and Hammond (1988) compared standardized questionnaires given to teachers and fathers of 95 children with conduct problems to direct observations in the home. Half of these children had depressed mothers. Home observations and father reports suggested that children of depressed mothers were equally as difficult as those of their

nondepressed counterparts, indicating that depressed mothers do not somehow imagine that their children are difficult. Nevertheless, their findings also showed that depressed mothers perceived their children as being more difficult than did fathers and teachers. This suggests that a combination of maternal depression and actual child behavior contributes to mothers' judgements about the child, a conclusion supported by the studies of Brody and Forehand (1986), Conrad and Hammen (1989), and Fergusson et al. (1993). Thus, the literature does suggest that the use of maternal report data to measure child behaviors is potentially misleading to the extent that these reports are related to maternal depression but are unrelated to other measures of child behaviors. However, Richters (1992) argues that the link between maternal depression and reports of behavior problems in their children, regardless of their accuracy or distortion, is itself an important phenomenon worthy of study.

Not only does maternal depression affect mothers' perceptions of child deviance, but it can influence the interaction between mothers and their children. According to the environmental transmission model of psychopathology as explained by Dodge (1990), maternal depression may lead to disruptions in parenting and the family environment which may then lead to maladaptive functioning in the child. By becoming more irritable, negative, withdrawn, or hopeless, depressed mothers are less able to parent effectively (Patterson, 1982). In the literature, depressed mothers are described as either hostile and coercive (Cox, Puckering, Pound, & Mills, 1987; Downey & Coyne, 1990) or

withdrawn, submissive, and avoidant of conflict (Kochanska, Kuczynski, & Maguire, 1989) in their interactions with their children. Direct observations of depressed mothers and their young children suggest that, compared to their non-depressed counterparts, depressed mothers tend to be more critical, irritable, inconsistent, and unresponsive with their children (for reviews, see Gelfand & Teti, 1990; Puckering, 1989; Rutter, 1990). However, because the relationship between maternal mood and child behavior may in fact be bidirectional, it is difficult to conclude that such maternal behaviors contribute directly to child problem behavior (Gardner, 1992). For example, variables such as difficult child temperament may increase a mother's sense of irritation and helplessness and affect her management practices, which, in turn, may influence the child's behavior in a continuous pattern of reciprocal influence (Lytton, 1990).

On the other hand, whereas some mothers may be agitated and irritable, provoking difficult behavior in their child, others may be quiet and withdrawn, thus provoking their child less than if their mood were normal (Cox et al, 1987). In fact, some studies have found that children are less difficult on occasions when their mothers are more depressed. Hops et al. (1987) used home observations of 52 depressed and nondepressed mothers and their children to calculate the probability of maternal expressions of depressed affect being followed by child problem behavior. They found that both children and fathers were less likely to be irritable, noisy, and rude following mothers' expressions of

sadness, self-derogation, and complaint. This was not true when mothers were irritable or sarcastic. Thus, it seems that some aspects of depressive behavior may contribute to child problem behavior, whereas other aspects may suppress it.

According to models proposed by Mash and Johnston (1990) and Webster-Stratton (1990b), depressed mood may exert a direct effect on parent perceptions and behavior and may also interact with the presence of contextual stress. That is, the disruptive influence of stress on parenting may be exacerbated or intensified by depressed mood. Mash and Johnston speculated further that stress may directly influence parent perceptions and behaviors independent of depression level. Both depressed and nondepressed mothers of clinic-referred children report extremely high levels of stress associated with difficult child behavior, though depressed mothers report more stress (Webster-Stratton & Hammond, 1988). Depressed mothers also report more intense parenting stress and demonstrate less competent parenting behavior than nondepressed mothers of normal infants (Gelfand, Teti, & Fox, 1992). These studies suggest that maternal depression, regardless of the presence or absence of child behavior problems, is related to parenting stress and interferes with actual parenting competence.

Hall and Farel (1988) examined the relationship between maternal stressors and depressive symptoms as they related to child behavior problems in young children. They found that daily stressors, life events, and depressive

symptoms were independently associated with deviant child behavior. Moreover, whereas maternal daily stressors were associated with maternal depressive symptoms, life events were not. In contrast to earlier findings (e.g., Fergusson et al., 1984), these results did not support the mediating role of depression in the relationship between maternal stress and child behavior problems.

Similarly, Krech and Johnston (1992) failed to find an interaction between reported stress and depressed mood in predicting maternal responses to their child's behavior. These findings further contradict both the Mash and Johnston (1990) and Webster-Stratton (1990b) models, which suggest that depressed mood interacts with contextual stress in determining parenting perceptions and behavior. Krech and Johnston suggest that reported maternal stress and depression may be best characterized as having independent, but additive, effects on maternal perceptions of and responses to maladaptive child behavior. Further, because both of these variables correlate with poor parent training outcome (Webster-Stratton, 1985), the assessment of maternal stress and depressed mood as contributors to premature termination from this type of treatment is warranted.

The relationship between depression and dropping out of treatment is apparently not a simple one. In the general treatment literature, the more severely depressed client with a primary diagnosis of depression is likely to drop out of treatment (Bischoff & Sprenkle, 1993; Hiler, 1959; Straker, Devenloo, &

Moll, 1967; Pekarik and Stephenson, 1988), presumably because of the sense of pessimism, low energy level, and feelings of helplessness related to this disorder. However, less severe levels of depression may also predispose a client to abandon treatment, given that motivation for treatment is probably fueled by discomfort and the need for relief (Baekeland & Lundwall, 1975; Frank et al., 1957; Lochman & Brown, 1980).

Some studies have found that maternal depression relates to an increased dropout rate in parent training (Griest & Forehand, 1982; McMahon et al., 1981; Reid & Patterson, 1976). However, others have failed to find such a relationship (Frankel & Simmons, 1992; Kazdin et al, 1993; Kazdin & Mazurick, 1994; Weisz et al., 1987). It is interesting to note that the studies that did reveal differences between terminators and completers on measures of depression were those that utilized treatment protocols designed to restructure the parent-child relationship directly (i.e., Hanf-model parent training versus didactic training).

Parenting Self-Efficacy

Research has consistently demonstrated a link between parenting self-efficacy and child behavior problems (Gibaud-Wallston & Wandersman, 1978, as cited in Mash & Johnston, 1983; Mouton & Tuma, 1988). Theory suggests that low self-efficacy related to parenting leads to depression, self-blame, poor persistence (Bandura, 1982), and poor role satisfaction (Johnston & Mash, 1989). It follows that parents with children displaying major and persistent

behavior problems may experience a higher incidence of these difficulties (Sandberg, Weiselberg, & Shaffer, 1980; Stewart, DeBlois, & Cummings, 1980).

Studies have identified parenting self-efficacy or competence as an important cognitive variable related to parenting in both clinic and nonclinic groups of children (e.g., Bugental, 1987, as cited in Johnston & Mash, 1989; Mash & Johnston, 1983). Johnston and Mash (1989) define parenting self-esteem as consisting of two dimensions: perceived self-efficacy as a parent and the satisfaction derived from parenting. Parenting self-efficacy is the degree to which a parent feels able to manage child problems, whereas parenting satisfaction represents an affective evaluation of how rewarding the parenting role is. Factor analysis of the Parenting Sense of Competence Scale (PSOC; Gibaud-Wallston & Wandersman, 1978, as cited in Mash & Johnston, 1983) has provided support for these rationally derived, affective and instrumental dimensions of parenting self-esteem (Johnston & Mash, 1989). Importantly, Teti and Gelfand (1991) suggest that maternal self-efficacy plays a central role in determining actual parenting competence and may mediate the influence of variables such as maternal depression, social-marital supports, and child temperament.

Empirical research on the relationship between parenting self-efficacy and child behavior problems is scarce. However, Mash and Johnston (1983) found that, compared to parents of normal children, parents of hyperactive children reported lower levels of parenting self-efficacy and felt less competent and less

satisfied as parents. In a later study, these Johnston and Mash (1989) found that mothers' scores on the PSOC were significantly correlated with reports of child behavior. Consistent with previous studies (e.g., Mash & Johnston, 1983), parents who reported more child behavior problems also reported lower levels of parenting self-esteem, particularly on the Satisfaction dimension.

More recently, Gross et al. (1994) tested a longitudinal model of parenting self-efficacy among mothers of toddlers 12 to 36 months of age. Mothers' self-efficacy was measured using the Toddler Care Questionnaire (TCQ, Gross et al., 1994), which consists of 37 items assessing a mother's self-efficacy (i.e., confidence) in managing tasks and situations relevant to raising a toddler. Their model was based on Bandura's (1982) self-efficacy theory and hypothesized that a cyclical relationship exists among depression, perceived difficult temperament, and self-efficacy. Their findings suggested that the more depressed a mother feels, the more likely she is to rate her toddler's temperament as difficult. Moreover, the more difficult the child's temperament is perceived to be, the lower the mother's estimates of her self-efficacy as a parent are. In turn, the lower her self-efficacy, the greater her depression, and the more depressed the mother feels at one point in time, the more likely she is to report depressive symptoms 6 months later.

Researchers have identified parenting self-efficacy as an important contributing factor in parent-child interactions (Bugental, 1987, as cited in Johnston & Mash, 1989; Johnston & Mash, 1989). Children who are perceived

by parents as intense, negative, and less adaptable make the task of caregiving feel more difficult, thereby lowering parenting self-efficacy. Low parenting self-efficacy, in turn, diminishes parents' abilities to effectively manage their children's behavior (Gross et al., 1995). Parents who experience low levels of perceived control over their child's behavior become sensitized to and cope ineffectively with difficult child behavior (Bugental, 1987, as cited in Johnston & Mash, 1989).

It has been suggested that having a child with behavior problems constitutes an ongoing source of stress which undermines parenting self-efficacy and competence (Patterson, 1982). Parents of children with difficult behavior report lower parenting self-efficacy and increased stress, both of which are due in part to the presence of child behavior problems (Mash & Johnston, 1983). Parental self-efficacy and reported stress influence parent-child interactions by exacerbating both child difficulties and parents' subsequent perceptions of their child's behavior (Mash & Johnston, 1983).

In addition, a decreased sense of competence and feelings of depression related to parenting may create particular vulnerabilities for parents experiencing chronic difficulties in parenting. For example, low maternal self-efficacy related to child behavior problems has been shown to be related to higher levels of depression (Teti & Gelfand, 1991). Though associated with depressed mood, maternal self-efficacy is thought to have multiple determinants and direct links to actual behavioral parenting competence. Results of the Teti and Gelfand study

demonstrated that the combined influence of maternal depression and sense of competence determines actual parental competence, and suggested that maternal self-efficacy moderates the effects of depression on competence. Maternal depression was related to actual maternal competence only when maternal perceptions of parenting self-efficacy were low. Thus, when examining the effects of depression on parenting competence, it is important to consider the influence of maternal self-efficacy.

Treatment for child behavioral difficulties has a positive impact on parenting self-efficacy, in addition to reports of stress and depression. Gross and colleagues (1995) examined the effectiveness of a parent training program (10-week didactic groups) among 46 families of two-year-olds. Their results demonstrated that the intervention led to significant increases in maternal self-efficacy (as measured by the TCQ), decreases in maternal stress, and improvements in the quality of mother-toddler interactions (e.g., used more praise and fewer critical statements and physical negative behaviors).

Though no studies have specifically addressed the differences between completers and terminators of parent training with regards to parenting self-efficacy, two studies do suggest that this construct may be worthy of closer examination. Kazdin (1990) found that mothers in families who terminated treatment early reported greater dissatisfaction with themselves as parents. However, this finding must be interpreted with caution, as it was assessed with a few items on the PSI and not a specific measure of parenting self-efficacy.

Further, Lochman and Brown (1980) investigated premature termination from a parent education program and found that parents who dropped out initially reported that they felt more satisfied with their child management skills. It may be that these parents felt capable of parenting effectively and thus may have had less motivation to participate in the program. These studies suggest that parenting self-efficacy may contribute to dropping out of parent training, and that very high or low levels may have adverse effects on persistence in treatment.

Readiness for Change: The Transtheoretical Model

In a recent study, Smith, Subich, and Kalodner (1995) examined client readiness variables drawn from the transtheoretical model (e.g., Prochaska et al., 1992) in relation to premature termination. This model identifies five stages important in client readiness for self-change: precontemplation (unaware of/no desire to change), contemplation (thinking about change), preparation (ready to take action shortly or unsuccessful in past attempt to change), action (beginning to change effectively), and maintenance (significant behavior change and attempts to prevent relapse). Smith et al.'s (1995) study was based on support for the relationship of the transtheoretical model's stages of change to client readiness to initiate therapeutic change and therapeutic outcome (McConnaughy et al, 1983; Prochaska & DiClemente, 1982, 1985; Prochaska et al., 1992). Subjects in this study were students seeking services at a university counseling center who agreed to complete two questionnaires following intake,

and premature terminators were those who did not follow up the intake session with a second scheduled appointment (26%). As mentioned earlier, premature terminators from therapy were distinguishable from nonpremature terminators by the stage of change at which they entered therapy. Specifically, premature terminators scored highest on the precontemplation and contemplation stages and nonpremature terminators scored highest on the preparation and action stages. Despite its limited definition of premature termination, this study does support the consideration of client readiness for change in understanding premature termination from therapy. Unfortunately, it is the only investigation to date which utilizes the transtheoretical model of change in the examination of premature termination.

Though they did not use the transtheoretical model of change, Sutton and Dixon (1986) did examine the effects of client perceived need for change with 37 mothers participating in a series of three-week social-learning-based parent-training workshops. Mothers' perceived need for change significantly differentiated between those dropping out and those completing the workshops. Those who perceived a greater need for change spent more time involved in workshop activities and completed more homework assignments. This study is important in that it implicates perceived need for change in premature termination from parent training, though a more thorough look at this variable from the transtheoretical perspective is warranted.

CHAPTER III: PURPOSE OF THE STUDY

Based on the preceding review of the literature, it is apparent that research in the area of premature termination from child and family therapy is still in the early stages. Though it has been largely neglected in the treatment literature, the failure of children and adolescents and their families to receive recommended treatment represents a significant problem in psychotherapy research and practice. Initial attempts to identify possible domains relevant to dropping out of therapy have been characterized by inconsistent findings. Researchers have been unable to agree on an operational definition of premature termination, thus presenting a barrier to consistent results across studies. Because the broad scope and heterogeneous samples utilized by earlier studies may have obscured variables related to dropping out of therapy, some investigators have suggested that further research examine variables related to particular types of child dysfunction or treatment in hopes of later identifying those that may generalize across client samples. Of the few studies that have been conducted, it appears that therapist experience may also be related to dropping out of child and family treatment (e.g., Frankel & Simmons, 1992). Families who terminate prematurely tend to do so when treated by a trainee rather than a staff therapist.

Recently, there has been a growing interest in better understanding family context variables related to child conduct problems (e.g., Patterson, 1986). In general, research implicates the interaction between child, maternal, and

contextual variables in the onset and prognosis of these behavior problems. Though investigators are still unsure of the actual mechanism by which these variables interrelate, it has been suggested that the relationship between these three domains of variables is most likely reciprocal. However, research does link dysfunctional parenting styles and maternal variables, such as reported stress, symptoms of depression, and low parenting self-efficacy, to child conduct problems (e.g., Kazdin, 1987a). In addition, studies have implicated socio-economic disadvantage, reports of high maternal stress, adverse childrearing practices, and severity of child behavior problems in dropping out of treatment for child conduct problems. Further, subgroups of dropouts can be identified (e.g., early versus late terminators), and different variables appear to relate to their risk for dropping out.

PCIT is an effective and popular treatment method for children with conduct problems and their families that directly addresses the interaction between parent and child. Studies have demonstrated that, following treatment, child noncompliance decreases significantly and parenting techniques improve substantially. Additionally, these improvements in child behavior generalize from the clinic setting to home, from the treated child to untreated siblings, and from behaviors targeted in treatment to other behaviors (e.g., McNeil et al., 1991). Premature termination is a significant problem in parent training programs. Researchers suggest that parents may be threatened by having to practice new skills in front of therapists and other group members, or they may

find the time commitment and homework component of PCIT too demanding. Additionally, it may be that parents who are extremely distressed (by maternal, child, or contextual variables) may be overwhelmed and unable to manage the demands of PCIT. Conversely, parents who are experiencing very little distress may not have the motivation required by such a treatment program.

One factor implicated in premature termination from child and family treatment is higher reported stress by parents. Studies have demonstrated a link between parenting stress (related to child variables, parent variables, and life events) and child conduct problems. It appears that increased maternal stress has an adverse reaction on parent-child interactions and on persistence in treatment, especially in the early stages of therapy (e.g., Kazdin & Mazurick, 1994).

Maternal depression has also been associated with child conduct problems and with premature termination from treatment. Depression has been found to color mothers' perceptions of child deviance. However, it appears that children with conduct problems who have depressed mothers are equally as difficult as children with conduct problems who have nondepressed mothers. Depression also influences parent-child interactions, though the relationship is complicated and appears to be reciprocal. Some aspects of mothers' depressive behavior (e.g., hostility and irritability) may contribute to child conduct problems, whereas others (e.g., withdrawal and sadness) may suppress it (e.g., Hops et al., 1987). The relationship between maternal depression and stress may best be described

as independent but additive in their impact on maternal perceptions of and responses to child conduct problems. Premature terminators from treatment in general have exhibited either high or low levels of depression, suggesting that a severely depressed person may not be able to commit to therapy, whereas a person who is experiencing little distress may feel less motivated to persist in treatment. Examination of the child and family treatment literature reveals inconsistent findings regarding the role of maternal depression in dropping out of treatment. However, those studies that did find significant differences between completers and noncompleters on measures of depression utilized treatments specifically designed to work within the parent-child interaction rather than didactic or parent-workshop programs (e.g., Griest & Forehand, 1982).

Another factor to be considered with regard to premature termination from PCIT is parenting self-efficacy. Parents of children with conduct problems tend to have low parenting self-efficacy (e.g., Mouton & Tuma, 1988). Parenting self-efficacy helps determine actual parenting competence and mediates the influence of depression, marital and social supports, and child temperament. Children perceived as difficult make parenting a more daunting task. Parents then feel less capable of effectively managing their child, leading to low self-efficacy related to parenting. Low parenting self-efficacy, in turn, adversely affects actual parenting competence. Treatment outcome studies indicate that mothers completing parent training programs experience increased parenting self-efficacy. However, no studies have been conducted which directly assess

the relationship between parenting self-efficacy and premature termination from parent training.

A final factor which may be related to dropping out of group PCIT is readiness for self-change. According to the transtheoretical model of change, particular stages of change relate to greater client readiness for change, and individuals who are in these stages report more positive treatment outcomes than do those in other stages. Studies suggest that different stages of readiness for change relate to completion and early termination from treatment (e.g., Prochaska et al., 1992). However, no studies have examined readiness for change as related to persistence in parent training.

In general, the literature in the area of premature termination from child and family treatment is lacking. The few studies that have been conducted have not consistently identified variables which differentiate treatment completers from premature terminators (e.g., Bischoff & Sprenkle, 1993). Definitional inconsistencies, heterogeneous samples, and broad treatment scopes have contributed to the unreliable findings. In addition, no studies of Hanf-model parent training examine the variables related to dropping out of treatment. The present study was designed to contribute to our understanding of premature termination by addressing some of the weaknesses of the extant literature. Specifically, the present study investigated premature termination with regards to a structured treatment protocol consisting of a predetermined number of sessions. Because PCIT identifies relatively specific goals (e.g., mastery of

communication and discipline skills by parents, increase in child compliance, and decrease in child noncompliance) and is divided into two distinct 6-week phases of treatment (relationship-building and discipline), it is possible to set an objective attendance cutoff below which adequate skills could not be obtained. For the purposes of this study, the criterion for premature termination was failure to persist in at least 10 sessions. Persistence in therapy was defined as completion of at least 10 of the 12 therapy sessions.

Further, research suggests that the point in the treatment process at which families drop out may be important (Frankel & Simmons, 1992). That is, different variables are related to those who drop out of treatment early versus those who drop out later. To address this issue in the present study, early terminators (families who dropped out during the first phase of PCIT) were compared with late terminators (families who dropped out during the second phase of PCIT).

Thus, the present study represents an attempt to expand the data in this area by examining families who terminated prematurely from group PCIT. This study was designed to identify the differences between treatment completers and premature terminators on pretreatment measures of child deviancy, maternal readiness for change, stress, depression, and parenting self-efficacy. By investigating the relationship between these variables and premature termination, we hoped to identify families who were more likely to terminate prematurely from PCIT and to better understand the variables that put them at risk for dropping out. This information could aid in the development of special

therapeutic interventions aimed at curbing attrition and generating better therapeutic outcomes in PCIT and other similar treatment programs.

The extant literature suggests that the variables discussed above are related to or relevant in the examination of premature termination from parent training. What is not yet understood is which variables are related to dropping out of group PCIT and how these variables are related. Therefore, this study first examined the demographic variables, such as child's age and race and mother's marital status, income level, and education, which may be related to premature termination. Next, the impact of therapist experience on premature termination was examined, as was the impact of maternal readiness for change. Then, completers were compared with all premature terminators on the variables of maternal stress, depression, and parenting self-efficacy, followed by a comparison of completers with both early and late terminators on these same variables. A prediction model also was utilized to investigate whether potential terminators could be identified at pretreatment using the variables listed above. Finally, an exploratory investigation was conducted to determine subgroups (high distress and low distress) of treatment terminators and to determine whether dividing subjects on the basis of high, moderate, and low distress aids in the identification of treatment completers and noncompleters.

Based on the extant literature, the following hypotheses were made regarding the association between premature termination and the variables

described above. A number of specific research questions guided the present investigation.

(1) Does therapist experience (trainee versus staff) influence premature termination from group PCIT? Because previous studies indicate that more people typically drop out of treatment when working with a trainee (e.g., Frankel & Simmons, 1992), analysis examined the influence of therapist experience on premature termination from treatment.

(2) Are mothers who terminate from group PCIT prematurely different from treatment completers with regard to pretreatment scores of stress, depression, parenting self-efficacy, and child deviancy scores? Given the findings reviewed previously, it is reasonable to anticipate that premature terminators will score higher on measures of stress (e.g., Kazdin, 1990; Kazdin et al., 1993), depression (e.g., Griest & Forehand, 1982; McMahon et al., 1981; Reid & Patterson, 1976), and perceptions of child deviancy (e.g., Kazdin, 1990; Kazdin & Mazurick, 1994) and lower on a measure of parenting self-efficacy (e.g., Kazdin, 1990; Lochman & Brown, 1980).

(3) Are mothers who terminate prematurely from PCIT during the CDI phase different from those who do so during the PDI phase? By examining these subgroups of premature terminators, are more differences evident between completers and terminators of treatment? Based on previous findings (Kazdin & Mazurick, 1994), it is expected that different variables relate to early and late premature termination and that dividing terminators into early and late

subgroupings will result in a clearer understanding of the differences between treatment completers and noncompleters, and within the noncompleters subgroups. In other words, more differences are expected to exist when terminators are divided into subgroups than they are when examined as a whole group.

(4) Is readiness for self-change related to premature termination from PCIT? Because previous research demonstrates that, on a pretreatment administration of the Stages of Change Scale (SCS; McConnaughy et al., 1983; Prochaska, 1984), premature terminators score highest on the precontemplation and contemplation stages and completers scored highest on the preparation and action stages, similar findings are expected with this sample of mothers.

(5) Can premature termination be predicted using scores on pretreatment measures of stress, depression, parenting self-efficacy, and child deviancy? Given the findings reviewed previously, it is reasonable to anticipate that pretreatment scores reflecting high levels of maternal distress, severe perceptions of child deviancy, and lower parenting self-efficacy will be useful in predicting premature termination from treatment (e.g., Kazdin & Mazurick, 1993).

(6) Are mothers experiencing very high and very low levels of distress more likely to terminate treatment prematurely than mothers experiencing moderate levels of distress? Exploratory analyses are expected to demonstrate that both severe and mild maternal distress will be associated with terminating from PCIT prematurely. Thus, all subjects' pretreatment scores on measures of maternal

stress, depression, parenting self-efficacy, and child deviancy will be stratified according to severity of distress (high, moderate, low) and then will be compared to investigate whether these groups drop out of treatment differentially. This hypothesis is based on the notion that very high levels of distress, as indicated by reports of maternal stress, depression, parenting self-efficacy, and child deviancy, may make persisting in treatment very difficult, while very low levels may not provide adequate motivation for completing the treatment program.

CHAPTER IV: METHODOLOGY

Participants

Participants were 39 female caregivers (referred to hereafter as "mothers") with a child between the ages of 2½ and 7 years referred to the Child Study Center at the University of Oklahoma Health Sciences Center for treatment of behavior problems. To be included in the study, participants were required to meet the following criteria: (a) the referral is for treatment of a child who is reported to have active behavior problems in the home for a duration of at least 6 months; (b) the child met (via structured maternal interview) the diagnostic criteria set by the DSM-IV (APA, 1994) for Oppositional-Defiant Disorder or Conduct Disorder (a concurrent diagnosis of ADHD was also accepted); (c) the caregiver is female and at least 20 years of age. The types of presenting problems included noncompliance, temper tantrums, overactivity, physical aggression (hitting, kicking, biting), and whining.

The mean age of the children who took part in the study was 4.39 years (SD = 1.27). Eight of the children were female and 31 were male. Thirty-one children were Caucasian, four were African American, three were biracial, and one was Hispanic. Ten of the 39 children were from mother-only families. Most of the caregivers were biological mothers (n = 32), with one adoptive mother, one foster mother, two aunts, two grandmothers, and one stepgrandmother. The mean age of the mothers was 33.05 (SD = 15.85), with a range of 22 to 50 years. The mean number of years of education for mothers was 12.64 (SD =

1.5). The families' annual incomes ranged widely: more than $51,000 per year (n = 7); $41,000 - $50,000 (n = 5); $31,000 - $40,000 (n = 2); $21,000 - $30,000 (n = 5); $11,000 - $20,000 (n = 5); $6,000 - $10,000 (n = 5); less than $5,000 (n = 10). Thirty-five of the mothers were Caucasian, three were African American, and one was Hispanic.

Of the 42 families that initiated treatment (i.e., completed intake data), 23 (55%) completed treatment, 16 (38%) dropped out prematurely, and three (.07%) were removed from group treatment due to inappropriateness (e.g., continued substance abuse by mother, previous PCIT experience). Of those who terminated prematurely, 11 (36% of sample, 69% of terminators) dropped out during the first 6 sessions, and five (13% of sample, 31% of terminators) dropped out during the last 6 sessions. Of the 39 families that were considered appropriate for group treatment, complete data were obtained on only 33. Of these 33 participants, 18 (55%) completed treatment and 15 (45%) dropped out prematurely; 10 (30% of usable sample, 67% of usable terminators) were early terminators, and five (15% of usable sample, 33% of usable terminators) were late terminators. Analyses of the demographic characteristics will reflect data from all 39 subjects, while further analyses will utilize data on only 33 participants.

Treatment

Treatment consisted of 12 weeks of PCIT administered in a group format. The 1½-hour weekly sessions were conducted by two therapists. A total of four groups were conducted with four to six families initiating treatment in each group. To address therapist experience, co-therapy teams were led either by a trainee (an advanced graduate student in clinical psychology) or an experienced clinician (a Ph.D.-level psychologist with many years of experience using PCIT). The assisting therapists were of varying degrees of experience (one Ph.D.-level psychologist, one master's-level psychologist, and one child psychology intern). All therapists were female. The therapists were trained in the procedures by reading prepared materials describing the rules and rationale and by supervised practice and co-therapy with a clinician experienced in this treatment method. To ensure treatment integrity and to prevent divergence from the procedures, detailed checklists of content to be covered in each session were followed by the co-therapists.

Procedure

Participants were recruited by phone from a pool of families waiting to receive PCIT. After indicating interest in participating in group PCIT and in the research project, participants were formed into groups on a first-come, first-served basis. One week prior to treatment, participants were scheduled for an intake evaluation during which the diagnostic structured interview and the pre-treatment instruments were administered (i.e., intake phase). Those participants

who participated in 10 of the 12 sessions were considered completers, while those who did not complete at least 10 sessions were considered noncompleters. The responses of these participants on pretreatment measures were then compared statistically to identify systematic differences between completers and noncompleters. Noncompleters were divided into those who dropped out during the first six sessions or "early noncompleters" and those who dropped out during the second six sessions or "late noncompleters." This division reflects the two six-session phases of PCIT: the Child-Directed Interaction (relationship-building) phase and the Parent-Directed Interaction (discipline-oriented) phase. Also, research suggests that parents terminating this type of program after six sessions often reported substantial improvement in their children, while those persisting less than six sessions frequently displayed difficulty complying with the demands of the program (Frankel & Simmons, 1992). Participants who were deemed inappropriate for group PCIT after beginning the program were removed from the group and provided with alternative treatment which could better meet their needs. For example, a mother with a great deal of personal problems who needed more personalized attention was transferred to individual PCIT.

For statistical purposes, participants were then stratified into three groups based on their pretreatment scores: those who were experiencing a high degree of distress (i.e., high scores on measures of parenting stress, depression, and child behavior problems), those experiencing a moderate degree of distress, and

those who were experiencing a low degree of distress. The cutoff scores for each of these variables were determined by ranking the scores and dividing by three. The three groups were then compared to investigate whether dropout rates differed according to distress level.

Measures

Child Behavior Checklist. The Child Behavior Checklist (CBCL; Achenbach, 1991, 1992) is a parent-report inventory that is widely used for the assessment of social competencies and behavior problems of children. There are two versions, one for children 2 to 3 years of age and one for children 4 to 16 years of age. For each of the behavior problem items which "describes your child now or within the past 6 months," the parent is required to indicate whether the item is Not True, Somewhat or Sometimes True, Very True or Often True, corresponding to ratings of 0, 1, and 2.

The scale yields scores of several empirically derived behavior-problem scales, including two broad-band dimensions, Internalization and Externalization. The CBCL has been shown to have satisfactory test-retest reliability (r = .95) across an 8-day interval (Achenbach & Edelbrock, 1979). Additionally, this instrument has been shown to discriminate between clinic and non-clinic samples of children (Achenbach & Edelbrock, 1979). The Internalizing and Externalizing scales were examined in this study.

Stages of Change Scale. The Stages of Change Scale (SCS) (McConnaughy et al., 1983, Prochaska, 1984) is a 32-item instrument with four

subscales: Precontemplation, Contemplation, Action, and Maintenance. The SCS was constructed by generating items based on behavioral definitions derived from Prochaska and DiClemente's (1982) theory of stages of change. An interrater reliability of 100% was used to select the 125 initial items, and factor analysis reduced these items to 32; on the basis of principal-components analysis, 8 items were retained for each subscale (McConnaughy et al., 1983). McConnaughy and colleagues (1989) replicated this structure.

Internal consistency reliabilities for subscales range from .79 to .89 (McConnaughy et al., 1989; McConnaughy, Prochaska, & Velicer, 1983). The SCS has been used effectively to study a variety of problems, including smoking cessation (DiClemente & Prochaska, 1982), alcoholism (DiClemente, Gordon, & Gilbertini, 1983 as cited in Smith, Subich, & Kalodner, 1995), and outpatient difficulties (McConnaughy et al., 1984, as cited in Smith, Subich, & Kalodner, 1995). The version of the SCS used in this study reflects readiness for change related to parenting.

The SCS uses a 5-point, Likert-type response format (1 = strongly disagree to 5 = strongly agree) for each item. Participants rate statements that describe how they feel as they initiate therapy. A total score (possible range = 8 - 40) is calculated for each of the four subscales. For the four stages of change directly corresponding to the subscales, categorization is based on one's highest score; the preparation stage is defined by equal high-point scores on the

Contemplation and Action subscales (Prochaska et al., 1992). Subjects' scores on each of the four subscales were analyzed in this study.

Parenting Stress Index - Short Form. Degree of stress in the mother-child relationship will be assessed using the Parenting Stress Index - Short Form (PSI; Abidin, 1990). The PSI - Short Form is a less time-intensive, 36-item version of the original 101-item instrument which was designed to identify parent-child dyads who are under stress and are currently experiencing or at risk for developing dysfunctional parenting and child behavior problems. Areas such as confidence in discipline skills, quality of the parent-child relationship, the child's behavior, and overall family adjustment are assessed with this instrument. The PSI - Short Form was developed using factor analysis; two studies examining the factor structure of this instrument yielded a 36-item, three-factor solution which were reflected major areas of stress in the parent-child relationship (see Abidin, 1990). These areas include Parental Distress (derived from the Parental Domain of the full-length PSI), Parent Child Dysfunctional Interaction (derived from the Child and Parent Domains), and Difficult Child (derived from the Child Domain). The first domain reflects parent characteristics and the stress resulting from self-perceptions including feelings about the self and functioning as a parent (e.g.,"I enjoy being a parent"). The second domain encompasses qualities of the parent-child interaction and addresses the amount of reinforcement the parent experiences through interactions with the child (e.g., "When I do things for my child I get the feeling that my efforts are not

appreciated much"). The third domain reflects child characteristics and measures the stresses a parent may experience in relation to perceptions of the child and demands made by the child (e.g., "There are some things about my child that bother me a lot").

The PSI - Short Form has demonstrated satisfactory levels of test-retest reliability (r = .84 for Total Score) and internal consistency (r = .91 for Total Score) (Abidin, 1990). Additionally, the Total Stress (r = .95), Parental Distress (r = .92), and Difficult Child (r = .87) subscale scores were highly correlated with the corresponding subscale scores on the full-length PSI; the Parent-Child Dysfunctional Interaction subscale scores was somewhat less correlated with the Child Domain (r = .73) and the Parent Domain (r = .50) scores from the full-length PSI, probably because the Parent-Child Dysfunctional subscale contains items from both the Parent and the Child Domain subscales (Abidin, 1990). At the present time, there does not exist a body of independent research which supports the validity of the PSI - Short Form. However, because it was derived directly from the full-length PSI, it is likely that it shares the validity of the full length PSI (Abidin, 1990). The full-length PSI has demonstrated satisfactory levels of internal consistency in the four domains (Parent, Child, Parent-Child, and Responding) and acceptable levels of satisfactory test-retest reliability (Burke & Abidin, 1978, as cited in Mash & Johnston, 1983). The Total Stress, Parental, Parent-Child, and Child Domains were analyzed in this study.

Inventory to Diagnose Depression. Maternal depression will be measured using the Inventory to Diagnose Depression (IDD; Zimmerman, Coryell, Corenthal, & Wilson, 1986), which is a self-report questionnaire designed to diagnose major depression and to assess the severity of depressive symptoms. This instrument is a stable and internally consistent measure of symptoms related to depression. The IDD also correlates significantly with other commonly-used depression inventories and with diagnoses based on clinical judgement (Goldston, O'Hara, & Schartz, 1992). The advantage of using the IDD is that its design allows a diagnosis of depression to be made based specifically on the criteria delineated by the DSM-III-R (APA, 1987). In this study, the sum of the items endorsed on the IDD were examined.

Parenting Sense of Competence Scale. Parenting self-efficacy will be assessed using Mash and Johnston's (1983) version of Gibaud-Wallston and Wandersman's (1978) Parenting Sense of Competence Scale (PSOC) which includes two rationally derived subscales, Skill-Knowledge and Value-Comforting. Johnston and Mash (1989) obtained normative information and performed a factor analysis that, consistent with the original theoretical model, revealed two factors. The Satisfaction factor, formerly Value-Comforting, represents the affective dimension of parenting and assesses the amount of frustration, anxiety and motivation the parent is experiencing. The second factor, Efficacy, formerly Skill-Knowledge, represents the instrumental dimension

of parenting and reflects the parent's sense of competence, problem solving ability, and comfort with parenting.

The PSOC has demonstrated satisfactory internal consistency, appears reliable over time, and correlates moderately with other measures of self-efficacy (Mash & Johnston, 1983). Cronbach's alpha coefficients were .79 for the total score (16 items), .75 for the Satisfaction factor (9 items), and .76 for the Efficacy factor (7 items) (Johnston & Mash, 1989). Pearson correlations calculated between PSOC and CBCL scores revealed that the total PSOC score was significantly and negatively related to both Internalizing and Externalizing CBCL scores, and the Satisfaction factor was also significantly inversely correlated with both CBCL scores (Johnston & Mash, 1989). The Satisfaction, Efficacy, and Total Scores were analyzed in this study.

CHAPTER V: RESULTS

Preliminary analyses

Completers and terminators were compared on a variety of demographic variables. Chi-square tests for categorical variables and analyses of variance (ANOVAs) for continuous variables were completed. The means and standard deviations (for continuous measures) and proportions (for categorical measures) for demographic characteristics are presented in Table 1. Results of the ANOVAs and chi square analyses indicated that completers, early terminators, and late terminators did not differ significantly with respect to mother's age, education level, marital status, relation to child (e.g., biological mother, foster mother), the presence of another caregiver in the home, mother's and child's ethnic background, child's gender, family annual income level, though they did differ significantly with respect to child's age, F (2,36) = 4.12, $p < .05$. A Tukey's means comparison indicated that early terminators had significantly younger children than completers ($p < .05$). The mean child age for late terminators did not differ significantly from completers or early terminators. Because child age was associated with completion of treatment, this variable was included as a covariate in subsequent data analyses; no other demographic variable was considered further.

Table 1

Means and Standard Deviations or Proportions of Demographic Variables for the Total Sample[a] and Means or Proportions for Completers[b], All Terminators[c], Early Terminators[d], and Late Terminators[e]

Demographic Characteristics	Total Sample		Terminators			
	M/Pro.	SD	Completers	All	Early	Late
Child's age	4.38	1.27	4.82	3.77	3.58	4.10
Child's gender:						
Male	.79	---	.78	.81	.90	.67
Female	.21	---	.21	.19	.10	.33
Child's race:						
Caucasian	.79	---	.78	.81	.70	1.00
African Am.	.10	---	.09	.13	.20	.00
Biracial	.08	---	.09	.00	.10	.00
Hispanic	.03	---	.04	.06	.00	.00
Single parent	.10	---	.17	.38	.40	.33
Relationship of caregiver:						
Bio. mother	.82	---	.83	.81	.80	.83
Adop. mo.	.03	---	.04	.00	.00	.00
Foster mo.	.05	---	.04	.06	.10	.00
Aunt	.05	---	.00	.13	.10	.17

Table 1, continued

Means and Standard Deviations or Proportions of Demographic Variables for the Total Sample[a] and Means or Proportions for Completers[b], All Terminators[c], Early Terminators[d], and Late Terminators[e]

Demographic Characteristics	Total Sample M/Pro.	SD	Completers	Terminators All	Early	Late
Relationship of caregiver, continued:						
Grandmo.	.03	---	.04	.00	.00	.00
Other	.03	---	.04	.00	.00	.00
Mother's age	32.84	8.57	32.87	33.31	33.20	33.50
Mo.'s ed.(yrs)	12.42	1.44	12.74	12.74	12.60	12.33
Income level per year:						
<$5000	.25	---	.22	.31	.30	.33
$6-10,000	.13	---	.04	.25	.40	.00
$11-20,000	.13	---	.09	.19	.10	.33
$21-30,000	.13	---	.13	.13	.10	.17
$31-40,000	.05	---	.04	.06	.00	.17
$41-50,000	.13	---	.17	.06	.10	.00
>$50,000	.18	---	.31	.00	.00	.00

[a]N = 39. [b]n = 18. [c]n = 15. [d]n = 10. [e]n = 5.

In order to examine the relationships among experimental and demographic variables, a correlation matrix was constructed (See Table 2). However, reporting numerous correlations increases the risk of Type I errors, so correlation results should be interpreted with caution.

Initial chi-square analysis revealed that completers and terminators did not differ with respect to therapist experience (i.e., trainee versus staff), $\underline{X}^2$ (1) = 3.84, $\underline{p} > .05$). In other words, therapist experience did not have a significant impact on whether families persisted in treatment or terminated prematurely. Of the 27 participants in trainee-led PCIT groups, 15 completed treatment and 12 terminated prematurely, resulting in a dropout rate of 44%. Of the 12 participants in staff-led PCIT groups, 8 completed treatment and 4 terminated prematurely, resulting in a dropout rate of 33%.

Table 2

Correlations Among Variables of Interest and Demographic Variables

	Child age	Mother age	Income level	Educa-tion	CBCL Ext.	CBCL Int.	IDD Sum
Child age	---						
Mother age	-.02	---					
Income level	.37*	.46**	---				
Education	-.05	.18	.24	---			
CBCL Ext.	-.03	-.18	-.20	-.08	---		
CBCL Int.	.01	-.05	.00	.15	-.03	---	
IDD Sum	-.03	-.25	-.41*	-.01	.34	.16	---
PSOC Eff	-.06	.28	.05	.13	-.02	.13	-.32
PSOC Sat	.09	.42*	.35*	.30	-.18	-.13	-.40*
PSI Total	-.19	-.48**	.44**	-.12	.39*	.20	.44**
PSI Child	-.11	-.27	-.12	.03	.60**	.48**	.38*
PSI P-C	-.08	-.49**	-.25	.08	.19	.17	.21
PSI Parent	-.03	-.30	-.27	-.15	.24	-.05	.51**
Precon.	.04	.15	.11	.46**	-.15	-.07	.05
Contem.	-.29	-.12	-.18	.09	.20	.03	.44**
Action	-.25	-.03	-.03	.08	.17	.09	.39*
Maint.	-.33	.12	.14	.03	.11	-.06	.19

*$p \leq .05$. **$p \leq .01$.

Table 2, continued

Correlations Among Variables of Interest and Demographic Variables

	PSOC Eff.	PSOC Sat.	PSI Total	PSI Child	PSI P-C	PSI Par.
PSOC Eff	---					
PSOC Sat	.25	---				
PSI Total	-.13	-.46**	---			
PSI Child	-.01	-.34*	.82**	---		
PSI P-C	.07	-.37*	.80**	.55**	---	
PSI Parent	-.23	-.30	.80**	-.15	.30	---
Precon.	.09	.48**	-.22	-.15	-.29	-.22
Contem.	-.25	-.01	.36*	.09	.16	.41*
Action	-.05	-.16	.34	.08	.17	.30
Maint.	-.04	-.04	.04	.03	-.22	.35*

*$p \leq .05$. **$p \leq .01$.

Primary Analyses

Completers versus terminators of treatment. The primary prediction of the study was that completers and terminators would differ on measures of maternal report of child deviancy (CBCL Externalizing and Internalizing T-Scores), maternal stress (PSI Total Score), maternal depression (IDD Sum Score), and parenting self-efficacy (PSOC Efficacy and Satisfaction Scores). The means and standard deviations of the variables of interest for completers and terminators are presented in Table 3. A MANCOVA, controlling for child age, was conducted comparing completers versus terminators on the six dependent variables. The multivariate test was nonsignificant, F (6,25) = 2.13, $p < .05$. Examination of the univariate tests yielded a significant effect for IDD Scores, F (1,30) = 7.02, $p < .05$. Terminators of treatment had significantly greater reports of depression on the IDD than completers; this finding, however, should be interpreted with caution due to the nonsignificant MANCOVA.

Table 3

Means and Standard Deviations of Variables of Interest for the Total Sample[a] and Means for Completers[b], All Terminators[c], Early Terminators[d], and Late Terminators[e]

	Total Sample			Terminators		
Measure	M/Pro.	SD	Completers	All	Early	Late
Child Behavior Checklist (CBCL):						
Externalizing	68.51	10.22	67.28	70.00	69.80	70.43
Internalizing	63.18	11.92	61.72	64.93	66.00	62.80
Inventory to Diagnose Depression (IDD)						
	13.27	12.42	8.72	18.73	13.10	30.00
Parenting Sense of Competence Scale (PSOC):						
Efficacy	22.85	5.93	23.67	21.87	23.90	17.80
Satisfaction	32.39	7.01	33.22	31.40	32.90	28.40
Parenting Stress Index (PSI):						
Total Score	89.55	14.42	89.83	88.93	89.38	88.33
Child	91.97	11.36	91.61	92.36	92.38	92.38
Parent-Child	85.51	19.16	86.78	83.07	91.13	72.33
Parent	63.21	32.43	65.56	62.21	60.62	64.33

Table 3, continued

Means and Standard Deviations of Variables of Interest for the Total Sample[a] and Means for Completers[b], All Terminators[c], Early Terminators[d], and Late Terminators[e]

	Total Sample			Terminators		
Measure	M/Pro.	SD	Completers	All	Early	Late
Stages of Change Scale (SCS):						
Precontem.	29.39	3.46	28.83	30.00	29.25	31.00
Contem.	34.85	4.79	33.50	36.07	36.56	36.33
Action	31.82	4.79	30.61	33.36	33.75	32.83
Maintenance	25.27	5.99	24.83	25.93	23.88	28.67

Note. For the CBCL, IDD, and PSI, higher scores reflect greater dysfunction, symptoms, or level of stress. For the PSOC, higher scores reflect greater sense of parenting efficacy or satisfaction with parenting. For the SCS, higher scores reflect more identification with that stage.

[a]N = 39. [b]n = 18. [c]n = 15. [d]n = 10. [e]n = 5.

A stepwise discriminant function analysis was conducted to determine which and to what extent measures of child deviancy, maternal stress, depression, and parenting self-efficacy (predictor variables) predict completion of treatment (grouping variable). Table 4 presents the variables included in the analysis, the standardized canonical discriminant function coefficients (SDFs) for the variable that qualified for analysis, and, for the significant functions only, the variables' correlation with group status.

The results of the analysis yielded a significant function, $\underline{X}^2$ (1) = 5.54, $\underline{p}$ < .05. The canonical correlation, a measure of the degree of association between discriminant scores and group membership, was .41. With this function, 78% of the completers and 60% of the terminators were correctly classified (overall classification accuracy = 76%). As seen in Table 4, the variable which entered into the discriminant function was maternal report of depression (IDD Sum Score). The results of the discriminant function indicated that pretreatment assessment of maternal depression using the IDD was useful in predicting whether mothers completed or terminated treatment. Group means (see Table 3) indicate that mothers who terminated treatment were more depressed than mothers who completed treatment.

Table 4

Discriminant Analyses of Pretreatment Measures with Standardized Discriminant Function Coefficients (SDFs) and Correlations (r)

	Early term. vs. completers		Late term. vs. completers		Early term. vs. late term.		All term. vs. completers	
Domain/Msr.	SDF	r	SDF	r	SDF	r	SDF	r
Child Behavior Checklist (CBCL):								
Externalizing	----	----	----	.43	----	.37	----	.31
Internalizing	----	----	----	.23	----	.12	----	-.11
Inventory to Diagnose Depression (IDD)								
	----	----	1.00	1.00**	1.00	1.00*	1.00	1.00*
Parenting Sense of Competence Scale (PSOC):								
Efficacy	----	----	----	-.13	----	.02	----	-.28
Satisfaction	----	----	----	-.13	----	-.36	----	-.39
Parenting Stress Index (PSI):								
Total Score	----	----	----	.49	----	.43	----	.50
Stages of Change Scale (SCS):								
Precontem.	----	----	----	.65	----	.59	----	.48
Contem.	----	----	----	.69	----	-.34	----	.86

Table 4, continued

Discriminant Analyses of Pretreatment Measures with Standardized Discriminant Function Coefficients (SDFs) and Correlations (r)

	Early term. vs. completers		Late term. vs. completers		Early term. vs. late term.		All term. vs. completers	
Domain/Msr.	SDF	r	SDF	r	SDF	r	SDF	r
Stages of Change Scale (SCS), continued:								
Action	----	----	----	.66	----	-.13	----	.76
Maintenance	----	----	----	.58	----	.59	----	.21

Note. The correlations represent the association of individual measures with the criterion (e.g., dropping out or completing treatment, as designated by the set of groups listed in the columns). Empty spaces reflect variables which did not qualify for the analysis due to their low contribution to the classification of participants; thus no standard discriminant function coefficients were computed for those variables (and no canonical correlations if the function itself was nonsignificant).

*$p \leq .05$. **$p \leq .01$.

Completers versus both early and late terminators. An additional research question of this study guided the investigation of whether variables related to premature termination would vary as a function of whether families dropped out early or late in treatment. The means and standard deviations of the variables of interest for completers, early terminators, and late terminators are presented in Table 3. More terminators dropped out early in treatment (before 6th session) (n = 11) than late in treatment (after 6th session) (n = 5). Multivariate analyses were conducted with measures of child deviancy, maternal stress, depression, and parenting self-efficacy as dependent variables. The results of the MANCOVA were significant, F (12,48) = 2.03, $p < .05$, indicating that there were group differences on at least one of the dependent variables. Univariate tests indicated a significant group effect for one measure, the Inventory to Diagnose Depression, F (2,29) = 7.08, $p < .05$. Tukey's means comparison indicated that late terminators had significantly greater reports of depression than either early terminators or completers of treatment ($p < .05$). Early terminators and completers did not differ significantly from one another.

A second measure, the Parenting Sense of Competence Scale - Efficacy Score, approached significance, F (2,29) = 2.96, $p > .05$. Late terminators (M = 17.80, SD = 6.18) tended to feel less confident in their abilities as parents than early terminators (M = 23.90, SD = 4.79) or completers (M = 23.67, SD = 7.07). Maternal reports of stress and child deviancy did not differentiate completers from early and late terminators.

Completers versus early terminators. Three sets of discriminant function analyses were conducted to determine whether the variables of interest significantly predicted completers versus early terminators, completers versus late terminators, and early versus late terminators. Measures of maternal perceptions of child deviancy, parenting stress, maternal depression, and parenting self-efficacy were entered into three stepwise discriminant analyses. The results for completers versus early terminators revealed that no variables qualified for inclusion in the analysis; therefore, no chi square was computed. None of the pretreatment measures were useful in distinguishing mothers who completed treatment from those who terminated within the first six sessions.

Completers versus late terminators. The same variables which were entered in the previous analysis were utilized in the stepwise discriminant analysis for completers versus late terminators. The discriminant function was significant, canonical correlation = .61; X^2 (1) = 10.00, $p < .05$. With this function, 90% of the completers and 60% of the late terminators could be correctly classified (overall, 83%). As seen in Table 4, maternal report of depression (IDD Sum Scores) contributed most to the discriminant function and was most useful in predicting whether mothers would complete treatment or terminate during the last six sessions. Late terminators reported more depression prior to treatment than did completers (See Table 3).

Early versus late terminators. Analyses also examined differences between early and late dropouts across the variables of interest. Again, measures of

child deviancy, parenting stress, depression, and parenting self-efficacy were entered into a stepwise discriminant function analysis. The results revealed that the discriminant function was significant, canonical correlation = .56; $\underline{X}^2$ (1) = 4.62, $\underline{p} < .05$. With this function, 80% of the early terminators and 60% of the late terminators could be correctly classified (overall, 73%). As seen in Table 4, maternal report of depression (IDD Sum Scores) again contributed most to the discriminant function and was most useful in the prediction of whether mothers who did not complete treatment terminated within the first six sessions or within the last six sessions. Late terminators reported more depression prior to treatment than did early terminators (See Table 3).

Effects of readiness for change. Completers and terminators were also compared on stages of change, as measured by the Stages of Change Scale (SCS). Mothers' stage of change was indicated by the SCS scale (e.g., Precontemplation, Contemplation, Action, and Maintenance) upon which the highest score was obtained. An equally high score (within one point) on the Contemplation and Action scales indicated the Preparation Stage. The means and standard deviations of each stage for completers, all terminators, early terminators, and late terminators are presented in Table 3. A chi-square analysis comparing completers, early terminators, and late terminators across the five stages was nonsignificant, $\underline{X}^2$ (8) = 8.57, $\underline{p} > .05$, indicating that there was no association between readiness for self-change and the likelihood of

completing treatment. (The chi square analysis was conducted so that the Preparation stage, a categorical variable, could be included in the analyses.)

Multivariate analyses of covariance (MANCOVAs) comparing completers, early terminators, and late terminators were also conducted for each of the four continuous stages (Precontemplation, Contemplation, Action, Maintenance) on the Stages of Change Scale (SCS) using child's age as a covariate. The dependent variables were mothers' scores on each of the stages (except Preparation). The results of the MANCOVA were nonsignificant, F (8,52) = 1.19, $p > .05$. Examination of univariate F-tests indicated no significant effects. These results indicated that there were no differences between completers, early terminators, and late terminators on the SCS subscales .

Three sets of discriminant function analyses were conducted to determine whether the five stages of change significantly predict completers versus early terminators, completers versus late terminators, and early versus late terminators. For the purpose of these analyses, mothers were assigned a score of one or zero on each of the five SCS subscales. A score of one was assigned to the scale on which a subject scored highest (or, for the Preparation scale, a score of one was assigned if a subject scored equally high on the Contemplation and Action scales); a score of zero was assigned to the other scales. This method was utilized so that all five stages could be entered into the analyses. Similar to results of the MANCOVA analyses, results for each of the discriminant function analyses revealed that no variables qualified for inclusion in the

Table 5

Frequency of High, Moderate, and Low Distress Scores for Completers[a], Early Terminators[b], and Late Terminators[c]

Participants	PSI Total	IDD Sum	CBCL Ext.	CBCL Int.
Completers:				
High	4	7	5	5
Moderate	7	8	7	6
Low	7	3	6	7
Early Terminators:				
High	4	5	3	5
Moderate	1	2	5	3
Low	5	3	2	2
Late Terminators:				
High	4	3	2	2
Moderate	1	1	0	2
Low	0	1	3	1

[a]n = 18. [b]n = 10. [c]n = 5.

CHAPTER VI: DISCUSSION

The primary purpose of this study was to examine maternal, child, and treatment variables related to premature termination from group Parent-Child Interaction Therapy (PCIT) among mothers and their children referred for conduct problems. This study investigated variables that are known to be intertwined with the presenting problems of children with conduct problems and their families. Specifically, the present investigation examined whether child deviancy, parental distress, maternal readiness for change, and parenting self-efficacy would reliably differentiate families who terminated treatment prematurely from those who completed treatment. Additionally, it examined whether subgroups of PCIT dropouts could be identified and if different variables predict which parents will complete PCIT or terminate prematurely.

Preliminary analyses revealed that mothers who terminated prematurely from treatment during the first six weeks (i.e., early terminators) had significantly younger children than treatment completers and late terminators. There were no other significant demographic differences observed between completers, early terminators, and late terminators. Therapist experience (i.e., trainee vs. staff) also did not differentiate between mothers completing group PCIT and those terminating prematurely. Though this variable has demonstrated an effect upon persistence in other types of parent training programs, the thorough training of the PCIT therapists and the highly structured treatment protocol may have mediated the effect of therapist experience on completion of treatment.

When treatment completers and terminators were compared on pretreatment measures, results indicated that families who dropped out of PCIT did not differ significantly from treatment completers on measures of child deviancy, parenting stress, maternal depression, and parenting self-efficacy, even when the effects of child age were accounted for. However, exploratory examination of univariate follow-up tests did indicate that premature terminators reported more depression than completers, though this finding should be interpreted with caution. In addition, when the variables of interest were entered into a prediction model, scores on the Inventory to Diagnose Depression were significantly predictive of whether mothers completed treatment or terminated prematurely. Termination of treatment was associated with greater reports of depression. Similar to mean comparison analyses, maternal reports of child deviancy, parenting stress, and parenting self-efficacy did not predict treatment completion or termination from group PCIT.

Results also indicated that subgroups of premature terminators of PCIT can be identified and that variables relate differentially to their risk for dropping out. Indeed, in this study, only when differences between early versus late terminators were examined did significant differences between treatment completers and terminators become apparent. Given the division of PCIT into two distinct treatment phases (i.e., Child-Directed Interaction and Parent-Directed Interaction), it seems especially important to examine the differences between subgroups of treatment terminators and the different variables which

may predict termination during each phase. In fact, the findings revealed that completers, early terminators, and late terminators were significantly different with regard to maternal depression. Specifically, late terminators were more depressed than both early terminators and treatment completers. Additionally, though not a significant finding, late terminators tended to report less confidence in their parenting abilities than completers. Measures of parenting stress, satisfaction with parenting, and child deviancy did not differentiate between treatment completers, early terminators, and late terminators. Overall, results suggested that combining all individuals who drop out at any point may obscure important variables that influence dropping out at different points during treatment.

When the variables of interest were examined to test their ability to predict completers versus early terminators, completers versus late terminators, and early versus late terminators, maternal depression again emerged as an important variable in the second and third comparisons. Scores on the Inventory to Diagnose Depression distinguished those who dropped out of treatment during the second, discipline-oriented phase (Parent-Directed Interaction; PDI) from both completers and those who dropped out of the first, relationship-building phase (Child-Directed Interaction; CDI). That is, greater reports of depression prior to treatment were predictive of dropping out of PDI. No other variable was useful in predicting whether mothers completed treatment, dropped out during CDI, or dropped out during PDI.

The significant influence of maternal depression and no other variable upon premature termination is interesting for two reasons. First, only late terminators were negatively impacted by this variable, and mothers who experienced the most depression persisted in treatment longer than early terminators. There are several possible explanations for this finding. It may be that the CDI phase, with its emphasis on building a positive, mutually rewarding relationship between mother and child, somehow inoculated these depressed mothers from dropping out during the first six weeks by allowing them to feel a sense of accomplishment and optimism regarding their treatment. On the other hand, the PDI phase, which requires mothers to practice responding to noncompliance and disruptive behavior in a consistent, predictable manner, may overwhelm depressed mothers who are feeling dysphoric, fatigued, helpless, and ineffectual. Further understanding of how depression impacts premature termination may enable clinicians to develop strategies for depressed mothers that provide ongoing hope and confidence in treatment and more support to mothers so that they feel less overwhelmed and more able to manage their child's behavior.

Alternatively, using Lewinsohn's theory of social reinforcement (as cited in Gilbert, 1992), it could be argued that participation in CDI may increase the amount of reciprocal positive reinforcement mothers experience, thus enhancing mood and encouraging mothers to continue treatment. This theory hypothesizes that depression is related to low rates of response-contingent positive reinforcement due to few reinforcing events in the environment and to poor

social skills. Lewinsohn et al. suggested that depressed people are less likely to emit behavior which is potentially reinforcable and thus have difficulty eliciting positive reinforcement from others. Therefore, a depressed person's interpersonal behavior tends to alienate them from potential sources of social reinforcement. Based on this theory, treatments have been developed which are geared toward enhancing the quantity and quality of positively reinforcing interactions between depressed individuals and their environment and to decrease the quantity and quality of aversive interactions (e.g., Teri & Lewinsohn, 1985); this type of treatment has demonstrated significant improvements in depressed mood. It may be that CDI, with its emphasis on fostering a mutually positive relationship between parent and child, enhances depressed mothers' mood and motivates them to continue in treatment. In fact, CDI specifically teaches mothers to behave in a way that will elicit positively reinforcing behavior and reduce unpleasant behavior in their child. For example, mothers are taught to praise appropriate behavior in their child, and the child in turn is more likely to increase this behavior in hopes of receiving more praise. Though depressed mothers may continue through the CDI phase because of the increase in mutually positive interactions, they may be less likely to persist in the PDI phase because of its emphasis on discipline. Even though the discipline program is taught within the context of play in PDI, depressed mothers may perceive these interactions with their child as more aversive. In contrast to learning how to enhance the parent-child relationship, during PDI, mothers are

taught to give commands to their child and deliver consistent consequences for compliance and noncompliance. Especially in the first few sessions of PDI, children often become quite frustrated and oppositional during play when required to obey a request. Consequently, depressed mothers may begin to feel discouraged, unhappy, and fatigued during this phase and may be less likely to persist in treatment. Future studies are needed to specifically examine the effects of CDI (and PDI) on depression, perhaps by assessing mood before and after each phase of treatment. It would also be interesting to vary the order of presentation of CDI and PDI to see if depressed mothers drop out more from PDI than CDI regardless of which phase is presented first.

Second, it is interesting to note that depression, the only significant variable related to premature termination from PCIT, is also the only variable in this study which is not limited in its scope to parenting a child with conduct problems. Stress and self-efficacy were assessed almost exclusively within the domain of parenting (the PSI has a few items related to income, education, etc.), and child deviance was measured by maternal report. Perhaps a broader view of the variables impinging on mothers who terminate from treatment needs to be employed, such as overall self-esteem and stress related to life events across a wider array of domains.

The nonsignificant findings related to parenting stress and self-efficacy are puzzling. It is unclear why these variables did not differentiate between groups or predict treatment completion or termination in this sample. Of course, one

explanation is that these groups do not actually differ on these dimensions. Alternatively, contributing factors such as measurement error and low statistical power may have had an impact. For parenting stress, the nonsignificant findings may result from a ceiling effect, or limits in the range of scores obtained on the Parenting Stress Index. Such an effect reflects decreased variability in a measure which accounts for the lack of significant findings (Kazdin, 1992). Change in the PSI may reach an upper limit, and further change cannot be demonstrated because of this limit. If even higher scores or a greater spread of scores were permitted, and a greater amount of change could be demonstrated, different conclusions might be reached. Given the self-selected sample of parents who were referred to a clinic for the treatment of child behavior problems in the present study, a high degree of parenting stress would be expected. In fact, eight of the fifteen mothers who terminated prematurely reported total stress levels in the 99th percentile or above, and six of the sixteen mothers who completed treatment reported similar stress levels. The raw scores which achieve the 99th percentile rank can range from 112 to 180, a span of 68 points; the other (1st through 95th) percentiles have scores which range from a span of 1 to a span of 8. It is possible that the 99th+ percentile rank obscures more subtle differences between study participants. Future studies could avoid this problem by arbitrarily creating groups by dividing PSI scores into high, medium, and low groups and examining whether differences become more apparent.

With regard to parenting self-efficacy, the Efficacy dimension appears to differentiate between participants more reliably than the Satisfaction dimension. That is, confidence in parenting ability may be more related to dropping out of PCIT than satisfaction as a parent. However, neither dimension is significantly related to treatment completion or termination. These null results may be related to low statistical power, given the relatively small sample size (N = 39). Perhaps with a larger sample, a significant effect for the Efficacy dimension would have been detected. Another explanation is that the Parenting Sense of Competence Scale is a less than ideal measure of parenting self-efficacy.

It is notable that more mothers dropped out of PCIT earlier in treatment. This finding is consistent with earlier studies. In this study, one possible explanation for this finding is that the traditional CDI-first format of PCIT may influence mothers seeking immediate help with discipline to give up during the relationship building phase (CDI) and terminate prior to the discipline phase (PDI). That is, treatment expectation may have an impact on whether or not families persist in PCIT. One approach to curbing attrition in families seeking immediate help with discipline might be to assess treatment expectation prior to treatment. Then, based on this assessment, families who express such a need could receive the PDI phase prior to the CDI phase. At least one controlled study suggests that presenting the discipline phase (PDI) before the relationship-building phase (CDI) has no adverse effects (Eisenstadt et al., 1993). In fact, this study indicated that families receiving PDI first were more

satisfied with treatment and demonstrated more improvement on parent report of child conduct problems. In another study on dropping out of parent behavioral training, Frankel and Simmons (1992) found that the major variable operating against premature termination in their sample was a higher degree of positive expectancy of change. Given these findings, further investigation of parent expectation as it relates to dropping out of PCIT is warranted.

In our sample, parents who remained in treatment and those who dropped out late in treatment had older children than those who terminated early in treatment. It has been suggested that parents of older children may have already "tried everything" to address their children's behavior problems with little success (Firestone & Witt, 1982, p. 212). Thus, they may have been desperate for help and more likely to stick with treatment, or at least to persist through the first phase. Parents of younger children might not yet have experienced such failures and thus felt less motivated to persist in treatment.

Maternal readiness for self-change was not related to persistence through treatment. This finding is inconsistent with a number of studies which have investigated readiness for change in the context of weight loss, smoking cessation, and many other self-improvement-oriented treatments. It may be that, prior to being oriented to PCIT, mothers are unaware that the primary agent of change in this program is the parent rather than the child. Thus, a measure which assesses readiness for self-change (i.e., readiness to change parenting style) prior to the onset of this program may not be appropriate. Perhaps

readiness for change is also affected by expectation for treatment. Thus, once mothers have a better understanding of the rationale underlying PCIT, their readiness for self-change may be different. Further research in this area should consider assessing mothers' readiness for self-change following a PCIT orientation session.

Exploratory analyses investigating the effects of extreme levels of distress (i.e., stress, depression, and reports of child deviancy) on dropping out of treatment indicated that distress level was unrelated to premature termination from treatment. It was proposed that highly distressed mothers may feel overwhelmed and drop out of treatment because they lacked the resources to continue, while mothers who were not very distressed may drop out because they lacked the motivation to continue. However, based on this study's findings, this does not appear to be the case.

As mentioned previously, by investigating variables related to premature termination from group PCIT, strategies can be developed which can be used to identify those at risk for dropping out and to reduce the rate of attrition. Many approaches that have previously been explored in preventing premature termination from treatment (Kazdin, 1990). For example, special orientations and pretreatment interviews, various mailings and methods of scheduling appointments, and monetary incentives have been utilized as methods of engaging and retaining patients in treatment (see Baekeland & Lundwall, 1975; Flick, 1988; Garfield; 1986). These and other related procedures, investigated

in the context of adult psychotherapy, may be helpful in the treatment of children and their families, and, specifically, in PCIT.

Given that mothers in this study who terminated treatment prematurely were more depressed than those completing treatment, a support group or simultaneous individual treatment for mothers' depression may also enhance persistence in treatment. Alternatively, depressed mothers may benefit from participating in individual PCIT rather than group PCIT; in this one-on-one format, the pace or treatment can be gauged by the mother's progress and personal treatment needs. Other treatment programs have occasionally incorporated components designed specifically to address sources of maternal distress (e.g., marital discord, social isolation). The general effect has been to enhance treatment outcome relative to treatment without these components (e.g., Daads, Schwartz, & Sanders, 1987; Griest et al., 1982). Whether the inclusion of such components can reduce premature termination in PCIT warrants investigation.

There are several limitations in the present study that need to be addressed. Conceivably, the findings are limited by the uniqueness of the population studied (i.e., children with conduct problems between the ages of 2½ and 7 and their mothers). The present findings may not generalize to families whose children are older, referred for other types of dysfunction, or receive another type of treatment. However, one purpose of this study was to focus on a relatively circumscribed population. As noted earlier, parent and family

characteristics are likely to be significant variables in the premature termination in child treatment, and these characteristics can vary greatly for different child problems (Kazdin et al., 1993). Further research is needed to investigate the predictors that may be specific to particular types of child dysfunction and those that may generalize across treatment samples.

Second, the scope of this study is limited to the variables identified at intake that may place families at risk for and predict subsequent premature termination from PCIT. Other variables which have their onset after treatment has begun may be important as well. For example, parent and child views of the treatment program and the therapists, the "fit" of the family in the treatment group, and the congruence of parent expectations with treatment approaches represent influences that could readily contribute to dropping out of treatment. However, these variables and others which may impact persistence in treatment once it has begun were not addressed in this study. Nonetheless, reliable differences between groups and reliable predictors of premature termination from treatment were identified. These differences provide an important foundation for understanding premature termination in PCIT for children with conduct problems and their families. However, further research is warranted to address variables throughout the PCIT program which place families at risk for dropping out.

Third, the interest concerning premature termination is built on the assumption that persistence in treatment is related to more desirable results.

However, this study did not evaluate the outcome of cases who dropped out or completed treatment. Research does indicate that untreated conduct problems do not have a favorable prognosis. In fact, untreated children may continue to display aggressive and antisocial behavior into adolescence or adulthood or experience other types of dysfunction as well (see Kazdin, 1987; Pepler & Rubin, 1991). Unfortunately, there is a lack of data concerning the long-term outcome of untreated children and even less information on those that drop out of treatment (Firestone & Witt, 1982). Thus, it is difficult to argue that treated cases show any better long-term outcome (Kazdin et al., 1993). Until this information is available, it remains unclear exactly how detrimental dropping out of treatment is for these children and their families.

Finally, as mentioned previously, order of treatment phase presentation may be an important variable in premature termination from PCIT. Two important questions remain. First, based on findings in the present study that, in general, more mothers dropped out of CDI than PDI, do more mothers drop out of treatment when CDI is presented first versus PDI first? More specifically, do more mothers drop out of the first phase of treatment regardless of which it is, or do they drop out of CDI more than PDI whether it is presented first or last? Second, based on results in the present study that depressed mothers terminated prematurely from PDI but not CDI, do depressed mothers drop out of PDI regardless of phase presentation? In other words, would they drop out of PDI at the same rate if it were presented first rather than last? It is

recommended that future studies include order of phase presentation with other variables (e.g., maternal depression) to examine their effects on premature termination.

In conclusion, the present findings may have important implications for the treatment of children with conduct disorder and their families participating in PCIT. The indiscriminant administration of parent-training programs such as PCIT without regard for parents' problems may invite high attrition rates (Firestone & Witt, 1982). This study indicates that depression in mothers has a detrimental impact on continuation in PCIT. Identification of depressed mothers prior to treatment and utilization of a preventive tactic, such as the addition of a support group or individual therapy for depressed mothers or individual PCIT instead of group PCIT, may enhance persistence in PCIT.

References

Abidin, R. R. (1983). Parenting Stress Index - manual. Charlottesville, VA: Pediatric Psychology Press.

Abidin, R. (1990). Parenting Stress Index - Short Form - manual (3rd ed.). Charlottesville, VA: Pediatric Psychology Press.

Achenbach, T. M. (1966). The classification of children's psychiatric symptoms: A factor analytic study. Psychology Monographs, 80, 1-37.

Achenbach, T. M., & Edelbrock, C. S. (1979). The Child Behavior Profile: II. Boys aged 12-16 and girls aged 6-11 and 12-16. Journal of Consulting and Clinical Psychology, 47, 223-233.

Achenbach, T. M., & Edelbrock, C. S. (1981). Behavioral problems and competencies reported by parents of normal and disturbed children aged four through sixteen. Monographs of the Society for Research and Development, 46, (1, Serial No. 108).

Achenbach, T. M. (1991). Manual for the Child Behavior Checklist/4-18 and 1991 Profile. Burlington, VT: University of Vermont Department of Psychiatry.

Achenbach, T. M. (1992). Manual for the Child Behavior Checklist/2-3 and 1992 Profile. Burlington, VT: University of Vermont Department of Psychiatry.

Albin, J. B., Lee, B., Dumas, J., & Slater, J. (1985). Parent training with Canadian families. Canada's Mental Health, 33, 20-24.

American Psychiatric Association. (1987). Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, DC: Author.

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: Author.

Armbruster, P., & Kazdin, A. E. (1994). Attrition in child psychotherapy. Advances in Clinical Child Psychology, 16, 81-108.

Baekeland, F., & Lundwall, L. (1975) Dropping out of treatment: A critical review. Psychological Bulletin, 82, 738-783.

Bandura, A. (1982). Self-efficacy in human agency. American Psychologist, 37, 122-147.

Barkley, R. A. (1981). Hyperactive children: A handbook for diagnosis and treatment. New York: Guilford Press.

Baum, C. G. (1989). Conduct disorders. In T. H. Ollendick & M. Hersen (Eds.), Handbook of Child Psychopathology (2nd ed., pp. 171-196). New York: Plenum.

Beautrais, A. L., Fergusson, D. M., & Shannon, F. T. (1982). Family life events and behavioral problems in preschool-aged children. Pediatrics, 70, 774-779.

Beavers, W. R., & Hampson, R. B. (1990). Successful Families: Assessment and Intervention. New York: Norton.

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. Archives of General Psychiatry, 4, 53-63.

Bendell, D., Stone, W., Field, T., & Goldstein, S. (1989). Children's effects on parenting stress in a low income, minority population. Topics in Early Childhood Education, 8, 58-71.

Bernal, M., Klinnert, M., & Schultz, L. (1980). Outcome evaluation of behavioral parent training and client-centered parent counseling for children with conduct problems. Journal of Applied Behavioral Analysis, 13, 677-691.

Bernier, M., & Avard, J. (1986). Self-efficacy, outcome, and attrition in a weight-reduction program. Cognitive Therapy and Research, 10, 319-338.

Bischoff, R. J., & Sprenkle, D. H. (1993). Dropping out of marriage and family therapy: A critical review of research. Family Process, 32, 353-375.

Brandt, L. W. (1965). Studies of "dropout" patients in psychotherapy: A review of findings. Psychotherapy: Theory, Research, and Practice, 2, 6-11.

Brody, G. H., & Forehand, R. (1986). Maternal perceptions of child maladjustment as a function of the combined influence of child behavior and maternal depression. Journal of Consulting and Clinical Psychology, 54, 237-240.

Bugental, D. B., & Shennum, W. A. (1984). " Difficult" children as elicitors and targets of adult communication patterns: An attributional-behavioral transactional analysis. Monographs of the Society for Research in Child Development, 49 (1, Serial No. 205).

Campbell, S. B., & Ewing, L. J. (1990). Follow-up of hard-to-manage preschoolers: Adjustment at age 9 and predictors of continuing symptoms. Journal of Child Psychology and Psychiatry, 31, 871-890.

Capaldi, D., & Patterson, G. R. (1987). An approach to the problem of recruitment and retention rates for longitudinal research. Behavioral Assessment, 9, 169-177.

Cartwright, R., Lloyd, S., & Wicklund, J. (1980). Identifying early dropouts from psychotherapy. Psychotherapy: Theory, Research, and Practice, 17, 263-267.

Conrad, M., & Hammen, C. (1989). Role of maternal depression in perceptions of child maladjustment. Journal of Consulting and Clinical Psychology, 57, 663-667.

Cox, A. D., Puckering, C., Pound, A., & Mills, M. (1987). The impact of maternal depression in young children. Journal of Child Psychology and Psychiatry, 28, 917-928.

Crnic, K. A., & Greenberg, M. T. (1990). Minor parenting stresses with young children. Child Development, 61, 1628-1637.

Cunningham, E., Bremner, R., Boyle, M. (1995). Large group community-based parenting programs for families of preschoolers at risk for disruptive behaviour disorders: Utilization, cost effectiveness, and outcome. Journal of Child Psychology & Psychiatry & Allied Disciplines, 36, 1141-1159.

Daugherty, T. K., & Quay, H. C. (1991). Response to perseveration and delayed responding in childhood behaviour disorders. Journal of Child Psychology and Psychiatry, 32, 453-462.

DiClemente, C., & Prochaska, J. O. (1982). Self-change and therapy change of smoking behavior: A comparison of processes of change in cessation and maintenance. Addictive Behavior, 7, 133-142.

Dodge, K. A. (1990). Developmental psychopathology in children of depressed mothers. Developmental Psychology, 26, 3-6.

Downey, G., & Coyne, J. C. (1990). Children of depressed parents: An integrative review. Psychological Bulletin, 108, 50-76.

DuBrin, J. R., & Zastowny, T. R. (1988). Predicting early attrition from psychotherapy: An analysis of a large private-practice cohort. Psychotherapy, 25, 393-408.

Dumas, J. E., Gibson, J. A., & Albin, J. B. (1989). Behavioral correlates of maternal depressive symptomatology in conduct-disorder children. Journal of Consulting and Clinical Psychology, 57, 516-521.

Dumas, J. E., & Wahler, R. G. (1983). Predictors of treatment outcome in parent training: Mother insularity and socioeconomic disadvantage. Behavioral Assessment, 5, 301-313.

East, P. L. (1991). The parent-child relationships of withdrawn, aggressive, and sociable children: Child and parent perspectives. Merrill-Palmer Quarterly, 37, 425-444.

Eisenstadt, T. H., Eyberg, S., McNeil, C. B., & Newcomb, K. (1993). Parent-child interaction therapy with behavior problem children: Relative effectiveness of two stages and overall treatment outcome. Journal of Clinical Child Psychology, 22, 42-51.

Elliot, D. S., & Ageton, S. S. (1980). Reconciling race and class differences in self-reported and official estimates of delinquency. American Sociological Review, 45, 95-110.

Ewalt, P., Cohen, M., & Harmatz, J. (1972). Prediction of treatment acceptance by child guidance clinic applicants: An easily applied instrument. American Journal of Orthopsychiatry, 42, 857-864.

Eyberg, S. M. (1988). Parent-child interaction therapy: Integration of traditional and behavioral concerns. Child and Family Behavior Therapy, 10, 33-46.

Eyberg, S. M., Boggs, S. R., & Rodriguez, C. M. (1992). Relationships between maternal parenting stress and child disruptive behavior. Child and Family Behavior Therapy, 14, 1-9.

Eyberg, S. M., & Johnson, S. M. (1974). Multiple assessment of behavior modification with families. Journal of Consulting and Clinical Psychology, 42, 594-606.

Eyberg, S. M., & Matarazzo, R. G. (1980). Training parents as therapists: A comparison between individual parent-child interaction training and parent group didactic training. Journal of Clinical Psychology, 36, 492-499.

Eyberg, S. M., & Robinson, E. A. (1982). Parent-child interaction training: Effects of family functioning. Journal of Clinical Child Psychology, 11, 130-137.

Eyberg, S., & Ross, W. (1978). Assessment of child behavior problems: The validation of a new inventory. Journal of Clinical Child Psychology, 7, 113-116.

Fergusson, D. M., Horwood, L. J., Gretton, M. E., & Shannon, F. T. (1985). Family life events, maternal depression, and maternal and teacher descriptions of child behavior. Pediatrics, 75, 30-35.

Fergusson, D. M., Horwood, L. J., & Shannon, F. T. (1984). Relationship of family life events, maternal depression, and child rearing problems. Pediatrics, 73, 773-776.

Fergusson, D. M., Lynskey, M. T., & Horwood, L. J. (1993). The effect of maternal depression on maternal ratings of child behavior. Journal of Abnormal Child Psychology, 21, 245-269.

Firestone, P., Kelly, M. J., & Fike, S. (1980). Are fathers necessary in parent training groups? Journal of Clinical Child Psychology, 9, 44-47.

Firestone, P, & Witt, J. E. (1982). Characteristics of families completing and prematurely discontinuing a behavioral parent-training program. Journal of Pediatric Psychology, 7, 209-222.

Fischer, M., Rolf, J. L., Hasazi, J., & Cummings, L. (1984). Follow-up of a preschool epidemiological sample: cross-age continuities and predictions of later

adjustment with externalizing and internalizing dimensions of behavior. Child Development, 55, 137-150.

Flick, S. N. (1988). Managing attrition in clinical research. Clinical Psychology, 43, 499-515.

Forehand, R., Furey, W. M., & McMahon, R. J. (1984). The role of maternal distress in a parent training program to modify child non-compliance. Behavioral Psychotherapy, 12, 93-108.

Forehand, R., & Long, N. (1988). Outpatient treatment of the acting out child: Procedures, long term follow-up data, and clinical problems. Advances in Behaviour Research and Therapy, 10, 129-177.

Forehand, R., & McMahon, R. (1981). Helping the noncompliant child: A clinician's guide to parent training. New York: Guilford Press.

Forehand, R., Middlebrook, J., Rogers, T., & Steffe, M. (1989). Dropping out of parent training. Behaviour Research and Therapy, 21, 663-668.

Frank, J. D., Gliedman, L. H., Imber, S. D., Nash, E. H., & Stone, A. R. (1957). Why patients leave psychotherapy. Archives of Neurology and Psychiatry, 77, 283-299.

Frankel, F., & Simmons, J. Q. (1992). Parent behavioral training: Why and when some parents drop out. Journal of Clinical Child Psychology, 21, 322-330.

Friedlander, S., Weiss, D., & Traylor, J. (1986). Assessing the influence of maternal depression on the Child Behavior Checklist. Journal of Abnormal Child Psychology, 14, 123-133.

Gardner, E. M. (1987). Positive interaction between mothers and children with conduct problems: Is there training for harmony as well as fighting? Journal of Abnormal Child Psychology, 15, 283-293.

Gardner, E. M. (1989). Inconsistent parenting: Is there evidence for a link with children's conduct problems? Journal of Abnormal Child Psychology, 17, 223-233.

Gardner, E. M. (1992). Parent-child interaction and conduct disorder. Educational Psychology Review, 4, 135-163.

Garfield, S. L. (1978). Research on client variables in psychotherapy (pp. 213-256). In S. L. Garfield & A. E. Bergin (Eds.), Handbook of psychotherapy and behavior change (3rd ed.). New York: John Wiley & Sons.

Gelfand, D., & Teti, J. (1990). The effects of maternal depression on children. Clinical Psychology Review, 10, 329-353.

Gelfand, D. M., Teti, D. M., & Fox, C. E. R. (1992). Sources of parenting stress for depressed and nondepressed mothers of infants. Journal of Clinical Child Psychology, 21, 262-272.

Gilbert, P. (1992). Depression: The evolution of powerlessness. New York: Guilford.

Goldston, D. B., O'Hara, M. W., Schartz, H. A. (1992). Reliability, validity, and preliminary normative data for the Inventory to Diagnose Depression in a college population. Psychological Assessment, 4, 212-215.

Gould, M. S., Shaffer, D., & Kaplan, D. (1985). The characteristics of dropouts from a child psychiatry clinic. Journal of the American Academy of Child Psychiatry, 24,316-328.

Grief, E. F. (1978). A comparison of individual and group parent-child interactions training. Dissertation Abstracts International, 39 (03) 1436A.

Griest, D. L., & Forehand, R. (1982). How can I get any parent training done with all these other problems? The role of family variables in child behavior therapy. Child and Family Behavior Therapy, 4, 73-80.

Griest, D. L., Forehand, R., Wells, K. C., & McMahon, R. J. (1980). An examination of differences between nonclinic and behavior problem clinic-referred children and their mothers. Journal of Abnormal Psychology, 3, 497-500.

Griest, D., & Wells, K. C. (1983). Behavioral family therapy with conduct disorders in children. Behavior Therapy, 14, 37-53.

Griest, D., Wells, K. C., & Forehand, R. (1979). An examination of predictors of maternal perceptions of maladjustment in clinic-referred children. Journal of Abnormal Psychology, 88, 277-281.

Gross, D., Conrad, B., Fogg, L., & Wothke, W. (1994). A longitudinal model of maternal self-efficacy, depression, and difficult temperament during toddlerhood. Research in Nursing and Health, 17, 207-215

Gross, D., Fogg, L., & Tucker, S. (1995). The efficacy of parent training for promoting positive parent-toddler relationships. Research in Nursing & Health, 18, 489-499.

Hall, L. A., & Farel, A. M. (1988). Maternal stresses and depressive symptoms: Correlates of behavior problems in young children. Nursing Research, 37, 156-161.

Hewitt, L., & Jenkins, R. (1946). Fundamental patterns of maladjustment: The dynamics of their origin. Springfield, IL: The State of Illinois.

Hiler, E. W. (1959). Initial complaints as predictors of continuation in psychotherapy. Journal of Clinical Psychology, 15, 344-345.

Hogan, A. E., & Quay, H. C. (1984) Cognition in child and adolescent behavior disorders. In B. Lahey & A. Kazdin (Eds.), Advances in Clinical Child Psychology: Vol. 7 (pp. 1-34). New York: Plenum.

Hops, H., Biglan, A., Sherman, L., Arthur, J., Friedman, L., & Osteen, V. (1987). Home observations of family interactions of depressed women. Journal of Consulting and Clinical Psychology, 55, 341-346.

Humphries, L, Forehand, R., McMahon, R., & Roberts, M. (1978). Parent behavioral training to modify child noncompliance: Effects on untreated siblings. Journal of Behavior Therapy and Experimental Psychiatry, 9, 235-238.

Johnson, S. M., & Christensen, A. (1975). Multiple criteria follow-up of behavior modification with families. Journal of Abnormal Child Psychology, 3, 135-154.

Johnston, C. (1988). A behavioral-family systems approach to assessment: Maternal characteristics and externalizing child behavior. In R. J. Prinz (Ed.), Advances in behavioral assessment of children and families (Vol. 4, pp. 163-189). Greenwich, CT: JAI Press.

Johnston, C., & Mash, E. J. (1989). A measure of parenting satisfaction and efficacy. Journal of Clinical Child Psychology, 18, 167-175.

Johnston, C., & Pelham, W. E. (1990). Maternal characteristics, ratings of child behavior, and mother-child interactions in families of children with externalizing disorders. Journal of Abnormal Child Psychology, 18, 407-417.

Kazdin, A. E. (1987a). Conduct disorders in childhood and adolescence. Newbury Park, CA: Sage.

Kazdin, A. E. (1987b). Treatment of antisocial behavior in children: Current status and future directions. Psychological Bulletin, 102, 187-203.

Kazdin, A. E. (1990). Premature termination from treatment among children referred for antisocial behavior. Journal of Child Psychology and Psychiatry and Allied Disciplines, 31, 415-425.

Kazdin, A. E. (1992). Research design in clinical psychology (2nd ed.). Needham Heights, MA: Allyn & Bacon.

Kazdin, A. E., & Armbruster, P. (1994). Attrition in child psychotherapy. Advances in Clinical Child Psychology, 16 , 81-108.

Kazdin, A. E., Bass, D., Ayers, W. A., & Rodgers, A. (1990). Empirical and clinical focus of child and adolescent psychotherapy research. Journal of Consulting and Clinical Psychology, 58, 729-740.

Kazdin, A. E., & Esveldt-Dawson, K. (1986). The Interview for Antisocial Behavior: Psychometric characteristics and concurrent validity with child psychiatric inpatients. Journal of Psychopathology and Behavioral Assessment, 8, 289-303.

Kazdin, A. E., & Mazurick, J. L. (1994). Dropping out of child psychotherapy: Distinguishing early and late dropouts over the course of treatment. Journal of Consulting and Clinical Psychology, 62, 1069-1074.

Kazdin, A. E., Mazurick, J. L., & Bass, D. (1993). Risk for attrition in treatment of antisocial children and families. Journal of Clinical Child Psychology, 22, 2-16.

Kazdin, A. E., Siegel, T. C., & Bass, D. (1990). Drawing upon clinical practice to inform research on child and adolescent psychotherapy: A survey of practitioners. Professional Psychology: Research and Practice, 21, 189-198.

Kendziora, K. T., & O'Leary, S. G. (1993). Dysfunctional parenting as a focus for prevention and treatment of child behavior problems. In T. H. Ollendick & R. J. Prinz (Eds.), Advances in Clinical Child Psychology: Vol. 15. New York: Plenum Press.

Kochanska, G., Kuczynski, L., & Maguire, M. (1989). Impact of diagnosed depression and self-reported mood on mothers' control strategies: A longitudinal study. Journal of Abnormal Child Psychology, 17, 493-511.

Krech, K. H., & Johnston, C. (1992). The relationships of depressed mood and life stress to maternal perceptions of child behavior. Journal of Clinical Child Psychology, 21, 115-122.

Lang, C., Field, T., Pickens, J., & Martinez, A. (1996). Preschoolers of dysphoric mothers. Journal of Child Psychology and Psychiatry and Allied Disciplines, 37, 221-224.

Lefkowitz, M. M., Eron, L. D., Walder, L. O., & Huesmann, L. R. (1977). Growing up to be violent: A longitudinal study of the development of aggression. Elmsford, NY: Pergamon.

Lloyd, B. H., & Abidin, R. R. (1985). Revision of the Parenting Stress Index. Journal of Pediatric Psychology, 10, 169-177.

Lochman, J. E., & Brown, M. V. (1980). Evaluation of dropout clients and of perceived usefulness of a parent education program. Journal of Community Psychology, 8, 132-139.

Loeber, R. (1982). The stability of antisocial and delinquent behavior: A review. Child Development, 53, 1431-1446.

Longo, D. A., Lent, R. W., & Brown, S. D. (1992). Social cognitive variables in the prediction of client motivation and attrition. Journal of Counseling Psychology, 39, 447-452.

Lytton, H. (1990). Child and parent effects in boy's conduct disorder: A reinterpretation. Developmental Psychology, 26, 683-697.

Mash, E. J., & Johnston, C. (1983). Parental perceptions of child behavior problems, parenting self-esteem, and mothers' reported stress in younger and older hyperactive and normal children. Journal of Consulting and Clinical Psychology, 51, 86-99.

Mash, E. J., & Johnston, C. J. (1990). Determinants of parenting stress: Illustrations from families of hyperactive children and families of physically abused children. Journal of Clinical Child Psychology, 19, 313-328.

Mattison, R. E., Cantwell, D. P., & Baker, L. (1980). Dimensions of behavior in children with speech and language disorders. Journal of Abnormal Child Psychology, 8, 323-338.

McAdoo, W. G., & Roeske, N. A. (1973). A comparison of defectors and continuers in a child guidance clinic. Journal of Consulting and Clinical Psychology, 40, 328-334.

McConnaughy, E. A., DiClemente, C. C., Prochaska, J. O., & Velicer, W. F. (1989). Stages of change in psychotherapy: A follow-up report. Psychotherapy, 26, 83-85.

McConnaughy, E. A., Prochaska, J. O., Velicer, W. F., & DiClemente, C. C. (1983). Stages of change in psychotherapy: Measurement and sample profiles. Psychotherapy, 20, 368-375.

McMahon, R. J., Forehand, R., Griest, D. L., & Wells, K. C. (1981). Who drops out of treatment during parent behavioral training? Behavioral Counseling Quarterly, 1, 79-85.

McMahon, R. J., & Wells, K. C. (1989). Conduct disorders. In E. J. Mash & R. A. Barkley (Eds.), Treatment of childhood disorders. New York: Guilford Press.

McNeil, C. B., Eyberg, S. M., Eisenstadt, T. H., Newcomb, K., & Funderburk, B. (1991). Parent-Child Interaction Therapy with behavior problem children: Generalization of treatment effects to the school setting. Journal of Clinical Child Psychology, 20, 140-151.

Middlebrook, J., & Forehand, R. (1985). Maternal perceptions of deviance in child behavior as a function of stress behavior and clinic and non-clinic status of the child: An analogue study. Behavior Therapy, 16, 494-502.

Mouton, P., & Tuma, J. (1988). Stress, locus of control, and role satisfaction in clinic and control mothers. Journal of Clinical Child Psychology, 17, 217-224.

Needlman, R., Stevenson, J., & Zuckerman, B. (1991). Psychosocial correlates of severe temper tantrums. Journal of Developmental and Behavioral Pediatrics, 12, 77-83.

O'Dell, S. L. (1985). Progress in parent training. In M. Hersen, R. M. Eisler, & P. M. Miller (Eds.), Progress in behavior modification (Vol. 9, pp. 57-108). New York: Academic Press.

Patterson, G. R. (1982). Coercive family processes. Eugene, OR: Castalia.

Patterson, G. R. (1986). Performance models for antisocial boys. American Psychologist, 41, 432-444.

Peed, S., Roberts, M., & Forehand, R. (1977). Evaluation of the effectiveness of a standardized parent training program in altering the interaction of mothers and their noncompliant children. Behavior Modification, 1, 323-350.

Pekarik, G. (1985). The effects of employing different termination classification criteria in dropout research. Psychotherapy, 22, 86-91.

Pekarik, G., & Stephenson, L. A. (1988). Adult and child client differences in therapy dropout research. Journal of Clinical Child Psychology, 17, 316-321.

Pepler, D. J., & Rubin, K. H. (Eds.). (1991). The development and treatment of childhood aggression. Hillsdale, NF: Lawrence Erlbaum Associates, Inc.

Peterson, D. R. (1961). Behavior problems of middle childhood. Journal of Consulting Psychology, 25, 205-209.

Pevsner, R. (1982). Group parent training versus individual family therapy: An outcome study. Journal of Behavior Therapy and Experimental Psychiatry, 13, 119-122.

Plomin, R. (1983). Childhood temperament. In B. Lahey & A. Kazdin (Eds.), Advances in Clinical Child Psychology: Vol. 6 (pp. 45-92). New York: Plenum.

Prochaska, J. O. (1984). Systems of psychotherapy: A transtheoretical analysis (Rev. ed.). Homewood, IL: Dorsey Press.

Prochaska, J. O., & DiClemente, C. C. (1982). Transtheoretical therapy: Towards a more integrative model of change. Psychotherapy, 19, 276-278.

Prochaska, J. O., & DiClemente, C. C. (1985). Common processes of change for smoking weight, and psychological distress. In S. Schiffman & T. Wills (Eds.), Coping and substance abuse: A conceptual framework (pp. 345-364). New York: Academic Press.

Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to addictive behaviors. American Psychologist, 47, 1102-1114.

Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to addictive behaviors. American Psychologist, 47, 1102-1114.

Puckering, C. (1989). Maternal depression. Journal of Child Psychology and Psychiatry, 30, 807-817.

Quay, H. C. (1986). Conduct disorders. In H. C. Quay & J. S. Werry (Eds.), Psychopathological disorders of childhood (3rd ed., pp. 35-72). New York: Wiley.

Redl, F. (1976). Oppositional behavior is everyday life. In E. Anthony & D. Gilpin (Eds.), Three clinical faces of childhood (pp. 17-29). New York: Spectrum.

Reid, J. B., & Patterson, G. R. (1976). Follow-up analyses of a behavioral treatment program for boys with conduct problems: A reply to Kent. Journal of Consulting and Clinical Psychology, 44, 299-302.

Rey, J. M. (1993). Oppositional defiant disorder. American Journal of Psychiatry, 150, 1769-1778.

Richman, N., Stevenson, J. E., & Graham, P. (1982). Pre-school to school: A behavioral study. Academic Press: London.

Richters, J. E. (1992). Depressed mothers as informants about their children: A critical review of evidence for distortion. Psychological Bulletin, 112, 485-499.

Robins, L. N. (1966). Deviant children grown up. Baltimore: Williams and Wilkins.

Robins, L. (1978). Sturdy childhood predictors of adult antisocial behaviour: Replications from longitudinal studies. Psychological Medicine, 8, 611-622.

Robins, L., & Rutter, M. (Eds.). (1990). Straight and devious pathways from childhood to adulthood. Cambridge, England: Cambridge University Press.

Rutter, M. (1978). Family, area, and school influences in the genesis of conduct disorders. In L. Hersov & M. Berger (Eds.), Aggression and Anti-Social Behaviour in Childhood and Adolescence (pp. 95-114). Oxford: Pergamon.

Rutter, M. (1985). Family and school influences on behavioral development. Journal of Child Psychology and Psychiatry, 26, 349-368.

Rutter, M. (1990). Commentary: Some focus and process considerations regarding effects of parental depression on children. Developmental Psychology, 25, 60-67.

Rutter, M., MacDonald, H., Le Couteur, A., Harrington, R., Bolton, P., & Bailey, A. (1990). Genetic factors in child psychiatric disorder. Journal of Child Psychology and Psychiatry, 31, 39-84.

Sandberg, S. T., Weiselberg, M., & Shaffer, D. (1980). Hyperkinetic and conduct problem children in a primary school population: Some epidemiological considerations. Journal of Child Psychology and Psychiatry, 21, 293-311.

Sanders, M. R. (1992). Enhancing the impact of behavioral family intervention with children: Emerging perspectives. Behaviour Change, 9, 115-119.

Schaughency, E. A., & Lahey, B. B. (1985). Mothers' and fathers' perceptions of child deviance: Roles of child behavior, parental depression, and marital satisfaction. Journal of Consulting and Clinical Psychology, 53, 718-723.

Singh, H., Janes, C. L., & Schechtman, J. M. (1982). Problem children's treatment attrition and parents' perception of the diagnostic evaluation. Journal of Psychiatric Treatment Evaluation, 4, 257-263.

Smith, K. J., Subich, L. M., & Kalodner, C. (1995). The transtheoretical model's stages and processes of change and their relation to premature termination. Journal of Counseling Psychology, 42, 34-39.

Stewart, M. A., DeBlois, C. S., & Cummings, C. (1980). Psychiatric disorder in the parents of hyperactive boys and those with conduct disorders. Journal of Child Psychology and Psychiatry, 21, 283-292.

Straker, M., Devenloo, H., & Moll, A. (1967). Psychiatric clinic dropouts. Laval Medicine, 38, 71-77.

Sutton, C. S., & Dixon, D. N. (1986). Resistance in parent training: A study of social influence. Journal of Social and Clinical Psychology, 4, 133-141.

Teri, L., & Lewinsohn, P. M. (1985). Group intervention for unipolar depression. Behavior Therapist, 8, 109-111.

Teti, D. M., & Gelfand, D. M. (1991). Behavioral competence among mothers of infants in the first year: The mediational role of maternal self-efficacy. Child Development, 62, 918-929.

Teti, D. M., Nakagawa, M., Das, R., & Wirth, O. (1991). Security of attachment between preschoolers and their mothers: Relations among social interaction, parenting stress, and mothers' sorts of the Attachment Q-Set. Developmental Psychology, 27, 440-447.

Vaile-Val, G., Rosenthal, R. H., Curtiss, G., & Mahron, R. C. (1984). Dropout from adolescent psychotherapy: A preliminary study. Journal of the American Academy of Child Psychiatry, 23, 562-568.

Webster-Stratton, C. (1982). The long-term effects of a videotape parent-training program: Comparison of immediate and one-year follow-up results. Behavior Therapy, 13, 702-714.

Webster-Stratton, C. (1984). Randomized trial of two parent-training programs for families with conduct-disordered children. Journal of Consulting and Clinical Psychology, 52, 666-678.

Webster-Stratton, C. (1985). Predictors of treatment outcome in parent training for conduct disordered children. Behavior Therapy, 16, 223-243.

Webster-Stratton, C. (1988). Maternal depression and its relationship to life stress, perceptions of child behavior problems, parenting behaviors and child conduct problems. Journal of Abnormal Child Psychology, 16, 299-315.

Webster-Stratton, C. (1990a). Long-term follow-up of families with young conduct problem children: From preschool to grade school. Journal of Clinical Child Psychology, 19, 144-149.

Webster-Stratton, C. (1990b). Stress: A potential disrupter of parent perceptions and family interactions. Journal of Clinical Child Psychology, 19, 302-312.

Webster-Stratton, C., & Hammond, M. (1988). Maternal depression and its relationship to life stress, perceptions of child behavior problems, parenting behaviors, and child conduct problems. Journal of Abnormal Child Psychology, 16, 299-315.

Weinberg, S. L., & Richardson, M. S. (1981). Dimensions of stress in early parenting. Journal of Consulting and Clinical Psychology, 49, 686-693.

Weisz, J. R., Weiss, B., & Langmeyer, D. B. (1987). Giving up on child psychotherapy: Who drops out? Journal of Consulting and Clinical Psychology, 55, 916-918.

Werner, E. E., & Smith, R. S. (1992). Overcoming the odds: High risk children from birth to adulthood. Ithaca, NY: Cornell University Press.

Wierson, M., & Forehand, R. (1994). Parent behavioral training for child noncompliance: Rationale, concepts, and effectiveness. Current Directions in Psychological Science, 3, 146-150.

Wierzbicki, M., & Pekarik, G. (1993). A meta-analysis of psychotherapy dropout. Professional Psychology: Research and Practice, 24, 190-195.

Williams, T., Joy, L., Travis, L, Gotowiec, A., Blum-Steele, M., Aiken, L, Painter, S., & Davison, S. (1987). Transition to motherhood: A longitudinal study. Infant Mental Health Journal, 8, 251-265.

Wolfe, D. A. (1985). Child-abusive parents: An empirical review and analysis. Psychological Bulletin, 97, 462-482.

Zimmerman, M., Coryell, W., Corenthal, C., & Wilson, S. (1986). A self-report scale to diagnose major depressive disorder. Archives of General Psychiatry, 43, 1076-1081.

APPENDIX

INTERNAL REVIEW BOARD

APPROVAL FORM

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 05-31-95 **IRB#:** AS-95-061

Proposal Title: PARENT-CHILD INTERACTION THERAPY: EFFECTS OF TREATING CHILD BEHAVIOR PROBLEMS ON MATERNAL SELF-ESTEEM

Principal Investigator(s): John Chaney, Miriam McCaa

Reviewed and Processed as: Expedited

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING.
APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.
ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval are as follows:

Revisions received and approved.

Signature: _____ Date: July 3, 1995

Chair of Institutional Review Board

VITA

Miriam Tyler McCaa

Candidate for the Degree of

Doctor of Philosophy

Dissertation: VARIABLES AFFECTING PREMATURE TERMINATION FROM GROUP PARENT-CHILD INTERACTION THERAPY

Major Field: Psychology

Biographical:

Education: Graduated from Darlington School, Rome, Georgia, in May, 1987; received Bachelor of Science degree in Psychology from Birmingham-Southern College in May 1991; received Master of Science degree in Psychology from Oklahoma State University in July 1993. Completed the requirements for the Doctor of Philosophy degree with a major in Clinical Psychology at Oklahoma State University in July 1997.

Experience: Clinical experience includes working as a therapist at Oklahoma State University's Psychological Services Center and Marriage and Family Clinic, at the Child Study Center at the University of Oklahoma Health Sciences Center, at Edwin Fair Community Mental Health Center in Ponca City, Oklahoma, and at the Virginia Treatment Center for Children in Richmond, Virginia. Research experience includes participation in projects as an undergraduate student at University of Alabama at Birmingham and as a graduate student at Oklahoma State University and at the Child Study Center. Teaching experience includes serving as an instructor for an introductory psychology correspondence course at Oklahoma State University, and as a graduate teaching assistant for introductory psychology courses at Oklahoma State University.

Professional Affiliations: American Psychological Association, Oklahoma Psychological Association, and Southwestern Psychological Association.